

Welcome to Issue 82 of *Research Matters*, the Department of Environment, Land, Water & Planning's quarterly planning research bulletin, featuring DELWP research and analysis, news about recently released data, and research from other sources. If you have any questions or comments, you can contact us at:

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In this issue...

In this issue we present research and analysis from the Land Use and Population Research team.

Two of the articles have a regional theme. The first looks at commuting patterns for the largest regional cities in Victoria. Census data enables place of work and place of residence to be compared so that journey to work patterns can be analysed.

The second article uses imputed migration data to re-examine patterns of young adult retention in (and attraction to) regional cities. Net loss of this group has been common in the past, however, taking a long view of 40 years, the trend for younger working ages (20 to 39 years) shows a positive turn for the three largest regional cities. Net gains of this age group are now emerging in the municipalities of Greater Geelong, Ballarat and Greater Bendigo.

The final article presents the latest data on births in Victoria. The state is experiencing quite a boom in newborns with historically high numbers of births being recorded for 2016.

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Commuting patterns in Victoria’s largest regional cities

The census records an individual’s place of work as well as their place of residence. This allows us to determine patterns of journey to work.

For most local areas, the majority of commuter trips occur within the locality itself. This is the case for larger city LGAs as shown in figure 1.

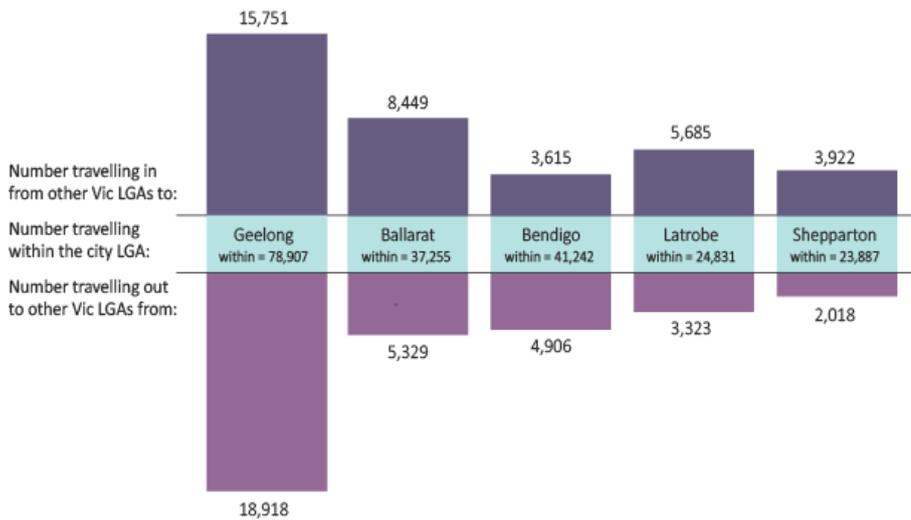


Figure 1: Commuting patterns for selected regional city LGAs, 2016
Source: ABS Census 2016

In the five city LGAs presented in the chart, the scale of intra-municipal travel is far larger than the number travelling in and out. In terms of in and out flows, Geelong and Ballarat show the largest numbers moving in and out of the municipality (35K and 14K respectively) reflecting their size and relative closeness to Melbourne. Bendigo and Shepparton have higher levels of self-containment with more than 80 percent of commuters travelling within the LGA. The size of both LGAs also affects this proportion as they contain a much larger area of hinterland than, say, Ballarat.

While intra-municipal flows are generally the largest component of commuter movement, inter-municipal flows are an important indicator of the relationship between different locations. For most regional city LGAs, neighbouring municipalities form key sources and destinations of commuters. The maps in figure 2 are for Greater Bendigo, however they are typical of the pattern of inward and outward movement seen across regional Victoria, highlighting that commuting patterns are strongly affected by distance.

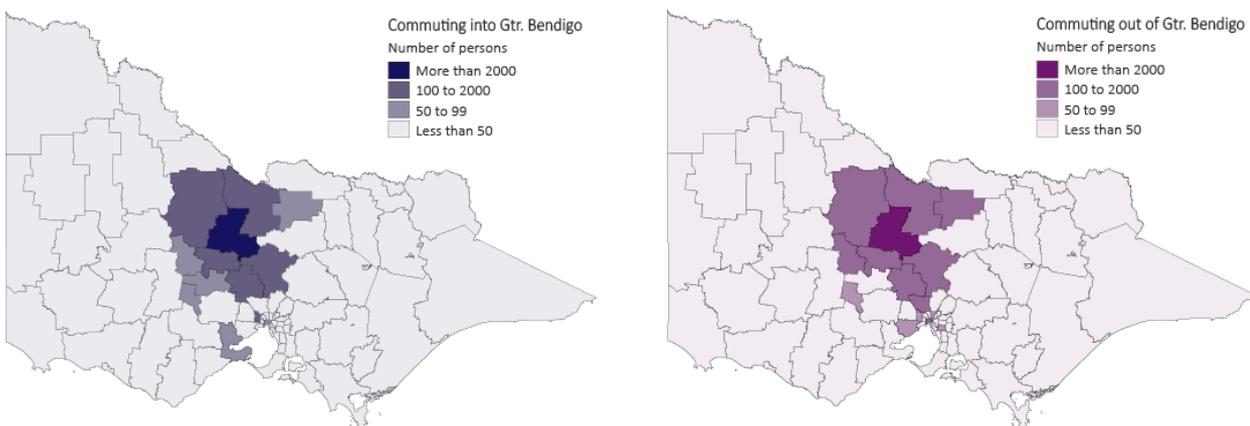


Figure 2: Commuting flows for Bendigo LGA, 2016
Source: ABS Census 2016

Because the Melbourne metropolitan area is so large in terms of population and economic activity, it is interesting to see the commuting relationships with regional cities in a 1-2 hour radius. Figure 3 shows the relationship of the five closest cities with the Melbourne metropolitan area. Geelong and

Bendigo have more commuters travelling outwards to other Victorian municipalities than inwards from them, while Ballarat, Latrobe and Shepparton have a higher number of commuters travelling into those cities than leaving them.

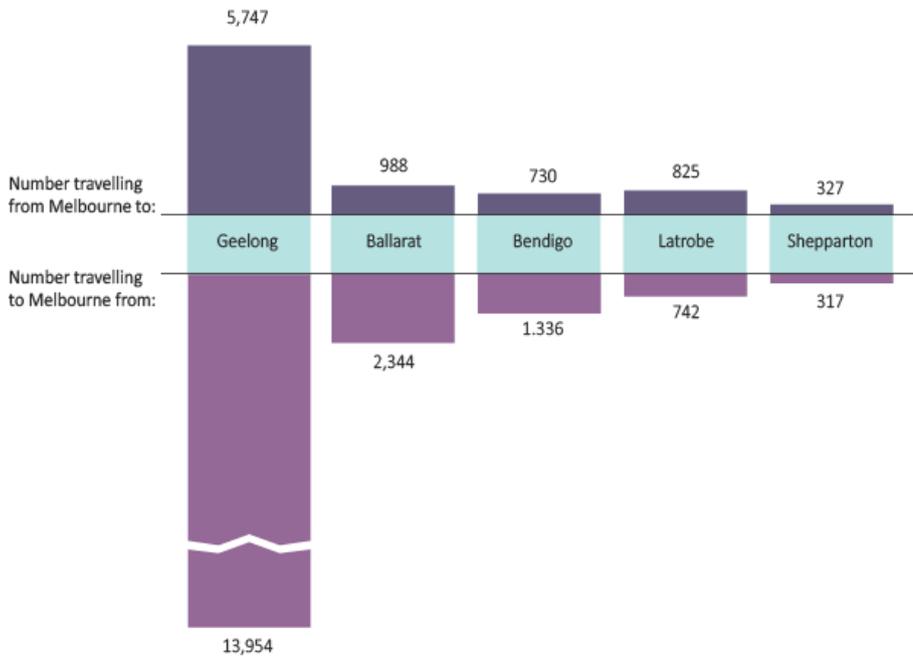


Figure 3: Commuting flows between Melbourne and selected regional city LGAs, 2016
 Source: ABS Census 2016

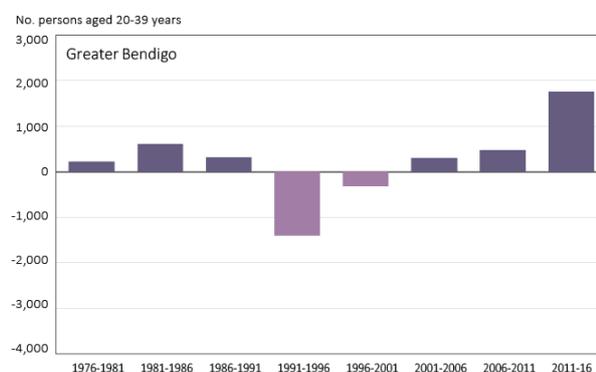
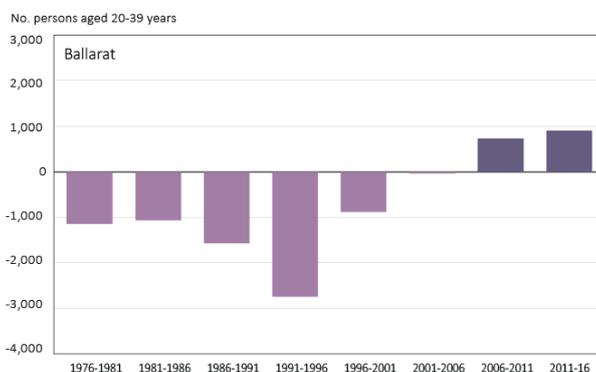
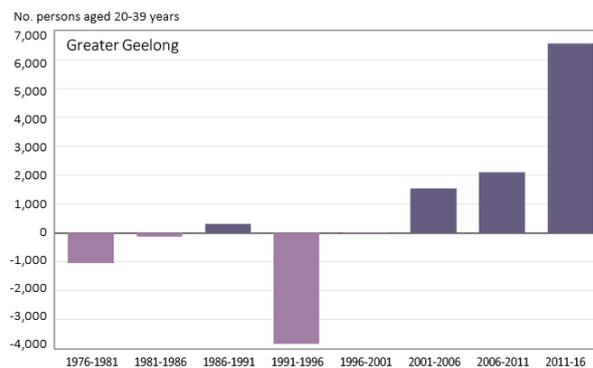


Latrobe Terrace Geelong. Photo: DELWP

Attracting and retaining working age populations: evidence from Victoria’s largest regional cities

Regional areas have traditionally experienced a net loss of young adults. In many cases this is due to people leaving for city regions to undertake higher education and gain broader employment opportunities. The trend is a very long standing one. Based on longitudinal data, it has been estimated that 29% of regional school leavers who move to a capital city, return to regional areas by the age of 23 (Hillman & Rothman 2007, p. 26; DELWP. 2016, p. 9). Because longitudinal data is limited, it can be difficult to ascertain trends across a persons’ lifecourse, however, migration may be imputed by examining population change and excluding the components of births and deaths from that change. Imputed net migration therefore represents the amount of population change during a given period that was not due to births or deaths. It is not a count of actual migration movements but an imputation of them.

The imputed migration data presented in the charts below is for the age group 20 to 39 years of age. This age group is important demographically (child bearing years) and economically (early- to mid-working age). The 5-year time periods cover the period 1976-1981 to 2011-2016 which provides a long period of time to review trends and patterns. Taking the example of Greater Geelong, the effect of the early 1990s recession can be seen through a strong net loss of this working age group. The data also reveal the recovery to net migration gain through the 2000s and particularly in the most recent intercensal period to 2016. Greater Bendigo and Ballarat show a similar pattern of recovery. While imputed data do not reveal whether net migration gain is due to more people remaining in an area or more being attracted, it nevertheless suggests a positive trend may be occurring. Regional cities can benefit from gains in this important age group.



Imputed net migration for age group 20-39, selected regional city LGAs, intercensal periods 1976-81 to 2011-16
 Source: DELWP 2018, unpublished data

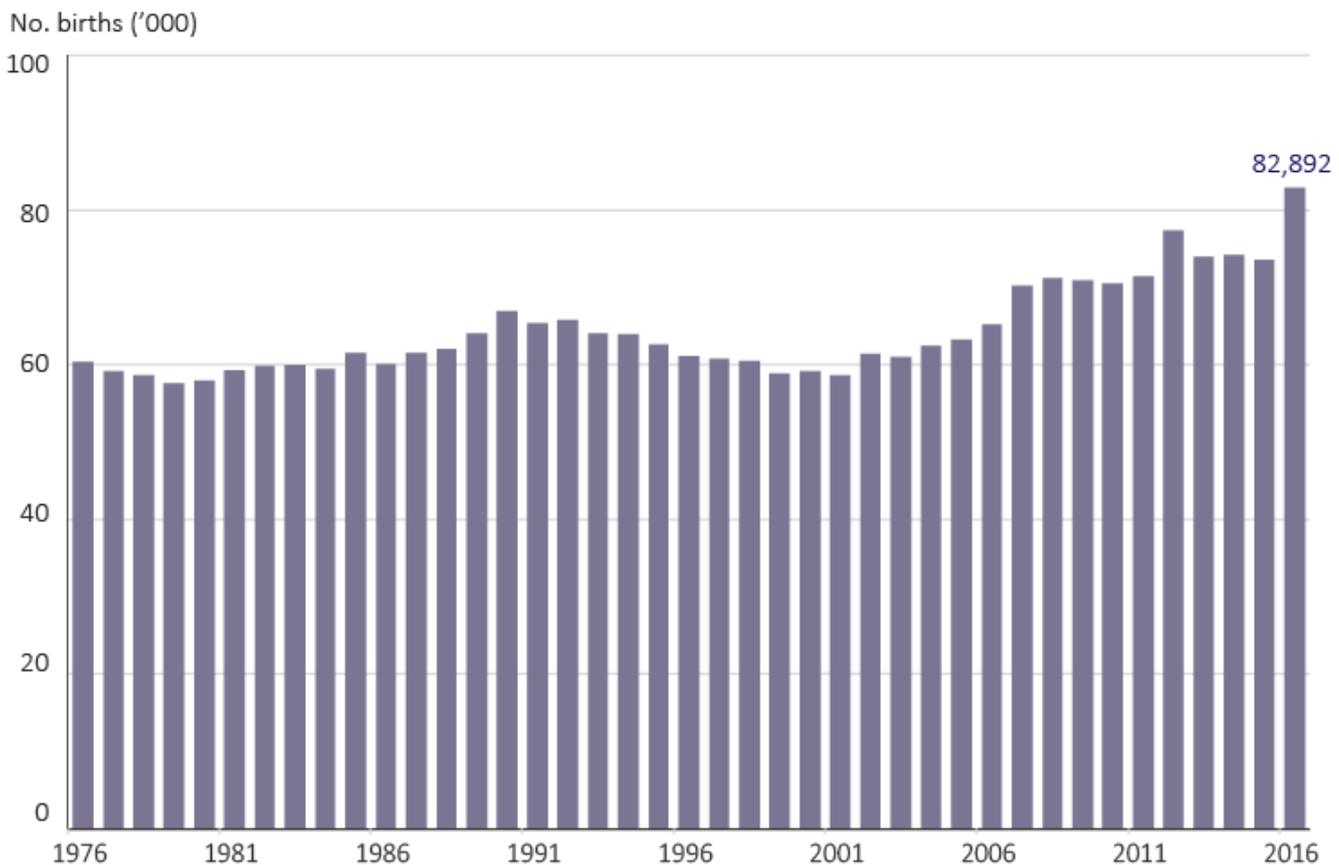
More babies for Victoria

The Australian Bureau of Statistics (ABS) releases an annual report on births called *Births, Australia*. This publication brings together statistics on births and fertility at different geographical levels from Australia down to Local Government Areas (LGAs) and Statistical Areas Level 2 (SA2s).

If you think you are seeing more babies around Victoria, that is probably because you are. That is the latest take-home message from *Births Australia 2016* which shows that 2016 was a record year with 83,000 new Victorians added to the population. The majority of these births (80%) occurred in Melbourne, with the outer growth area LGAs of Melbourne leading the way. The LGA of Casey had

5,202 births – around 100 a week. Wyndham, on the other side of Melbourne, had 90 per week (4,680 for the year). In regional Victoria, it was Greater Geelong which led the count with 57 births per week (2,988 for the year).

If you are surprised by this record haul, you have good reason to be because it represents a marked departure from a trend that lasted from the 1970s through to the late-1990s which saw births hover, almost unchanged, at around 60,000 per annum. It was only in the early 2000s, that this new trend of an increasing number of births commenced. Since 2001, the annual number of babies born has increased from 60,000 to over 80,000 today.



Births per annum 1976 to 2016

Sources: ABS 2014, *Australian Historical Population Statistics*, table 4.1 (births), cat. no. 3105.0.65.001; ABS 2017, *Births Australia 2016*, cat. no. 3301.0