Getting Value for Money in the Urban Railway

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Abstract:

Traditional wisdom is that suburban railways lose money Nevertheless, Sydney's CityRail system can achieve almost 70% full cost recovery within the metropolitan area despite the Government's low fares policy It is suggested that rail community service obligation payments which make up the difference should reflect corresponding traffic congestion levels and the extent to which peak hour road usage in congested areas is underpriced. This is best achieved by paying the CSO on a passenger specific time and place basis. Such an approach would stimulate new suburban rail construction and encourage a more commercial orientation This would be manifested through marketing improved service quality and the review of maintenance functions to improve cost effectiveness

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1. INTRODUCTION

The mantra chanted by public servants in transport and finance ministries around the world starts with the line

"all railways lose money."

The object of this paper is to show that this view is not necessarily so. Railways were first developed in order to make money and many freight railways around the world do just that. However, the conventional wisdom is that, with the exception of cities such as Hong Kong, passenger services are natural loss makers. The analysis frequently made is that losses result from poor management, overpaid staff, lack of productivity and overpriced assets. To a greater or lesser extent these descriptions can in fact be applied to many passenger rail systems. However, they could also be applied to many banks as well.

We would prefer instead to study the difference between costs and revenue, the difference between costs and benefits, but most of all the reasons for those differences. This does not detract from the duty of passenger railways, like all businesses, to search out and remove inefficiencies. However, it does suggest that many suburban railways are of much greater benefit to society than the car oriented wisdom inherited from the 1950's and 1960's would have us believe.

This paper introduces an alternative means of deriving railway funding through benefit and cost analysis. Using Sydney as a case study, a model is outlined, disaggregated into line sections of approximately 10 kilometres, for which operating cost and fare revenue are calculated.

The approach demonstrates that the core Sydney metropolitan system is potentially profitable. In addition, it assigns the magnitude of support payments to particular line segments and identifies a methodology for establishing the associated benefits. This represents a powerful tool for policy analysis.

The subsequent discussion identifies that once support payments are made location and time specific they can be paid on the basis of individual passengers carried rather than as a lump sum for service. This creates a competitive business market for railway operation within the desired overall government policy framework. The resulting drive for market share would be the catalyst for numerous marketing, service quality and cost reduction exercises which are discussed. These include the franchising and contracting out of a variety of non-core maintenance activities.

2. THE CURRENT SITUATION

Throughout the world, urban railways fail to cover their totally accrued costs. Indeed, it is unusual for them to even meet their operating costs. A recent review by CityRail (1993), summarised in Table 1, shows that total cost recovery levels of between 40% and 50% are quite common. The same applies to light rail systems as summarised by Walmsley and Perrett (1992).

Table 1: International Comparisons of Suburban Railway Performance 1991/92

Railway	Operating Cost Per Passenger Journey ($)	Operating Cost Per Passenger Kilometre ($)	Customer Cost Recovery (%)	Farebox Revenue Per Passenger Journey ($)
CityRail (Sydney)	4.25	0.25	26.6	1.13
Japan East	2.34	0.11	109.9	2.59
Long Island (New York)	5.51	0.22	45.8	2.62
Metro North (New York)	5.45	0.24	52.0	2.83
Metro (Chicago)	5.53	0.16	52.8	2.92
Network South East (London)	4.40		95.8	4.21
SNCF (Paris)			40.0	2.64

Source: CityRail (1993) in Australian Dollars

In reality, it is extremely difficult to verify and compare these figures. In any large undertaking, such as an urban railway, there are numerous cost elements to take into consideration. In particular, these include:

1. proper provision for capital replacement;
2. provision for corporate expenses;
3. provision for liabilities such as superannuation; and
4. disaggregation of operating costs between different railway enterprises operating over the same tracks.

By either including or failing to include some combination of these variables answers can be achieved that differ significantly from each other. For instance, in Table 1, the CityRail operating cost is definitely the fully accrued amount while it is likely that the East Japan Railway Company only includes operating cost.

Notwithstanding these discrepancies, it is apparent that there is widespread community and government acceptance around the world that urban railways should receive general support from the government. Frequently this takes the form of a concern with operating cost and an effective writing off of the initial capital sum required to establish the system. For instance, this is a popular approach in France and has favoured the development of capital intensive automated light metro systems, that nevertheless achieve a very high revenue to operating cost ratio.

The reasons for governmental support are often not spelt out clearly. In country and outer suburban areas they sometimes relate to equity considerations associated with providing mobility to non-car owners. In such circumstances railways are generally very expensive means of providing such a support service and have been increasingly supplanted by buses, for instance in New Zealand and Germany. However, within metropolitan areas, urban railways are not only surviving but are indeed thriving. The current rail construction boom in Los Angeles has been well documented (McSpedon, 1993). Major construction is being undertaken in numerous other metropolitan cities including London, where the tough financial approach taken to railways in general makes such construction particularly hard to justify.

The apparent rationale is that of traffic congestion relief. It is not hard to understand this in cities such as Kuala Lumpar, Bangkok and Taipei where traffic congestion has reached such serious levels that it results in a significant drain upon city efficiency. Elsewhere, the spiralling cost of road building programs, coupled with steadily increasing arterial road congestion, have acted as a spur to a re-examination of rail transit alternatives.

In Sydney, this situation is summarised in the RTA's Future Directions study (1991) which indicates that the role of public transport in Sydney must increase if present levels of mobility are to be maintained within an acceptable budget level.

However, subsidising public transport in order to improve ridership and reduce traffic congestion is an extraordinarily inefficient approach. As pointed out by The Transport Research Centre (1989) in its study of the Sydney bus system, the prime beneficiaries of a low fare policy are the existing transit users who enjoy a considerable consumer surplus. The validity of this conclusion was established empirically when bus cash fares were increased substantially in conjunction with the introduction of a pre-purchased package of 10 rides for a considerable discount. While the discount fares have been widely used, considerable numbers of people appear quite happy to pay the substantial cash fare rather than go to the trouble of obtaining the pre-purchased tickets which are not available on board the bus.

A more significant factor influencing policy on urban transport pricing is the increasing understanding that road users also fail to pay their fully accrued costs during peak periods (Elliot, 1992). There has been a limited awareness of this for some time. In particular, many employees enjoy the benefits of company cars, the full costs of which are not reflected in their remuneration packages. The problem is compounded by availability of free parking which has also, until recently, fallen outside of the ambit of fringe benefits tax.

This is a significant issue. A multi-storey parking space costs at least $10,000 to construct which, combined with maintenance, would attract a charge of at least $1,000 per annum. Land costs can increase this significantly while in areas of parking scarcity, such as central Sydney, the rental value of a parking spot can easily exceed $5,000 per annum. If fringe benefit tax was added to this and the total subtracted from remuneration packages this could readily result in a deduction of $7,000 and would certainly refocus executives' minds on the modal choice decision!

However, this is only a part of the problem. Like railways, roads tend to be sized to their peak demand periods which means that for much of the day many roads are operating at far less than their potential capacity. However, this peak period cost of road capacity is not attributed solely to peak users. Nor are the congestion costs that road users inflict upon one another taken into account. In other words, there is no pricing mechanism by which one road user can elect to pay more to obtain a greater share of road space at a given time.

These deficiencies in road pricing have been highlighted vividly by the recent spate of interest in tollway construction. Within Sydney only a handful of the busiest corridors have yet attracted a private enterprise tollroad scheme and these schemes have had the effect of raising the price of using the road links concerned by in the order of $10 to $15 dollars per week.

If all the above pricing issues were to be taken into account for all road based trips it would significantly effect the current balance between road and rail. The best and essentially only example of where this has happened is in Singapore where the costs of car ownership are extremely high and elementary road use and parking charges have also been introduced. The effect has been to create a much more level playing field for public transport which represents a model being considered in numerous other metropolitan areas in hand with advances in electronic road pricing.

This leads to the elementary, but extremely significant, conclusion that the difference between the methods of public transport and road pricing results in fundamental inefficiencies in resource usage by weighting the peak hour transport decision heavily in favour of roads. In this context, government policies to maintain lower rail fares can be seen as a second best pricing mechanism to offset the inherent inefficiencies in current road pricing approaches.

3. ANALYSING THE RAIL TRANSIT TASK

It has been argued that road traffic operating in congested areas does not meet its full costs. However, it is generally accepted that roads as a whole do fully cost recover. It follows that numbers of users, travelling shorter distances and in less congested areas, cross subsidise long distance travellers in congested areas. Thus the value of rail also differs between places. Where it is providing an alternative to a long distance trip via a congested road to the central area it is contributing much more to traffic relief than when providing a short distance outer suburban trip. In addition, the absolute volume of rail business in a corridor is a significant factor in determining its overall benefit. This varies considerably across the metropolitan network as illustrated in Figure 1.

To understand the role of rail it is necessary to establish where trips go and the amount of revenue and the costs that should be attributed to different sections of the rail network. This in itself is a major task that contributes significantly to an understanding of the business.

In order to improve our understanding, the network was divided into 53 sections corresponding to meaningful business divisions. For instance, the western line beyond Granville was divided into Granville-Blacktown, Blacktown-St Marys and St Marys to Penrith components. For all sections an attempt was made to estimate the fully accrued costs of continuing to operate that section of line and the revenue that should be attributed to it.

This was a complicated task. Unfortunately, tickets are not sold on a point to point basis, while with periodicals an estimate has to be made as to how many trips are made per week and between which places. Fares also vary between peak and off-peak, while periodical tickets are a varying multiple of full single fare. Bearing these considerations in mind, it was considered that estimated passenger kilometres within a section, calculated using CityRail's EMME2 model, was the best guide as to how to divide total revenue.

It should be noted that while this method provides a reasonably sensible means of distributing revenue, it is not a guide to the overall worth that a particular section of track gives to the network as a whole. For instance, closing a section of line, such as Bondi Junction to Town Hall, would not only result in the loss of the revenue attributed to that section. It would also result in the loss of much of the revenue on other sections derived from trips previously originating or terminating at stations between Town Hall and Bondi Junction.

Thus the revenue allocation approach is not a guide to line closures, but an indication of how much revenue should be allocated to the line section. This in turn is a guide to the appropriate level of maintenance and operating cost.

Operating costs themselves are somewhat more easily attributed. They were divided into the following categories:

1. Bedrock Capital
2. Maintenance
3. Traffic
4. Mechanical
5. Corporate

These were all based upon what is known as CityRail's efficient operating cost which has been estimated at just over $800,000,000 per annum. Current costs are in the order of $70,000,000 more, but this represents a recognition of existing inefficiencies which are being progressively removed.

The terms are essentially self-explanatory. Bedrock capital is the estimated amount of expenditure, required on a long term basis, to replace existing assets within the line section as they become life expired. This includes an allocation for new rolling stock. Maintenance represents the ongoing annual cost of maintaining fixed assets. In reality, there is considerable overlap between these two categories. For instance, additional maintenance can defer the need for capital replacement. Furthermore, there is a fine line between replacement of minor components, such as sleepers, which can be classified as maintenance, and replacement of a section of track which would be classified as capital replacement. For this reason it is preferable to consider capital replacement and maintenance as part of the overall asset management strategy. A similar point applies to the mechanical category which involves rolling stock maintenance.

There remains traffic costs, which comprise the operating cost of the railway, primarily made up of labour costs for drivers, guards and various categories of operating staff. The corporate cost involves a pro-rata share of head office functions. Until recently some of these costs could not readily be disaggregated by line section. However, improved accounting procedures are identifying local cost centres which can be related to line sections.

A further issue stems from multiple use of railway assets. There are currently four major businesses that may use CityRail metals. These are the CityRail operation itself, the intrastate and interstate Countrylink passenger train services, Freight and the newly formed interstate National Rail freight activities. In addition there are a few other minor users such as BHP on parts of the system. Where there is multiple use of a line section, the total costs attributed to that line have to be disaggregated between users. This is done by the prime user concept in which all unavoidable costs are attributed to the primary user of the line with additional users paying the marginal costs attributed to their own operation. For instance, where CityRail is the main user, such as on the intercity line to Broadmeadow, Newcastle, Freight would be responsible for the incremental cost associated with additional wear and tear stemming from their trains, plus full responsibility for passing loops and turnouts solely required by the freight railway.

An analysis of the revenue and fully attributed costs of the railway, carried out in these terms, provides an assessment of the financial contribution of each section of the system. This in turn can be related to the road congestion effect that would occur if the traffic attributed to any one section of the system was instead placed upon the corresponding arterial roads.

4. RESULTS

The revenue and cost framework discussed above has been developed over the last 12 months for the individual railway sections. As the results are preliminary, it is not proposed to release them in a detailed format in this context. However, Table 2 summarises the situation at the regional scale and is disaggregated into metropolitan and outer suburban operators.

A number of observations can be made. As would be expected, the revenue to cost ratio varies enormously. Including payments made by government for the carriage of pensioners and children, revenue for the busiest parts of the system ranges from over 90% of costs down to less than 10% on the fringes of the metropolitan network. For instance, the city underground railway and the main western line as far as Lidcombe, achieves a cost recovery of over 90%. This level remains in excess of 70% to beyond Blacktown. In contrast, the revenue to cost ratio of the section between Mt Victoria and Lithgow is less than 10%.

These differences can be summarised by considering the city metropolitan and intercity networks separately. The metropolitan system is that part of the suburban railway that occupies the Sydney Basin and extends to Hornsby, Penrith, Macarthur, Sutherland and Cronulla. Within that area approximately two thirds of the total cost can be met by revenue. In the outer metropolitan, or intercity, area the corresponding figure is only approximately 20%. Thus, even with existing fares and payments from government for carrying children and pensioners at concessionary rates, CityRail achieves approximately 66% cost recovery in its main market area. The questions which this poses are how much value to society is the service provided and how much should society be willing to pay for it?

A theoretical starting point is that fares could be increased to a level where the metropolitan network was essentially self supporting. This is in fact the approach adopted in greater London by Network South East which, on average, charges fares 2.5 to 3 times higher than those existing within Sydney. Studies into demand elasticities (Steer Davies Gleave, 1993) indicate that such an approach is certainly theoretically possible in Sydney with respect to peak hour travel. This is of course the market in which most of the associated costs are incurred. Within the off-peak, price demand elasticities are considerably higher while at the same time the marginal cost of providing services is much lower. In effect, this means that a commercial pricing policy would see only relatively small increase in the off-peak market, combined with major increases in the price of full fare commuter tickets.

However, as outlined above, such an approach would be self-defeating if not combined with the complete reassessment of the road pricing problems. While it is correct that increasing rail prices in the peak would effectively capture the large consumer surplus currently enjoyed by many rail travellers, price increases of the scale that would be required to achieve cost recovery on the metropolitan network could be sufficient, even if phased in gradually, to reduce peak hour demand by about 30%. This in turn would place substantial extra burden upon the road system and the effect of this can be analysed.

More significantly, changing rail fares in this manner without raising road prices accordingly, would decrease, rather than increase, the efficient use of resources

The investigations have now reached a stage where integration is required with a strategic model of the Sydney road network. To this end Milthorpe and Hensher (1993) have been employed to calculate the impact on the road system of releasing passengers currently using CityRail train services. This can be examined in a number of ways. The effect of marginal changes in price can be investigated to see whether the incremental additional cost in congestion exceeds, or is smaller than, the increased revenue that would accrue to CityRail. An alternative approach is to consider the complete value of the existing system by investigating the effect of loading the entire CityRail patronage upon the existing road network. While such a scenario is unrealistic, and in any event would lead to a major reorientation of land uses in the metropolitan area, it can be argued that such an approach does give a valuable insight into the real role that railways play in providing relief to a congested and expensive to expand road system within a major metropolitan area.

The starting point is the peak hour origin-destination matrix for CityRail developed for use in the EMME2 model. This can be used to indicate the destination of travellers removed from the rail system by postulated fare increases. The quantum can be estimated by reference to the elasticity study referred to previously. These numbers can then be allocated to the arterial road network and the additional congestion effects calculated.

It is expected that the benefits accruing from maintaining patronage on the metropolitan CityRail network, as distinct from a choice between increased road traffic delays or a major program of road amplification, will be such as to more than justify the payments currently made by government in the form of the CSO for the metropolitan area.

Outside the metropolitan area services are provided for other reasons. As we have indicated, costs in these areas far exceed passenger revenue to a degree that could never be overcome by simply increasing the fare level. In these cases services are provided specifically for social reasons and in fulfilling other government strategies (area development or population redistribution). Consequently the railway's role is one of a supplier to government of transport services. It is easy to see that in such circumstances the government could review a number of transport options in which case the payment for supplying the service would genuinely be seen as revenue and treated as such on the railway's balance sheet.

5. IMPLICATIONS

The above discussion indicates that the CSO is not a makeup payment but rather a mechanism by which such factors as the adverse impact of undercharging for peak hour road use and providing relief from peak hour road congestion can be dealt with through railway pricing. It follows that for the suburban railway the fundamental purpose of the CSO is to pay for carriage of people during peak periods. If this is the case it is theoretically possible to reconfigure the CSO from its current lump sum payment to a fee for service which is earned according to the number of passengers carried by time, place and distance. This affords a genuine mechanism for commercialising the railway. If the CSO were to be paid on a passenger basis it would encourage the operator to actively chase extra customers at locations where they provided the maximum government makeup payment and not to pursue markets which were unprofitable in these terms. The commercial risk inherent in such an approach would also encourage the railway to do its utmost both to improve customer service and to reduce total operating costs.

A number of effects would follow from this. First of all, it is likely that new urban railways would be promoted. In a growing and relatively high density city such as Sydney there are a number of potential corridors where new mass transit systems might be contemplated. For example, the proposed Airport Rail Link between Redfern and the Airport via the Central Industrial Area represents an opportunity to develop a new market. While this particular corridor has a number of advantages in terms of a high base passenger load from the airport itself, an alternative to a proposed railway amplification scheme and as a catalyst for regenerating an existing urban area, the CSO argument is also potentially relevant to this situation. It would also apply to proposed rapid transit systems to Sydney's northern beaches and on the proposed Macquarie Railway from Chatswood to Epping via the North Ryde commercial centre and Macquarie University. In all these contexts the railways would be providing relief from a congested road system where there is evidence that existing road users are not paying the full costs of the congestion and externality disbenefits that they are creating.

The more commercial orientation to operating the existing railway that would result from a customer based approach to CSO payment can take a number of forms. These may be categorised as marketing, service quality and franchising out initiatives.

Marketing initiatives could be aimed at both the peak and off-peak markets. In the peak, one would anticipate a considerably greater effort to encourage employers to include a periodical ticket within their overall employee package options. There would also be initiatives to reprice and promote particular routes which currently have excess capacity During the off-peak period, revenue is far more elastic. However, given the low marginal cost of operating trains during these periods there is considerable potential to capture more of the discretionary travel market. Within Sydney, a family of "link" tickets has already been created which provide packaged travel to major entertainments such as the Zoo and the Aquarium. This approach could be broadened to take in a wide range of attractions with the potential to include major shopping centres and entertainment facilities where the cost of the ticket could be incorporated into the cost of more general purchases For instance, there are many examples of shopping centre car parks not charging people who have purchased goods and services at the centre. The same concept of a rebate could be applied to those that have purchased a railway ticket to get there.

Service quality improvements could take a number of forms. The most successful growth market for rail is long distance fast services between major centres. For instance, the trip between Blacktown and the City Centre is more quickly and less stressfully undertaken by rail, even during the off-peak Service quality improvements would tend to concentrate on these high volume type services and seek to improve the ambience and quality of both the major stations concerned and of the rolling stock serving these premium routes.

Finally, there is the issue of franchising and contracting out. The core railway activity is providing a train service. Construction activities, maintenance, property ownership and even station operations are essentially ancillary to this prime function. As such, it is possible to separate them out as cost centres and to identify whether such functions can be done most efficiently either within or outside of the core organisation. The line segment approach discussed above furthers the railway's capability to contract out by identifying more explicitly the relevant cost centres.

On CityRail, a number of initiatives have already been taken in this direction. A comparatively simple one is the contracting out of carriage cleaning which can be done much more efficiently by small private sector companies working on a performance based contract. On a much larger scale, the general heavy maintenance of the Electric Multiple Unit fleet is now being contracted out to a private sector consortium involving Goninans, the manufacturer of the Tangara cars The process has been carried a stage further on the Freight railway where the latest acquisition of diesel electric locomotives is on a power by the hour basis.

However, the process does not end with the franchising out of rolling stock maintenance. Renewal and maintenance of the railway infrastructure is another major area where this process can be adopted. At the present time most new construction is undertaken by private sector companies while routine maintenance is handled by State Rail. However, as noted previously, there is a thin line between capital renewal and maintenance activities. In recognition of this there is an increasing tendency towards performance based whole of life costing which identifies maintenance as an integral part of the overall assessment of new investment. In these circumstances there is considerable merit in ensuring that those responsible for building new infrastructure are also responsible for maintaining it. Not only does this ensure that the maintenance task will be in the hands of those that fully understand the installation, but also that during the construction phase every care will be taken to ensure that standards which would create higher maintenance costs for the same company, at a later stage, will be avoided.

There remains the area of station operations. Small stations in isolation tend to be inherently inefficient in so far as there are long periods of inactivity followed by brief busy periods with the arrival of a train. At that time, ideally, two staff may be required to ensure that last minute bookings can still be made while ticket inspection is available at the barrier. It is a more efficient use of expensive labour to combine this sporadic activity with other functions. This is difficult within the confines of existing station operation. However, there is the possibility of selling tickets as part of other businesses such as general stores and video shops, as a personalised supplement to the introduction of Automatic Fare Collection machines on the stations themselves. Other routine tasks such as station tidying are best undertaken by specialised contract teams. Provision of station information is best handled through computer links with a centralised train control facility that has up to date information on what is actually happening on the system. However, as railways move towards greater automation, there is the danger that potential passengers will be intimidated by lack of the human presence. In these circumstances it is particularly worthwhile to find new franchising methods that will combine a traditional railway presence with alternative means of efficiently utilising staff resources when they are not required for railway purposes.

6. CONCLUSION

This paper has challenged the myth that urban railways are unprofitable and has argued that CSO payments in congested metropolitan areas are in effect a second best pricing solution in the absence of appropriate road pricing mechanisms. Payments of this nature made by government to equalise road pricing distortions should be strictly related to the amount of road congestion currently occuring in the alternative road corridor. This suggests that different rail commuter flows in the metropolitan area should attract a different level of CSO support.

In these circumstances the most effective means of paying the CSO would be on a per passenger basis by time and place. This would give clear pricing signals to the railway which would seek to optimise its (and the government's) return by concentrating on those markets where it is providing most benefit.

It is contended that such a commercial framework would foster a number of beneficial flow on effects as the railway's new commercialism was expressed in greater emphasis on marketing, customer service and additional means of reducing overall costs.

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Table 2: Fully Attributed Costs and Revenues of Operating CityRail 1991/92

Area	Bedrock	Maintenance	Traffic	Mechanical	$m Corporate	Total Cost	CityRail Share	Actual Farebox	Unremun-erative Payments	CityRail % Cost Recovery
South										
CityMet	50,754,883	52,849,912	88,212,450	20,114,650	30,202,273	242,134,168	240,915,257	117,283,349	59,933,900	73.56
InterCity	1,815,005	3,227,174	7,617,491	1,228,261	1,844,241	15,732,171	14,905,236	1,096,672	548,735	11.04
Illawarra										
CityMet	47,984,040	16,153,441	28,117,887	10,586,355	8,028,164	110,869,887	100,447,200	37,888,713	18,958,149	56.59
InterCity	23,099,676	6,869,093	16,925,487	6,129,193	5,041,347	58,064,796	50,641,295	6,220,438	3,112,483	18.43
NorthWest										
CityMet										
North	30,000,926	18,985,424	32,654,090	13,516,497	10,698,413	105,855,350	93,709,741	40,814,428	20,422,072	65.35
West	57,044,357	13,534,834	23,455,992	9,636,000	7,626,969	111,298,153	93,963,293	47,268,908	23,651,661	75.48
InterCity										
North	49,477,401	16,623,253	33,479,752	11,834,771	9,367,314	120,782,491	105,068,872	18,354,475	9,183,919	26.21
West	26,123,713	6,234,289	13,098,017	4,438,444	3,513,063	53,407,527	46,580,489	5,773,019	2,888,611	18.59
Total CityMet	**185,784,206**	**101,523,612**	**172,440,419**	**53,853,502**	**56,555,819**	**570,157,558**	**529,035,491**	**243,255,398**	**122,965,783**	**69.22**
Total InterCity	**100,515,794**	**32,953,810**	**71,120,746**	**23,630,670**	**19,765,966**	**247,986,985**	**217,195,893**	**31,444,604**	**15,733,749**	**21.72**
Total CityRail	**286,300,000**	**134,477,421**	**243,561,165**	**77,484,172**	**76,321,785**	**818,144,543**	**746,231,384**	**274,700,001**	**138,699,531**	**55.40**

Source: CityRail (1993) in Australian Dollars