

UNLOCKING THE FULL POTENTIAL OF SYDNEY'S AIRPORT RAIL LINK

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Tourism & Transport Forum

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1. Introduction

Sydney Airport is Australia's busiest airport, with over 36 million passengers a year it is the only international airport serving Australia's largest city. It is also a major driver of employment, generating more than 280,000 jobs and adding around \$24 billion to New South Wales' GSP. When flow-on effects are considered, Sydney Airport represents roughly six per cent of the state's economy¹.

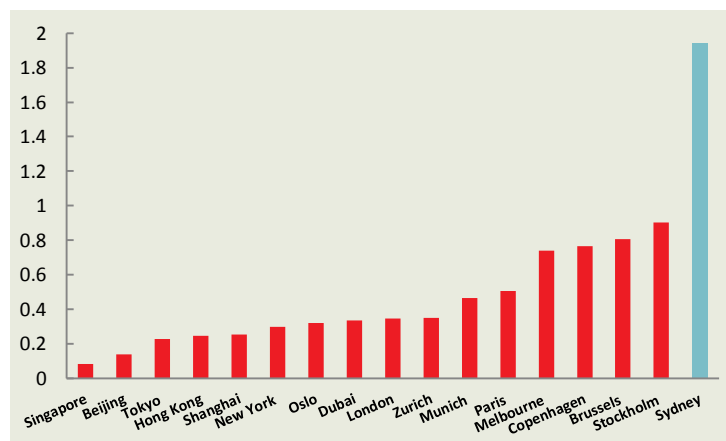
The importance of Sydney Airport to Australia's economy is set to rise significantly. Over the next 20 years, passenger numbers to Sydney Airport are forecast to double to 72 million per annum². However, this growth is under threat from poor landside access, with the road network currently servicing the airport already one of the most congested in the country.

One of the key causes of road congestion around Sydney Airport is the lack of affordable public transport. The Sydney Airport Rail Link (Airport Link), the train service connecting the airport to the Sydney CBD carries approximately 14 per cent³ of all airport travellers and public buses only another four per cent.

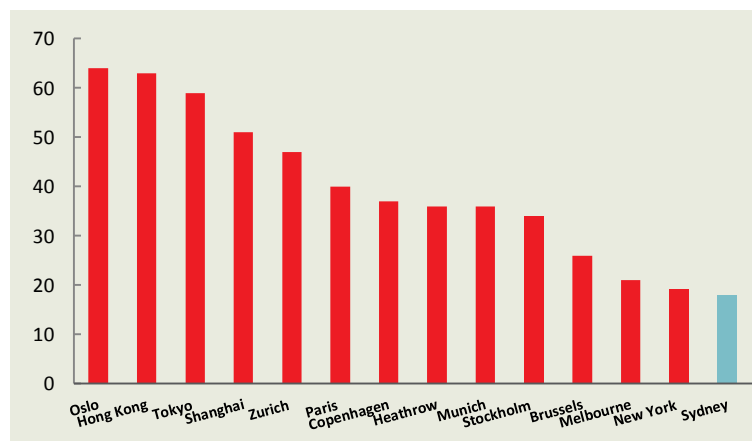
One of the principal causes of the airport's low public transport mode share is the uncompetitive price structure of the Airport Link. TTF research indicates that, per kilometre, it is the world's most expensive airport public transport service among surveyed cities. Accordingly, the percentage of airport users arriving and departing via public transport remains low by global standards.

Sydney Airport benefits significantly from the Airport Link, one of only two direct airport rail links in Australian capital cities, delivering passengers to the CBD in less than 15 minutes. However, TTF believes that while the Airport Link has benefitted from proactive management to increase patronage, growth is constrained by the high cost.

Airport to CBD via public transport – cost per kilometre (AUD\$)



Public transport mode share for airport users (%)



¹ Deloitte Access Economics, The economic value of Sydney Airport, 2013

² BITRE, Air passenger movements through capital and non-capital city airports to 2030-31, 2012

³ In 2006, Airport Link mode share was estimated at 11 per cent in Sydney Airport Corporation (SACL), Airport Ground Travel Plan, 2006. More recent estimates in 2011 place it as 14 per cent in Airport Link, submission to Productivity Commission, Draft Report Economic Regulation of Airport Services, 2011

The high price of Airport Link fares is due to the station access fee (SAF) or Gate Pass, a levy on top of the existing CityRail fare as part of the NSW government's cost-recovery agreement with the line's private operator. With the contract not due to expire until 2030, the SAF is a significant and long-term impediment to patronage growth.

Underuse of the Airport Link due to its price has contributed to the surrounding region's road congestion. This is not an isolated concern, Sydney Airport is located beside key arterial roads that carry a significant proportion of the region's commuter traffic and road freight task. A low public transport mode share for Sydney Airport negatively affects the productivity of the entire city.

The SAF has been acknowledged as a key impediment to unlocking greater patronage by a number of institutions, including Infrastructure NSW, the Productivity Commission, and the NSW Parliamentary Budget Office. Forecasts by Booz & Company indicate that removal of the SAF would provide an 'initial uplift' in rail patronage of 35 per cent⁴.

As a result, TTF believes the SAF should be removed to achieve – and go beyond – Sydney Airport's goal of increasing public transport mode share to 20 per cent by 2024⁵. This could be achieved either by subsidising the private operator for the value of the SAF or wholesale purchase of the line.

There is an extensive weight of evidence indicating that removal of the SAF would significantly increase patronage – reducing congestion and improving first impressions for visitors. Further, renegotiation of the current contractual arrangement between Airport Link Company and the NSW government would allow additional public bus routes to service the airport without potentially causing compensation claims.

In addition, TTF also advocates upgrades to timetable information, ticketing and rolling stock for Airport Link services. In particular, the introduction of real-time mobile information and the exclusive use of Waratah and Millennium trains present important opportunities to improve the line's attractiveness to a wider range of airport users.

Summary of recommendations

Remove the airport station access fee to increase rail mode share for Sydney Airport

Establish a greater presence of real-time public information displays for Airport Link services and highlight the speed of the rail journey to the CBD compared with car transport

Provide timetable information for airport services via third-party sites and applications

Prioritise highest quality rolling stock for Airport Link services

Following removal of the station access fee or renegotiation of contract, expand public bus services to Sydney Airport

Prioritise infrastructure, service and signalling upgrades for Airport Link services

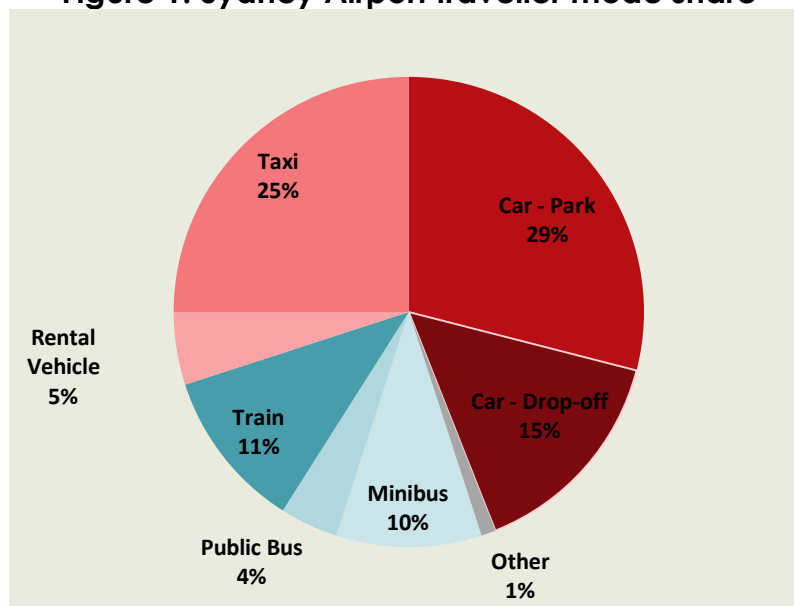
⁴ Booz & Company, Impact of Fare Reform on the Sydney Airport Rail Link, prepared for Sydney Airport Corporation, 2011

⁵ Sydney Airport Corporation Limited, 2009, Sydney Airport Master Plan

2. Accessing Sydney Airport

The vast majority of airport users access Sydney Airport by car. A study of land transport access to the airport in 2006 found that approximately 15 per cent of trips were undertaken by private vehicle drop-off or pick-up and 29 per cent parked at the airport⁶. There is also strong demand for hire services, with an estimated mode share of 25 per cent for taxis and five per cent for rental vehicles. When combined, an estimated 74 per cent of all airport users arrive or depart by car in one form or another. Public buses represent only four per cent of trips, with only one route operating to the airport.

Figure 1: Sydney Airport traveller mode share



Source: Sydney Airport Corporation, 2006

The large number of airport users travelling by car is a significant contributor to the region's already congested road network. The M5 East and General Holmes Drive, two of the major thoroughfares surrounding the airport, are congested for more than 13 hours every day. Similarly, the Eastern Distributor and Southern Cross Drive are also prone to increased travel times and delays. Overall, the Sydney Airport and Port Botany precinct is home to four of NSW's five most congested roads⁷.



Located directly south-east of Sydney Airport is Port Botany, Australia's second largest container port. Port Botany is a major contributor to the region's road congestion, with approximately 10 per cent of traffic in the area being attributed to heavy vehicles⁸. The productivity of the port is already being hindered by road congestion with containers now being unloaded faster than the landside transport system can move them away. This will become an increasing concern as freight through Port Botany is expected to quadruple by 2031⁹.

⁶ Sydney Airport, Airport Ground Travel Plan, 2006

⁷ Transport for NSW, Long Term Transport Master Plan, 2012

⁸ Ibid.

⁹ Infrastructure NSW, State Infrastructure Strategy, 2012

Rapid urban and commercial growth in south-east Sydney will be an added constraint as an extra 480,000 people are expected to live in the wider subregion within the next 20 years. This will generate an additional 377,000 daily commuters, the vast majority of whom will travel by car¹⁰.

At some point between 2015 and 2023, it is predicted that the capacity of existing road junctions at the entrance to the domestic terminal precinct will be exceeded¹¹. Capacity at the international terminal is expected to reach critical mass shortly after. This will result in a near-constant traffic jam on key roads leading to the CBD and the M5, significantly increasing travel times and impeding the region's productivity and Sydney's wider global competitiveness.

3. The Sydney Airport Link

The Airport Link consists of four stations (in order from closest to the CBD): Green Square, Mascot, Domestic and International Terminal, connecting to the CBD along the East Hills Line. The four stations are owned and operated under a 30-year concession between the NSW government and the private operator, Airport Link Company, which expires in 2030. In 2011, the NSW government decided to subsidise the fee for Mascot and Green Square stations at a cost of \$80 million, bringing fares in line with the rest of the CityRail network¹². However, the fee remains for the two airport stations.



Currently, eight trains per hour run through the Airport Link to the city during peak periods. Journey times are short by international standards, with trips from the domestic and international terminals to Central Station 11 and 13 minutes respectively. All train services are operated and timetabled by CityRail as part of the wider suburban network.

Despite competitive travel times, the Airport Link has historically failed to meet expected patronage rates. In 2005, the line carried an estimated 14,000 people per day, over 70 per cent less than originally forecast¹³. This has significantly improved in recent years, with renewed marketing, service reliability and station infrastructure, following an ownership change in 2008, leading to a 25 per cent increase in station activity¹⁴. Despite this increase, Airport Link patronage is failing to rise at a rate sufficient to mitigate increased airport road congestion due to a number of factors; most prominently, the cost of rail fares, as well as business travellers being unconcerned about relative price costs; security issues for airport shift workers; and the perceived difficulty of travelling with luggage¹⁵.

¹⁰ Transport for NSW, NSW Transport Master Plan 2012

¹¹ Joint Study on Aviation Capacity for the Sydney Region, 2012

¹² NSW Parliamentary Budget Office, Policy Costing - Buyout of the Privately Owned Airport Stations, 2011

¹³ Sydney Morning Herald, March 11 2006

¹⁴ Ibid.

¹⁵ Infrastructure NSW, WestConnex – Sydney's Next Motorway Priority, 2012

Sydney Airport station access fee

The Sydney Airport stations' station access fee (SAF), levied on top of the existing CityRail fare as the major revenue source for the line's private operator is the primary cause of low public transport uptake. Users of the international and domestic terminal stations must pay a fee of \$12.30 per adult in addition to the standard one-way, single fare of \$3.60 (totalling \$15.90 for a one-way fare to the CBD). The fee varies for other fare types but is in all cases a significant increase on existing CityRail fares. While necessary under the current public-private partnership, the station access fee is a strong disincentive for airport travellers and is a major obstacle in attempts to reduce road congestion in the region.

This price disincentive is an increasing concern due to the emergence of lower cost flights. An estimated 37 per cent of all passengers arriving to Sydney Airport do so on low-cost carriers¹⁶. This has opened up air travel to a price sensitive market that is similarly price sensitive for land transport. With many low-cost domestic flights costing less than \$100, land transport on arrival often represents around 15 to 20 per cent of total journey cost.

The Airport Link is particularly cost-prohibitive for groups. An average return taxi fare from Sydney CBD to the airport is \$50¹⁷. By comparison a return journey for two passengers on the Airport Link for the same journey is \$66.80. Therefore, for any group of two or more, there is an active financial disincentive for using public transport to access Sydney Airport.

If a Sydney-Melbourne flight cost the same per kilometre as the Sydney Airport Link, a one-way airfare would cost more than \$1380

There is clear, measurable evidence that indicates removing the SAF will drive up Airport Link patronage and subsequently reduce surrounding road congestion. Following the removal of the SAF at Green Square and Mascot, between March and June 2011 patronage increased by 70 per cent¹⁸. Booz & Company estimates that if the SAF were removed for the airport stations, rail patronage would have increased by 1.7 million in 2011/12 and increase by an additional 4.4 million by 2034/35¹⁹.

Patronage on the Airport Link has increased at a faster rate than predicted in 2010/11, due in part to improved management of the line and reduced reliability of road transport due to congestion. However, it is the view of TTF that the price sensitivity modelling undertaken by Booz is still relevant and that patronage could be significantly increased if the SAF were removed.

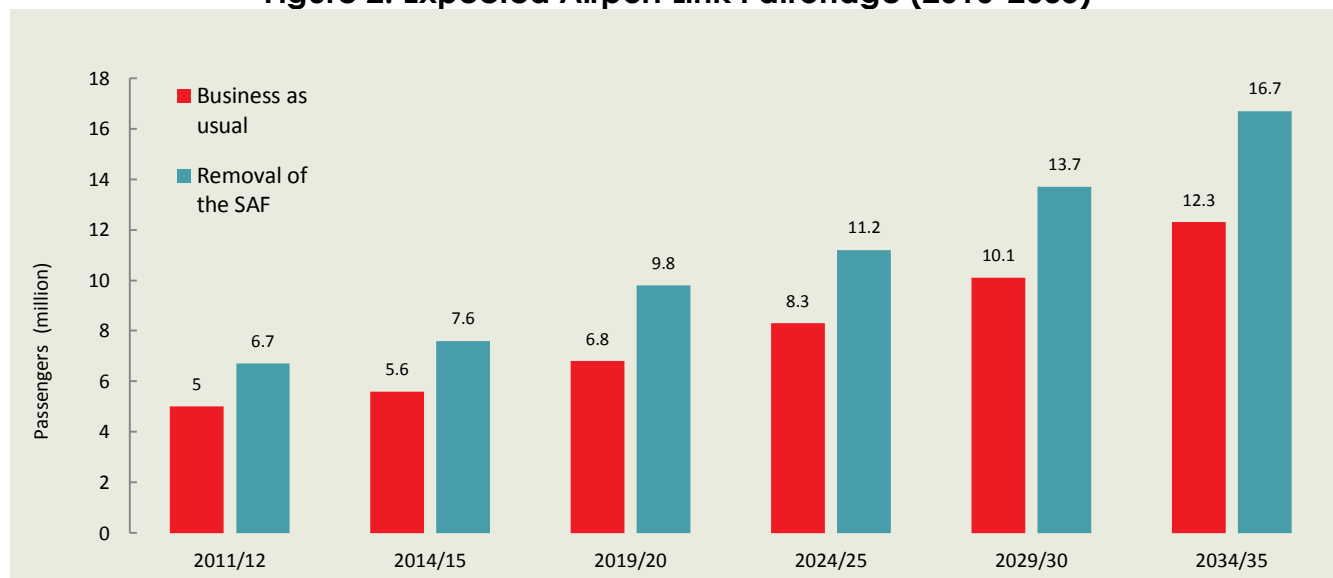
¹⁶ SRS Analyser November 2009 to November 2010

¹⁷ Sydney Airport Corporation estimate.

¹⁸ Booz & Company, Impact of Fare Reform on the Sydney Airport Rail Link, prepared for Sydney Airport Corporation, 2011

¹⁹ Ibid.

Figure 2: Expected Airport Link Patronage (2010-2035)



Source: Booz & Company, Impact of Fare Reform on the Sydney Airport Rail Link, 2011

This view is also supported by Infrastructure NSW and the Productivity Commission which have linked the current low usage of rail to access Sydney Airport to the high price of tickets. In 2011, the Productivity Commission acknowledged that if the SAF were to be removed, 3,500 new users per weekday would be diverted from road transport, increasing rail patronage by 35 per cent in the first year alone²⁰.

This would have a significant impact on addressing the region's road congestion. Infrastructure NSW found that if public transport mode share at Sydney Airport were 40 per cent (comparable with many other major international airports), there would be 25,000 fewer people travelling on surrounding roads each day, the equivalent of six lanes of traffic²¹.

In 2011, the NSW Parliamentary Budget Office estimated the net cost of purchasing the airport line at \$276 million²². While this figure is only an estimate, the NSW government should further investigate the cost efficiency of the different options available to remove the SAF.

The need for financial austerity has impeded the NSW government from funding this necessary investment. However, it has become increasingly clear that continued underuse of the Airport Link is of greater cost to Sydney's productivity than an investment in its pricing reform.

²⁰ Productivity Commission, Economic Regulation of Airport Services Report – December 2012

²¹ Infrastructure for NSW, State Infrastructure Strategy, 2012

²² NSW Parliamentary Budget Office, Policy Costing - Buyout of the Privately Owned Airport Stations, 2011

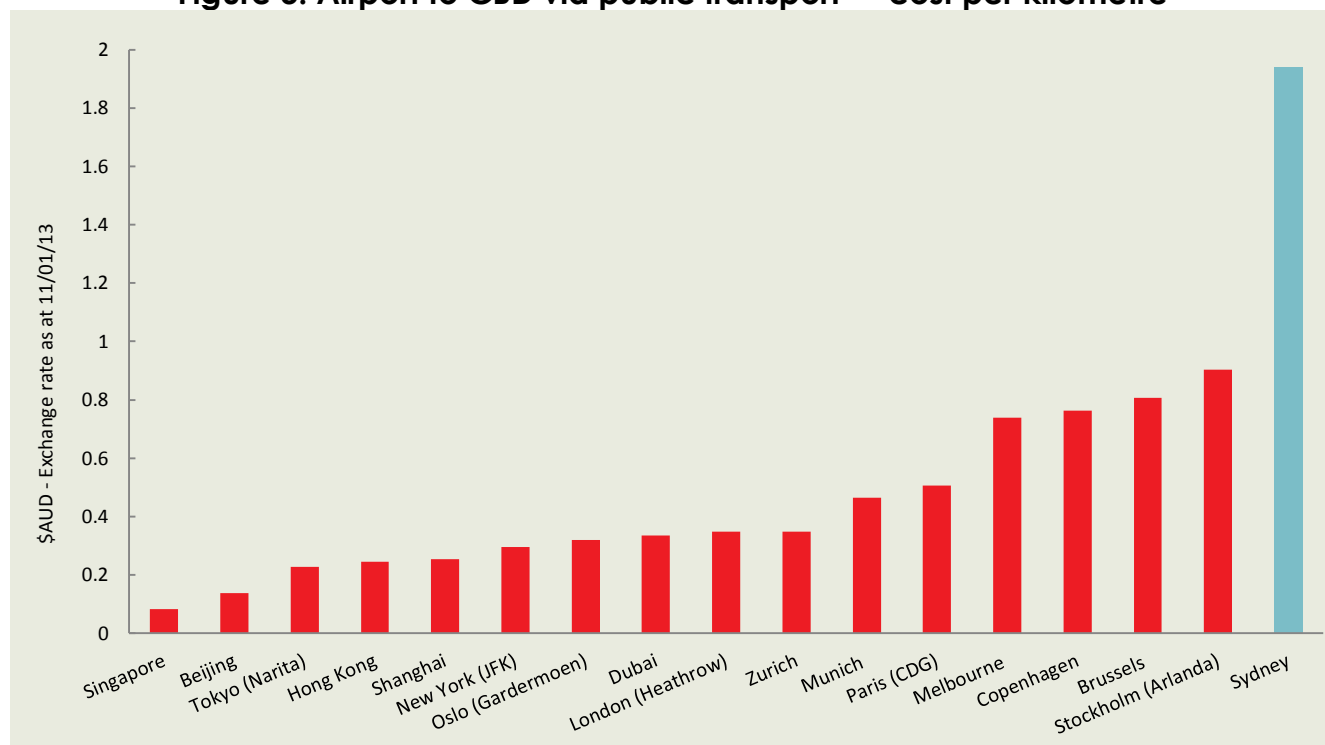
How Airport Link compares

The Sydney Airport Rail Link is one of the most expensive airport public transport services in the world and, among leading surveyed destinations, it is the most expensive per kilometre. Many of the world's major tourist destinations such as Paris, Beijing, Tokyo, and New York, all ensure low fares for airport land transport to minimise congestion and improve first impressions for visitors. Major international business hubs including Dubai and Hong Kong also offer business class service, with initiatives such as internet facilities and direct links to major conference centres. Other airports, such as London Heathrow and Tokyo Narita, while relatively more expensive, offer high-speed rail options.



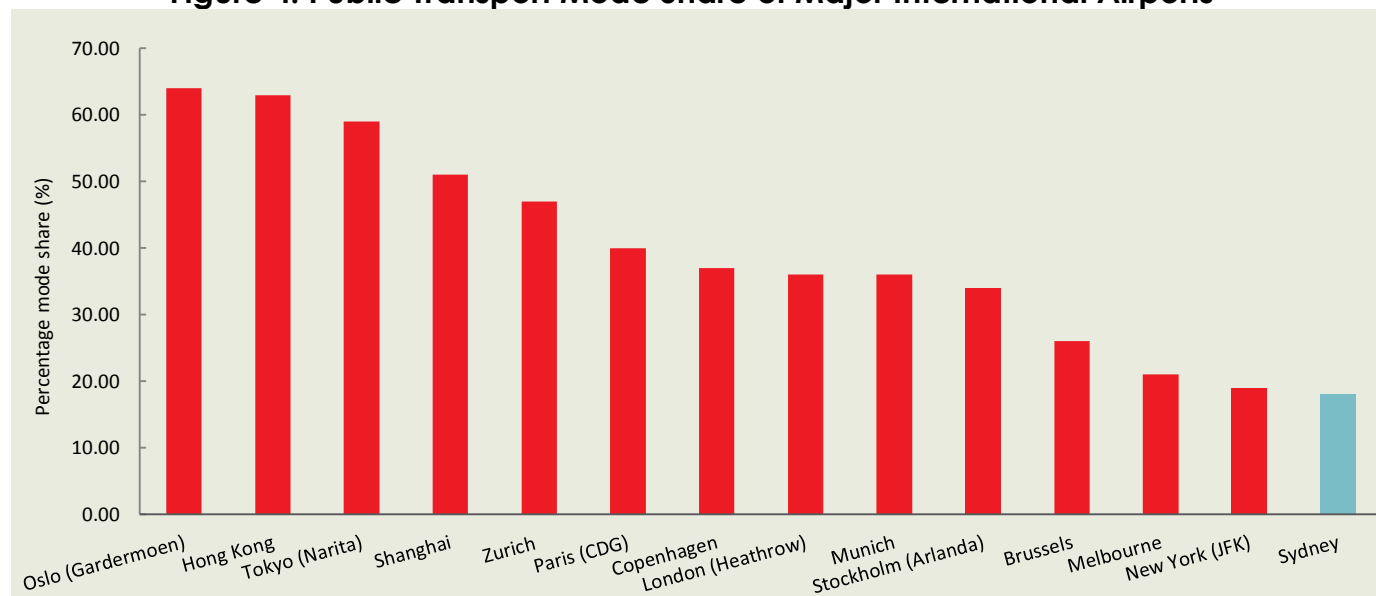
Skyliner Airport Link, Tokyo
Image courtesy of shinji_w

Figure 3: Airport to CBD via public transport* – cost per kilometre



Source: TTF Research, 2013
*least expensive option

Figure 4: Public Transport Mode Share of Major International Airports



Source: Transportation Research Board, Ground Access to Major Airports by Public Transportation, 2008

Cost of inaction

The NSW government must compare the cost of removing the SAF with the benefit of reduced congestion around Sydney Airport. Research by Booz & Company indicates that removing the SAF would deliver a 20 per cent return on investment when considering its benefits to commuters as well as reductions in congestion²³. Further, when combined with an accompanying information campaign, it is predicted that removal of the SAF could delay critical road capacity issues at the airport by between one and four years²⁴.

Cost of a single adult fare:

Central Station to Goulburn
(217 km) - \$8.40

Central Station to International
Terminal (8 km) - \$15.90

Making the Airport Link more competitive by reducing fares is an important investment in the efficiency of two of Australia's largest economic hubs. It is an immediate, measurable and popular way of removing large volumes of traffic from critically congested roads, drive up productivity of one of Australia's principal trade zones, and increase Sydney's attractiveness to travellers, boosting the estimated \$100 billion visitor economy²⁵.

Recommendation: Remove the airport station access fee to increase rail mode share for Sydney Airport

²³ Booz & Company, Impact of Fare Reform on the Sydney Airport Rail Link, prepared for Sydney Airport Corporation, 2011

²⁴ Joint Study on Aviation Capacity for the Sydney Region, 2012

²⁵ Tourism Research Australia, Tourism Industry Facts and Figures, 2012

4. Other measures to make airport travel more attractive

Elimination of the station access fee is the most important but not the only method for increasing patronage on the Airport Link. There are a number of opportunities to tailor service delivery to improve the line's attractiveness to a wider range of airport users.

Real-time and off-site timetable information



Brisbane Airport

The relative price insensitivity of business travellers means they are a challenging target for increased public transport use. By improving information access, there is significant room for growth for this and other reliability-focused groups. One way of attracting business travellers to the Airport Link is greater prevalence of real-time and off-site passenger information.

While Sydney Airport has real-time information displays at both the airport stations and in terminals, greater information regarding the Airport Link should extend beyond the airport itself. One particular opportunity is attracting more business travellers arriving or departing from Martin Place, in Sydney's financial district. Martin Place station does not have a direct train service to the airport, leading many business travellers to travel by taxi instead. However, Martin Place station is located less than 400 metres from St James station, which connects directly to the airport in less than 20 minutes. Greater awareness of St James as a direct airport transport point through information provided at both Martin Place and the Airport, as well as street prompts directing people from Martin Place to St James, are effective and inexpensive initiatives to minimise taxi congestion derived from business travellers.

Existing real-time information displays could also contain live journey times comparing the length of a car journey to the city compared with the same rail journey. This would help highlight the journey-time advantage of Airport Link, particularly during peak hours.

Across other transport modes, greater presence of live passenger information has proven to be not only popular with commuters but also cost effective. For example, in Melbourne, Yarra Trams has installed real-time passenger information displays on major tram corridors, offsetting costs through advertising revenue and partnerships with local businesses.

Recommendation: Establish a greater presence of real-time and off-site displays for Airport Link services and highlight the speed of the rail journey compared with car transport

Mobile technology

Timetable information for Airport Link services must also be easily accessible on smartphone applications. Research undertaken by Metlink, Victoria's public transport authority (now Public Transport Victoria), suggests that 61 per cent of public transport users are now accessing the internet via

mobile devices²⁸. Within the next two to three years, as much as 80 per cent of access to public transport information will happen on mobile devices²⁹.

The current Transport for NSW 131500 website, which provides mobile public transport information across the state, is relatively unknown to foreign and interstate visitors and does not have fully integrated multilingual options. This makes it an ineffective mechanism for delivering information to a large share of airport travellers. The need to provide multilingual service information will become increasingly important as a greater percentage of visitors come from non-English speaking backgrounds. Of most importance will be the need to cater to rapidly growing Asian markets.

Providing easily accessible mobile information is best achieved on a platform that is already familiar to users and is available in multiple languages. For example, Baidu Maps remains the most popular wayfinding application in China but is relatively unknown outside of that country.

Recommendation: Provide timetable information for airport services via third-party sites and applications

Rolling stock

The journey from Sydney Airport is the first experience that visitors will have of Sydney and, in many cases, Australia. It is therefore important that the trip is as pleasant and impressive as possible.

For visitors, Sydney's best should be on display from the start. The NSW government should ensure that all airport services are undertaken by rolling stock dedicated for this purpose. That rolling stock should be either Waratah or Millennium train sets to provide maximum comfort and service. Additional information for visitors could also be provided in carriage.

Ensuring that Sydney's most modern air-conditioned trains serve the airport would also make the service more attractive for domestic travellers.

Recommendation: Prioritise highest quality rolling stock for Airport Link services

Public buses

Public buses represent only four per cent of mode share for Sydney Airport, with only one route on the Sydney Buses network operating from Burwood to Bondi Junction. By comparison, London Heathrow, which is roughly double the size of Sydney Airport, has 29 different routes and a bus mode share three times that of Sydney³⁴.

The absence of adequate bus services to the airport is a direct result of the contract between the NSW government and Airport Link Company. A compensation clause exists within the contract that forces the NSW government to compensate Airport Link Company if public bus services to the airport are

²⁸ Metlink Market Intelligence Fact Sheet, 2011

²⁹ Ibid.

³⁴ Transportation Research Board, Ground Access to Major Airports by Public Transportation, 2008

increased³⁵. Due to this expense the NSW government has not provided any additional bus routes to date. Accordingly, latent demand for additional bus services remains unmet and mode share has stagnated.

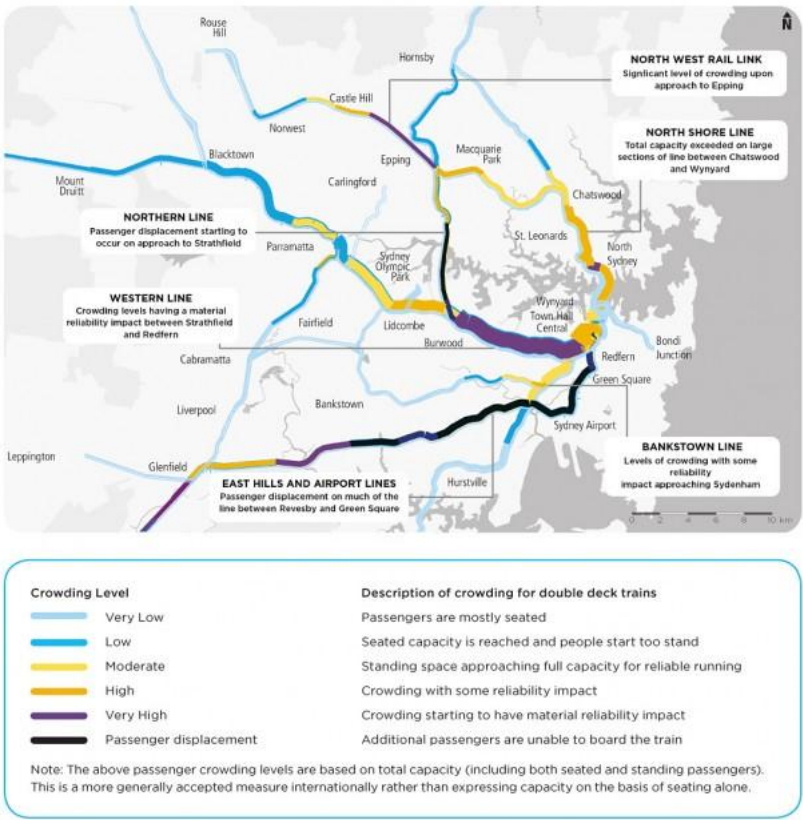
The subsidisation of the station access fee or purchase of Airport Link Company would effectively remove this clause, allowing routes to be dictated by customer demand as opposed to legal obligation. This would significantly improve public transport access to Sydney Airport, particularly to areas not readily accessible by train. As a result, abolition of the station access fee would increase not only increase rail patronage but also significantly improve bus services.

Recommendation: Following removal of the station access fee, expand public bus services to Sydney Airport

5. Managing increased demand

Price reductions for the Airport Link will have a direct and significant increase in demand, requiring a simultaneous increase in service numbers. Current city-bound morning peak services are often at capacity by the time they reach the airport stations due to high commuter demand from the south-west and Illawarra lines. This overcrowding is of particular concern to airport users as they often have large and cumbersome baggage, the effect of which is compounded by CityRail's double-deck rolling stock that is unsuited to large luggage.

Following the commencement of services on the South West Rail Link in 2016 and upgrades to the south-west line, the number of services to Sydney Airport must increase from 8 to 12 per hour by 2016 and eventually to 20. However, this must remain flexible to demand and be enacted sooner if necessary. It is estimated that by 2018, even with 12 trains per hour, many peak services will be at capacity³⁶. Further, if the SAF is removed, the network must remain capable of handling the subsequent spike in passenger demand to ensure airport users can board peak hour services. Longer term, rail upgrades such as automated train protection (ATP), which relays signal information, speed and track information, and can automatically slow trains to prevent accidents, should be prioritised along the airport line to increase the maximum number of services per hour. Further, single deck trains



Source: Transport for NSW, 2012

³⁵ Productivity Commission, Economic Regulation of Airport Services Report, 2012

³⁶ Joint Study on Aviation Capacity for the Sydney Region, 2012

should be introduced along the Airport Line not only to reduce crowding issues but also to better cater for airport users with baggage.

Recommendation: Prioritise infrastructure, service and signalling upgrades for the airport line

6. Conclusion

Sydney will need to respond to growth in demand for airport travel with quality land transport options which are competitive on price, quality, and travel time. The most important step to achieve this is the removal of the station access fee at Sydney Airport train stations. Under the current cost-recovery model, airport visitors are often faced with an active financial disincentive for using public transport. This has become a direct cause of the rising congestion that faces the regional road network. This will become an increasing concern given the rapid growth of Port Botany, Sydney Airport, and large residential developments in Sydney's south-west.

The present fare structure for the Airport Link acts as an active disincentive for airport users to use the line and effectively prevents the use of a comprehensive public bus network. On a per kilometre basis, the Airport Link is unrivalled in expense by global standards. As a result, public transport mode share for Sydney Airport remains considerably below its potential.

TTF believes the NSW government should remove the station access fee either by subsidising the line's operator or wholesale purchase of the asset. While this is a considerable cost, there is substantial analysis illustrating that it is a worthwhile investment in the efficiency of one of Sydney's most important economic regions. Failure to do so will have increasingly severe consequences for commuters, freight operators, and airport users. In addition, improved information services and rolling stock will increase the attractiveness of the Sydney Airport Link and improve first and last impressions for visitors.