Department of Education and Early Childhood Development

Conveyance Allowance – Accessibility Index

October 2012




Purpose of the Accessibility Index

The Department's Accessibility Index (AI) measures the accessibility of schools based on the proximity to and the frequency of public transport serving the Urban Growth Boundary (UGB) postcode areas. The index determines whether schools within UGB postcode areas remain eligible for conveyance allowance each school year.

Background

In 2013 the eligibility criteria for the Conveyance Allowance Program (CAP) will be changing. Melbourne's metropolitan boundary, which is used to determine allowance eligibility, is being expanded and aligned with the UGB. The new metropolitan boundary reflects Melbourne's growth and the expansion of the public transport network.

Students attending schools located within the revised metropolitan boundary will no longer be eligible to claim the conveyance allowance. However, the Department recognises that some postcode areas within in the UGB have limited public transport options, which can restrict students' ability to access schools.

The Department commissioned the creation of an index to measure student transport accessibility within UGB postcode areas. If the index deems a UGB postcode area's transport accessibility as well developed then students attending schools in that postcode area are ineligible to apply for a conveyance allowance.

Accessibility Index criteria

Public transport services across Melbourne and regional Victoria are compared using standardised accessibility factors. Postcodes areas are then given a score. The lower the score the more limited the access. Conversely, the higher the score, the greater the accessibility.

The standardised accessibility factors are:

- School catchment – transport routes and public transport (school bus network) within a 400 metre catchment of a school
- Network coverage – the proportion of the population (by postcode) residing within a 400 metre catchment of the route
- Quality of service – the frequency on these routes during peak student demand periods.

School catchment

School catchments define the safe and walkable distance between a transport route and a school. Routes that operate within the school catchment are deemed to connect students to educational opportunities and contribute to network accessibility. Routes that operate outside the school catchment do not provide an accessible connection to educational opportunities.

The catchment of a school is illustrated in Figure 3 (Measures of accessibility).

Network coverage

Network coverage defines the proportion of people who have convenient walkable access to transport services.

Public Transport Victoria (PTV), which is part of the Department of Transport, regard a 400 metre buffer along a route as a reasonable walking distance to bus services in established and urban growth areas *(Department of Transport p.7 Public Transport: Guidelines for Land Use and Development 2008)*.

Quality of service

Quality of service is determined by assessing:

- if transport services are supplied during periods of peak student demand; and
- the frequency of services supplied during the periods of peak demand.

In high density areas public transport supply and demand are often in equilibrium. However in less densely populated areas, public transport service levels can vary significantly and several services per hour or per day may only be available.

The Accessibility Index takes into account school start and finish times and its alignment with a postcode area's public transport timetable. Timetabled services may be infrequent enough, particularly afternoon services, for it not to be considered practicable for students to use.

The threshold

Advice from transport experts and a comparison between postcode areas informed the Department's decision on where to set the threshold for the Accessibility Index. That is, the point where the accessibility score is high enough to withdraw eligibility for conveyance allowance and apply the same exclusion to schools deemed within metropolitan Melbourne.

The threshold of 0.4 was chosen so as not to disadvantage postcode areas within the old metropolitan boundary with similarly scored postcodes in the new metropolitan boundary.

Postcode areas with an accessibility score of 0.4 and above have access to public transport that is equal to the accessibility score of postcode areas within the current Melbourne metropolitan area. As such, students attending schools within these postcode areas are ineligible to claim the conveyance allowance.

Students attending schools in postcode areas with an accessibility score of 0.39 and below have access to public transport that is in line with the services available in rural and regional Victoria, and as such are eligible to claim the conveyance allowance.

UGB postcode exemptions

The postcode areas listed below are within the new UGB and have an accessibility score of 0.39 and below. Schools located within these postcode areas are able to continue claiming conveyance allowance until the accessibility index score improves above the threshold (this will occur with improved public transport services or increased service frequency).

Figure 1: Postcodes within the UGB with an accessibility score of 0.39 or less

Postcode/Suburb	Postcode/Suburb
3026 Laverton North	3912 Pearcedale
3027 Williams Landing	3913 Tyabb
3045 Melbourne Airport	3915 Hastings
3062 Somerton	3918 Bittern
3140 Lilydale	3919 Crib Point
3211 Little River	3930 Kunyung
3335 Rockbank	3931 Mornington
3427 Diggers Rest	3933 Moorooduc
3429 Sunbury	3934 Mount Martha
3750 Wollert	3936 Arthurs Seat
3753 Beveridge	3938 McCrae
3754 Doreen	3939 Boneo
3796 Mount Evelyn	3940 Rosebud West
3807 Beaconsfield	3941 Rye
3809 Officer	3942 Blairgowrie
3810 Pakenham	3944 Portsea
3911 Baxter	3978 Cardinia

Annual review of Accessibility Index scores

The Department will review accessibility scores annually each March. Schools in postcode areas with improved accessibility scores that exceed the threshold will be advised in advance for the start of the next new school year.

Figure 2: Accessibility scores – how public transport coverage alters the score

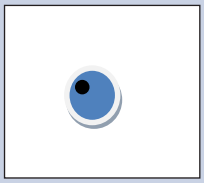
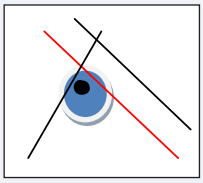
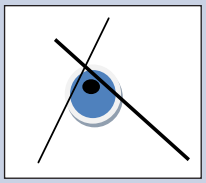
Some examples of the accessibility index scores are provided below along with the factors that contributed to the score.

Postcode	Accessibility score	Number of schools	Schools with PT within 400m	PT services avail in the hours before and after school	Average service frequency per route in the hours before and after school
A	0.45	13	9	11^	2.4*
B	0.35	9	9	5^	1.8*
C	0.25	9	8	14^	1.4*

^ Generally the number of routes servicing schools indicates the level of network coverage to the school. More routes servicing more schools at a higher frequency results in a higher accessibility score.

* Accessibility scores are lower when schools are serviced by fewer services or they are less frequent during peak school travel times.

Figure 3: Measures of accessibility

Relevant Measures of accessibility		
School catchment		Define a catchment based on the location of the school and the distance to transport routes (400 metres)
Network coverage		Identify which transport routes are within the school catchment and measure the proportion of the population in a postcode that reside within a safe walkable distance of these routes (400 metres)
Quality of service		Measure service frequency on these routes during peak student demand periods.