

Matching Funding to Outcomes: Incentive Based Contracts for Passenger Transport

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Introduction

Since the early 1990's, passenger transport in New Zealand has been subject to a competitive tendering environment. While this has led to greater efficiency in the application of public funding, concerns remain about the effectiveness of the passenger transport system in contributing to broader transport and urban development outcomes.

As a result, attention has now turned towards better aligning public funding for passenger transport with the achievement of these outcomes. A new approach, termed "Output Based Funding", is in the process of being implemented in Auckland, New Zealand's largest urban area. This paper discusses the development behind this new purchasing system, with particular emphasis on the methods adopted to ensure that the advantages of a competitive market are retained.

Background - The Auckland Region

The Auckland region is home to 1.2 million people, and is New Zealand's largest and fastest growing urban area. The metropolitan area is relatively low density by international standards and has developed around the mobility that is made possible by the motor vehicle. It has a high level of car ownership and a dispersed pattern of trip making reflecting a dispersed pattern of economic activity, a dispersed pattern of recreational and cultural destinations, and low density residential areas. Major investment has been made in expanding and upgrading the road network over the last 40 years, but relatively little in expanding or upgrading the passenger transport network.

Aucklanders are making more trips per person than ever before and a greater (and increasing) proportion of these trips are being made by cars. At current trends, the use of cars is expected to double in the next twenty years. While vehicle travel demand has increased, use of passenger transport has declined. This has been fuelled by increases in car ownership, decentralised development, historic underinvestment in passenger transport infrastructure, reduction in the costs of motoring, and encouraged by motorists not paying the full costs of their road use.

The growth in vehicle travel demand has led to increased levels of traffic congestion. In Auckland, congestion occurs mainly during peak-period travel, but some areas of the region are experiencing increasing congestion through the day.

The economic cost of congestion to the region has been estimated at NZ\$755 million per annum¹. In addition, it is causing significant environmental and social impacts.

The Passenger Transport Regulatory Environment

The Auckland Regional Council (ARC) is responsible for strategic transport planning and the purchase of passenger services that the market is unable to provide commercially. The legislative framework for this in New Zealand was implemented from 1991, and was based on the model adopted in the United Kingdom (outside London) in the late 1980's. The law provides for what has become known as "commercial registrations", and allows for competition "in the market". In effect, this means that operators are able to notify services which they intend to operate without the need for any public funding, but there are very few restrictions on competitors notifying services along the same routes.

The legislation also provides for regional councils to "gap fill", by competitively tendering for services which the market does not provide commercially. All payments from the public purse for passenger transport must be subject to an approved competitive pricing procedure, which is approved by Transfund New Zealand, the national funding and regulatory agency for land transport. Since the sale of the largest bus operator, the previously municipally owned Yellow Bus Company in late 1998, all service providers in Auckland are now in private ownership.

Since 1994, there has been a steady increase in the proportion of services operated commercially in Auckland. Approximately 40% of all services are now commercial, and these account for around 55% passengers carried. Managing the interface between commercial and contracted services is one of the key challenges facing the ARC.

¹ Ernst & Young, 1997; Alternative Transport Infrastructure Investments & Economic Development for the Auckland Region

Experience to Date

Experience with the new passenger transport regime has been mixed. The sharp increase in public expenditure evidenced during the 1980's has been brought under control, with expenditure levels remaining broadly constant throughout the 1990's. This has occurred at a time when service levels have been increased, and is clearly a response to the reductions in unit costs that have arisen as a result of increased competition (and labour market reform which took place in New Zealand from the early 1990's). In addition, passenger numbers have increased since 1993, following a period of sharp decline from the mid 1980's. While a number of dynamics are at work here, it would appear that an important factor is the increase in levels of service that have been able to be achieved through the greater buying power of the public purse.

Despite these advances however, concern remains in the region that passenger transport needs to do much better. Continued strong growth in the population of the urban area (around 2.5% per annum for most of the 1990's, and even stronger growth in vehicle trip making, at approximately 5% per annum, has meant that passenger transport's share of the transport market has continued to fall. Between 1986 and 1996, passenger transport's share of work journeys fell from 15% to just 7%.

Concerns with Tendering System

Despite the improved efficiencies that have been gained through the competitive tendering system, some concerns have been raised within the industry as to the sustainability of this approach. In particular, operators are concerned at the lack of tenure afforded by contracts, the lack of incentives to build their business, and the "all or nothing" nature of tenders. Operators are particularly concerned that despite the fact that there are price/quality trade-offs built into the tendering regime, the tendency has been for the lowest price bid to succeed. In some past instances, this led to a reduction in service quality as under-resourced new entrants were awarded contracts on some routes, with the incumbent operator being forced to exit. Faced with an inferior product, the users exercised what little choice they had by moving away from passenger transport altogether. Some in the industry argued that had there been an opportunity for competition "in the market" rather than "for the market", the choices available to users would have been more complete, and the damage inflicted by inferior quality operators would have been less.

Another area of concern was the extent to which innovation is encouraged by a “first past the post” tendering arrangement. Although the opportunity exists to register commercial services (ie those that do not require any public funding), most new innovations require a degree of public funding, at least in the initial stages. The concern in the industry was that if an open tender approach is necessary for such funding to be allocated, operators would be less likely to come forward with new ideas, as they had no guarantee that they would succeed through the bidding contest.

From the operators perspective, a key concern at the current arrangements is the lack of incentive to invest in market development in an environment where:

- Although contracts are net priced (ie the operator keeps the revenue), the investment required for new capital is often too high to be justified by the expected returns from the farebox alone. This is particularly the case during peak period services, where additional capital is generally required to increase supply.
- There is a prospect of losing the contract at the end of the period of tenure. An operator who is successful in growing the business may still lose out to another bidder who submits a lower price, either deliberately or accidentally.
- The exclusive nature of contract tenure means that when another bidder is successful in securing routes, there is no opportunity to compete in the market, even if the competitor’s service may be deemed to be inferior.

These concerns were highlighted in a number of submissions to the ARC between 1995 and 1997, and were echoed in other parts of the country.

In addition, there are concerns at the tendency towards market dominance in each of the main sectors of the passenger transport market in Auckland.

Increased Focus on Outcomes

From the ARC’s perspective, there were also concerns at whether the tendering system was leading to the most effective use of its limited public funds. A major objective of New Zealand’s passenger transport reforms in the early 1990’s was to improve the efficiency of public expenditure, following an alarming increase in subsidy levels during the 1980’s. As noted above, this objective was achieved. More recently, however, attention has turned to the effectiveness of this expenditure. This

has arisen, in part, from an increased emphasis within local government on “outcomes” rather than “outputs”.

As part of this process, the ARC issued a Strategic Plan in 1998, which set out six strategic outcomes, including the following accessibility outcome:

“ A safe efficient and environmentally sustainable transport system that meets the accessibility needs of the people of the Auckland region”.

One of the strategies to achieve this is to “ensure that viable public transport choices are available, and encourage the market to provide for these”.

The strategic planning exercise highlights a shift away from the provision of passenger transport services as an end in itself, to viewing them as an output that can assist in the delivery of the broader community outcomes. The focus therefore is more on “why are we doing this?”, rather than “how are we doing this?” In other words, a shift in emphasis from efficiency to effectiveness.

The key focus for the Auckland region in the future will be how the passenger transport system can be better utilised to deliver on transport and urban sustainability objectives. An important aspect of this in Auckland has been the development of a Regional Growth Strategy. This has been a collaborative process by the regional, city and district councils in the Auckland region, to determine a preferred pattern of urban growth over the next fifty years. The draft Regional Growth Strategy, which was released in July 1998, proposes a more intensive form of urban development into the future, and highlights the need for a supportive urban transport system. An important element of this will be the need for passenger transport to be focused along major corridors, and to connect major growth centres.

The Development of an Alternative

As a result of these concerns, both from the public sector and the industry itself, there has been recent interest in developing an alternative competitive pricing arrangement which provides the right incentives for providers, and better aligns public funding with the objectives of the public agencies.

It should be noted however, that such an approach relies on a clear understanding of why public funding is applied to passenger transport. In many cases, this is not well articulated. In Auckland, as in many other centres, the level and nature of intervention in the passenger transport market has arisen

from a series of ad hoc decisions and historical circumstances. None of the objectives have been particularly well articulated, let alone quantified.

Part of the strategic planning work referred to above has been an attempt to unravel these mixed objectives, and focus on the reasons why passenger transport receives public funding. The ARC's consideration of this issue has determined that the principal function for passenger transport intervention in the Auckland region (if not now, then certainly in the future), is its role in managing the efficiency of the transport system, primarily through dealing with congestion.

This emphasis suggests that the key performance indicator of the effectiveness of the passenger transport system relates to the number of peak period users. This relies on the assumption that were it not for the presence of the subsidised service, a proportion of a passengers would used vehicles, thereby adding to the congestion. Recent survey results in Auckland suggest that this is the case, especially for ferry and train users.

A review of competitive pricing procedures for passenger transport was undertaken by Transfund in 1997. As part of this process, an industry working party progressed the concept of "Output Based Funding" as a possible solution to problems of the tendering system. Transfund decided that the implementation of output based funding was outside of the scope of the CPP exercise, but agreed that further work should be done on the concept, with a view to developing a trial in some parts of the country.

In the meantime, the ARC also introduced new competitive pricing procedures to allow for the purchase of trial services on a competitive basis. These procedures allow operators to put forward proposals for new or innovative services, which competitive for access to a limited funding pool dedicated to such services.

Output Based Funding

Passenger transport funding is said to be output based if some or all of the payment to the operator is dependent on some measure of output. This measure is generally consumption related, such as passenger journeys or passenger kilometres, but other measures are possible. The rationale for output based funding is that by providing payments which are directly related to public transport use, operators will be given greater incentive to increase ridership, and thereby deliver the benefits from passenger transport which are primarily related to ridership.

The objectives identified for output based funding are therefore to:

- Make services more responsive to customers.
- Give operators more flexibility in service design.
- Provide reward for effort in increasing ridership.
- Provide longer term security.

A review² undertaken for the ARC and Transfund examined experience in other countries, particularly Australia, where partial output based funding has been introduced in a number of cities during the 1990's.

The review identified two alternative forms of output funding which could be progressed in the New Zealand context; these were "area contracts" and "subsidised deregulation". Under the area contract model, a tender process would be used to establish a single operator with exclusive rights to operate within a specified area, with the payment being related wholly or in part to the number of passengers or passenger kilometres carried. This amount could be specified via a tender process, (ie competition "for the market").

Under "subsidised de-regulation", the concept of operator exclusivity would be removed, and operators would be free to compete for business "in the market". Payment from public funds would be made on the basis of operators' success in attracting patronage. In effect, the objective would be to replicate a truly commercial market to the fullest extent possible.

Following identification of the issues associated with output funding, proposals were put forward to introduce trials for both area contract and subsidised de-regulation in different parts of the Auckland region from late 1999. Following further consultation however, the area contract concept was dropped, as it did not deal with the concerns over contract tenure, and it was agreed that it would be difficult to widely apply in other parts of the region, given the high level of existing commercial registrations. (In effect, once a commercial registration has been notified, the operator has the right to continue to operate that regardless of any future contracts that may be awarded for service in the area. Because the area contract approach relies on the ability for the successful bidder to operate

² Booz-Allen & Hamilton, 1998: Output-Based Funding for Passenger Transport Services: Discussion Paper

exclusively within an area, there is no guarantee that this could successfully be applied in areas where a large number of commercial registrations were already in place).

Trialling “Subsidised De-regulation”

The focus therefore turned to development of subsidised de-regulation for the trial. The key question within this context was how to determine the unit payment amount. This has two aspects:

- The output unit to be used.
- The method of determining the unit price.

A rate per passenger kilometre is generally preferred as an output measure. It is seen as being fairer for operators who carry passengers over long distances rather than using a flat per passenger rate. It can, however, disadvantage operators who carry passengers by direct routes, such as express services, compared to more indirect routes. To overcome this, it was determined that a rate per passenger fare stage be used. This has the added advantage of being easier to monitor and audit. For the purpose of their claims, therefore, operators will have to provide information that is structured in a manner that is consistent with the fare boundaries set by the ARC.

Unlike the area contract approach, the “subsidised deregulation” approach does not necessarily result in an exclusive contract for a single operator. In its purest form, subsidised deregulation means that any operator may provide services on any routes and receive funding.

The key issue to be resolved for the trial, therefore, was how to set the unit rate in a way that achieves a competitive process, and allows for more than one operator to provide services. A number of options for establishing unit rates were examined, which can generally be divided into two main options, as follows:

Option 1: ARC Sets the Rate

In this option, the ARC would set unit rates based on a number of factors taking into account the purpose of services and their strategic importance.

This option has the advantage of giving the ARC more control over the process and a greater degree of certainty for bidders, but there were a number of difficulties:

- There is no outright competitive process to set the price of services, as required by the legislation and the Competitive Pricing Procedures approved by Transfund New Zealand.
- It is extremely difficult to decide an appropriate rate (or rates) that will provide sufficient incentive to operators so that they deliver increased service and attract increased patronage, while not leading to excessive cost to the ARC.
- Budgeting is difficult, as subsidy claims are open ended.
- Since many existing peak services are commercial (ie receiving no subsidy at present), the patronage and revenue information necessary to set an appropriate output rate is not readily available.

Option 2 : Tendered Rate

Under this option, which was favoured. Interested parties are required to tender for:

- An off peak passenger net contract (as per current ARC process)

and/or

- An output rate for peak passenger stages.

Parties participating in the peak period tender are required to specify the rates (price per passenger stages) that they would require for specific volumes of patrons. The tenderer can specify different rates for incremental volumes. Payments to tenderers are based on the actual volume of passengers they carry. Payment is made by matching the rates to the actual patronage volume, in the order of bids received (ie the lowest rate is paid first). Payments will be made to all eligible participants up to the level of the total expenditure cap. Expenditure caps are pro-rated over each month to ensure maximum effectiveness, and to take account of seasonal factors. Expenditure not taken up in a month can be carried forward to future months to provide an ongoing incentive for patronage growth.

This process requires operators to manage the trade off between patronage projections and the cost of supplying vehicle capacity in the peak. This will be reflected in their rates. Competitive tension

arises from bidders wishing to keep their rate for a specified volume of passenger at a slightly lower level than their competitors, so they are “first in line” for the fixed level of funding available.

This approach provides opportunities for new players to enter the peak period commercial market on a non-exclusive basis, provided their rates are competitive. If they succeed in attracting passengers, they will receive output payments accordingly. Conversely, if they are not successful, they will attract little funding. Unlike the existing net contract approach, incumbents are not excluded from the market if they are “beaten” on price.

A key to the success of this approach is the amount of funding made available. For the trials, the ARC has increased the amount by approximately 20% over current levels, to accommodate an increase in the level of peak period ridership (which, after all, is the objective of the output based funding approach).

Tender Process

Tender documents based on the above procedures were issued in May 1999, with the tender process completed in July 1999. Two areas were chosen for the trials; the Great South Road corridor in South Auckland, an area of good existing demand; and the Hibiscus Coast area, a satellite urban area some 40 kilometres north of the central city, an area of modest demand over longer distances.

Conforming bids were received from three tenderers for the Great South Road corridor (two incumbents plus a new entrant) and two tenderers for the Hibiscus Coast (one incumbent plus a new entrant). There was a considerable range of unit rates bid, ranging from \$0.05 - \$1.00 per passenger stage for Great South Road, and \$0.10 to \$2.00 per passenger stage for the Hibiscus Coast.

Services under the new contract arrangements will commence in both areas in November 1999.

Trial Evaluation

The trial is for an initial period of two years, with a right of renewal subject to review of the trial outcomes. The review will assess the trial according to the following criteria:

- Achievement of outcomes (ie reduced demand for vehicle use through increased passenger stages).

- Value for money - have the outputs been delivered at minimum cost?
- Administration and compliance costs.
- Workability - did the procedures work as intended; were they interpreted consistently by operators and the ARC?
- User satisfaction - quality of service, reliability, availability of information.

Issues & Challenges

The approach described above has not been without its difficulties in the development and implementation phases - even before the services commence! The main issues to arise have been:

- The complexity of the tendering process. Operators had expressed a preference for a fixed rate to be set by the ARC, rather than a procedure which required rates to be bid.
- Uncertainty over the level of competition faced by bidders (who must commit to prices for given volumes without knowledge of their likely market shares). This may have resulted in a degree of conservatism in the bids, to offset this risk.
- Concern over the extent to which service provision (and public perception) will remain stable once services commence). Because there will be competition on the road, it is reasonable to expect some competitive re-positioning once services commence. Management of these changes will be an important challenge for both the ARC and operators.

It may be that these problems are such that the alternative mechanism of the ARC establishing the unit rate will need to be revisited in the future.

Conclusion

The trial of the “subsidised de-regulation” system of funding in Auckland has followed a lengthy period of investigation into ways in which public funding might be better aligned to the achievement of outcomes, through a process that provides commercial incentives to service providers. While indicators thus far are promising, the true test will be once the services commence operation under the new contract management in November 1999. Watch this space!

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Barry's current responsibilities at the Auckland Regional Council involve the management of the Transport Department, which includes strategic transportation planning for the region, and the passenger transport planning and tendering process.