
7 Rail infrastructure

■ Summary

- › Rail services largely cater for local commuting in New Zealand. On these services, tourists make up a small minority of users. There are, however, three 'Scenic Journeys' throughout New Zealand that attract tourists in larger numbers.
- › Utilisation rates for these routes are very high during the 'high season' of February to March. It is uncertain how much additional capacity can be provided, even if demand were to continue to increase.

7.1 Rail infrastructure demand

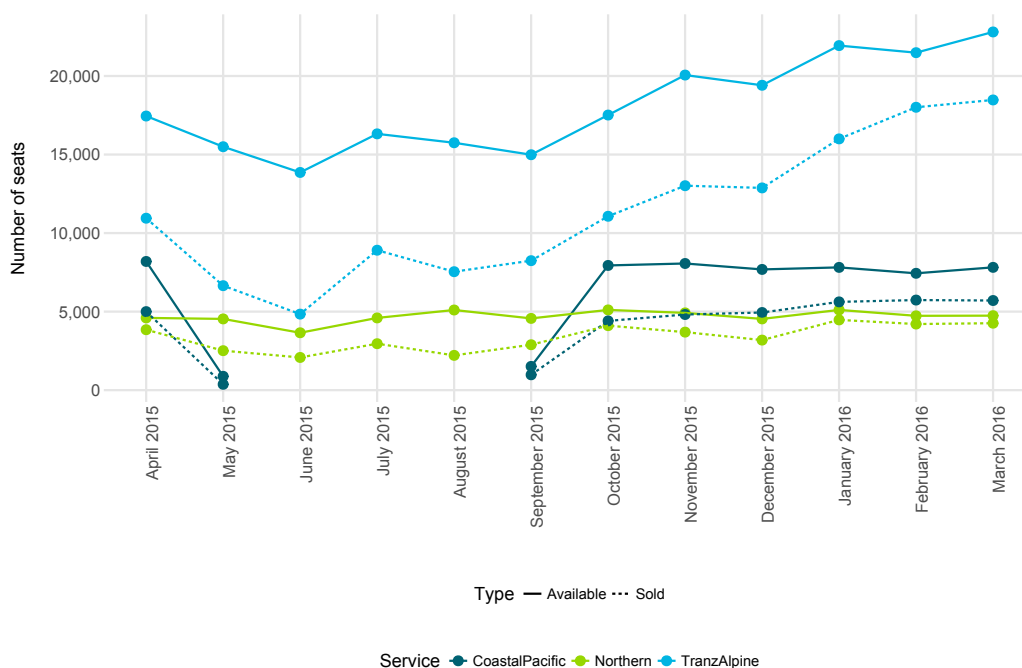
KiwiRail operates the rail network and freight fleet, while local governments contract metro services and own the metro fleet. Because local city rail networks have an extremely high proportion of commuters on board, it is not easy to identify demand there, as tourists are a small component.

KiwiRail operates three 'Scenic Journeys' throughout New Zealand, of which tourists are a large proportion of passengers. These journeys are as follows:

- › The Northern Explorer travels from Wellington through Palmerston North, Ohakune, the Tongariro National Park, and Hamilton, to Auckland. The Northern Explorer runs southbound three days a week, and northbound three days a week.
- › The Coastal Pacific connects Christchurch through Kaikoura to Picton. The Coastal Pacific operates daily between September and May.
- › The TranzAlpine connects Christchurch with Greymouth, through Arthur's Pass. The TranzAlpine runs daily throughout the year.

The demand across the year is highly seasonal across all KiwiRail Scenic Journeys, in line with tourism seasonal trends. The TranzAlpine, with a higher percentage of international passengers, is the most seasonal of the KiwiRail Scenic Journeys, and in addition has more capacity to cater to the extra demand during these months. For example, last year, there were 5,000 passengers on the TranzAlpine in June, whereas there were 18,000 passengers in March.

Figure 35: Scenic Journeys capacity and demand



Source: PriceTech

7.2 Rail infrastructure supply

New Zealand has approximately 4,000 kilometres of rail track, 1,656 bridges, and 1,400 public road level crossings. KiwiRail owns 189 mainline locomotives and 4,820 freight wagons. The rail network and operations are valued at \$922 million, excluding the land beneath the rails, which is valued at \$3.2 billion.²⁶

7.2.1 Scenic Journeys capacity

The capacity of Scenic Journeys is affected by the number of carriages attached to trains. When demand is low, carriages are left behind at the depots. With that in mind:

- › For the Northern Explorer, capacity of seats varied between 4,500 and 5,100 per month across the March 2016 year, apart from June, where capacity fell to 3,600.
- › The Coastal Pacific service has 7,500 to 8,000 seats across its season, with the exception of the ‘shoulder months’, where trains only ran a part of that month.
- › The TranzAlpine service has many more seats than the other two, growing steadily from the low of 13,800 in June 2015 to a high of 22,800 in March 2016.

The higher percentage of international passengers utilising TranzAlpine during the peak season is driven by two main factors. First, there is a higher number of international tourists visiting New Zealand during these months, which, as expected, increases the demand on this

²⁶ National Infrastructure Unit. (2015). *Infrastructure evidence base 2015 refresh: Transport sector*. Retrieved from <http://www.infrastructure.govt.nz/plan/evidencebase/2015-nip-evidence-transport.pdf>

service. Second, the Northern Explorer and Coastal Pacific have no space to cater to the extra demand during these months. Consequently, tourists wishing to take a train may have to settle for using TranzAlpine instead.

Utilisation rates for the three scenic rail journeys are highest in February, March and April. Utilisation for the Northern Explorer approaches 90 per cent, suggesting trains are well-patronised during that period.

Across the year, it is clear that rail services can adjust capacity by adding/removing passenger cars from daily train services. However, it appears that some services are reaching their limit during high seasons.

7.2.2 Rail infrastructure investment

Auckland Transport is investigating adding light rail or heavy rail lines to replace some of the most heavily used bus lines in the region. The study is considering replacing the bus routes on Dominion Road, Manukau Road, Mt Eden Road, Symonds Street and Queen St with light rail routes, and providing a link to the existing airport rail network. The cost of this expansion is estimated to be approximately \$1 billion. The network could improve access for tourists to Auckland who don't use the road network, and reduce congestion for those who do. It will also be important for business events. The estimated time to travel from Aotea to the airport would be 41 minutes, while travelling from Britomart to the airport would take between 39 and 44 minutes.

Figure 36: Suggested Auckland light rail expansion



Source: Auckland Transport