



Case Study

Integrating public transport fares in South East Queensland



Integration of public transport fares in South East Queensland underpinned the development of the TransLink integrated transport system and simplified the task of introducing smartcard ticketing

Some history

Public transport in South East Queensland was provided by a wide variety of operators, ranging from the State Government (Queensland Rail (QR)), The Brisbane City Council (BCC) (Brisbane Transport Buses and Brisbane Ferries) and the private sector (Buses outside of the Brisbane City Council area).

While these services were operated under various State regulatory frameworks, each operator set their own fare structure and their own fare levels. As a result, by around the year 2000, the various public and private public transport operators between them had 18 ways of calculating a fare and more than 200 different ticketing products.

In 1997, the SEQ Integrated Regional Transport Plan (IRTP) outlined a bold vision for the future of transport in South East Queensland including targeting a 50% increase in the number of public transport trips made in South East. One of the many actions to achieve this goal was the introduction of inter-modal fares for bus and rail services

Several initiatives progressed limited integration of fares between services and between modes. CityTrans,, for example, a joint venture between BCC and QR supported by the State Government provided limited inter-modal ticketing and services between bus and rail services at a small number of rail stations. At around the same time, the South East Explorer ticket was introduced to provide integrated ticketing between rail and selected bus operators, primarily for the tourist market.



A 5.12 Continuously develop and trial changes to railway fare structures to increase rail's competitiveness and convenience, including:

- a group, advance purchase and off-peak discounts; frequent user discounts
- b general availability of inter-modal fares e.g bus/rail

| | | | |
|---------|----|-------|---|
| QR | QT | 97/98 | 5 |
| QR | QT | 97/98 | 3 |
| QR/PTSC | QT | 97/98 | 3 |

Except from the IRTP

Integrated ticketing was a driver of integrated fares

While limited ticketing and fares integration occurred in the late 1990s, the proposed replacement of the then paper based ticketing system, owned and operated by each individual operator, with a region-wide smartcard based automated fare collection system, provided greater impetus to the already growing political pressure to address the lack of integration between modes.

Procurement of a new smartcard ticketing supplier had been underway from around 1999 with a contract signed in 2003. The difficulties in administering the much smaller South East Explorer ticket indicated that successful implementation of a region wide AFC system would require much bolder change. And in conjunction with the procurement, the State Government established TransLink to progress that change, integrating not only ticketing but also fares and services.

Progressing this change required strong understanding of the strategic and political imperative that was driving the integration agenda. It also required the careful consideration of a range of policy and financial issues by both the Department and the Government.

Proposed changes to fare structure and levels were considered at length by the Government over a long period of time. Detailed fare and financial models were developed, to provide input into Government deliberations. The modelling also provided input to the on-going negotiations with stakeholders and central agencies and contributed to the effective communication of the proposed changes.

What changed?

Before July 2004, the 18 urban public transport operators in South East Queensland established their own fare structure and fare levels. QR, for example, set fares on a station to station basis while Brisbane Transport operated a zonal structure. Many of the private bus operators had section based fares. Bus fares which were subject to a maximum fare ceiling were generally higher than rail fares which were set by the State Government. Operators also established their own ticketing products. QR, for example, had, in addition to a single ticket had return tickets, daily tickets, weekly tickets and 3, 6 and 12 month tickets. In contrast, Brisbane Transport provided single tickets, 10 trip tickets and a monthly product. Private operators also had a range of ticketing products.

With the introduction of integrated fares in 2004, all of the public transport operators migrated to the TransLink zonal system and charged the same fare for trips based on the number of zones a passenger used for a particular journey. Fares were set by the State Government and each operator's remuneration under contracts with the State, was based on the services provided – not the fare revenue collection.

At the same time, the number of ticketing products was reduced from more than 200 to five core paper ticketing products – single, daily, off-peak daily, weekly and monthly with QR retaining 3,6 and 12 month tickets and Surfside, the operator on the Gold Coast, retaining specific tourist ticketing products that could be used on their tourist shuttle services as well as the urban services provided under contract with the State.

Lessons learned from the SEQ experience

Understand the strategic and the political imperatives

The integration of fares can take many forms and can be progressed in different ways. Understanding what needs to be achieved is critical to ensuring that the integration of fares is an effective contributor to strategic priorities. A strategic imperative to encourage intra and inter-modal transfers (to, for example, consolidate passenger loads on key corridors) may require a different approach to fare integration than one focused on ensuring that fares can be allocated to operators in an effective and fair manner.

In South East Queensland, the integration of fares was focused on simplifying the fare calculation task associated with the introduction of the go card system. At the same time, however, it was recognised that integration within one fare structure would enable the system to be simple and easily understood – a key factor in TransLink's adopted mission of making travel easy.

While understanding the strategic goal is important, it is also important to ensure that political imperatives are addressed. In South East Queensland, fare integration meant that many rail fares would increase. The Government, mindful of the impact of fare increases limited any increase to no more than 30 cents for travel within 10 zones and no more than 15% outside of those zones.

Complying with this political requirement was not negotiable and led to some minor tweaks to the zonal structure that continue to this day. Not recognizing the political realities and making these tweaks would have put the entire fare integration at risk potentially delaying the introduction of the go card.

Carefully consider the policy implications - from both a system wide perspective as well as those of the various stakeholders

Fares policy can be just as important as fare levels when developing an integrated fare system. Different operators may well have developed different policies relating to issues such as off-peak travel, the definition of a child or student or even how refunds are provided. These system policy issues need to be resolved and agreed by all decision makers, preferably taking into account the strategic intent of the organisation integrating the fares.

At times, however, compromises for specific issues and operators may need to be made. For example, in South East Queensland, the bus operator on the Gold Coast was able to retain a suite of tickets which were targeted at tourists. A commercial arrangement was negotiated between TransLink and the operator to allow those tickets to be used on the newly contracted TransLink services – but only on the Gold Coast. Similarly, longer term period passes for QR were also retained (again for rail only travel) for an extended period of time. This allowed specific issues facing QR in relation to the sale of school tickets to be addressed in the knowledge that the issue would disappear once smartcards were introduced.

Financial impacts of integration need to be carefully considered and effectively communicated

At its heart, any fare collection system is about the collection and accounting of revenue. Changing how fares are calculated and charged to passengers is likely to have some financial impact that will need to be understood, budgeted for and communicated to funding agencies as well as to other stakeholders (including operators if they receive fare revenue).

Prior to the implementation of integrated ticketing and fares, high level modelling was undertaken that identified an approximate 5 percent increase in patronage as a result of integration. This, however, is not sufficiently detailed to address the concerns that a typically risk averse treasury are likely to have – let alone governments who want to know who is going to be affected by fare integration and by how much.

In South East Queensland, more detailed financial modelling was undertaken using existing data for rail and bus services. These models were used to estimate and analyse the impact of integration on the financial position of the Department. This allowed the financial impacts to be estimated for the State for a range of fare integration options and price levels. At the same time, the model allowed the financial impacts on passengers using particular services and at particular train stations to also be modelled and communicated to decision makers.

Managing expectations is necessary – particularly in relation to customer and financial impacts

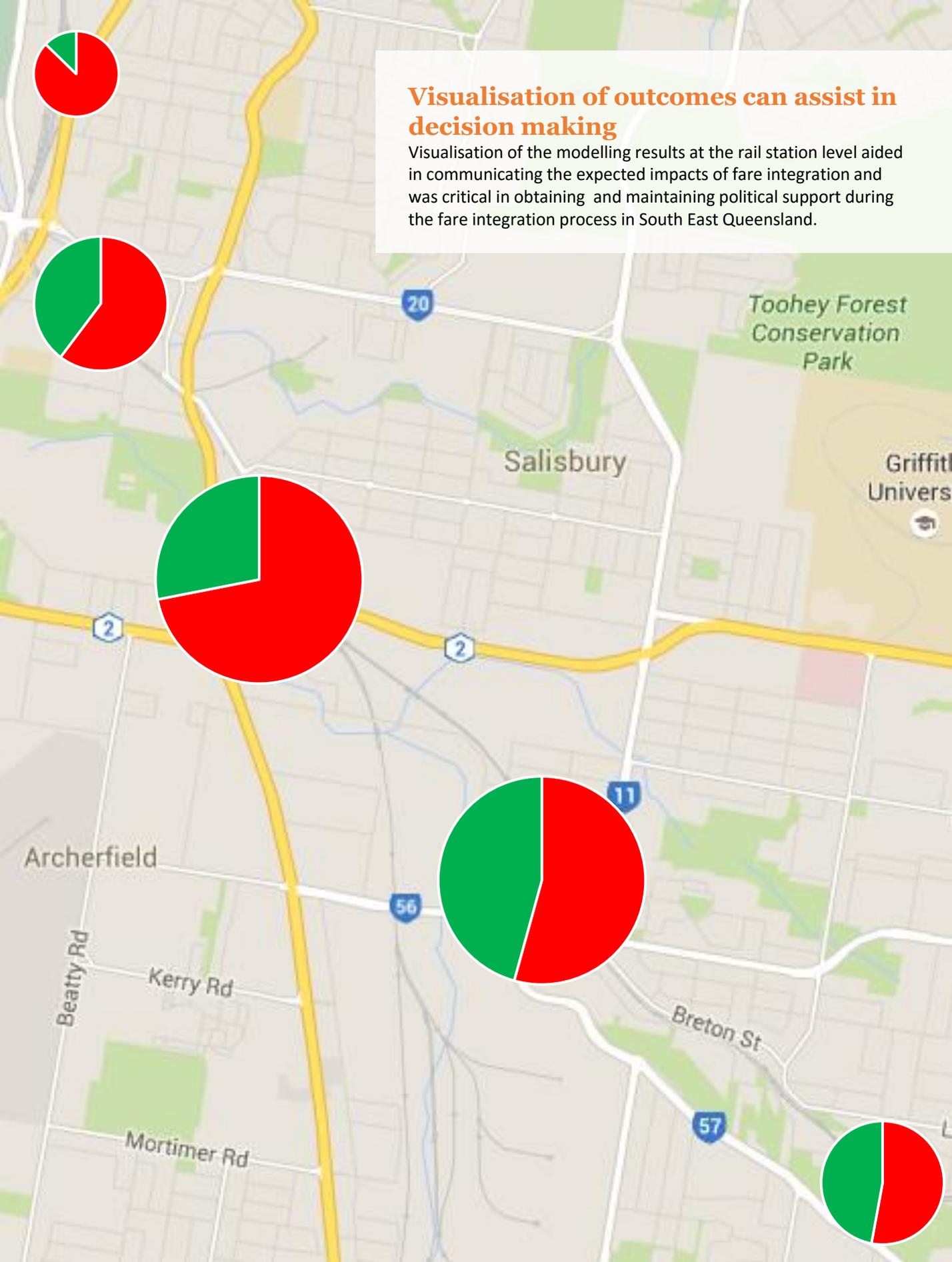
The best information in the world will not allow a complete picture of every customer on the public transport system. Someone, somewhere will be negatively affected and can divert department resources if not effectively managed. Communicating changes to customers (as well as those front-line staff who interact with customers) is critical in ensuring that changes to the fare system are effective.

At the same time, it is necessary to manage expectations about the financial impacts. Financial models provide approximations and can identify areas of risk that may need to be addressed but, inevitably, if central agency stakeholders and decision makers are 'sold' a single number, that it is the number that the Department's performance is likely to be assessed against. Effectively modelling can provide ranges of outcome and risk adjusted outcomes. These need to be communicated and realistic expectations established with stakeholders – particular as small differences between actual and modelled revenue in percentage terms can result in large dollar values.

In South East Queensland, for example, fare estimates for the integrated system were several million dollars higher than actual revenue. While this was a margin of only 3 percent, it represented several millions of dollars that needed to be funded from the government's budget.

Visualisation of outcomes can assist in decision making

Visualisation of the modelling results at the rail station level aided in communicating the expected impacts of fare integration and was critical in obtaining and maintaining political support during the fare integration process in South East Queensland.



Indicative only – graphs represent winners (green) and losers (red) from fare integration. Size of pie charts represent numbers of customers at specific rail stations

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The NineSquared *transport economics team*



Robin Barlow has more than 20 years' experience working in the transport sector and in government. He has a BA (Hons) in economics and political science. He has worked for the Commonwealth government as an economist at the Industry Commission and for the Queensland Government where he held a number of senior positions within the Department and in TransLink where he was involved in the fare integration project during the implementation of the TransLink integrated fare and ticketing system. Since 2009, Robin has worked as a consultant for a number of public and private sector clients, primarily in the transport field.



Tom Frost is an economist who has been consulting to industry and government for almost 20 years. He has extensive experience in the provision of regulatory and economic advice to clients. Tom has BA in agricultural economics from the University of New England and has spent the majority of his career working in the transport sector. He has provided advice to clients across Australia and internationally in areas such as access and pricing, negotiation support, tariff development as well as fare and patronage modelling for transit and airport projects.



Ben Ellis is a transport economist with experience in both the government and private sectors. He has a Masters degree in economics and has worked on a broad range of economics related engagements. He has extensive experience in project evaluation and public policy analysis. His areas of specialisation include transport, regulation, resources and government. Ben's core skills include cost-benefit analysis, prioritisation, economic analysis and modelling, econometrics, financial analysis and business case development.



James Orford has almost 10 years' experience across a range of sectors including transport, electricity, energy and mining. James has experience in providing analysis and advice on pricing and contract strategies, as well as detailed resource market insight and projections. James has BMaths and BBus (Accounting) from the Queensland University of Technology. Most recently James has worked for as a Senior Market Advisor HDR | Salva, focusing on the global and domestic resource sector analysis, forecasting and scenario assessment. He is an experienced modeller and developed fare models for a number of transport entities.



Wendy Chilvers has experience across a range of sectors including mining, transport, ICT and utilities. She has practical experience building and reviewing financial and regulatory pricing models as well as providing regulatory advice. Wendy has BCom/BEcon from the University of Queensland and is a qualified CA. Before joining NineSquared Wendy was working within Deloitte's London Economic Consulting team where she provided advice to a number of regulated entities as well as some of the largest technology companies in the world.



Richard Steer is an experienced manager in program and project management, contract management and finance. He has undertaken a number of senior roles in the public sector including a number of senior contract and organisational transformation roles at TransLink. His technical areas of expertise includes financial analysis and reporting, contract management, program and project management and policy development, particularly within a public transport context. He has a Bachelor of Business and a Graduate Certificate in Accounting and is a qualified Managing Successful Programs (MSP) Practitioner



Anthony is a Senior Analyst for NineSquared with a focus on economics, cost benefit analysis and infrastructure prioritisation. He has experience in developing prioritisation frameworks across a variety of government. Anthony has also undertaken cost benefit analysis for a variety of projects relating to the energy efficiency, transport infrastructure, technology and the arts amongst other sectors. He has previously worked for Deloitte in the Economics and Infrastructure Advisory team as well as the Demography and Housing team in Queensland Treasury and at Urbis as an economics analyst



Byron is an analyst with NineSquared with a background in international business, research and economics. He has a Bachelor of Business (International Business /Economics double major) from the Queensland University of Technology and is currently undertaking his CFA qualification. Since joining in mid-2014, Byron has worked in the financial modelling practice, maintaining a financial model for undertaking options analysis options for a technology infrastructure business case.

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