



## Passenger movements between Australian cities, 1970–71 to 2030–31

BTRE has recently completed estimates of passenger movements by various modes (i.e. air, car, coach and rail) between major Australian cities (covering ten main routes) from 1970–71 to 2003–04 and predicted passenger flows up to 2030–31.

An examination of this data shows some interesting results emerging.

### Passenger movements between 1970–71 and 2003–04

1. Intercity passenger movements (in terms of passenger-kilometres) have grown over the period from 1970–71 to 2003–04 at an average annual growth rate of 3.9 per cent (Figure 1). However, travel on each of the three long corridors (Eastern States–Perth, Eastern States–Northern Territory and Melbourne–Brisbane) has grown at more than five per cent per year, while travel on each of the other seven routes has grown at less than four per cent annually. The faster growth on the longer routes reflects the fact that, after deregulation, the airlines cut fares more on longer routes than on shorter routes. As well, Perth, Brisbane and the Northern Territory have had faster population growth.
2. Air travel grew at 5.9 per cent per annum from 1970–71 to 2003–04, faster than the growth in total passenger kilometres.
3. Car travel grew at 2.0 per cent per annum from 1970–71 to 2003–04.
4. Coach travel grew only 1.1 per cent per annum from 1970–71 to 2003–04. From 1970–71 until 1988–89, coach travel grew at 7.4 per cent per annum (deregulation of the coach companies occurred during this period). Following air deregulation in 1990–91, coach travel declined at 6.3 per cent per annum to 2003–04.
5. Rail travel declined 0.9 per cent per annum between 1970–71 and 2003–04.

## Passenger forecasts between 2004–05 and 2030–31

Forecasts by route to 2030–31 were made using a gravity model, with total passenger travel growing slightly more than one to one with growth of national Gross Domestic Product (GDP) per capita and 0.5 to one with real cost of travel declines. Mode shares were then determined by trend extrapolation. Details will be provided in a forthcoming BTRE publication on its OZPASS model.

1. Total passenger kilometres are forecast to grow at an average annual rate of 2.5 per cent, slower than the past growth rate. In the 1990s, travel growth was boosted by airline deregulation and by economic growth that was faster than what is forecast to 2030–31.
2. Between 2004–05 and 2030–31, air travel is expected to grow annually by 2.9 per cent, car travel by 1.6 per cent and rail travel by 0.6 per cent. By contrast, coach travel is expected to decline by 0.6 per cent per year.

### Estimate and forecast of passenger movements for individual routes

The key results from the data presented in Table 1 are highlighted below:

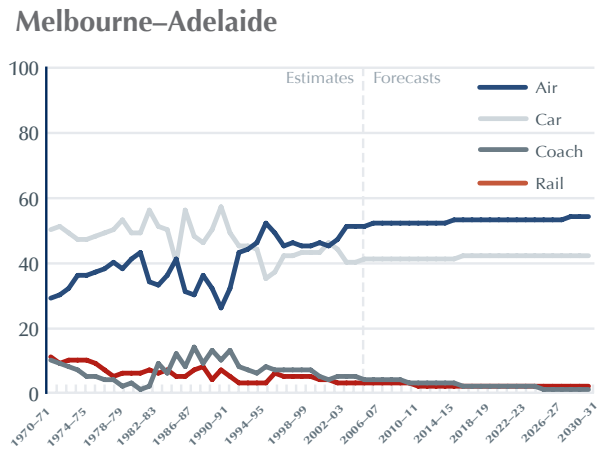
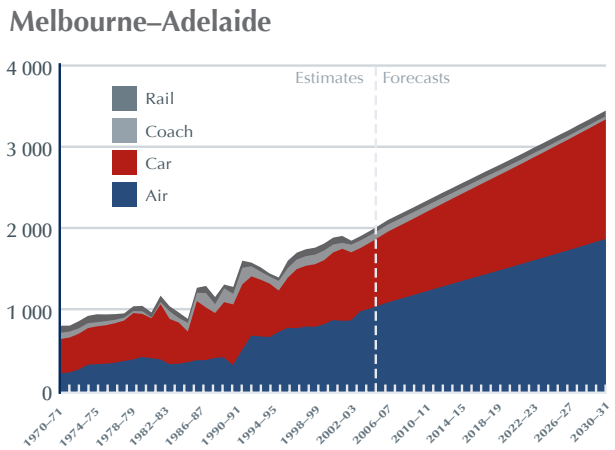
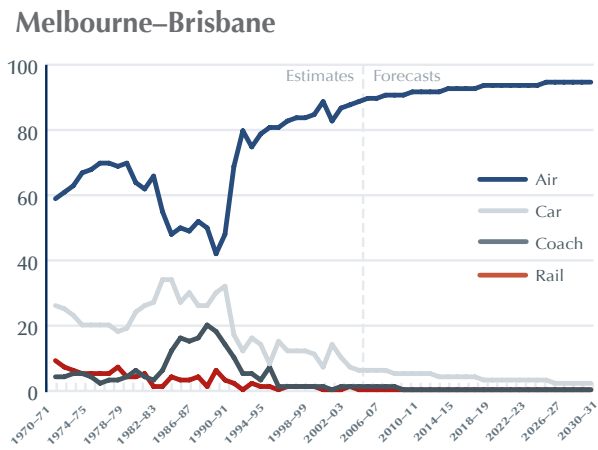
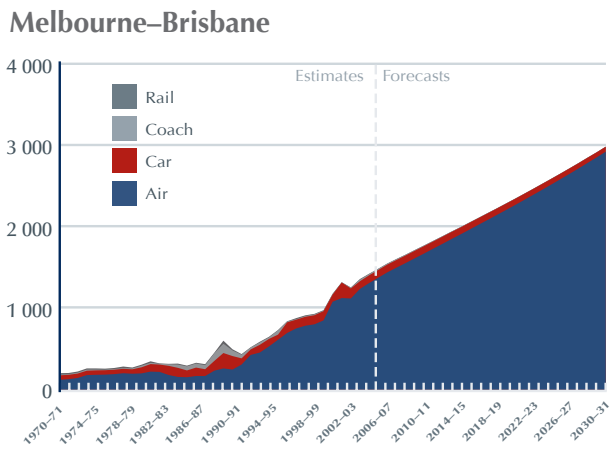
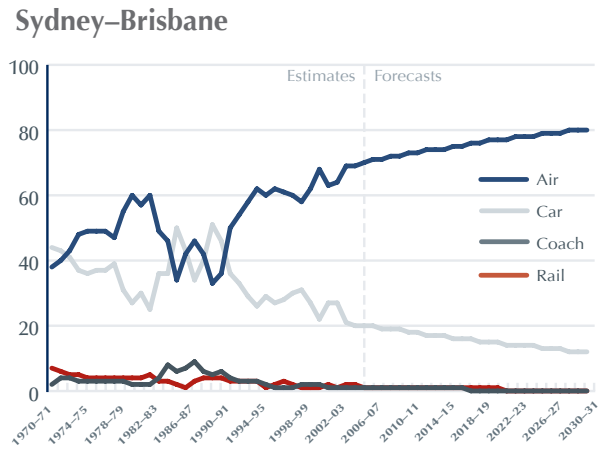
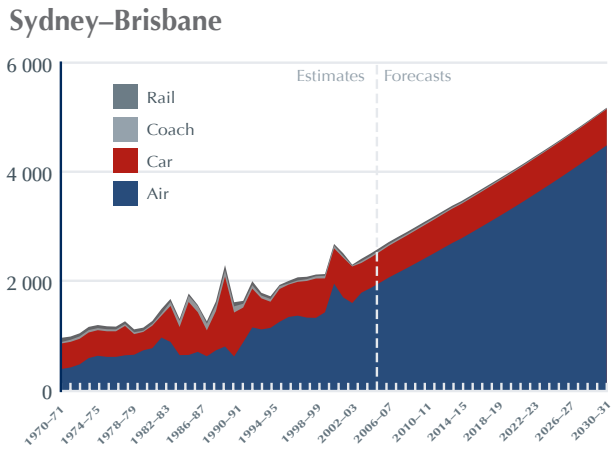
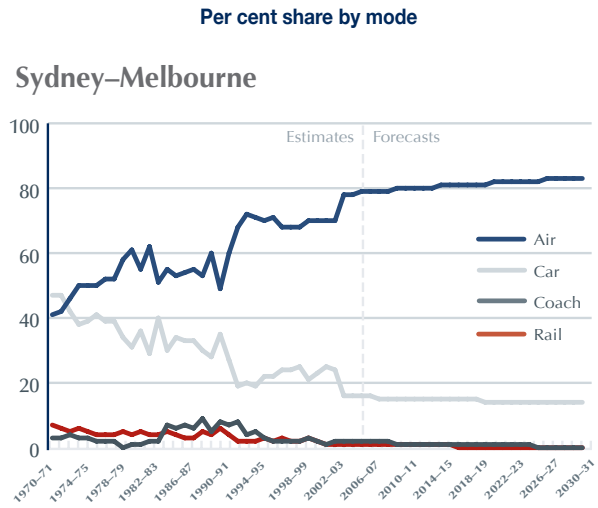
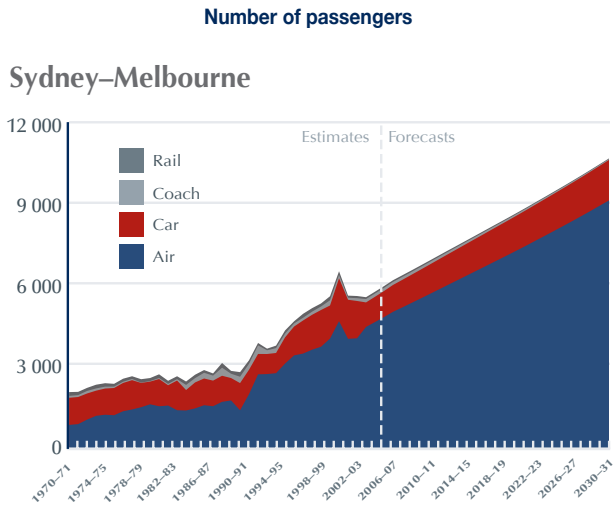
1. Travel on the Sydney–Melbourne route (air distance 706 km) grew 3.0 per cent per annum from 1970–71 to 2003–04, while the forecast growth is 2.4 per cent per annum. The modal share of air has grown from 41 per cent in 1970–71 to 78 per cent in 2003–04, and should be very similar (83 per cent) in 2030–31.
2. Passenger movements on the Sydney–Brisbane route (753 km) grew 2.8 per cent per annum, while the forecast growth is unchanged at 2.8 per cent. The modal share of air has grown from 38 per cent in 1970–71 to 69 per cent in 2003–04, and should increase slightly (up to 80 per cent) until 2030–31.
3. Travel on the Melbourne–Brisbane corridor (1381 km) grew 5.9 per cent per annum and the forecast growth is 2.9 per cent. The modal share of air has risen from 59 per cent in 1970–71 to 88 per cent in 2003–04, and is expected to increase to 95 per cent by 2030–31.

4. Passenger travel on the Melbourne–Adelaide route (643 km) grew 2.7 per cent per annum. The forecast growth rate is 2.2 per cent each year.
5. Travel on the Sydney–Adelaide route (1167 km) grew annually by 3.5 per cent, while the forecast growth rate is 2.1 per cent per annum. The modal share of air has grown from 37 per cent in 1970–71 to 82 per cent in 2003–04 and is expected to grow to 91 per cent by 2030–31.
6. Passenger movements on the Melbourne and Sydney–Gold Coast route (average about 1000 km) grew 3.8 per cent per annum. The modal share of air has grown from 20 per cent in 1970–71 to 66 per cent in 2003–04. The Gold Coast being a predominantly tourist destination, the shift from car to air following deregulation was faster on this corridor than on other corridors. The forecast growth rate is expected to drop to 3.0 per cent, with further gains in air mode share at the expense of car.
7. Passenger movements on the Canberra–Sydney route (236 km) grew 3.8 per cent per annum during 1970–71 to 2003–04. Following the construction of the new Hume Highway in the early 1980s, passenger movement grew sharply. The forecast growth rate is 2.0 per cent.
8. On the longer routes (Eastern States–Perth, Eastern States–Tasmania and Eastern States–Northern Territory), the average annual growth rate of passenger travel varied between 3.9 and 6.2 per cent. The forecast growth rate is expected to vary from 2.3 to 2.8 per cent. The modal share of air should continue to grow for Eastern States–Northern Territory and Eastern States–Perth. On the Eastern States–Tasmania route, mode shares should remain relatively constant after 2004–05, which saw the introduction of discount airfares.

In conclusion, on all routes, except the short Canberra–Sydney route, air travel has been progressively taking mode share from car plus coach and rail. This effect will be less important in the future as the rate of mode share capture by air slows.

Overall, the rate of total passenger travel growth on the corridors is expected to continue to grow more quickly than Gross Domestic Product (GDP).

Figure 1 The ten routes in graphs<sup>a</sup>



a: 'other' mode not included.

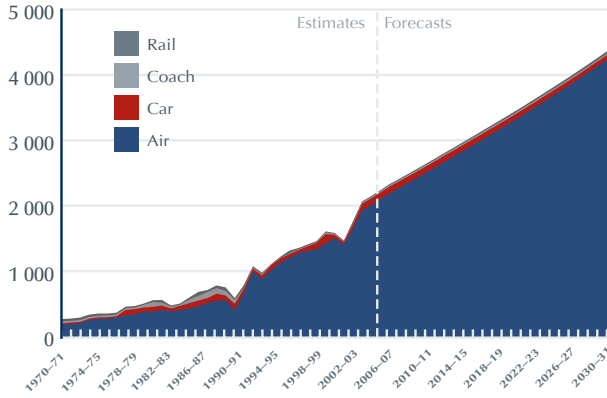


Figure 1 The ten routes in graphs (continued)<sup>a</sup>

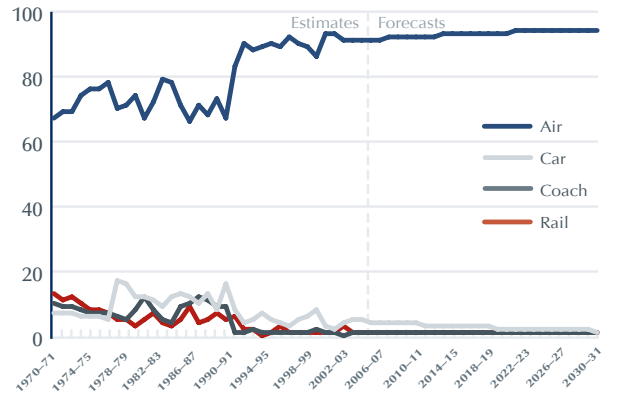
Number of passengers

Per cent share by mode

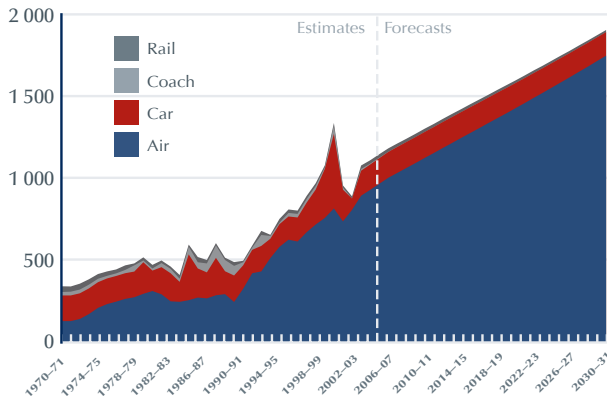
Eastern States–Perth



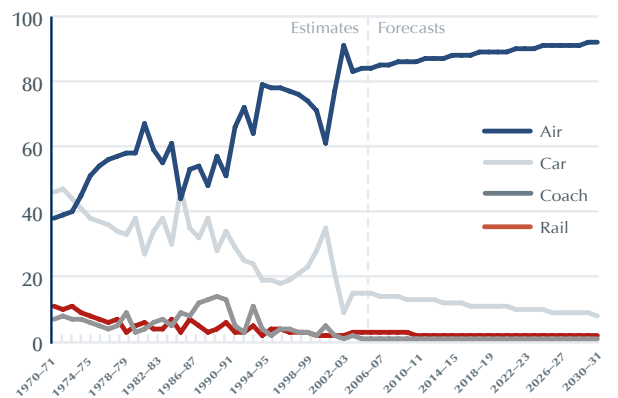
Eastern States–Perth



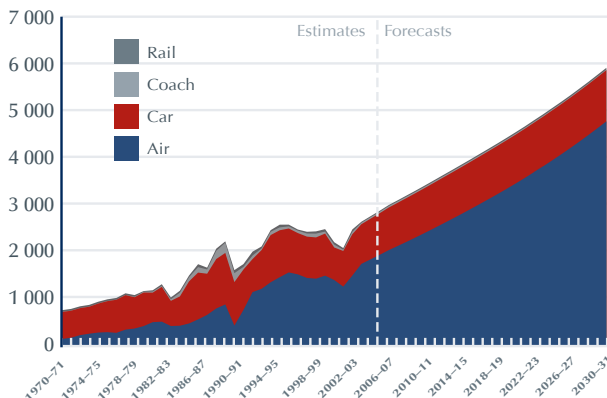
Sydney–Adelaide



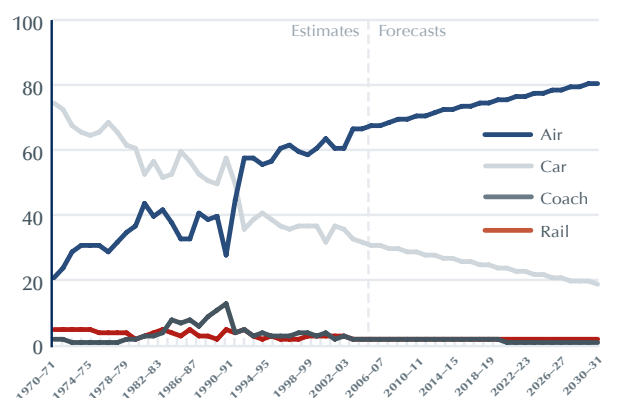
Sydney–Adelaide



Melbourne+Sydney–Gold Coast



Melbourne+Sydney–Gold Coast



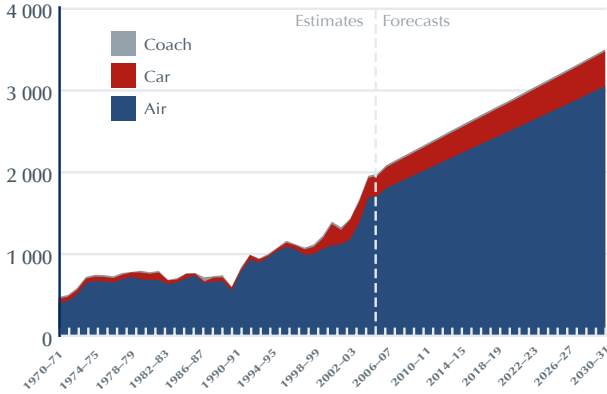
a: 'other' mode not included.

Figure 1 The ten routes in graphs (continued)

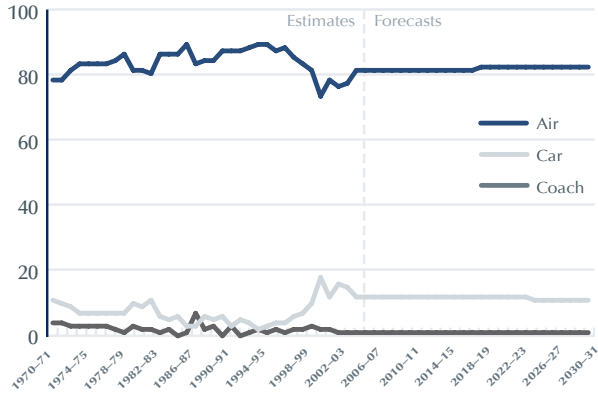
Number of passengers

Per cent share by mode

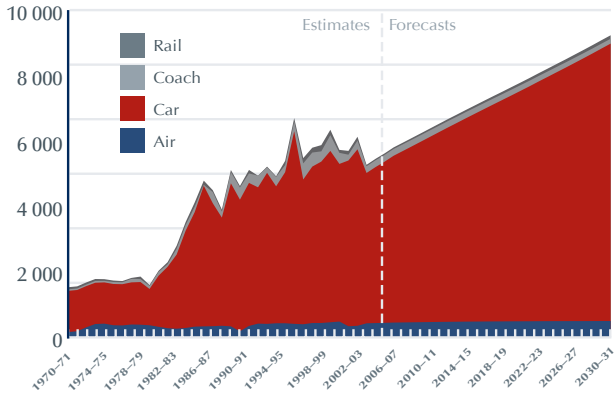
Eastern States–Tasmania



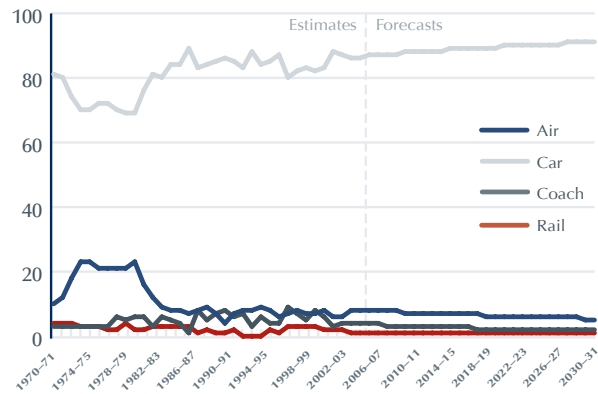
Eastern States–Tasmania



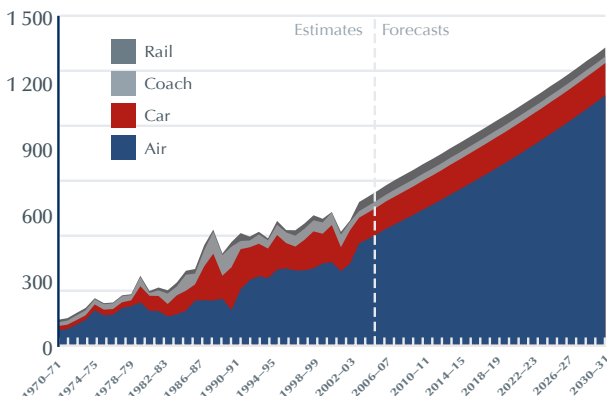
Canberra–Sydney



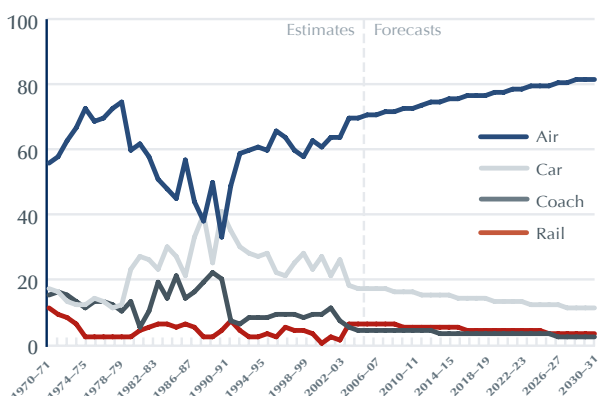
Canberra–Sydney



Eastern States–Northern Territory



Eastern States–Northern Territory









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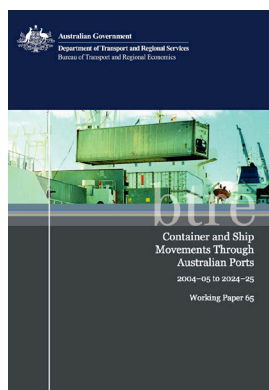
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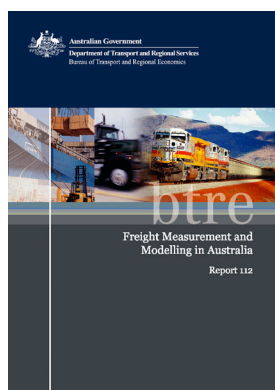
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