

Welcome to Issue 86 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...

Welcome to the June 2019 edition of *Research Matters* in which we present research and analysis from the Land Use and Population Research team. In the last edition, we focused on metropolitan Melbourne; in this edition we turn to non-metropolitan areas of the State.

The first article takes us to the beach with a demographic overview of coastal Victoria. It challenges the view that all coastal areas experience high population growth and examines components such as migration and natural increase to explain the role they play in determining growth rates.

The second article looks at a specific group of workers measured by the ABS census. This is the industry category of "professional, technical and scientific services". While metropolitan areas have higher proportions of people working in this category than do regional areas, there are non-metropolitan locations in Victoria which have seen a rapid rise in this category in the past few decades.

The final article also draws upon census data. It examines the location of those working in agriculture. While we tend to think of farmers living on their rural property, there has been a long-standing trend of farmers moving into town. The data show that this is less likely to be a move into a small or medium sized rural town, than into a larger regional centre. The article highlights some of the reasons why this trend has occurred in regional Victoria.

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# Coastal populations in Victoria

Victoria’s coastline presents a varied picture of settlement density and population growth rates. Outside of Melbourne, the largest coastal cities in Victoria include: Geelong; Warrnambool; Ocean Grove-Barwon Heads; and Torquay-Jan Juc (figure 1).

Urban Centre	Population 2016
Geelong	155,889
Warrnambool	30,384
Ocean Grove-Barwon Heads	17,444
Torquay-Jan Juc	16,530
Drysdale-Clifton Springs	12,128
Leopold	11,549
Portland	9,779
Portarlington-St Leonards, Indented Head	6,672
Lakes Entrance	6,100
Inverloch	4,870
Cowes	4,857
Point Lonsdale-Queenscliff	3,502
Paynesville	3,176
Port Fairy	3,004

**Figure 1: Largest coastal settlements in Victoria, excluding Melbourne, 2016**

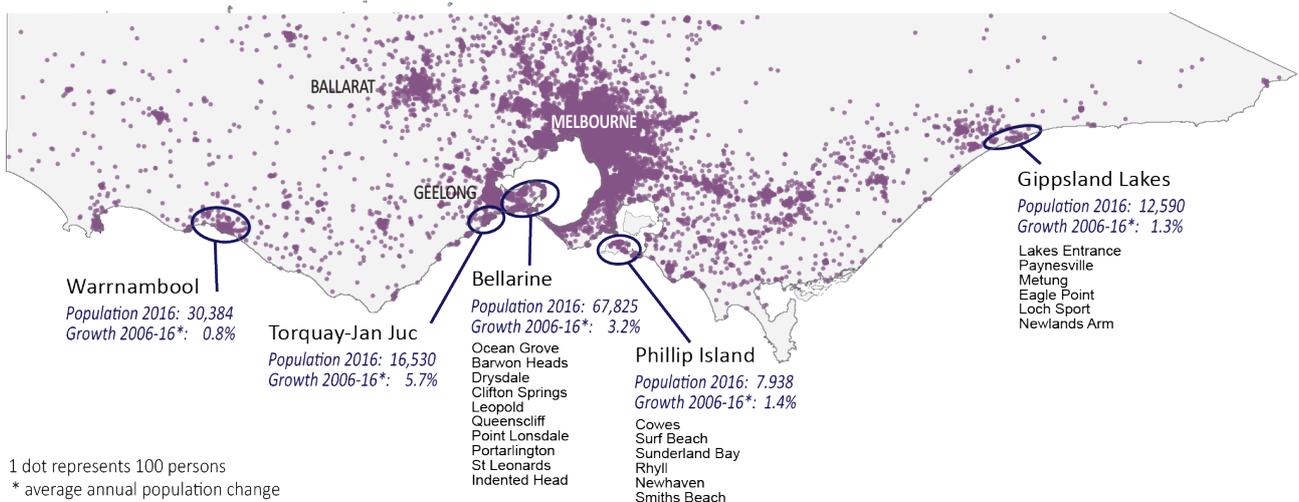
Source: DELWP 2018b, *Towns in Time*

The Bellarine and Surf Coasts are located in close proximity to Geelong. This makes them increasingly popular as commuter locations as well as maintaining their traditional role as holiday and retirement destinations. The Mornington Peninsula, located within metropolitan Melbourne, also plays this role. The resident population of towns on the Bellarine Peninsula amounts

to around 67,800 people (figure 2). Other concentrations of population are found around Westernport (8,600) Phillip Island (7,900) and further east around the Gippsland Lakes (12,600).

During the 2000s, some of the fastest regional population growth rates in Victoria were in coastal areas close to Melbourne – suburban locations such as Point Cook, Mornington Peninsula (especially Dromana), coastal parts of Geelong, the Bellarine Peninsula and the Surf and Bass Coast regions. More distant coastal areas have generally had lower population growth rates, and in some cases population decline was recorded for the 2016-17 period.

It is often assumed that coastal areas are growing much faster than non-coastal areas. In Victoria this is not the case. Many parts of Victoria’s coastline are sparsely settled, in part because of public land reserves such as the Otways, Wilsons Promontory and Far East Gippsland National Parks as well as numerous foreshore reserves and state parks. During the decade to 2017, rates of growth along the coast were lower than both non-coastal areas and Victoria as a whole with average annual growth rates ranging from 1.4% (coastal) to 2% (non-coastal) (figure 3). This is due, in part to the rapid growth seen in Melbourne over that decade, particularly to the north and west, and also the growth of inland centres such as Bendigo and Ballarat and the non-coastal suburbs of Geelong. In 2017, the coastal population of Victoria formed a slightly smaller proportion of the Victorian population than it had a decade earlier.



**Figure 2: Population concentration along the Victorian coast, 2016**

Sources: ABS census 2016; DELWP 2018 *Towns in Time*

Migration is a key component of population growth, the other being natural increase which is the difference between the number of births and deaths in a population. These components of population change are related to age structure as well. Populations that contain a large proportion of young adults are likely to have higher levels of natural increase because there are more people of child bearing age (hence more births than deaths). Conversely, a higher proportion of older age groups in a population can lead to a higher number of deaths than births – natural decrease. Both these demographic patterns can be seen along Victoria’s coast with larger centres like Melbourne and Geelong having younger age structures compared to other locations.

In-migration can directly affect population levels, but it can also affect the age structure of populations. Coastal settlements that attract high numbers of retirees may grow in the short term but the older age structure resulting from this age-specific migration may dampen future population growth.

Figure 4 highlights the different components of population growth across Victoria’s coastal regions. Areas in the far west of the state have net outflows of young adults who are attracted to larger centres for education and employment. Hence the level of natural increase is very low (in fact, it is natural decrease where deaths outnumber births). The Mornington Peninsula and Bass

Coast region have high levels of net in-migration but, because much of this has comprised retirees over many years, natural increase has not been very strong. Growth in such regions is driven by continued inflow of retirees rather than by high numbers of births.

In contrast to this is an area like the Bellarine Peninsula. Traditionally, this was a predominantly retirement location, but it has increasingly become a dormitory for Geelong because of its convenient commuting distance and attractive coastal lifestyle. Places like Torquay have become attractive for couples and young families and this younger age profile means that natural increase, as well as net in-migration, contributes to population growth.

	Components of growth 2016-17		
	Natural increase	Net internal migration	Net overseas migration
Far West Coast	46	-342	263
Surf Coast & Bellarine	239	1,695	345
Geelong	413	1,044	786
Melbourne	2,459	273	4,947
Peninsula	-4	1,392	524
Bass Coast	2	820	140
Far East Coast	-85	260	67

Figure 4: Components of population growth, coastal regions of Victoria based on Statistical Areas Level 2 (SA2s), 2016 to 2017.

Source: ABS Regional Population Growth, cat. no. 3218.0

	Estimated Resident Population (ERP)			Change in ERP			Average annual population growth		
	2007	2012	2017	2007-12	2012-17	2007-17	2007-12	2012-17	2007-17
Coastal Victoria	756,035	810,110	881,989	54,075	71,879	125,954	1.4	1.7	1.6
Non-Coastal Victoria	4,397,487	4,843,319	5,441,617	445,832	598,298	1,044,130	2.0	2.4	2.2
Victoria	5,153,522	5,653,429	6,323,606	499,907	670,177	1,170,084	1.9	2.3	2.1
Coastal pop'n as a % of Victoria's pop'n									
	14.7	14.3	13.9						

Coastal Victoria includes Statistical Areas Level 2 (SA2) which are contiguous with the Victorian coastline. Non-coastal comprises the remaining SA2s across Victoria

Figure 3: Population change, coastal and non-coastal Victoria, 2007 to 2017

Source: ABS Regional Population Growth, cat. no. 3218.0



# Professionals in regional Victoria – a census view

In recent decades, most towns across Victoria have seen employment increases in sectors such as health services and retail. It is rarer to see an increase in business services which tend to be more commonly found in large cities. Business services are included in a number of census categories like Professional, Technical and Scientific Services (PTSS). This category includes professions such as: accounting, computer system design, management consulting, architecture, engineering design and consulting, and legal services.

People working in this sector generally require higher levels of tertiary training and often have relatively high salaries. The specialised nature of much of this work accounts for the tendency to concentrate in large cities. Around 9.5 % of Melbourne’s workforce were employed in this sector in 2016 compared to 4.4% in the rest of Victoria. However, there are towns where the sector is more significant and/or has seen strong growth.

Those regional centres with the highest *numbers* employed in PTSS are, unsurprisingly, those with the largest populations – Geelong (3,713 employed in the sector at 2016); Ballarat (2,165) and Bendigo (1,704).

Table 1 shows the regional towns with the highest *proportions* of their workforce employed in Professional, Technical and Scientific Services. Those towns with the highest proportions tend to be in the peri-urban area of Melbourne or along the Surf Coast. Castlemaine is further from Melbourne but also showed a relatively high proportion of locals in this industry sector at the time of the 2016 census.

Table 1 does not include Rural Localities with populations between 200 and 999 persons. However, the list of rural localities with high proportions employed in PTSS or strong growth in this category are interesting. Some fall into expected periurban and coastal categories, for example St Andrews with 8.8% employed in PTSS (18 persons) and Trentham with 7.3% in the sector (21 persons). Both towns have seen strong increases in the sector, albeit with low numbers. Other small towns with strong increases have included Inverleigh (periurban Geelong) Venus Bay (coastal) and Bruthen (peri urban Bairnsdale).

Breaking the pattern of periurban and coastal locations is Birchip on the Wimmera-Mallee border. The town of 676 population recorded 17 people employed in the PTSS sector in 2016 (6.2% of the workforce) likely due to increasing sophistication in dryland cropping enterprises, including research and development of new products.

Town	% employed in PTSS 2016	Increase in % points since 1986	Number employed in PTSS 2016
Woodend	8.6	6.2	150
Pt Lonsdale-Queenscliff	8.3	5.7	113
Macedon-Mt Macedon	7.9	3.9	109
Torquay-Jan Juc	6.8	4.4	564
Anglesea	6.8	4.2	81
Riddells Creek	6.8	3.4	113
Castlemaine**	6.7	4.4	260
Ocean Grove-Barwon Heads	6.6	3.6	566

**Table 1: Regional Victorian towns\* with highest proportions of labour force employed in Professional, Scientific and Technical Services (PTSS) 2016.**

Notes: \*excludes Rural Localities;

\*\*Castlemaine includes Campbells Creek and Chewton

Source: DELWP 2018 Towns in Time

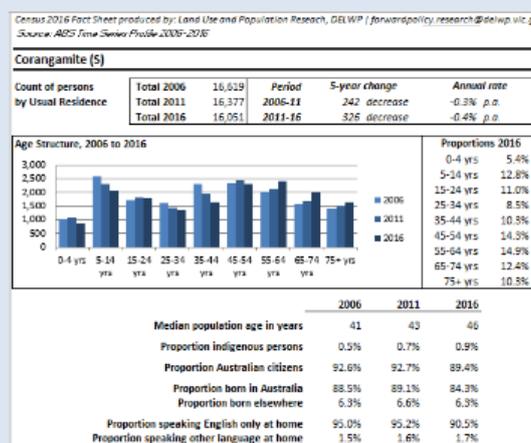
## Regional data resources

Head over to the DELWP website to find out more about regional Victoria

<https://www.planning.vic.gov.au/land-use-and-population-research/census-2016>

### Census Data Resources

Census data is available from the DELWP website. You can create your own time series profile using data at a range of scales from Australia to Statistical Area Level 2 (suburb, town or region level). Data are also available at town or city level through our Towns in Time information.



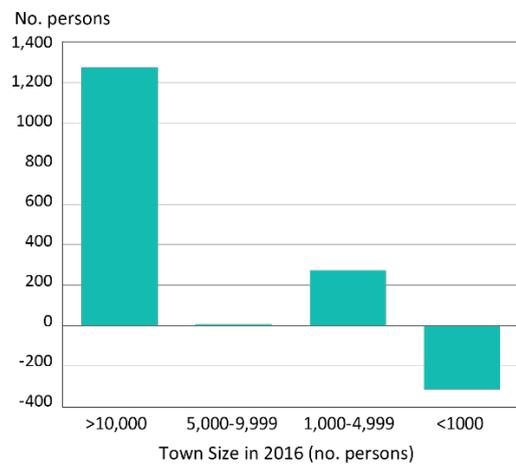
# Farmers in the (regional) city

Seventy-five years ago, the movement of farmers into towns was starting to be recognised:

*The larger towns, with their more varied and effective goods and services, are undoubtedly more attractive to the farm people. Fast transport not only enables the more distant farmer to do business in the large town which he could not have reached in the days of the horse and gig, but allows the nearer farmer to live in the town and run out to his land as necessary*

(McIntyre & McIntyre 1944, p. 11).

The trend has continued, and an increasing number of farmers can be found in larger regional cities. Figure 1 shows the changing number of people employed in primary industries between 2006 and 2016 by town size. Agriculture accounts for most of this category (95%).



**Figure 1: Change in numbers employed in agriculture forestry and fishing industries, by town size, 2006 to 2016**  
Source: DELWP 2018, Towns in Time

The smallest towns have seen a loss of people employed in the sector while larger regional cities have experienced an increase (figure 2). Middle sized towns present a mixed picture. So why are more primary producers living in regional cities? Three reasons can be highlighted.

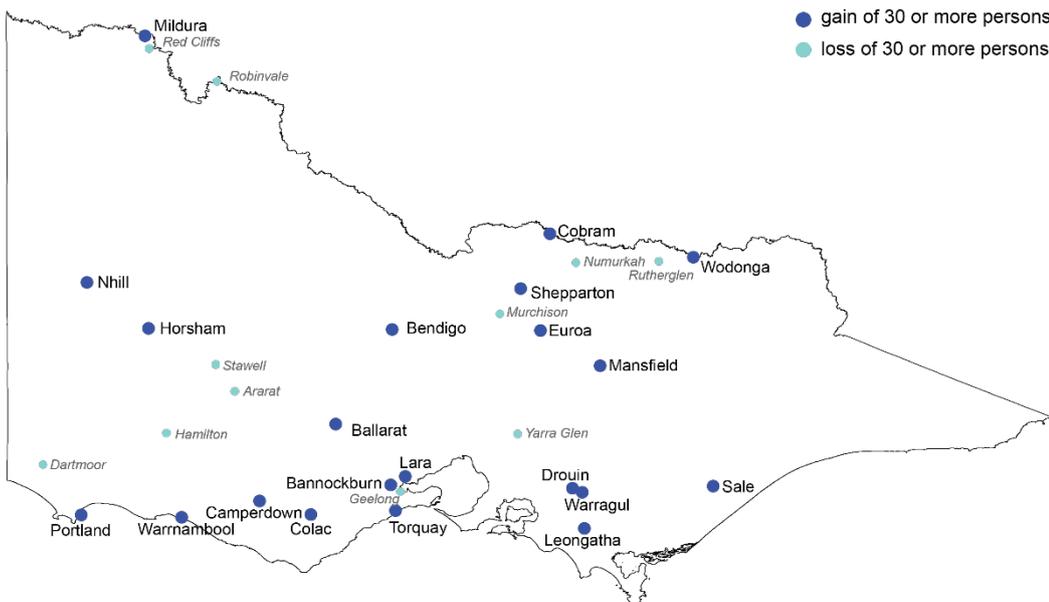
First, the nature of agriculture and the structure of farming properties has changed over recent decades. Properties have, on average, become larger and individual farmers may have land holdings in a variety of locations. In this situation, it is as easy to commute to a property from a larger centre as it is to live on the farm and commute to various parts of the property. Road quality and vehicle comfort have also improved, making such travel more practical.

A second reason is that off-farm income is important to many farmers and their families, especially if commodity prices are low or drought/flood conditions lessen earnings. Being located near a larger labour market is therefore advantageous for farmers and their families.

Third, there is a desire to be near good services – schools, hospitals, entertainment. Consolidation of land holdings and rationalisation of private and public services over past decades has meant that these services are increasingly found in larger centres not small towns. Easy access to urban amenities is important to many rural producers and their families.

**Reference:**

McIntyre, A. and McIntyre, J. 1944, *Country Towns of Victoria: A Social Survey*, Melbourne University Press, Melbourne.



**Figure 2: Change in numbers employed in agriculture forestry & fishing, Urban centres and rural localities (UCL), 2006 to 2016**  
Source: DELWP 2018, Towns in Time

