# Competitive Tendering and Bus Services in Adelaide Lawrie Stanford

#### Abstract:

Rising costs of government owned public transport has motivated interest in more cost efficient methods of public transport provision. Arguments are presented in favour of competitive tendering as a means of doing this. Competitive tendering and deregulation are compared as means of delivering cost savings.

The fundamental role of competition, as opposed to public vs private ownership, is identified as the cause of cost savings. The sources of cost savings are considered as well as the quality of service under competitive tendering.

The conditions that exist in Adelaide are assessed as favourable to the introduction of competitive tendering and potential savings on current STA operations are calculated

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#### Introduction

Public ownership has dominated urban public transport in most developed countries in the post-war years. Despite the arguments in favour of public ownership it has demonstrated a number of disadvantages: costs have risen at a rate greater than inflation; efficiency has fallen; and government ownership has meant transport planning is too responsive to political pressure and not responsive enough to changing transport needs (Richards and Wilson 1991).

Current levels of subsidy from government consolidated revenues are now considered unacceptable, and governments are seeking to lower costs, to achieve cost recovery and to increase the productivity of public agencies. Alternative means of provision are being considered, competitive tendering among them.

Competitive tendering is a process whereby a provider of goods and services invites others to compete, through a tendering process, for the right to provide the service for a defined period of time. In this process the tendering body must decide which goods or services it would like to tender, specify the details of the service, select the provider from among the tenderers and monitor the provision of the service to ensure that the service specifications are met.

Competitive tendering will be critically assessed in this paper. It will assess the role of competition in the competitive tendering process, compare competitive tendering and deregulation as a means of providing bus services, discuss the potential for savings, examine the source of savings, discuss the quality of bus services under competitive tendering and assess the potential of competitively tendering Adelaide's bus services. The paper is part of a wider-ranging report on the topic, prepared for the South Australian Director-General of Transport (Stanford 1992).

#### The role of competition

Cox and Love (1991a) examined the trends in developed countries for the provision of public transport and found that:

- (i) competitive tendering and deregulation have gained favour as means of delivering cost savings in public transport provision; and
- (ii) competition and privatisation are the main characteristics (to differing degrees) of both the competitive tendering and deregulation models:

Private ownership is often seen as a necessary condition to achieve the benefits of competition in lowering costs. This is because competition is a natural part of the private market and is not normally present in the public sector. However, competition can exist in the public sector also. In particular, it can be introduced into the public sector through competitive tendering. Thus the issue is not whether the provider is a public or private agency, but whether there is competition to provide the service

It is competition, not private ownership, that is the essential element that achieves lower costs.

#### Deregulation and Competitive Tendering

Competitive tendering and deregulation have been identified as the models most likely to achieve cost reductions.

In competitive tendering the nature of the competition is "for the market", that is, the tenderers compete for operating rights, while under deregulation the competition is "in the market", that is, there is open competition in a free market. Under deregulation, private operators conduct all aspects of the service. In competitive tendering the government plans and designs the service while the operations are conducted by the successful tenderer, which may be a private or public operator.

If the government wishes to retain control of social justice outcomes, it can do so by retaining control over the design of the service through competitive tendering. Under deregulation, the market will determine the nature of the service and the social justice outcomes, although user subsidies such as concessions can provide the Government with a degree of control.

It can be argued that a deregulated market always provides what the consumer demands, because a successful competitor will attract customers by providing the service the customers want. In addition, competition also gives incentive for innovations that provide a competitive edge. By comparison, the government specifies the service features under competitive tendering and there will be little incentive for innovation.

In practice, open competition in transport provision does not necessarily offer a more innovative service that is more closely attuned to passenger needs. From the experience in the United Kingdom, passenger dissatisfaction in an actively competitive bus market may result from scanty information, schedules that change frequently and without notice, and lack of ticketing integration where competitors refuse to recognise others' tickets (O'Conner 1991).

An argument for bus services being a natural monopoly can be mounted on the basis of user costs in a market experiencing active competition. The lack of integration and coordination of the competing services make user costs higher in the presence of the open competition compared with a single provider. The natural monopoly argument is supported by the observation that most urban bus services in Britain have remained monopolies despite deregulation, or where competition occurred initially, reversion to a monopoly has occurred in most cases (Evans 1990).

It can be argued that bus operators in a deregulated environment would be forced to pass the benefits of reduced costs onto passengers. In the United Kingdom, Evans (1990) reports that although operating costs declined by 20%, real fares changed little. The operators competed on service levels (which increased by 24%) rather than on price. Thus, deregulation does not seem to deliver the promised fare reductions.

An argument in favour of competitive tendering is that competitively tendered markets are more contestable than deregulated markets (Preston 1991), especially deregulated monopoly markets. Contestability refers to the ease with which new entrants may enter and exit the market. In a competitive tendering system:

- the incumbent cannot be sure of the number of competitors until after the bids are closed and it has made its commitment to a strategy;
- a losing incumbent cannot react to the winning tender until the contracts are renewed;

- "hit and run" entry is more feasible and profitable at time of tendering, (but impossible during the tenure of the contract);
- collusion is less likely because of the foregoing; and
- because the tendering authority plans and publicises the routes, the effects of sunk costs and economies of experience are lowered.

Competitive tendering has some disadvantages compared with deregulation. As mentioned, there is a reduced potential for innovation. There are costs in the setting up, administering and monitoring of the competitive tendering system. Finally, the competitive tendered market is not perfectly contestable (the incumbent still has some advantage).

In sum, competitive tendering, compared with deregulation, generally provides a more contestable market, avoids the instability sometimes associated with active competition, and permits policy control by the government and therefore the ability to control social justice issues. On the other hand, it may be costly to administer, and may lead to reduced innovation. The extent to which these concerns can be overcome, will influence the policy choice between competitive tendering and deregulation. For bus services, it is argued that the extra benefits of competitive tendering outweigh the extra costs.

#### Types of contracts

There are two types of competitive tendering contracts for bus services, reflecting the fact that bus operations generate revenue, and routes differ in their profitability.

## Cost Only Contract (COC)

This type of contract is most commonly used where profits are likely. Operators submit an estimated cost and the tendering authority meets the projected costs of the lowest bidder, who then performs the service. In ideal circumstances this process will bid down any profit, and hence prices, to competitive levels.

The operator collects fares on behalf of the tendering authority, but has no responsibility for revenue flow. The tendering authority bears the risk for any revenue shortfall. In fact, prospects of revenue shortfall are increased because the operator has an incentive to discourage patronage in order to lower operating costs.

# Minimum Subsidy Contract (MSC)

This type of contract is most commonly used where a service is likely to run at a loss. Operators submit bids for a subsidy from the government in order to operate the service. The bidder seeking the lowest subsidy will secure the operating rights, thus achieving the least cost to the government

The operator collects and keeps the fares and thus has an incentive to maximise revenue, and hence provide a good level of service. In comparison with COC's, an MSC builds in a measure of incentive to innovate since it is in the operator's interest to provide a service that maintains if not increases revenue. The operator bears the risk of revenue shortfall and the government's financial commitment is predetermined.

# Comparing COC's and MSC's

Since the operator bears the risk in a MSC, COC's may attract more tenders than MSC's. Alternatively MSC's will need to be for a longer period, or involve higher bids, to achieve the same rate of tendering as COC's. Wallis (1991) suggests the New Zealand experience shows there is no compelling advantages of either form; the most appropriate type of contract depends on the specifics of the service to be tendered.

## Cost savings

There is sufficient international experience with competitive tendering for it to be generally accepted that cost savings can be made on public sector monopoly bus operations (Domberger and Hall 1991). Either a public provider reduces costs in order to win the tender and thus reduces the subsidy required from the taxpayer, or a private sector operator wins the tender, based on lower costs. The latter has the added advantage of increasing government revenues by the tax, licence and other fees paid by the private operator.

Cost and efficiency comparisons of service provision in competitive and non-competitive markets, support the contention that costs savings can be made by introducing competition. Hensher (1987) found that Sydney public buses were 20% less efficient than private buses. In Victoria, the Business Council Bulletin (1989a) reports a 30% difference. In the United States, Cox and Love (1991b) report that the costs of running public transport systems have risen at twice the rate of inflation and private industry costs over the last 20 years. Furthermore, in the 1970-85 period, the real cost/km has risen by 64% on average for public sector providers, but fallen by 8.3% for private sector providers.

In contrast, Lee (1991) contends that the potential for cost savings from tendering is "far from certain", arguing that the existence of costs savings will depend on a large number of variables such as technology, economies of density, economies of scale, financial viability of the service and so on. While correctly identifying these as variables, it seems however that they are likely to influence the extent of the savings, not their existence.

The average savings on the costs of a public sector monopoly is generally accepted as 20%. Table 1 shows figures collected from a variety of sources for competitive tendering of bus services.

TABLE 1 COST SAVINGS FROM TENDERED BUS SERVICES

Cox and Love (1991a)	US	30%Ave
	Sweden	5-15%
Teal (1991)	US	25-30%
Hensher (1988b)	London	20%
Glaister & Beesley (1991)	London	19-25%
Wallis (1991)	NZ	16%

There are several issues that need to be taken into account when calculating cost savings. Some could influence whether savings exist at all.

## Case Specific Conditions

The efficiency gains possible through competitive tendering will depend on a number of factors such as the degree of efficiency that already exists, the amount of current tendering and the complexity of the particular operation.

#### Hidden Costs

A part of a service which is not anticipated at the time of designing the contract, or omitted from the contract, may need to be negotiated in mid-contract. This will decrease the savings, but more importantly, the negotiated price for the additional service is likely to be higher than the competitively tendered prices, because the provider will be negotiating from a monopolist's position.

## Administration and Monitoring

Setting up, administering and monitoring contracted services all impose costs. Competitive tendering will only be worthwhile if there are net savings after considering these costs. Although the size of these costs will be case specific, particularly with regard to the complexity of the operation, they appear to be a minor part of the overall expenditure and do not negate the savings. Teal (1991) reports from the United States experience that administration/monitoring costs average 5-8% of the total costs of the contracted services and Hensher (1988a) and Glaister and Cox (1991) report that administration costs are in the vicinity of 5% of the savings achieved in the United Kingdom's bus deregulation

## Savings in the Long-Run

Whether or not low cost levels will be sustainable in the long-run will depend to a large degree on the sustainability of competition. The experience of fair and equal competition in any round of tendering is critical to maintaining, and expanding, the incidence of competition. Any cause for doubt about the tendering process will see diminished competition at the next round of tendering.

Higginson (1991) raised concerns about the sustainability of savings in that 10% of the London contracts failed because the winning contractors did not appreciate the true costs or were unable to maintain the required service specifications. In time, such events are likely to exert upward pressure on the bids and thus reduce savings. In contrast to these concerns, Teal (1991) reported that in the United States contract prices generally declined over time, promising greater cost savings in the long-run.

If, in order to submit the lowest bid, the margins of operators are being sacrificed, investment in new stock may be deferred. Such investment costs, avoided in the short-term, will have to be met in the longer-term.

#### Transition Period

If all costs of the government operator cannot be avoided in the transition time between conducting the service in-house and handing-over to another operator, then this may offset the potential savings. Examples would include: if the government retains some of the service itself and therefore has to maintain some of the infrastructure, overheads, maintenance or labour costs; if labour is under-utilised when in-house operations are reduced; or if compensation is due to redundant workers.

#### The source of savings

Savings appear to originate from: wages and salaries; productivity (labour/management/technical); employment levels; and service quality.

## Wages and salaries

There is a general perception that private sector wages are lower than public sector wages. This is the case in New Zealand bus services where private awards are approximately 20% less than those of municipal workers. When pressured to compete with private industry, municipal workers in New Zealand accepted a wage cut in line with this difference to avoid lay-offs (Wallis 1991). White and Turner (1991) report that the real weekly earnings of bus

and coach drivers in the United Kingdom dropped by 5.7%. This finding was attributable to an increased use of mini/midi buses with lower awards for the drivers of these units.

However, it cannot be assumed that private wages are always less than public wages Rimmer (1991) quoted a 1990 survey of New South Wales municipal wages and salaries, for a wide range of positions, that showed municipal wages were usually well below those paid for comparable jobs in the private sector. Furthermore, savings are possible even if there are equivalent wage levels in the public and private sectors. The difference between public and private cost efficiency in New South Wales bus services (Hensher et al 1991), where all employed labour is covered by the same industrial award, cannot be explained by wage differences. Teal (1991) reports that mechanic's wages are the same in the two sectors yet savings have been achieved.

In sum, wage levels contribute to cost savings but they do not appear to be the whole source

## Productivity

Improvements in productivity have been consistently identified as a key source of savings. Increased productivity may occur at the management level, achieved by reduced management through decentralisation, or increases in technical efficiency such as the use of mini/midi buses or, as is more commonly reported, improvements in labour productivity. Domberger (1988) attributed the "bulk" of savings in refuse collection to "improvements in physical productivity of men and vehicles" and White and Turner (1991) ascribed 70% of the cost savings in the United Kingdom bus deregulation to labour productivity.

Comparing data on the work output of private and public sector drivers, Hensher (1988b) identified three major changes in work practices that can bring productivity levels in the public sector into line with the private sector:

- eliminating the demarcation of tasks and the productive use of non-driving time (eg drivers can be involved in cleaning or workshop maintenance);
- raising the percentage of time a driver spends driving (eg by shortening clock-on times, or unpaid meal-breaks); and
- raising the effective hours per annum (principally through reduced absenteeism).

# Employment levels

A logical consequence of improved productivity would seem to be that fewer workers will be required to perform the same tasks and hence cost savings would be achieved at the expense of employment levels. In pure economic terms this is an improvement in overall allocative efficiency and a benefit to the community. The taxpayers' contribution to wasteful production is reduced and the redundant workers can be redeployed to more efficient production. If the costs in terms of dislocation of redundant workers is considered too high, the pace of introducing competitive tendering could be matched to the natural rate of attrition (Cox and Love 1991b) or the cost saving could be used to offset the initial costs of assisting redundant workers to successful redeployment.

## Quality of service provision and costs

The private sector characteristically has a focus on efficiency and profit. In comparison, the public sector has a focus on service provision and public welfare. The public sector also has a tendency to grow and is susceptible to political influence. It is therefore reasonable to expect that public sector bus services will be of a higher quality than private bus services. Some evidence for this might be found in Hensher's (1988b) observation that public sector bus operations in New South Wales had a ratio of 1.2 buses/mechanic compared to 6.2 in the private sector. Hensher suggested that these ratios are explained by the fact that "public operators completely rebuild a bus body after a designated number of kilometres, using all new materials, regardless of need. The private sector operators rebuild according to need and often use reconditioned parts" (Hensher 1988b, p165). Brew (1991) asserts that the quality of the commercially provided service in New South Wales is a great deal lower than that provided by the public authority.

If the public provision is of superior quality, it may be in excess of requirement. Indeed it is a common understanding that a failing of the public sector is a tendency for growth and therefore over-investment (Helm and Thompson 1991). This excess quality in the public sector may be financially unsustainable and in order to achieve cost reductions it may be necessary to reduce the quality. The requirement will be to find the quality level which minimises excess quality without compromising essentials such as safety.

## Quality of service

Many commentators report that it is possible to maintain the quality of transport services under competitive tendering.

Incentives exist to maintain high quality levels of service:

- motivation to maximise revenue flow (in the case of a Minimum Subsidy Contract);
- threat of losing the contract or suffering penalty provisions; and
- the need to maintain a good reputation for future tendering.

It may even be possible to achieve quality gains through contract design and monitoring.

However, some aspects of competitive tendering reduce the likelihood of the maintenance of quality levels. The tendering authority will need to overcome obstacles of communications with, and availability and accountability of externally contracted operators. With these constraints, it may be easier to monitor in-house providers. In addition, quality standards often can not be observed at the time of letting the contract, therefore selection is on the basis of incomplete information. Finally, there could be the incentive for a contractor to maximise profits by providing a service quality less than that factored into the bid.

Sustainability of service quality in the long-run is a potential problem. Under competitive tendering, investment planning could be squeezed out by an operator sacrificing investment expenditure in order to achieve a low, winning bid, or simply

because of uncertainty about the long-term future of the business. Thus there is the potential for a long-run impact on quality of the service provided.

The definition and measurement of "quality" may bear some scrutiny. Determining whether pre-tendered quality is maintained during the contract life is a difficult task. Quality encompasses a wide range of elements for bus transport including:

safety;

service integration;

coordination with other modes:

stability;

frequency;

reliability;

passenger waiting time;

access for disadvantaged riders;

access for discretionary riders;

information availability;

comfort;

sitting/standing passengers;

condition of the vehicles; and

responsiveness to market needs.

Some of these are quantifiable but many will be difficult to quantify. Conventional quantitative measures such as passengers/km or accidents/km will measure some of the items. Others, such as comfort, require a greater amount of effort in definition and information collection. Teal (1991) contends that data on quality is sparse and unquantified.

## Prospects for competitive tendering in Adelaide

Public transport market in Adelaide

In assessing the suitability of the public transport market in Adelaide to competitive tendering, the preceding discussion focuses attention on the commercial viability of public transport and the relative importance of service coordination. Public transport conditions that are generally appropriate for competitive tendering are described by Cox and Love (1991a, p19) as being:

".... where the market for public transport is largely non-commercial, and where there appears to be little latent demand for public transport services.

Urban areas with lower residential and employment densities and which tend to be commercially decentralised..."

and ".... where public policy places a high value on coordination of services and fares, or where automobiles are such an attractive alternative to passengers that ridership might easily be lost if the public transport system is not sufficiently coordinated."

In several respects Adelaide's public transport market fits this description.

Firstly, Adelaide is a widely dispersed, low density city. This is consistent with Cox and Love's description of "urban areas with lower residential and employment densities."

Secondly, Cox and Love prescribe "commercially decentralised" urban areas and "non-commercial" public transport markets as suitable for competitive tendering. While Cox and Love do not fully explain the importance of commercial decentralisation, the suitability of competitive tendering to "commercially decentralised" locations must rest on economies of density (density of route patronage). Commercial centralisation is likely to make for good densities, while commercial decentralisation is likely to make for low densities. Lower densities reduce the viability of commercial bus operations, and hence "commercially decentralised" cities can be characterised as having "non-commercial" public transport markets. With regard to these criteria, Adelaide is characterised by a dominant Central Business District (CBD) with social/shopping/manufacturing centres to the north and south. The feeder routes into each of the outer centres are likely to have low economies of density and are unlikely to be viable commercial operations. However the corridors between each of the outer centres and the CBD are likely to be commercially viable because of high economies of density.

Thirdly, Adelaide has an affluent population, an extensive road system with wide, well laid-out streets, easy access to the CBD, relatively little congestion and abundant parking. In these circumstances Adelaide is one of the most car dependent cities in the world (Radbone 1992, Fielding 1990). Car ownership thus poses stiff competition for the public transport system. This, together with low fares and high service quality, makes it difficult to imagine that any more discretionary ridership could be captured. In Cox and Love's terms then, there is "little latent demand" and patronage "might easily be lost (to the car) if the public transport system is not sufficiently coordinated". In addition, public policy has implicitly placed a high value on service coordination and integration, with early introduction of time-based ticketing useable on all modes, with unlimited boardings.

Thus it appears Adelaide's public transport market is favourable to competitive tendering. As discussed, bus services in Adelaide are unlikely to be commercially viable (except for some high density routes) and the public has enjoyed high levels of service coordination which it may be reluctant to forego. Competitive tendering would achieve reduced government expenditure costs on this essentially non-commercial transport operation and maintain high levels of service co-ordination.

# Competitive conditions in Adelaide

The competitive environment in Adelaide for the provision of bus services is made up of two essential elements: the degree of potential competition provided by existing bus operators and their vehicle fleets; and the possibility of potential competition being provided by interstate bus companies and/or new entrepreneurs to the business.

The degree of potential competition provided by existing private bus operators is judged to be high. The "Authorized Vehicle List" of "General" licensed private operators has 149 owners listed (including 19 Local Councils) with a total of 415 vehicles in their ownership. The STA bus fleet is 723 vehicles. With 415 vehicles in private ownership, a significant proportion of the STA's operations could be contested. Only 5% of the

companies have 10 or greater vehicles and 28% of the private vehicles are in these companies. Thus there are a large number of small operators rather than a small number of large operators. This enhances the prospects for competition. The preceding data ignores the issues of the availability and suitability of the vehicles, and perhaps the most significant statistic is the number of private bus owners/operators that exist (149). This number represents a significant depth of experience that might compete for the right to run bus services. The prospects of competition would be further enhanced by the inclusion of taxi companies, not included in the above numbers, but which were significant competitors in the New Zealand experience (Wallis 1991).

In addition, overseas experience has shown that transport companies are highly mobile even across countries and modes, for example "Stagecoach" moving into railways in the United Kingdom and bus services in Canada.

It is the public authority's role in competitive tendering to establish an environment that encourages competition. There has been no competitive tendering of metropolitan South Australian bus services. However a poor precedent has been set in the tendering of country bus services which may influence prospective tenderers' perceptions of the fairness of competition. Route bus services, first tendered in 1987, had keen competition, but "probably because all existing licensees had their licences renewed, the tender process of 1991 saw only existing licensees tendering in all but 1 or 2 cases" (Radbone 1992). Any new competitive tendering initiative will need to be more effective in encouraging new entrants and increasing the competition.

## Potential savings

Domberger (1989) calculated "potential savings" from the total budgets of each of the three levels of Australian government. Domberger's calculations assumed that 20% savings were possible, based on international experience of competitive tendering of public sector services. The 20% saving was applied to the expenditures on activities that could be tendered out, net of services already tendered. In this: expenditures excluded direct payments and transfers; the activities that could be tendered out were dominated by support services to core activities; and unless better information was available, 5% of the services were assumed to be already tendered out. Figures for potential savings in the bus operations of the State Transport Authority can be deduced by the same method. The expenditures in 1990-91 were \$107.9 million being: \$73.4 million on core bus services; \$22.4 million, or 1.4%, or this expenditure was contracted out. Thus assuming 20% savings were possible by competitive tendering services net of the current rate of 1.4% tendering, \$4.4 million could be saved by competitively tendering the support services and \$14.5 million by competitively tendering the core bus services.

#### Conclusions

Comparing competitive tendering and deregulation as alternatives in bus service provision, it is concluded that competitive tendering is superior to deregulation because it: is inherently more competitive; avoids counter-productive competition found in deregulation; and permits the government to retain control of social justice outcomes.

A survey of reported cost savings from tendered bus services supports the general conclusion that cost savings in the order of 20% are achievable on public sector monopoly operations. Applied to the South Australian State Transport Authority, \$4.4 million could be saved through competitive tendering of support services, and \$14.5 million through competitive tendering of core bus services.

Factors that will influence the extent of savings include case specific conditions, hidden costs, administrative costs and the sustainability of savings in the long-run. Improved productivity appears to be the major source of savings. In the absence of increased service levels, this implies reduced employment levels. Lower wages have been the source of savings in some instances, although they are not necessary for cost savings.

Pre-tender quality levels can be maintained under competitive tendering although issues of measurement and monitoring of service quality need to be resolved. Public sector bus services may be of a better quality than private sector services and possibly in excess of requirement. In tough economic times the excess may be expendable.

The Adelaide public transport market is favourable to the competitive tendering of bus services. Apart from the possibility of new entrants into the bus service market, a reservoir of private sector experience in bus service provision already exists in the State, sufficient to compete for a substantial proportion of the current public bus services in Adelaide.

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