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Population change and internal migration during the COVID-19 pandemic

JANUARY 2024



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At a glance

- The impact of the pandemic on population was very focused on capital cities, which collectively experienced population loss in 2020-21 of 46,000 or 0.3 per cent of their population. This was well beyond the impact to regional areas. With the international border closed, the strongest source of new residents for capitals was gone.
 - Among the capitals, the population decline in 2020-21 was concentrated just in Melbourne and Sydney (declining by 86,000 and 34,000 people respectively), while other capital cities almost all had lower growth rates than usual.
- The impact of the pandemic on population growth rates was noticeable for both inland and coastal cities, though much less pronounced than for the capitals. The coastal cities' annual growth rate is typically 1.5 per cent or higher, but for 2020-21 it fell to 1.2 per cent. Similarly, the inland cities' growth rate was at least 1.0 per cent in the several years leading up to the pandemic, before falling to 0.6 per cent in 2020-21.
- In contrast with the cities, the coastal country areas group experienced its strongest population growth rate in 2020-21. This was the highest rate among all groups that year, at 1.6 per cent. This continued an established pattern, as coastal country areas were growing more quickly each year before the pandemic. The inland country areas group's rate remained positive. While remote areas had population loss of 0.2 per cent in 2020-21, this was a smaller loss than in previous years.
- The impact of the pandemic on population was largely contained in 2020-21. By 2021-22, there was a strong recovery in the population growth rates for the migration geography groups, largely returning to their 2019-20 rates. The capital city population growth rate mostly recovered (to 1.3 per cent), but was still weaker than the regional coastal rates.
- For individual regions, the pandemic growth rate was strongly correlated with the average annual 2017-2022 growth rate, meaning that regions with strong (weak) growth rates in 2020-21 tended to be those with strong (weak) growth rates between 2017 and 2022.
- The internal migration flows during the pandemic (August 2020 to 2021) were broadly consistent at the migration geography group level with the five years between August 2016 and 2021. Flows during both the pandemic year and the medium term were characterised by net losses from the capital cities to other groups, net gains to coastal regions and inland cities, and net losses from remote areas. Inland areas lost to coastal ones, but gained from the capitals and remote areas.
- However, there were some particular changes in the internal migration pattern between the pandemic year and the five years between August 2016 and 2021. Inland country areas had a small net loss in the five years, but a net gain in the pandemic year. Remote areas did better during the pandemic than in the five-year period, with a much smaller net loss. Remote areas also gained from the capitals during the pandemic, in contrast to a loss to the capitals over the five years. Coastal country areas lost people to coastal cities over the five years, but the flows between these groups were balanced in the pandemic year, suggesting increased appeal of coastal country areas.
- Age has a strong influence on migration, not only in terms of a person's propensity to migrate but also the choice of location. Consistent between the medium-term and the pandemic year, the draw of education, employment and entertainment opportunities for young people created net positive internal migration flows into capital cities for the 15 to 24 year age group. Capital cities lost people

from all other age cohorts over both periods. The regional groups largely have net gains from the working age cohorts other than 15 to 24 year olds, and retirees prefer coastal and inland cities.

- In the pandemic year, employed people made up a larger share of the net internal migration loss from capitals than in the five years, and those outside of the labour force made up a correspondingly smaller share. We can see the effect of this in other groups, with employed people comprising more of the net inflows. In particular, inland cities, inland country areas and remote areas received an even larger net gain of employed people in the pandemic year than over the whole five years. For the coastal areas, the one-year net gain of employed was smaller than for the five years, but employed people contributed a greater share of the net gains.
- As the population data also indicates, coastal areas as a group are popular locations for new residents, and tend to do well, gaining people from all other groups in both time periods. During the pandemic year, 81.5 per cent of net migration to coastal cities came from capital cities, higher than the 71.8 per cent for the five years. Those departing coastal cities were less likely to go to a capital city, compared with the five-year period. During the pandemic year, there was also a greater emphasis on those in the labour force and the young working age (25 to 34 year olds) in the net gain to coastal cities.
- Over the five years, coastal country areas gained from all other groups except coastal cities, to which they lost a net 6,627 people. In the pandemic year, coastal country areas received net internal migration gains from all other groups. The net migration between coastal cities and coastal country was essentially balanced, suggesting a comparatively stronger appeal of coastal country areas during the pandemic relative to coastal cities.
- Inland country areas collectively had a net gain of almost 2,150 people during the pandemic year, compared to a net loss in the five years of just under 400 people. In both periods, net gains came from the capital cities and remote areas, and net losses went to both coastal groups and inland cities. Like coastal country areas, inland country areas receive most of their net inflow from capital cities.
- Remote locations had net internal migration losses to all other migration geography groups between August 2016 and 2021, with a total net loss of 13,329 people. The largest difference in the pandemic year was a substantial net gain from capital cities that year, of 1,241 people, while still losing to all other groups. The effect was a smaller total net loss for that year (of 1,184 people). Considering the year on year improvement to population before the pandemic (albeit still negative), this gain could be part of the longer-term trend of improvement.

Executive Summary

Background

Understanding spatial patterns of population change is vital in planning for services and infrastructure, and in managing the pressures created as local populations grow and decline. In considering the wellbeing of all Australians, whether in capital cities, regional cities, towns or rural areas, it is important to understand current growth patterns and drivers for future population change. From a local perspective, it is also useful to understand a region's population change in the wider context of change across regions and region types.

Growth patterns and the underlying drivers are always evolving, but long-term patterns have included a shift to the coast, the concentration of population in larger cities and the decline of small inland areas. Shifts in the settlement pattern have been driven by major economic, technological and social changes (see BITRE 2011 and 2014). A large shock to the Australian economy and society, such as the COVID-19 pandemic, has the potential to create new pressure for settlement pattern change. In this context, this report investigates regional population change and internal migration flows during the peak period of the pandemic (2020-21), contrasting with a five-year period representing the medium term.¹

Research questions

The research asks:

- 1. What was the pattern of population change during the pandemic (2020-21)? Is it similar to the change observed over the latest five-year period (2017 to 2022)?
- 2. What was the pattern of internal migration flows during the pandemic (August 2020 to 2021)? Is it similar to the change observed over the latest five-year period (August 2016 to 2021)?²
- 3. How does the latest year of population change data (2021-22) compare to the first pandemic year (2020-21) and the five-year trend (2017 to 2022)?

Population change tells us where growth and decline are occurring overall. One component of population change is net internal migration, the effect of people moving within Australia. Internal migration dynamics are important for regional policy in understanding where Australians choose to live; where different demographic cohorts are coming from and going to; and the flows of people between specific regions or region types.³

Data sources

Two main data sources are used to investigate:

¹ The report describes the observed change, and does not make judgements on what the patterns might be in the future. For a study focused on the future of spatial activity following the pandemic, please see Vij et al. (2023).

² The time frames differ slightly due to the two separate data sources used to investigate, which are explained in the following section.

³ Significantly for the pandemic period, net overseas migration is another component of population change, with the third being natural increase, or births minus deaths. At this regional level, current data for net overseas migration as a component of population change is available for 2021-22, and is included as part of the discussion of what is shaping population change for that year. Due to the rebasing of population data following the Census, previously published component data for 2016-17 to 2020-21 no longer sum to population change (ABS 2023a) and so have not been used in this paper. While net overseas migration is not the focus of the paper, it is still useful to understand as one driver of overall population change.

- 1. The Australian Bureau of Statistics (ABS) annual population estimates, with the latest data for June 2022. This enables us to look at change in the first full pandemic year (2020-21), the following year (2021-22) and the latest five-year period (2017 to 2022).
- The latest internal migration data from the August 2021 ABS Census of Population and Housing (the Census). This asks people where they lived five years earlier and one year earlier. We compare internal migration flows for the pandemic (using August 2020 to 2021) with the five-year flows (August 2016 to 2021).⁴

Geography

This report uses the BCARR migration geography classification. This geography divides regions into six groups: capital cities, coastal cities, coastal country areas, inland cities, inland country areas and remote areas. The report considers population change and internal migration flows between groups, as well as population change and net internal migration for individual regions within groups.

The pattern of population change

The impact of the pandemic on population was very focused on capital cities. The year-on-year population growth rates by migration geography group (Figure ES.1) highlights the striking decline in the capital city rate for 2020-21. That year, capital cities collectively experienced population loss (of 46,000 or 0.3 per cent of their population). This was well beyond the impact to the other groups. Due to this loss, Australia's growth rate was only 0.1 per cent that year.

The significant impact on the capital cities can be largely attributed to the international border closure, which was in place for all of 2020-21.⁵ Usually, capital cities collectively experience net internal migration losses to other regional areas, but under normal circumstances this net loss is offset by much larger population growth from net overseas migration, as well as a smaller amount from natural increase. With the border closed, the strongest source of new residents for capitals was gone.

⁴ To determine population change, the ABS uses component data of natural increase, net internal migration and net overseas migration. The ABS reports that Medicare change of address data showed an implausibly high number of moves for 2021-22 due to widespread updating of Medicare records as people were vaccinated for COVID-19. To treat for this, under-count adjustments were revised for 2021-22 (ABS 2023a). The more spatially detailed Census data is based on asking people directly for where they lived in different time periods, and therefore was never affected by this issue.

⁵ The closure commenced in early 2020 and the border opened again in stages from November 2021, reopening to all fully vaccinated visa holders in February 2022.



Figure ES.1 Annual population change, BCARR migration geography, 2013 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Annual change to June of the reference year. Norfolk Island was added to the population data from 2016. This definitional change added 1,757 people to 'remote areas' in one year, adding 0.5 per cent to the remote population. This should be considered in interpreting the overall change in the year to June 2016.

The impact of the pandemic was noticeable but much smaller for regional Australia⁶. For each of the four years between 2016-17 and 2019-2020, the population growth rate for regional Australia was stable at 1.2 per cent. In 2020-21, this fell to 1.0 per cent, before returning to 1.2 per cent in 2021-22. Because the impact to regional Australia was relatively smaller, regional Australia in 2020-21 grew more than the capitals for the first time since 1981 (ABS 2022c).

The impact of the pandemic on population growth rates was noticeable for both inland and coastal cities, though much less pronounced than for the capitals. In each of the four years to 2019-20, the coastal cities' annual growth rate was between 1.5 and 1.6 per cent, but for 2020-21 it fell to 1.2 per cent. Similarly, the inland cities' growth rate was between 1.0 and 1.3 per cent in the four years leading up to the pandemic, before falling to 0.6 per cent in 2020-21.

In contrast with the decline in the capitals and the subdued growth in regional cities, the coastal country areas group experienced its strongest population growth rate in 2020-21. This was the highest rate among all groups that year, at 1.6 per cent. This continued an established pattern, as coastal country areas were growing faster each year before the pandemic. This existing trend creates some ambiguity around whether the pandemic influenced the strong 2020-21 growth rate, by making coastal country areas relatively more attractive, or whether this growth would have happened regardless. In either case, it is clear that the pandemic did not negatively affect growth in this group.

The pandemic appears to have had only a marginal dampening effect on population growth for inland country areas. The population growth rate of inland country areas has been very consistent at around 0.5 per cent annually, for almost half a decade before the pandemic. In 2020-21, the rate was slightly weaker, at 0.4 per cent. This is only 0.1 percentage point below its five-year average, suggesting a very minor softening that year.

While remote areas had population loss of 0.2 per cent in 2020-21, this was a smaller decline than in previous years. The remote area annual growth rate, while negative, has been on a trajectory of improvement. The decline in 2020-21 appears consistent with this trajectory, rather than being pandemic-induced.

⁶ Defined in this report as the area outside the capital cities: the combined coastal, inland and remote categories.

The impact of the pandemic on population was largely contained in 2020-21. By 2021-22, there was a strong recovery in the population growth rates, largely returning to about their 2019-20 rates.⁷ The capital city population growth rate mostly recovered (to 1.3 per cent), but was still weaker than the regional coastal rates. The coastal country areas rate reduced from its 2020-21 peak, but otherwise all other groups rebounded from the impact of 2020-21.⁸

BCARR migration geography	2022 Population	Percentage of total population	5 year population change, 2017-2022	5 year population change, 2017-2022 (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
	persons	per cent	persons	per cent	persons	per cent	persons	per cent
Capital cities	17,466,179	67.2	937,330	1.1	-46,026	-0.3	216,439	1.3
Coastal cities	4,234,043	16.3	296,871	1.5	48,240	1.2	64,872	1.6
Coastal Country areas	1,344,619	5.2	88,780	1.4	20,615	1.6	18,683	1.4
Inland cities	1,261,498	4.9	59,583	1.0	7,843	0.6	11,468	0.9
Inland Country areas	1,363,587	5.2	34,627	0.5	6,012	0.4	7,662	0.6
Remote areas	335,614	1.3	-4,239	-0.3	-520	-0.2	1,004	0.3
Regional Australia (a)	8,539,361	32.8	475,622	1.2	82,190	1.0	103,689	1.2
Australia	26,005,540	100.0	1,412,952	1.1	36,164	0.1	320,128	1.2

Table ES.1 Population change, BCARR migration geography, 2017-22, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Notes: Average annual growth (AAG) and annual change to June of the reference year. (a) "Regional Australia" here is defined as the sum of the five BCARR migration geographies outside the capital cities. Highlighting denotes negative values.

Population change for individual regions

The report also explores population change for individual migration geography regions, rather than groups, as shown in Maps ES.1 to ES.3. Map ES.1 below shows the average annual population change over the five years to 2022. This illustrates a general pattern of growth in coastal areas and inland areas not far from capitals. Population declines tended to be in the more remote and inland areas, but some remote areas had positive growth. This is a general established pattern of change in the Australian settlement pattern that precedes this period.

⁷ Remote areas did even better, experiencing positive growth (of 0.3 per cent) for the first time in almost a decade.

⁸ We can see the impact of COVID-19 on population had already commenced in 2019-2020, and so the return to the 2019-20 rate does not mark a complete return to pre-pandemic levels of growth for the capital cities. March 2020 marked both the international border closure to all non-citizens and non-residents, and the beginning of the national lockdown, and so that year had several months of strong pandemic restrictions.



Map ES.1 Average annual population change, BCARR migration geography regions, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Excludes regions with populations of fewer than 100 in any of the years from 2017 to 2022.

Map ES.2 shows the population change for 2020-21, which reveals a similar pattern to the five years. The most notable difference is the growth rates of the capitals, and particularly the population loss in Sydney and Melbourne.

Among the capitals, the population decline in 2020-21 was concentrated just in Melbourne and Sydney (declining by 86,000 and 34,000 people respectively), while other capital cities almost all had lower growth rates than usual, but still grew.⁹ Melbourne's population decline in 2020-21 was the greatest divergence among capital cities from the five-year average, likely reflecting the impact of its lockdowns.

The difference in the pandemic's impact on population across capital cities also reflects the sources of their usual population gains. For example, usually Sydney loses people to elsewhere in Australia and gains from overseas migration, while Brisbane gains from both internal migration and net overseas migration. During the pandemic, Sydney had net internal migration losses. Brisbane still had gains from elsewhere in Australia, and its population change remained positive.

There are other individual differences apparent between the maps, such as regional Western Australia generally having better growth rates during the pandemic, and regional New South Wales generally having weaker rates. However, the pattern for 2020-21 is broadly the same as the five years.¹⁰

In contrast to the impact on the capitals, there were still regions in the other migration geography groups with better population growth rates in 2020-21 than the five-year period. This varied by group: only a quarter of the inland cities (26 per cent) had improved growth in 2020-21 compared with their average over the five-year period, compared with 40 per cent for both coastal cities and inland country areas.

⁹ Darwin alone had a stronger growth rate in 2020-21 (0.2 per cent) than its five-year average, which included several years of population decline.

¹⁰ Note that since 2020-21 is within the five-year period to June 2022, it influences the average annual rate for the five years.

However, 60 per cent of coastal country areas and 55 percent of remote areas had better growth rates during the pandemic than their five-year average. This reflects what we observed at the group level, with remote and coastal country areas having better growth rates in 2020-21 compared to previous years.





Source: BCARR analysis of ABS August 2023, Regional Population

Note: Excludes regions with populations of fewer than 100 in any of the years from 2017 to 2022.

Within each migration geography group outside of the capital cities, there was a strong linear relationship between the 2020-21 population growth rate and the average annual five-year growth rate for each region¹¹.

The relationship of the capital city rates between the two periods was still positive, but not as strong. This weaker relationship was due to the greater divergence of Melbourne from its usual growth rate.

This supports the consistency observe in the maps: those that had strong growth in the medium term also had comparatively strong growth during the pandemic, and those with medium term low growth (or decline) also had poor growth rates in the pandemic. For inland and remote areas, regions growing strongly over the medium term did even better in the pandemic year, while regions declining strongly over the medium term had even stronger declines in the pandemic year.

Map ES.3 shows the population change for the following year, 2021-22. Compared to 2020-21, there were more areas experiencing population gains, and marginally more than over the five years. However, fewer areas had strong growth (the darker blue). Considering individual states, there are more areas in Western Australia and the Northern Territory with population growth compared to the five years. Compared to both the five years and 2020-21, Tasmania's growth was weaker. Many areas in Queensland and New South Wales fared better in this year. While Melbourne's growth was positive, we can observe more decline in regional Victoria than the previous year.

All the capital cities experienced positive population growth in 2021-22. Melbourne in particular rebounded more quickly than Sydney, despite having a lower growth rate in 2020-21. In 2021-22, Melbourne's growth was the third strongest among the capitals at 1.2 per cent, after Brisbane (2.2 per cent), and Perth (1.5 per cent).

¹¹ Acknowledging that the five-year period includes the single year.

In general, at the individual region level, we can see what is apparent at the group level: largely positive growth, except for areas with longer-term pre-pandemic decline continuing, and a general return to form following the 2020-21 pandemic year.





Source: BCARR analysis of ABS August 2023, Regional Population

Note: Excludes regions with populations of fewer than 100 in any of the years from 2017 to 2022.

The pattern of internal migration flows

Separate from population change, the report examines the internal migration flows between migration geography groups for August 2020 to 2021 (the pandemic year) and August 2016 to 2021 (the medium term). Tables ES.2 and ES.3 below summarise the net flows for these two periods.

The net internal migration during the pandemic between migration geography groups was broadly consistent with the medium-term. Flows during both the pandemic year and the medium term were characterised by net losses from the capital cities to other groups, net gains to coastal regions and inland cities, and net losses from remote areas. Inland areas lose to coastal ones, but gain from the capitals and remote areas.

At this broad level, we can also observe some differences between the pandemic year and five years:

- Most strikingly, inland country areas had a small net loss in the five years, but a net gain in the pandemic year.¹²
- Remote areas did better in the one year than the five years, with a much smaller net loss. Remote areas also gained from the capitals during the pandemic, in contrast to a loss to the capitals over the five years.

¹² Note that this may seem inconsistent with the slight decline in the rate of population growth for 2020-21 to 0.4 per cent from a usual growth rate of 0.5 per cent, as the internal migration data suggests that inland country areas received more people in the pandemic. However, internal migration is only one component of population change, with natural increase and net overseas migration also contributing. In 2021-22, for example, half of the population growth for inland country areas came from overseas migration. Note also that these are different data sources and not strictly comparable: the internal migration is from the Census and the population and its components are estimated by the ABS.

• Coastal country areas lost people to coastal cities over the five years, but the flows between these groups were balanced in the pandemic year, suggesting increased appeal of coastal country areas.

Both coastal country and remote areas had year on year improvements to their population growth rates in the years leading up to the pandemic. Changes are therefore unlikely to be purely due to the pandemic, but part of a longer trend.

	Origin 2016										
Destination 2021	Capital cities	Coastal cities	Coastal country	Inland cities	Inland country	Remote	Net internal migration	Overseas origin			
Capital cities		-93,816	-42,657	-6,378	-27,101	484	-169,468	1,075,644			
Coastal cities	93,816		6,627	13,626	11,393	5,278	130,740	125,360			
Coastal country	42,657	-6,627		936	4,645	2,500	44,111	18,570			
Inland cities	6,378	-13,626	-936		13,945	2,570	8,331	38,910			
Inland country	27,101	-11,393	-4,645	-13,945		2,497	-385	21,152			
Remote	-484	-5,278	-2,500	-2,570	-2,497		-13,329	6,211			

Table ES.2 Net internal migration flows, BCARR migration geography, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratoryoffshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Table ES.3 Net internal migration flows, BCARR migration geography, August 2020-2021

	Origin 2020									
Destination 2021	Capital cities	Coastal cities	Coastal country	Inland cities	Inland country	Remote	Net internal migration	Overseas origin		
Capital cities		-33,984	-10,134	-4,505	-7,750	-1,241	-57,614	137,432		
Coastal cities	33,984		-19	3,867	2,727	1,161	41,720	21,333		
Coastal country	10,134	19		86	527	528	11,294	3,946		
Inland cities	4,505	-3,867	-86		2,783	302	3,637	5,682		
Inland country	7,750	-2,727	-527	-2,783		434	2,147	4,020		
Remote	1,241	-1,161	-528	-302	-434		-1,184	1,148		

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

The following summarises the internal migration findings for each of the migration geography groups.

Capital cities

Figure ES.2 Net internal migration flows, capital cities, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Net internal migration losses for capital cities have been a consistent pattern over time. Between August 2016 and 2021, capitals lost people to all other migration groups except for remote areas, from which it gained 484 people. During the pandemic year (August 2020 to 2021), the capital cities experienced net losses to all other groups, with a similar pattern as in the five years: most people moved towards coastal cities, followed by coastal country and inland country areas.

However, there are differences across individual cities. Half of the capital cities experienced net migration *gains* in both periods (Brisbane, Perth, Hobart and Canberra). Only Sydney, Melbourne and Darwin had net migration losses in both periods, but the large combined effect of these cities means that overall the capital city group had net losses.

The only capital city to have a net loss in one period and a gain in the other was Adelaide. It experienced a shift in net internal migration from negative over the five years to positive in the pandemic year.

There were also differences in emphasis between the two time periods. For example, Perth had stronger net gains (9,039) in the single year than over the whole five years (2,467). The net loss from Melbourne for the pandemic was 40,829, compared with a loss of 69,966 over the whole five years – likely due to the lockdowns lowering the appeal of the city.

Consistent between the medium-term and the pandemic year, the draw of education, employment and entertainment opportunities for young people created a net positive migration flows into capital cities for the 15 to 24 year age cohort. All other age cohorts consistently had net losses from the capital cities during the pandemic year and the five-year period.

Across both time periods, capital cities had a net loss of employed, unemployed and those not in the labour force. However, in the pandemic year, employed people made up a larger share of the net loss from capitals (79.1 per cent) than in the five years (60.3 per cent), and those outside of the labour force made up a correspondingly smaller share. This can be seen in the larger net gains of employed people to other groups.¹³

¹³ Note that the report examines the internal migration data in terms of two demographic features relevant to movement of people: age structure and labour force status. The demographic analysis is limited to these two key factors, as the report's key focus is on movement between regions. However, it is important to note that there are other demographic factors which affect internal migration, such as whether a person is born overseas, their industry of employment, education level, family status and income (Hugo and Harris 2011).

Coastal cities

Capital cities 93,816 Coastal country 6,627 Inland cities 13,626

Figure ES.3 Net internal migration flows, coastal cities, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

As the population data also indicates, coastal areas as a group are popular locations for new residents, and tend to do well, gaining people from all other groups over both August 2020 to 2021 and August 2016 to 2021.

Most coastal cities had net internal migration gains over both the one-year and five-year periods, with 41 out of the 58 coastal cities having net gains over the five years, and 43 out of 58 in the pandemic year.

Coastal cities vary in size, and range from large, capital-city adjacent ones such as Wollongong and Geelong to small, remote cities such as Port Pirie (SA) and Port Hedland (WA). In both time periods, most of the net internal migration gain was driven by the large and capital city-adjacent locations. Those with net losses tended to be more relatively more remote, such as Karratha, Townsville and Whyalla.

There was generally stability across the time periods, in that the regions with the largest gains over the five years tended to have the largest net gains during the pandemic, and similarly the regions with net losses were largely the same across years.

During the pandemic year, 81.5 per cent of net internal migration to coastal cities came from capital cities, higher than the 71.8 per cent for the five years. In addition, during the pandemic year, there was a greater emphasis among the net gains on the young working age and those in the labour force. There was a net gain to coastal cities of 10,042 people aged 25 to 34 years between August 2020 and 2021, compared to 14,867 over the whole five years. The pandemic year net gain for those 15 years and over was comprised of a higher share of employed people (65.9 per cent, compared with 54.5 per cent over five years) and unemployed (4.2 per cent compared with 2.9 per cent for five years). Those outside the labour force comprised a correspondingly lower share of the one-year net gain (29.9 per cent, compared with 42.5 per cent for the five years).

Coastal country areas

Between August 2016 and 2021, coastal country areas gained from all other groups except coastal cities, to which it lost a net 6,627 people. Between August 2020 and 2021, coastal country areas received net internal migration gains from all other groups. The net migration between coastal cities and coastal country was essentially balanced, suggesting a comparatively stronger appeal of coastal country areas during the pandemic relative to coastal cities.

In both years, most of the net gain to coastal country areas was from capital cities. The emphasis was greater in the pandemic year, with 9 of 10 people in the net gain to coastal country areas coming from capital cities.



Figure ES.4 Net internal migration flows, coastal country areas, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

There were some changes in the characteristics of the net gain between the two time periods. Over the five years, coastal country areas had a net gain of almost 3,500 for the oldest age cohort (65 years and over), reflecting their appeal for retirees. The pandemic year was notably different, with a net loss of 804 of people aged 65 years and over. This was the largest variation across age cohorts between years for coastal country areas.

For both time periods, there were net gains to coastal country areas from all three labour force groups. The emphasis changed in the pandemic year, with more of the net gain being employed. This greater emphasis on employed people occurred for other migration geography groups outside the capitals, including coastal cities. This corresponds to employed people making up a greater share of the net loss from capitals.

Most individual coastal country areas had net migration gains in both periods. Some of the largest net gains over the one year occurred in the largest coastal country areas such as Wonthaggi - Inverloch in Victoria. The coastal country areas with the largest gains tended to be the same across both periods.

Inland cities

Inland cities collectively experienced positive net internal migration flows during both August 2020 to 2021 and August 2016 to 2021. These cities consistently had net gains from capital cities, inland country areas and remote areas, but lost people to coastal regions, particularly coastal cities.



Figure ES.5 Net internal migration flows, inland cities, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

While the basic pattern for inland cities remained in the pandemic year, the capitals were a more important net gain source that year. Capital cities contributed the greatest net number of people to inland cities in the pandemic year, while inland country areas contributed the most in the five years.

There was a net migration loss of persons aged under 24 years for inland cities over both time frames. The 65 years and over group contributed the most to the net gain for both periods. In contrast, inland country areas lose people from this group, suggesting the importance of services found in larger cities for this age group.

Inland cities had a net loss of the 35 to 54 years age cohort over the five years (of 488 people), and a net gain of 115 in the pandemic year. This was the only age cohort in either inland group to change direction (between net gain/loss) between the two time periods.

Among those aged 15 years and over, the net gain to inland cities was largely comprised of employed people during the pandemic, while the five-year gain was largely comprised of those not in the labour force. The number of employed people gained during the pandemic (2,591) exceeded the number over the whole five years (2,360).

The large inland cities of Ballarat, Bendigo, Albury-Wodonga and Toowoomba had largest net migration gains for both periods. More remote inland cities such as Kalgoorlie-Boulder and Alice Springs had the largest net migration losses over the five years and this continued during the pandemic year. In the case of Kalgoorlie-Boulder, a Western Australian mining city, the inward and outward flows between Perth are large, influencing the overall migration pattern for the inland city.

Inland country areas

Inland country areas collectively had a net gain of almost 2,150 people during August 2020 to 2021, compared to a net loss over August 2016 to 2021 of just under 400 people.

In both periods, net gains came from the capital cities and remote areas, and net losses went to both coastal groups and inland cities. Like coastal country areas, inland country areas received most of their net inflow from capital cities.

Figure ES.6 Net internal migration flows, inland country areas, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

In both the one- and five-year periods, inland country areas lost young adults (15 to 24 years) and those in the retirement age group (65 years and over), gaining from all other categories. In both periods, inland country areas gained employed people while losing unemployed and those not in the labour force. However, like inland cities and remote areas, there was a greater emphasis on employed people in the pandemic year. The net gain of employed in the year to August 2021 was even higher (2,421) than over the five years (1,876).

Remote areas

Remote locations experienced net internal migration losses to all other migration geography groups between August 2016 to 2021, with a total net loss of 13,329. The largest difference in the pandemic year was a substantial net gain from capital cities that year, of 1,241 people while still losing to all other groups. The effect was a smaller total net loss for that year (of 1,184 people). Considering the year on year improvement to population before the pandemic (albeit still negative), this gain from the capitals could result from the longer-term trend of improvement and the economic features of remote areas. Remote areas generally demonstrate very high degrees of migration turnover, especially those associated with mining.



Figure ES.7 Net internal migration flows, remote areas, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Overall there was a large net loss of working aged people over the five years, but a gain in the pandemic year. Remote locations experienced net internal migration gains of those aged 25 to 34 years for both the pandemic year and the medium term. The net losses over the five years for other working age groups were large, with losses of almost 4,000 of 15 to 24 year olds, and 2,400 of 35 to 54 year olds. In the pandemic year, there were small gains in these two groups.

Net internal migration gains for employed people to remote areas were small over the five years (132 people) but much larger in the pandemic year (around 2,500). There were net migration losses for the unemployed and those outside the labour force in both time periods.

Conclusion

This report has provided a region-based assessment of Australia's population changes and migration flows during the peak period of the COVID-19 outbreak, framed in comparison to the medium-term trends, in order to draw out insights into dynamics of population movement during the pandemic.

Ultimately, both the population and internal migration data show a story of persistence of existing patterns with some particular disruptions at the finer level. The COVID-19 pandemic represented a large shock to the Australian and world economies, with some unprecedented impacts on movement and population in the short term. The impacts to Australian population in 2020-21 reflect this change. The return to form, or close to it, in 2021-22, even when lockdowns still occurred and the case numbers had increased dramatically, indicates the resilience of the existing pattern.

1. Introduction

Key points

- This report investigates regional population and internal migration flows during the pandemic compared with a five-year medium term.
- The BCARR migration geography is used, which divides the country into six groups: capital cities, coastal cities, coastal country areas, inland cities, inland country areas and remote areas.
- Population change analysis is based on the Australian Bureau of Statistics (ABS) estimated resident population data for the first pandemic year of 2020-21, the following year, 2021-22 (the latest available data) and 2017 to 2022 for the medium term.
- Internal migration analysis is based on the ABS Census and looks at change in residential location between August 2020 and 2021, and how this compares to change between August 2016 and 2021.

Motivation and research questions

Understanding spatial patterns of population change is vital in planning for services and infrastructure, and in managing the social and economic pressures created as local populations grow and decline. In considering the wellbeing of all Australians, whether in capital cities, regional cities, towns or rural areas, it is important for governments to understand current growth patterns and pressures for future population change. From a local perspective, it is also useful to understand a region's population change in the wider context of change across regions and region types.

While longer term growth patterns and the underlying pressures of change are well known (see BITRE 2011 and 2014), a large shock to the Australian economy and society has the potential to alter established patterns of movement. Therefore, understanding the pattern of population change and internal migration during the pandemic enables us to see whether any fundamental shifts during this time could create a new pattern of change.

This report investigates population change and internal migration flows that occurred during the pandemic, in comparison to the medium-term trends.

The paper investigates:

- 1. What was the pattern of population change during the pandemic (2020-21)? Is it similar to the change observed over the latest five-year period (2017-2022)?
- 2. What was the pattern of internal migration flows during the pandemic (August 2020-21)? Is it similar to the change observed over the latest five-year period (August 2016-2021)?¹⁴
- 3. How does the latest year of population change data (2021-22) compare to the first pandemic year (2020-21) and the five-year trend (2017 to 2022)?

Drivers of internal migration

This report focuses on describing the patterns observed in the data, rather than the underlying mechanisms for these changes. For a discussion of the drivers of population growth and migration, see BITRE (2011), which also examines

¹⁴ The time frames differ slightly due to the two separate data sources used to investigate (described later in this chapter).

population change and internal migration. For a very long-term look at what drives change in the settlement pattern (over the twentieth century) see BITRE (2014). CIE (2023) summarises the drivers of migration decisions and investigates factors that government influences and how these impact on internal migration.¹⁵

Vij et al. (2023) investigates the primary determinants of business and residential location patterns across Australia, and the drivers of and barriers to attracting and retaining businesses and households to regional cities. It also takes a forward-looking approach to judge the possible long-term impacts of the pandemic on spatial patterns of employment activity and residential settlement. In contrast, this report examines the pattern observed during the pandemic compared with a medium-term time frame, without attempting to judge whether this will be sustained into the future.

Note that the report examines the internal migration data in terms of two demographic features relevant to movement of people: age structure and labour force status. The demographic analysis is limited to these two key factors, as the report's key focus is on movement between regions. However, it is important to note that there are other demographic factors which affect internal migration, such as whether a person is born overseas, their industry of employment, education level, family status and income (Hugo and Harris 2011).

Time period

This report uses Census data to understand internal migration within Australia in the year to August 2021, the date of the latest Census. This is the most recent detailed spatial information on internal migration flows. The report also uses Estimated Resident Population data from the Australian Bureau of Statistics, with the latest data to June 2022.

The following section provides some context about key features of this time that may have influenced people's migration decisions. It should be noted that this report refers to the pandemic year as the year between mid-2020 and mid-2021 to reflect the data points used in the analysis. During the year 2021-22 there were periods of lockdowns as infections became more widespread, but this period is characterised by the lifting of restrictions, vaccinations of the population, and a return to *normal* activities. It will be referred to as the latest year.

The start of the one-year period under study is mid-2020. Prior to this time, Australia had progressively closed its borders to all nonresidents (March 2020), and had a national six-week pandemic lockdown, from March to May 2020 (see Figure 1.1). In 2020-21, Victoria was most affected by lockdowns. The first Victorian lockdown occurred from 8 July to 27 October 2020. Other states experienced shorter 'circuit-breaker' lockdowns of a few days over the year, the next substantial lockdowns did not occur until late June 2021, after the Delta variant was detected in Australia. The New South Wales lockdown of four and a half months commenced on 26 June 2021, with the ACT and Victoria also experiencing months-long lockdowns during that time.

The following lockdowns occurred in close proximity to the 2021 Census:

- Before Census night, Victoria had a state-wide lockdown, but by 10 August restrictions were lifted for most of regional Victoria. Melbourne and Shepparton remained in lockdown until after Census night.
- Sydney and many parts of regional New South Wales had lockdown restrictions during the Census period.
- South East Queensland was in lockdown, but this was lifted on 8 August before Census night. However, Cairns and Yarrabah were placed in lockdown on 8 August for a short period.
- The Australian Capital Territory was placed in lockdown shortly after Census night on 12 August (ABS 2022a).

¹⁵ Note that some of CIE's analysis uses the same migration geography as this report, but modified to include the capital city fringe. However, while this report uses all people with a known location, the CIE analysis is based on the ABS-defined Urban Centres and Localities classification. Therefore, there are some differences observable where the two reports summarise internal migration using the six migration geography groups.

Figure 1.1 COVID-19 pandemic lockdowns during 2020 and 2021



Source: Reproduced from ABS 2021a

Note: Includes lockdowns up to late November 2021.

In addition to lockdown mandates, the time frame in question was also characterised by the following:

- Border restrictions existed between states for some of this period. Each state and territory had its own entry requirements for cross-border travel. These restrictions affected the movement of people, which impacted livelihoods and separated families. This was particularly the case for communities living along borders, as their usual activities could occur either side of the state border.
- Localised outbreaks also affected people's movements. Through the pandemic different areas within the state were under lockdown, while other areas operated close to normal. For example, Southern Tasmania entered a three-day lockdown in October 2021, while the rest of the state operated without this restriction.
- The creation and dissemination of a COVID-19 vaccine facilitated a return to more normal activities. Vaccinations began in February 2021 (Department of Health and Aged Care 2021a). The elderly and other high risk or critical groups were vaccinated first, with other groups following in stages. As at 30 June 2021, only 8 per cent of the population aged 16 and over had two doses of the vaccine. In three months, this increased to 55 per cent, and to 91.4 per cent by the end of 2021 (Department of Health and Aged Care 2021b).
- The international border closure and reopening. The reopening of the international borders was staged from November 2021, with all fully vaccinated visa holders permitted from February 2022 (Senate Select Committee on COVID-19 2022).

Regional classification

This report uses the Bureau of Communications, Arts and Regional Research (BCARR) migration geography to look at population and migration flows across region types and individual cities and regions (see Map 1.1). Note that it does not consider movement within cities.

This statistical geography divides regions across Australia into six broad geographical areas: capital cities, coastal cities, coastal country, inland cities, inland country and remote areas. It uses the Australian Bureau of Statistics' (ABS) 2021 Australian Statistical Geography Standard (ASGS) as a starting point (ABS 2021b).¹⁶

This type of geography broadly captures the natural endowments, features and amenities of different regions, which are considered in a person's decision to move. For example, this geography captures the importance of coastal areas in terms of both population growth and migration flows, and allows for the sensible analysis of these trends.

The BCARR migration geography is defined as follows:

- Capital cities—ABS 2021 Greater Capital City Statistical Areas (GCCSAs) as defined by the ABS ASGS.
- Coastal cities—ABS 2021 Significant Urban Areas (SUAs) outside of the capital city GCCSAs that have their population-weighted centre within 50 kilometres of the coast. There are 58 coastal cities within the classification.
- Inland cities—SUAs outside of the capital city GCCSAs that do not have their population-weighted centre within 50 kilometres of the coast. There are 34 inland cities within the classification.
- Coastal country areas—ABS 2021 Statistical Areas Level 2 (SA2s) that have their population-weighted centre
 within 50 kilometres of the coast and do not have the majority of their population in either Remote or Very
 Remote areas (based on the ABS 2021 Remoteness Area (RA) structure) and are not part of a capital or coastal
 city.

¹⁶ The classification closely matches the ABS classification utilised in ABS (2009) A Picture of the Nation. The major difference, aside from the underlying geography used, is the addition of a remote areas category, separate from the inland and coastal country areas.

- Inland country areas—SA2s whose population-weighted centre is not within 50 kilometres of the coast and do not have the majority of their population in Remote or Very Remote areas (based on the ABS 2021 RA structure) and are not part of a capital or inland city.
- Remote areas—Any SA2 region that has the majority (more than 50 per cent) of its population living in Remote Australia or Very Remote Australia according to the ABS 2021 RA structure.

Map 1.1 BCARR migration geography classification, 2021



Source: BCARR analysis, based on the ABS Australian Statistical Geography Standard vol. 3 (2021b).

Data sources

Population change

The analysis of population change is based on the Estimated Resident Population (ERP) data produced by the Australian Bureau of Statistics (ABS).¹⁷ This dataset also provides a more recent snapshot of the relative contributions made by natural population increases, international migration and internal migration to a region's population growth in 2021-22.

¹⁷ The data used is the ABS update of regional population on 31 August 2023, added to the 20 April 2023 issue.

ERP is the official estimate of the Australian population, and is based on place of usual residence. It includes everyone who usually lives within Australia regardless of nationality, citizenship or visa status, except for foreign diplomatic personnel and their families (ABS 2023a, 2023b).

ERP for a year in which the ABS Census of Population and Housing (Census) was conducted uses Census counts of Australian usual residents then adjusts these to account for: residents temporarily overseas, people missed or counted more than once, and the births, deaths and migration between 30 June and Census night in August (ABS 2023a). The estimates are final for 2001 to 2021, and revised for 2022.

Population change components

The components of population change are natural increase (births minus deaths), net internal migration and net overseas migration. In this paper, the population change sections discuss these three components for 2021-22 as part of understanding population change.¹⁸

- Natural increase is calculated based on births and deaths data provided to the ABS by the state and territory registries of births, deaths and marriages.
- Internal migration is estimated based on a combination of Census data, Medicare change of address data, and Department of Defence records.¹⁹
- Overseas migration is calculated using a model to allocate state/territory overseas arrivals and departures into sub-state areas, based on information from the Census.

Internal migration

The more detailed analysis of internal migration uses the 2021 Census (ABS 2022b). The Census asks respondents where they were living one year and five years ago. This enables analysis of migration flows between locations. It can be broken down further by incorporating demographic characteristics such as age and labour force status. The dataset has some limitations:

- The data is based on the known location of residents on 10 August in the years 2016, 2020 and 2021. The data showing moves from August 2020 to August 2021 is the key information this report uses for internal migration during the pandemic. However, the five years between 2016 and 2021 also includes the pandemic year. Therefore, the five-year change will include the pandemic moves.
- An individual could have made numerous moves over the one and five-year period but the Census data only records one move between year pairs: between the stated location in 2016 (or 2020) and the current location in 2021. Therefore, an individual has not necessarily moved directly from the location in the earlier year and their 2021 place of usual residence, and may have had multiple addresses between these times. For simplicity, and because we cannot know any interim moves, the move between 2016 (or 2020) and 2021 is described as if direct (for example, a movement from a remote area to a capital city).
- A substantial number of moves are within a location. These are not counted in this report. For example, a person can change suburbs but remain within the same GCCSA, SUA or SA2. People that move *within* a single migration

¹⁸ This is the only year with current component data at this level, so we are unable to examine this for the pandemic year (2020-21). Due to the rebasing of population data following the Census, previously published regional component data for 2016-17 to 2020-21 no longer sum to population change (ABS 2023a) and so have not been used in this paper.

¹⁹ There are limitations to this, for example, the time delay for some people to update their change of address for Medicare. Considering this delay, the ABS uses Medicare data received for the year ending 30 September to estimate internal migration for the year ending 30 June, assuming an average three months delay for people to update their address for Medicare after moving. Particular to the period under study in this report, the ABS reports that "Medicare change of address data showed an implausibly high number of moves for 2021-22 due to widespread updating of Medicare records as people got vaccinated for COVID-19. To treat for this, under-count adjustments have been revised for 2021-22." (ABS 2023a).

geography region will not be counted as having moved over the period. For example, moves within Sydney, or within Bathurst, are not counted as a move in this report as the person is still within the same region.

- The number of moves is underreported due to incomplete or non-responses in the Census data as well as those without a usual address.
 - The non-response rate for place of usual residence five years ago was 6.9 per cent in 2021²⁰, and the non-response rate for place of usual residence one year ago was 6.0 per cent in 2021²¹. These are coded to 'not stated', and are not part of the analysis.
 - People who could be coded to a capital city (the capital city 'not further defined' classification) were included in the relevant city, but those who could only be coded to a state (the state 'not further defined') are not part of the analysis.
- Additionally, as this report is concerned primarily with the flows between the BCARR migration geography regions, people with no usual address or in the migratory-offshore-shipping group in 2016, 2020 or 2021 were not included in the analysis. Therefore, they do not appear in any arrivals, departures or net figures.
- As the population is based on 2021 residents, only **in-migration** (arrivals) from overseas is reported in the Census data. People who have left Australia are not counted. Therefore, the Census does not provide a net overseas migration figure. However, ERP provides estimate of net overseas migration for the year 2021-22.
- The natural increase for a region (net births and deaths) cannot be accounted for in the Census. This data is a component of the ERP.

Report structure

This report's chapters are based on each BCARR migration geography group.

Chapter 2 provides analysis comparing the six BCARR migration geography groups, showing the overall pattern of population and internal migration.

Chapters 3 to 6 present the findings for each group within the geography: capital cities, coastal cities and country areas, inland cities and country areas and remote areas.

Chapter 7 presents the report's conclusions on population and internal migration flows between the pandemic year and the five-year time frame.

²⁰ <u>https://www.abs.gov.au/census/guide-census-data/census-dictionary/2021/variables-topic/location/place-usual-residence-five-years-ago-pur5p</u>

²¹ <u>https://www.abs.gov.au/census/guide-census-data/census-dictionary/2021/variables-topic/location/place-usual-residence-one-year-ago-pur1p</u>

2. BCARR migration geography

Key points

- The pandemic impact on population growth rates largely occurred in 2020-21. Capital cities were most affected, with a loss of 0.3 per cent (46,026 people). The capital cities group normally grows primarily from net overseas migration, and so it was most affected by the international border closure. Over the long term, capital cities collectively had the strongest annual rates of population growth.
- The impact of the pandemic was much smaller for regional areas than for the capital cities. In 2020-21, regional Australia²² had a population growth rate of 1.0 per cent, slightly weaker than its five-year average of 1.2 per cent.
- Within regional Australia, the cities were collectively more affected by the pandemic than country areas. Coastal cities, like inland cities, had a slightly lower than usual population growth rate in 2020-21. The coastal country areas group had its strongest growth rate that year, the strongest among all groups at 1.6 per cent. Remote area population declined (by 0.2 per cent), but this was a smaller loss than in previous years.
- The impact of the pandemic on population change was largely concentrated in 2020-21. By 2021-22, the migration geography groups generally had growth rates comparable to 2019-20. The capital city population growth rate had mostly recovered (to 1.3 per cent), but was still underneath the coastal rates. The coastal country areas rate reduced from its 2020-21 peak, but otherwise all other groups rebounded. Remote areas had population growth in 2021-22 for the first year in almost a decade.
- Capital cities had the largest internal migration loss between August 2020 and 2021 among the six migration geography groups (of 57,611 people). This group also had the largest loss between August 2016 and 2021. Coastal areas remained attractive places for people to reside, gaining from all other groups in both the pandemic year and over five years.
- Age has a strong influence on migration, not only in terms of a person's propensity to migrate but also the choice of location. Consistent across the pandemic year and the five-year period, persons aged 15 to 24 had positive net migration towards capital cities, with generally negative net movements away from other migration geography groups. The regional groups largely have net gains from the working age cohorts other than 15 to 24 year olds, and retirees prefer coastal and inland cities.
- Broadly, the overall pattern of gains and losses for different labour force groups was the same across each migration geography. However, there were some differences in the relative size of these gains and losses between years. Compared with the five-year period, during the pandemic there was a greater proportion of employed people among the net losses from capitals and a correspondingly greater share of employed people in the gains to regional groups.

²² Collectively, those five groups outside the capitals: coastal cities, coastal country areas, inland cities, inland country areas and remote areas.

Introduction

Australia is a highly urbanised country. In 2022, 88.3 per cent of the population lived in either a capital city, coastal city, or inland city. Capital cities alone accounted for 67.2 per cent of the population, equivalent to around 17.5 million people. Remote areas are characterised by very low population density, accounting for a very small proportion of the population (1.3 per cent), while covering much of Australia's land mass. This chapter explores population change and shifts in internal migration across the six migration geography groups, with a specific focus towards the impact of the pandemic.

Population change

Figure 2.1 shows annual population change to June of each year. At this group level, the most pronounced effect of the pandemic was in the capital cities, followed by coastal and inland cities. Within all groups there are variations across regions. These will be discussed in later chapters.

In the year to June 2020, the effect of the pandemic was already observable in the capitals cities' growth rate.²³ Other groups continued their trajectories from previous years, with inland cities' collective growth rate slowing as the growth rate for coastal country areas rose.



Figure 2.1 Annual population change, BCARR migration geography, 2013 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Annual change to June of the reference year. Norfolk Island was added to the population data from 2016. This definitional change added 1,757 people to 'remote areas' in one year, adding 0.5 per cent to the remote population. This should be considered in interpreting the overall change in the year to June 2016.

The full effect of the pandemic is reflected in the population change in the year to June 2021, when the annual growth rate for capital cities was negative (a decline of 0.3 per cent). In fact, for the first time since 1981, Australia's regional population grew more than the capital cities (ABS 2022c). The regional cities groups (inland and coastal) had below-

²³ In terms of timing, the year 2019-20 includes the national lockdown from March 2020 and four months of domestic travel restrictions, as well as two months of total border closure to all non-citizens and non-residents which also began in March 2020 (Senate Select Committee on COVID-19 2022). The reopening of the international borders was staged from November 2021, reopening to all fully vaccinated visa holders in February 2022 (Senate Select Committee on COVID-19 2022).

average growth rates, but remained positive. The coastal country areas group experienced its strongest population growth rate, continuing an established pattern of faster annual growth. The inland country areas group had a marginal weakening in its rate. The remote area group experienced population loss consistent with the long-term trend, but continued its year on year improvement. Overall, the 2020-21 year had the most pronounced impact from COVID-19 and will be the subject of the Census-based internal migration analysis throughout this paper.

Growth rates in the year to June 2022 generally returned to levels similar to the year to June 2020. This recovery suggests that the impact of COVID on population change has not been protracted, but short, sharp and largely limited to the time in which there were local and overseas restrictions on people's movements. The remote area group alone did not return to its 2019-20 rate, but instead showed growth for the first year since the end of the mining boom in 2012-13.

Table 2.1 shows the population change across migration geography groups for three periods: the five years to June 2022, 2020-21 and the year following (2021-22). This shows that the rates of growth in 2021-22 largely returned to levels similar to the five-year average annual rates.

Historically, capital cities in Australia collectively experienced higher population growth rates than combined regional Australia²⁴. However, in both 2021-22 and the five-year period, capital cities and the combined regional areas had similar growth rates. The five-year average includes the pandemic period and so the capital city rate is affected by the population loss in 2020-21. While 2021-22 shows a strong recovery, it has yet to return to a more typical rate of between 1.6 and 1.9 per cent.

Conversely, the combined regional annual population growth rate was between 0.7 and 0.8 per cent for the three years to 2016, before increasing to 1.2 per cent each year up to June 2020. This reflected stronger growth across all the groups, albeit with smaller increases in inland country areas. In 2020-21, the combined regional rate was 1.0 per cent, before returning to 1.2 per cent in 2021-22.

Between these two years, the rebound in growth for regional areas was driven by coastal cities, with a rate of 1.6 per cent in 2021-22 compared with 1.2 per cent in the pandemic year. These cities gained 64,872 people in 2021-22 (or a fifth of Australia's total growth) compared with 48,240 the year earlier.

BCARR migration geography	2022 Population	Percentage of total population	5 year population change, 2017-2022	5 year population change, 2017-2022 (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
	persons	per cent	persons	per cent	persons	per cent	persons	per cent
Capital cities	17,466,179	67.2	937,330	1.1	-46,026	-0.3	216,439	1.3
Coastal cities	4,234,043	16.3	296,871	1.5	48,240	1.2	64,872	1.6
Coastal Country areas	1,344,619	5.2	88,780	1.4	20,615	1.6	18,683	1.4
Inland cities	1,261,498	4.9	59,583	1.0	7,843	0.6	11,468	0.9
Inland Country areas	1,363,587	5.2	34,627	0.5	6,012	0.4	7,662	0.6
Remote areas	335,614	1.3	-4,239	-0.3	-520	-0.2	1,004	0.3
Regional Australia (a)	8,539,361	32.8	475,622	1.2	82,190	1.0	103,689	1.2
Australia	26,005,540	100.0	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 2.1 Population change, BCARR migration geography, 2017-22, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Notes: Average annual growth (AAG) and annual change to June of the reference year. "Regional Australia" here is defined as the sum of the five BCARR migration geographies outside the capital cities. Highlighting denotes negative values.

²⁴ 'Regional' refers to all categories except for the capital cities.

Population components

Figure 2.2 shows how the components of population change contribute to the total growth rate among BCARR migration geographies for 2021-22. The three components of change are natural increase (births minus deaths), net internal migration and internal migration.²⁵ This allows us to examine how each factor drives population change for each group.²⁶

The capital city growth rate of 1.3 per cent in 2021-22 was driven mostly by net overseas migration, with natural increase a strong contributor. Net internal migration was negative, but more than offset by the other components. This reflects a longer-term trend of Sydney in particular experiencing net internal migration losses and net overseas migration gains (Hugo and Harris 2011). In addition, based on the *provisional* regional internal migration estimates for Sydney, the city has not experienced a positive interstate or intrastate net internal migration flow from 2001 to 2021 (ABS 2021c)²⁷.

In contrast, the growth rates for coastal cities and coastal country areas are largely driven by internal migration. In percentage terms, remote areas experienced the largest net loss of internal migrants for the year to 2022, illustrating this component's strong influence on the group. Remote areas had the largest gain in percentage terms from natural increase.



Figure 2.2 Population change components, BCARR migration geography, 2021-22 (percentage)

Source: BCARR analysis of ABS August 2023, Regional Population

- ²⁶ Due to the rebasing of population data following the Census, previously published regional component data for 2016-17 to 2020-21 no longer sum to population change (ABS 2023a) and so have not been used in this paper.
- ²⁷ The ABS <u>Regional internal migration estimates, provisional</u> was a publication in response to COVID-19 and the heightened interest in internal migration data. The latest provisional quarterly internal migration data at the capital city and rest of state level is in ABS 2023c (<u>National, state and territory population, March 2023</u> | <u>Australian Bureau of Statistics (abs.gov.au</u>)).

²⁵ Note that these are estimates that the ABS constructs as part of the estimated resident population: they are not directly comparable to the Census net internal migration data. They also represent a different year.

Table 2.2 presents the components by number rather than percentage growth. The table shows that Australia's population grew by 320,128 in the year to June 2022, with half of this from net overseas migration to the capitals. Two thirds of the overall growth occurred in capital cities. This is reflected in the slightly higher growth rate for capital cities at 1.3 per cent, with regional Australia (and Australia) population growth rate for this year at 1.2 per cent.

The pandemic's main population impact was on net overseas migration. This component varies in how much it typically contributes to a given region's population change.

Table 2.2 Population change component	s, BCARR migration geograph	y, 2021-22 (number)
---------------------------------------	-----------------------------	---------------------

	2021-22 population change						
	Natural increase	Net internal migration	Net overseas migration	Population change			
Capital cities	101,151	-46,095	161,383	216,439			
Coastal cities	12,158	32,467	20,247	64,872			
Coastal Country areas	1,381	13,906	3,396	18,683			
Inland cities	5,440	51	5,977	11,468			
Inland Country areas	2,077	1,820	3,765	7,662			
Remote areas	2,153	-2,149	1,000	1,004			
Australia	124,360	0	195,768	320,128			

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Highlighting denotes negative values.

Population change by individual regions

Underneath the group level, we can see the pattern of population change for individual regions. Map 2.1 shows the average annual growth in population for migration geography regions between 2017 and 2022. There is a general pattern of growth in coastal areas, with areas of decline tending to be more inland and remote. Remote areas are marked by variation in population change, with some areas experiencing population growth such as in outback Queensland or regions in Western Australia.

Typically, capital cities tend to show stronger growth, but this period includes the pandemic, in which capital city population growth was particularly impacted, as described in the population change section above, with slower population growth rates.



Map 2.1 Average annual population change, BCARR migration geography regions, 2017 to 2022

Map 2.2 presents the population change over 2020-21 during the height of the pandemic. Broadly, the map has a similar pattern to the five-year average map above. Many regional locations experienced stable or positive population growth rates during the pandemic. Coastal areas again have some of the highest growth rates, along with some remote locations such as Mount Isa Surrounds and Meekatharra.

A notable departure from the five-year average is the population decline in Sydney and Melbourne, while smaller capital cities such as Canberra and Hobart experienced strong growth.



Map 2.2 Population change, BCARR migration geography regions, Australia, 2020-21

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Excludes regions with populations of fewer than 100 in any of the years from 2017 to 2022.

Source: BCARR analysis of ABS August 2023, Regional Population Note: Excludes regions with populations of fewer than 100 in any of the years from 2017 to 2022.
Map 2.3 shows the following year, 2021-22, when there were more areas experiencing population gains than the previous year (and to a lesser degree, compared with the five-year period). However, there are fewer areas of strong growth (the darker blue). Considering individual states, there are more areas in Western Australia and the Northern Territory with population growth compared to the five years. Compared to both the five years and 2020-21, Tasmania's growth was weaker. Many areas in Queensland and New South Wales fared better in this year. While Melbourne's growth was positive, we can observe more decline in regional Victoria than the previous year. Subsequent sections explore in more detail how individual regions fared between the different time periods.





Source: BCARR analysis of ABS August 2023, Regional Population Note: Excludes regions with populations of fewer than 100 in any of the years from 2017 to 2022.

Internal migration flows by BCARR migration geography

Maps 2.4 and 2.5 present the net internal migration flows between August 2020 to 2021, and August 2016 to 2021. Because the two time periods discussed are a one-year and five-year period, it is difficult to meaningfully compare the size of the flows for individual regions between the two times. These maps provide a broad illustration of the pattern across Australia in both periods.

Overall, Australians have shown a preference for coastal locations, urban areas and high amenity regional locations. These preferences reflect both lifestyle and life stage changes. The CIE (2023, p.54) investigated how internal migration related to a range of regional characteristics. They found trends in net migration to be highly persistent, and that while there is no systematic pattern of characteristics that explain growth or decline of net internal migration rates, geography appears to be a factor, with growth in coastal areas and the capital city fringes, and declines in areas further inland, more remote and more mining dependent locations, generally consistent with the observed pattern in the map. The largest difference in characteristics were those relating to industry composition and distance to capitals and other large cities.

Economic drivers have influenced settlement patterns and migration flows because of factors such as (un)employment, economic restructuring and resource endowment.²⁸ In the case of the migration flows for the 2021 Census, the pandemic

²⁸ The CIE (2023, p.82) found that low unemployment is the factor which "most consistently is shown to lead to net inward migration to a region".

has played an additional role because of the restrictions on movements of people, as well as the increased ability to work from home.

In a survey of over 4,300 Australian residents, the CIE (2023, p.136) found that the key triggers to move for internal migrants was a new job, to be near family or friends, and housing affordability or availability. There are also factors that keep the migration pattern more stable – that is, why people do not move. The largest factor for not moving was a person not wanting to leave their social networks of family and friends, with other factors being the cost, stress and uncertainty of moving, and the availability of good jobs and health services. This is consistent with a 2023 survey of 2,970 people from capital and regional cities by Vij et al (2023), which investigated what had made people stay or move to their current location. The most important factors were employment, quality of life, city environment, proximity to family and friends, and housing costs. Being close to family and friends was the most important factor for those who had never moved from their current city of residence, while those who had moved ranked employment, quality of life and attractive environment higher.



Map 2.4 Net internal migration, BCARR migration geography regions, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.



Map 2.5 Net internal migration, BCARR migration geography regions, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Table 2.3 presents the net internal migration flows between migration geography groups. In the year to August 2021, capital cities collectively lost the most people to other areas (57,614). While there was a net loss to each of the other five categories, the largest share was to coastal cities, which gained a net 33,984 people from capital cities alone. In a recent report by Vij et al. (2023, p.9) found that '[i]n general, capital city residents are much more open to moving to a regional city, than the other way around. For example, 73 per cent of the 1,562 capital city households in our survey indicated being open to moving to a regional city in the same state as of early 2023, but only 57 per cent of the 1,408 regional city households in our survey indicated being open to moving to the capital city in the same state'.

Inland cities and inland country areas had a mix of positive and negative net migration from other areas, with gains from the capitals and remote areas and losses to coastal areas. The net migration to the coastal groups was positive, with all other region types experienced net migration loss to the coast.²⁹

Between coastal cities and coastal country areas, there was a negligible net flow (19 people). Unlike the coastal group, the inland country areas lost a net 2,783 people to inland cities.

²⁹ This is consistent with CIE (2023, p.3), which found that historic migration patterns in Australia show decline from remote areas and growth in coastal towns, particularly near the capitals, with inland outcomes more mixed. They describe the largest capital cities as "net exporters of people within Australia", growing their own populations through overseas migration.

	Origin 202	Origin 2020								
Destination 2021	Capital cities	Coastal cities	Coastal country	Inland cities	Inland country	Remote	Net internal migration	Overseas origin		
Capital cities		-33,984	-10,134	-4,505	-7,750	-1,241	-57,614	137,432		
Coastal cities	33,984		-19	3,867	2,727	1,161	41,720	21,333		
Coastal Country	10,134	19		86	527	528	11,294	3,946		
Inland cities	4,505	-3,867	-86		2,783	302	3,637	5,682		
Inland Country	7,750	-2,727	-527	-2,783		434	2,147	4,020		
Remote	1,241	-1,161	-528	-302	-434		-1,184	1,148		

Table 2.3 Net internal migration flows, BCARR migration geography, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Comparing the net flows during the one-year period in Table 2.3 to the five-year period in Table 2.4, the pandemic year pattern is similar to the medium-term pattern. The pattern of net loss or net gain between each origin-destination pair of the migration geographies is largely the same.

There are some notable exceptions. In the five years to August 2021, inland country areas had a net internal migration loss of 385 people, but over the single year had a net gain of 2,147. In addition, while coastal country areas lost a net 6,627 to coastal cities across the five-year period, the net flows between the two coastal groups was negligible over the single year. The remote group gained from capital cities over the one-year period (1,241), compared to the five-year loss (of 484). However, remote areas experienced net losses to all other groups over both periods.

	Origin 201	16						
Destination 2021	Capital cities	Coastal cities	Coastal country	Inland cities	Inland country	Remote	Net internal migration	Overseas origin
Capital cities		-93,816	-42,657	-6,378	-27,101	484	-169,468	1,075,644
Coastal cities	93,816		6,627	13,626	11,393	5,278	130,740	125,360
Coastal country	42,657	-6,627		936	4,645	2,500	44,111	18,570
Inland cities	6,378	-13,626	-936		13,945	2,570	8,331	38,910
Inland country	27,101	-11,393	-4,645	-13,945		2,497	-385	21,152
Remote	-484	-5,278	-2,500	-2,570	-2,497		-13,329	6,211

Table 2.4 Net internal migration flows, BCARR migration geography, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratoryoffshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Figure 2.3 illustrates the gross internal migration flows between groups, delineating the arrivals and departures that contribute to the net figure for each. This shows the strong relationship between capital cities and coastal areas. Between 2016 and 2021, almost half a million people moved from the capital cities to coastal locations (424,561), while a smaller number (288,088) left the coastal groups for the capitals.

For remote areas, the migration flows between coastal areas were similar in size to the flows between remote areas and the capital cities. However, the net effects for the two pairs of regions were very different. While arrivals and departures between remote areas and capital cities were almost equal, there were far more arrivals to coastal areas from remote areas than departures from coastal areas to remote areas, resulting in a significant net loss from remote to coastal.



Figure 2.3 Gross internal migration flows, BCARR migration geography, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Movements excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region.

Internal migration by age

Age has a strong influence on a person's propensity to migrate and the choice of destination. Younger cohorts tend to have higher rates of migration, which slows as people get older and form families (BITRE 2011). The CIE (2023) used an empirical model to relate net migration to place characteristics, and found that younger Australians are more likely to migrate to those areas with transport and education services, while older Australians are driven by the availability of residential aged care and hospitals. The CIE also report that triggers for moves differ by age group, with jobs being less important for older age groups, but the key trigger for those under 60. For those over 60, retirement, healthcare and proximity to family and friends are more important. For the young adult group (under 30s), it is access to tertiary education (CIE 2023, p.137).

In 2021, coastal cities, coastal country areas and inland country areas had an older age structure than the other groups, with at least one in five residents over the age of 65 years (See Table 2.5). Both country areas also had a higher share of their populations in the 55 to 64 years group, while also having the lowest shares of the young adult population (the 15 to 24 and 25 to 34 years groups). The capital city population had the highest share of the groups that make up the 15 to 54 years – those age groups with the strongest connection to the labour force.

	Capital cities	Coastal cities	Coastal Country areas	Inland cities	Inland Country areas	Remote areas	Australia
Age (at August 2021)			Per cei	nt of population	on		
Under 15 years	18.4	17.9	16.5	19.4	17.8	20.5	18.2
15-24 years old	12.4	11.6	9.2	12.2	10.2	11.7	11.9
25-34 years	15.4	12.6	9.2	13.9	10.3	15.0	14.3
35-54	27.4	25.1	23.6	24.2	23.8	26.1	26.5
55-64 years	11.1	12.5	16.4	11.8	14.9	12.9	11.8
65 years and over	15.4	20.3	25.0	18.5	22.9	13.8	17.2

Table 2.5 Population by age, BCARR migration geography, August 2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Table 2.6 shows the net internal migration by age bracket for the one and five years. The highlighting indicates where the net internal migration is negative. It should be noted that the age referred to is as at August 2021, as there is no data on the ages of people when moves occurred.

A key feature for both periods is the net gain for capital cities in the 15 to 24 years age group, despite the capital city group having losses across all other age groups. Across the migration geography groups, the largest net losses of 15 to 24 year olds were from coastal country areas and inland country areas in both time frames. This pattern reflects younger cohorts wanting to migrate for education, job opportunities and entertainment. This is also the most mobile group (Centre for Population 2020). In contrast, it is a long-standing trend for people in the other age categories to migrate out of capitals cities. This is consistent with a recent Regional Australia Institute (RAI) (2023) paper on migration that found persons aged 25 to 39 (this report uses 25 to 34 years) show a preference for regional areas.

Table 2.6 Net internal migration by age, BCARR migration geography, August 2020-2021 and 2016-2021

	Age (at August 2021)	Capital cities	Coastal cities	Coastal Country areas	Inland cities	Inland Country areas	Remote areas
	Under 15 years	-10,657	7,277	3,618	-269	1,679	-1,648
-	15-24 years	12,473	-142	-6,101	-223	-6,049	42
202	25-34 years	-17,761	10,042	3,139	1,557	1,944	1,079
5	35-54 years	-22,744	12,286	6,682	115	3,579	82
020	55-64 years	-12,873	5,457	4,764	415	2,240	-3
7	65 years and over	-6,066	6,762	-804	2,076	-1,224	-744
	Total	-57,614	41,720	11,294	3,637	2,147	-1,184
	Under 15 years	-25,482	19,626	10,207	-1,493	2,443	-5,301
-	15-24 years	51,152	120	-21,593	-2,070	-23,658	-3,951
202	25-34 years	-32,662	14,867	8,663	2,453	4,768	1,911
5	35-54 years	-76,267	42,249	24,668	-488	12,256	-2,418
016	55-64 years	-47,309	20,581	18,660	1,289	7,212	-433
2	65 years and over	-38,872	33,323	3,494	8,621	-3,451	-3,115
	Total	-169,468	130,740	44,111	8,331	-385	-13,329

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components, and small numbers are indicative only. Highlighting denotes negative values.

For inland cities and remote areas, there were more pronounced net losses from this age group in the five years than in the pandemic year. Inland cities had a large net loss of 15 to 24 year olds between 2016 and 2021 (2,070), and a much smaller net loss in the pandemic year (of 223), with remote areas similarly losing 3,951 people of this age over five years, compared with a negligible gain of 42 in the pandemic year.

For the 65 and over cohort, there were internal migration gains to coastal and inland cities in both periods. This is a longstanding trend and reflects the desire to access better services and obtain a regional lifestyle later in life (CfP 2023b). Coastal country areas had a strong net gain from this group between 2016 and 2021 (of 3,494), but a loss of 804 in the pandemic year. In both periods, coastal cities had a larger net gain of people aged 65 and over than the 55 to 64 years age cohort, while the reverse is true for coastal country areas.

Remote migration is dominated by economic factors, reflected in the positive net migration of the 25 to 34 years age cohort. This age-group's migration flow reflects young adults (mostly from capital cities) taking advantage of economic opportunities in select remote locations. There is a notable difference between the two time periods. While the 15 to 24 years and the 35 to 54 years groups had strong outflows in the five years (3,951 and 2,418 people respectively), in the year to August 2021, there were small net gains. This is explored further in the remote chapter.

Internal migration by labour force status

Labour force status is another demographic characteristic to consider in terms of movement. Vij et al. (2022, p.2) found that "[i]n general, access to employment opportunities is cited as the single most common reason for migration".³⁰ CIE (2023) found that employed people and those not in the labour force have higher migration intensities compared to the unemployed. They report that the role of wage differentials as a driver of migration has decreased with a decline in interregional differences of wages, industry and occupation composition and unemployment. Therefore, whether an individual is employed, unemployed, or out of the labour force is likely to influence their migration decisions.

Table 2.7 shows the labour force structure for each BCARR migration geography to provide context for internal migration by labour force status (for those aged 15 years and over). The capital cities group had the largest proportion of employed people among its population aged 15 years and over, followed by inland cities. These two groups also had the smallest proportions of people not in the labour force. Coastal country areas and inland country areas had the largest shares of people not in the labour force. This in part reflects the older age structure of those two groups. Coastal country areas also had by far the lowest share of employed people (54.9 per cent of those aged 15 and over).

	Capital cities	Coastal cities	Coastal Country areas	Inland cities	Inland Country areas	Remote areas
Labour force status						
(at August 2021)		Per cen	t of population	n aged 15 yea	rs and over	
Employed	62.8	59.4	54.9	61.3	59.4	58.5
Unemployed	3.5	3.1	2.6	2.9	2.4	3.7
Not in the labour force	33.7	37.5	42.4	35.8	38.2	37.8

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Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Includes people 15 years and over with a stated labour force status. Note that the percentage of unemployed people is not the same as the unemployment rate, which is the number of unemployed divided by the total labour force.

³⁰ They also found that Australian migration patterns are driven by a combination of economic factors, location factors (such as coastline and distance to a metropolitan centre) and amenity-based factors.

Table 2.8 shows the net internal migration between August 2020 and 2021, and between August 2016 and 2021, by labour force status.³¹ Comparing the one year and five years, there was consistency in terms of whether a group had net gains and losses of people from each labour force status category. This indicates that the pandemic did not disrupt this overall pattern, but there were changes in emphasis.

The capital cities had a net loss of people in every labour force status category, while coastal areas had net gains in all three. Inland cities had net gains of employed people and those not in the labour force, while inland country and remote areas only had net gains of employed people and corresponding losses of unemployed people and those not in the labour force. This variation across groups is likely to reflect choices of movers based on job opportunities, amenity and services.

For the year to August 2021, about 4 in 5 of the capital city net losses from these categories (those aged 15 and over) were employed. A negligible amount of the net loss was unemployed people, while 1 in 5 were out of the labour force.

Coastal cities and coastal country areas experienced net gains across all three labour force groups. Coastal cities had by far the largest net gains of each group. Among those aged 15 and over, those not in the labour force (as at August 2021) accounted for 30 per cent of the net migration gain from these categories for coastal cities, compared to 9 per cent of the coastal country area net gain, in the pandemic year. In addition, employed persons accounted for 89 per cent of the net internal migration gain of those 15 and over for country coastal areas, while only accounting for 66 per cent of the net gain for coastal cities.

	Labour force status	Capital	Coastal Coastal Country		Inland	Inland Country	Remote
	(August 2021)	cities	cities	areas	cities	areas	areas
_	Employed total	-36,897	22,591	6,810	2,591	2,421	2,484
0-2	Unemployed total	-199	1,439	117	-299	-683	-375
2	Not in the labour force	-9,552	10,256	717	1,610	-1,329	-1,702
-	Employed total	-86,366	60,328	21,670	2,360	1,876	132
6-2	Unemployed total	-794	3,260	250	-514	-1,193	-1,009
-	Not in the labour force	-56,027	47,032	11,883	7,846	-3,585	-7,149

Table 2.8 Net internal migration by labour force status, BCARR migration geography, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated. Highlighting denotes negative values.

While the pattern of positive and negative net migration was the same across the one and five-year periods, the relative proportions between the labour force categories and migration geography groups were different.³² Most strikingly, three of the groups had larger net gains of employed people in a single year than they did over the five-year period.

Remote areas gained a net 2,484 employed people during the pandemic, with a much smaller gain over five years (132 employed people). It is not surprising that the remote area group has the most pronounced variation between years. Its overall population growth trend shifted from very negative to only marginally negative by 2020-21, and its internal migration loss softened from an outflow of 13,329 over five years to a loss of only 1,184 in the one year. Likewise, inland

³¹ This data was collected at a time when people's labour force status was impacted by pandemic and related restrictions (ABS 2021d). As parts of Australia were in lockdown for the Census and the previous week, the ABS provided the following advice on the Census website on answering the employment question: "If you were employed in the four weeks prior to the current lockdown period, but haven't been able to work in the last week due to lockdown or requirement to self-isolate, please select 'Yes, but absent on holidays, on paid leave, on strike or temporarily stood down". Those people answering yes were counted as employed. See: Labour force status (LFSP) | Australian Bureau of Statistics (abs.gov.au)

³² Here, it is important to note that the labour force status is at August 2021, not at the time of departure from the previous region. In other words, the labour force status in their new location does not necessarily reflect their status when choosing to move.

country areas and inland cities both had a higher net gain of employed people in the pandemic year than over the whole five-year period.

This can also be seen in how the net loss of employed persons from capital cities is distributed as gains across the other migration geography groups (Figure 2.4). In the five years, almost all the net loss of employed people from capital cities was gained by coastal cities and coastal country areas. While these two groups still had the largest net gains in the year to August 2021, the remote and inland areas received a greater share of employed persons than they did over the five years.





Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder Note: Includes people 15 years and over with a stated labour force status.

In the pandemic year, those outside the labour force made up a lower share of net migration in each migration geography group, whether positive or negative, compared with the five years. This generally reflects muted arrivals for coastal and inland areas, and muted departures for capitals, remote areas and inland country areas.³³

The composition of the net gains for the coastal groups and the net loss for capital cities and both coastal groups across labour force groups is shown in Figure 2.5. Their total net gains for labour force groups (or total net loss, for capitals) was comprised of a higher share of employed people as a proportion of their total net gain (for coastal areas) or loss (for capitals) for the one year compared with the five-year period. For coastal country regions, a much greater share of the one-year net gain was employed rather than being outside the labour force. The change between the two time periods was less pronounced for coastal cities.

³³ Defined as where the one year as a percentage of the five-year arrivals or departures is comparatively low. Here, those one-year figures considered muted were under 35 per cent of the five-year figures.



Figure 2.5 Net internal migration by labour force status, BCARR migration geography, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Includes people 15 years and over with a stated labour force status. Note that the percentage of unemployed people is not the same as the unemployment rate, which is the number of unemployed divided by the total labour force. The bars represent net loss from the capital cities group and net gains from the coastal groups.

Summary

The BCARR migration geography allows for analysis of the Australian settlement pattern and how this is changing over time. Over the past decade, capital cities collectively had the strongest growth rates until the impact of the pandemic, which saw the collective capital city population decline in 2020-21.

In contrast, regional Australia during the pandemic grew by 1.0 per cent in 2020-21 when Australia's population growth rate was only 0.1 per cent. The migration geography groups within regional Australia were impacted differently. For example, coastal country areas experienced the strongest growth across all categories, higher than the group's five year annual growth rate.

Capital cities have had a long-standing loss in net internal migration, which was consistent over both the one and five years. Despite these losses, capital cities are the destination of choice for those aged between 15 to 24, with people attracted to education, job opportunities and social activities. In contrast, coastal areas have consistently been attractive place for people to reside in the older age cohorts. This is reflected in strong positive net internal migration into coastal areas, particularly coastal cities.

During the pandemic, there was a much greater emphasis on employed people moving to regional areas. Remote and inland areas gained a greater net number of employed people in the pandemic year than they did over the whole five years to 2021.

3. Capital cities

Key points

- In 2022, Australia's capital cities collectively had a population of 17.5 million people, and grew by 937,330 people between 2017 and 2022.
- Capital cities are the main destination for overseas arrivals, with over a million people arriving between August 2016 and 2021.
- The cities of Brisbane and Perth grew the most strongly over the past two decades, while Hobart and Adelaide grew slowly compared to the other capitals and Australia overall. More recently, Hobart's rate of growth was among the strongest each year between 2016-17 and 2020-21, before falling again in 2021-22.
- In 2020-21, the total population of capital cities declined. Almost all capital cities had weaker population change compared to the five-year average, but only Melbourne and Sydney lost population. Darwin was the only capital with stronger growth in the pandemic year than the five-year average, although it had by far the weakest average annual growth over the five years.
- All the capital cities experienced population growth in 2021-22. Most had a stronger growth rate than in 2020-21, except for Canberra and Hobart. Melbourne in particular rebounded more quickly than Sydney, despite the greater impact of the pandemic in 2020-21.
- The components of population change for 2021-22 reveal that all capital cities experienced net overseas migration gains that year, with the largest gains going to Melbourne, followed by Sydney, Brisbane and Adelaide. Brisbane and Perth were the only capitals to have net internal migration gains in 2021-22.
- Net internal migration losses from some capital cities have been consistent over time. There are longer term differences between the cities, such as losses from Sydney and gains to Brisbane.
- Adelaide is the only capital city that experienced a shift in net internal migration from negative between August 2016 and 2021 to positive in the pandemic year (August 2020 to 2021). Some other cities also had larger gains or losses in the pandemic year than would be expected based on their five-year figures. Melbourne fared worse than might be expected, likely reflecting its lockdowns, while Perth had a greater gain in one year than in the whole five-year period.
- The draw of education, employment and entertainment opportunities for young people created a net positive migration flows into capital cities for the 15 to 24 year old group.
- Across both time periods, the capital cities group had net losses of employed, unemployed and those not in the labour force. In the pandemic year, employed people made up a larger share of the net loss from capitals than in the five years, and those outside of the labour force made up a correspondingly smaller share.

Introduction

In 2022, the eight capital cities made up 67.2 per cent of Australia's population, equivalent to nearly 17.5 million people. These cities collectively grew by 937,330 people between 2017 and 2022, at an average annual rate of 1.1 per cent. Australia's largest capital cities have dominated the country's population growth.

However, during the pandemic period, collectively capital cities population declined. In addition, for the first time since 1981, Australia's regional population grew more than capital cities - primarily due to population losses from Sydney and Melbourne (ABS 2022c). This has reversed in the latest year, with the capital cities growing again by just over 216,400 people in 2021-22. These shifts are explored further throughout this chapter.

Population change

Figure 3.1 presents the population index for all capital cities over the past two decades. For many cities there is a consistent pattern of population growth, with only a few exceptions such as the more volatile rate for Darwin and the declines or subdued growth in the pandemic period.

Brisbane and Perth have grown the most strongly over the last two decades, illustrating their increasing attraction. For example, Brisbane's population has increased by 931,785 people, with Perth adding another 770,349 people between 2001 and 2022. Except for losses in 2021, Melbourne and Sydney have grown steadily, each adding over a million people during this period. Melbourne outpaced Australia's growth over the period, with Sydney below it.

Hobart and Adelaide had slower population growth rates compared to the other capitals and Australia overall. However, over the past several years, Hobart's growth rate has risen and remained positive during 2021, but has since slowed.



Figure 3.1 Population index, capital cities, 2001 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Geographies are based on the Greater Capital City Statistical Areas Classification. The population index uses 2001 as a base, and is calculated as current year value/base year value*100. Therefore a value of 120, for example, indicates growth of 20 per cent from the base year.

Over the five years to 2022, the population rose in all capital cities. Canberra experienced the highest average annual five-year growth rate at 1.9 per cent, followed by Hobart (1.8 per cent) and Brisbane (1.7 per cent) (see Figure 3.2 and

Table 3.1). In the latest year (2021-22), Brisbane's growth accelerated to 2.2 per cent, while the rates for Hobart and Canberra have slowed. Hobart's rate of growth was among the strongest each year between 2016-17 and 2020-21, before falling again in 2021-22. It had the largest percentage point drop that year (a five-year average of 1.8 to 0.7 in 2021-22). Darwin grew much faster in the latest year (0.8 per cent) than its five-year average (0.1), resulting in an increase of 1,156 people to its population in 2021-22.

While collectively capital cities experienced a decline during the pandemic period of 46,026 people (or a loss of 0.3 per cent) there are differences in individual city outcomes. Melbourne experienced the largest loss in population in 2020-21, with a fall of 85,788 people, followed by Sydney with 33,728. As illustrated in Figure 3.2, the pandemic accelerated an existing downward trend in the rate of population growth for both Sydney and Melbourne, which began in 2016-17.

Like other capital cities, Darwin experienced a decline in its population rate in 2020-21 compared with the previous year, but the decline was only marginal. Prior to the pandemic, Darwin was the only capital city that experienced population declines within the past decade, with a loss of 479 and 1,022 people in 2018 and 2019 respectively.



Figure 3.2 Annual population change, capital cities, 2012 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Geographies are based on the Greater Capital City Statistical Areas Classification. Change is year to 30 June of the reference year.

Capital city	2022 Population	5 year population change, 2017-2022	5 year population change, 2017-2022, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
	persons	persons	per cent	persons	per cent	persons	per cent
Sydney	5,302,736	183,241	0.7	-33,728	-0.6	40,935	0.8
Melbourne	5,035,738	215,622	0.9	-85,788	-1.7	60,419	1.2
Brisbane	2,625,341	215,875	1.7	22,335	0.9	57,627	2.2
Adelaide	1,418,230	79,960	1.2	9,117	0.7	16,358	1.2
Perth	2,225,710	179,297	1.7	30,277	1.4	33,872	1.5
Hobart	252,453	21,162	1.8	3,858	1.6	1,736	0.7
Darwin	149,127	375	0.1	298	0.2	1,156	0.8
Canberra	456,844	41,798	1.9	7,605	1.7	4,336	1.0
Capital cities	17,466,179	937,330	1.1	-46,026	-0.3	216,439	1.3
Australia	26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 3.1 Population change, capital cities, 2017-22, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. Geographies are based on the Greater Capital City Statistical Areas Classification. Highlighting denotes negative values.

Comparing population growth across time for individual capital cities

Figure 3.3 shows the relationship between the population change in 2020-21 and the average annual change from 2017 to 2022. The degree of difference between population change for the five-year period and pandemic year is observable based on each city's distance from the 45-degree line. If a city had the same average annual population growth rate for five-year period as for the 2020-21 year, the city marker would fall on the reference line. More distance from the line indicates a greater difference between the two rates.

Unsurprisingly, almost all capital cities had weaker population change in the pandemic year than the five-year average. Darwin was the only capital with stronger growth in the pandemic year, although it had the weakest average annual growth over the five-year period by far.

There was generally a positive relationship between the growth rates for the two time periods, with a correlation coefficient of 0.69. For some capitals, the 2020-21 growth rate was a subdued but similar figure to the five-year average annual growth rate: this occurs for Canberra, Hobart and Perth. ACT and Tasmania had no lockdowns at all over this year.

For other capital cities, the pandemic's impact on population was more extreme. Melbourne's five-year growth rate is higher than Sydney's, but this did not translate into a comparatively softer pandemic population decline. In fact, the Melbourne rate for 2020-21 showed a far greater divergence from its medium-term rate. Both cities were affected by the international border closure and the subsequent loss of population normally gained by net overseas arrivals. However, between June of 2020 and June of 2021 internal migration decisions were likely influenced by differences in localised impacts from the pandemic, both for arrivals to and departures from both cities.

Sydney experienced minimal lockdowns during 2020-21, compared with the months-long lockdowns in Melbourne. While the March 2020 nationwide lockdown of Australia was lifted in April 2020, Melbourne returned to lockdown in July until 27 October 2020. There were subsequent shorter lockdowns in February of 2021 and May 2021. By June 2021, this was extended to all of Victoria. In contrast, in the year to June 2021, the lockdowns for Sydney were restricted to the Northern Beaches Local Government Area over a month to mid-January 2021. There were no further mandates until the

emergence of the Delta variant when Sydney again went into lockdown in late June 2021 (Department of Education 2021).

The difference in growth rate changes between Melbourne and Sydney can be further understood by looking at the changes in net internal migration loss from each city. Before the pandemic, Sydney experienced a much larger net internal migration loss compared to Melbourne, as can be seen from the net loss between August 2016 and 2021 in the Census data (see internal migration section below).

The size of the net internal migration loss from Melbourne compared to Sydney during the pandemic year was comparatively larger than usual for Melbourne, and so resulted in a more extreme change to Melbourne's growth rate. Sydney's net internal migration loss was approximately 156,907 people over the five years, more than double the 69,966 loss from Melbourne. During the pandemic year, Melbourne continued to have a smaller net internal migration loss compared to Sydney, although the difference in loss between the two cities was much smaller (both cities had net losses of between 40,000 and 50,000 people).

Brisbane and Adelaide also experienced lower population growth rates for 2020-21 than their 2017-22 averages, but the difference was far less extreme than Sydney and Melbourne.



Figure 3.3 Population change, capital cities, 2020-21 and 2017-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Geographies are based on the Greater Capital City Statistical Areas Classification.

Figure 3.4 plots the population change in capital cities for 2020-21 against the population change in 2021-22 to show the relationship between the pandemic year and the following year for each city. This reflects how drastically different the two growth rates were across all capital cities. There is very little linear relationship for these growth rates (correlation coefficient of 0.10).

All the capital cities experienced population growth in 2021-22. Melbourne in particular rebounded more quickly than Sydney, despite it having a lower growth rate in 2020-21. In 2021-22, Melbourne's growth was the third strongest at 1.2 per cent, after Brisbane (2.2 per cent), and Perth (1.5 per cent). The component data for population change in the next section below shows that the net internal migration loss from Melbourne was 24,450 over 2021-22 compared to Sydney's loss of 49,812, while the annual net overseas migration gains for both cities were very similar and Melbourne's natural increase was 7,166 people smaller. Note that this is the component data that forms the population change, and is not directly comparable to the Census data discussed above.

Canberra and Hobart had stronger growth rates in the pandemic year compared to 2021-22, in contrast to all other capital cities. Comparing the relative ranking of cities between Figure 3.3 and Figure 3.4, Canberra and Hobart had the two strongest growth rates for the five-year average and the pandemic year, then fell in ranking to the bottom half of the capitals for 2021-22. Figure 3.2 above (the annual growth rate time series for capital cities) indicates that, as with Melbourne, this softening growth rates is part of a trend that started prior to the pandemic. Hobart's change is particularly striking: it had the second strongest growth in both 2017-22 and 2020-21, and the weakest growth in 2021-22. This is not just a shift relative to the other cities: in 2021-22, its population growth (0.7 per cent) was less than half of its 2020-21 figure (1.6 per cent).



Figure 3.4 Population change, capital cities, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Geographies are based on the Greater Capital City Statistical Areas Classification.

Population components

Population change is driven by three components: natural increase, internal migration and overseas migration. Figure 3.5 presents these components for capital cities for 2021-22 by percentage change, with Table 3.2 presenting the number of persons.

Natural increase (births minus deaths) contributes positive growth across all capital cities. Darwin has the highest proportion of natural increase, contributing 1.0 per cent to its overall growth. Natural growth contributed the lowest to Hobart and Adelaide's growth, at 0.3 per cent. In terms of numbers (Table 3.2), natural increase was highest in Sydney followed by Melbourne, Brisbane and Perth, which reflects the size of these cities.

Brisbane and Perth were the only capitals to have net internal migration gains. This contributed 1.0 per cent to Brisbane's growth, the largest component for the city – reflecting the long-standing attraction of Queensland for internal migration. The largest net internal migration losses in terms of numbers were in Sydney and Melbourne, but in terms of percentage change Darwin experienced the largest loss (of 1.3 per cent of its population). Provisional quarterly data period also estimates net internal migration losses each quarter between June 2022 and March 2023 for all capital cities except Perth and Brisbane (ABS 2023c).

As the impact of the pandemic subsided, overseas migration resumed.³⁴ All capital cities experienced net overseas migration gains in 2021-22, with the largest number going to Sydney, followed by Melbourne, Brisbane and Adelaide (Table 3.2). This component is often the largest contributor for capital cities, as overseas migrants overwhelmingly move firstly to a capital city, particularly Sydney and Melbourne (CfP 2021). Overseas migration contributed 1.1 per cent to Darwin's population growth, which matches the contribution for Sydney. However, their total growth rates were lower than this due to net internal migration losses. Net overseas migration contributed the most to Melbourne, at 1.2 percent.

³⁴ The reopening of the international borders was staged from November 2021, reopening to all fully vaccinated visa holders in February 2022 (Senate Select Committee on COVID-19 2022).



Figure 3.5 Population change components, capital cities, 2021-22 (percentage)

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Geographies are based on the Greater Capital City Statistical Areas Classification.

Table 3.2 Population components, capital cities, 2021-2022 (number)

Capital city	Natural increase	Net internal migration	Net overseas migration	Population change
Sydney	34,177	-49,812	56,570	40,935
Melbourne	27,011	-24,450	57,858	60,419
Brisbane	16,328	25,188	16,111	57,627
Adelaide	4,613	-722	12,467	16,358
Perth	13,426	8,806	11,640	33,872
Hobart	801	-899	1,834	1,736
Darwin	1,543	-1,995	1,608	1,156
Canberra	3,252	-2,211	3,295	4,336
Total capital cities	101,151	-46,095	161,383	216,439

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Geographies are based on the Greater Capital City Statistical Areas Classification. Highlighting denotes negative values.

Internal migration flows for capital cities

Over the five years to August 2021, the capital cities group experienced net internal migration losses to all other migration geography groups, except for remote areas. There was a marginal net gain from remote areas of 484 people (see Table 3.3). During the pandemic year, the capital cities group experienced net losses to all other groups, including remote areas, with similar patterns of most people moving towards coastal cities, followed by coastal country and inland country areas. However, these overall figures do not illustrate the differences in outcomes for individual capital cities.

Figure 3.6 Net internal migration flows, capital cities, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Table 3.3 In, out and net migration, capital cities, August 2020-2021 and 2016-2021

	Capital cities	Overseas	Coastal cities	Coastal country areas	Inland cities	Inland country areas	Remote	Total
021	In-migration	137,432	83,437	24,315	27,657	24,569	8,442	168,420
0 to 2(Out-migration	na	117,421	34,449	32,162	32,319	9,683	226,034
202	Net-migration	na	-33,984	-10,134	-4,505	-7,750	-1,241	-57,614
021	In-migration	1,075,644	225,275	62,813	73,940	65,827	21,806	449,661
5 to 2(Out-migration	na	319,091	105,470	80,318	92,928	21,322	619,129
201	Net-migration	na	-93,816	-42,657	-6,378	-27,101	484	-169,468

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratoryoffshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Table 3.4 presents the migration flows for all capital cities for the one- and five-year periods. Brisbane is the most attractive of all the capitals cities in terms of net internal migration for both time periods presented. Between 2016 and 2021, the internal migration gain to Brisbane was over 50,000 people, with the next highest capital city being Canberra with a net gain of just over 10,000 people.

Adelaide is the only capital that experienced a shift in net internal migration from negative to positive. Over the five years, Adelaide lost around 3,694 people to internal migration, but had a net migration increase of 2,914 people during the pandemic year. A feature of this shift is the flow between Adelaide and Melbourne. Melbourne provides the largest in and out migration flows for Adelaide for both periods. However, over the five-year period, Adelaide experienced a net loss to Melbourne of 3,395 people. This reversed during the pandemic year with a net gain from Melbourne of over 2,000 people. This illustrates some of the shifts that occurred during the pandemic, potentially from the long periods of lockdown in Melbourne.

There were other differences in emphasis between the two time periods. Perth had stronger net gains (9,039) in the single year than over the whole five years (2,467). Similarly, Canberra's net gain was strong for a single year (6,309) compared with its five-year gain (10,241).

The net internal migration loss from Melbourne for the pandemic was 40,829, compared with a loss of 69,966 over the whole five years. This large outflow in a single year is likely due to the lockdowns lowering the appeal of the city. Conversely, Darwin's net loss was smaller in the pandemic (1,327) than might be expected based on its five-year loss (9,248).

The pattern of migration flows based on origin and destination is considered in the case study at the end of this chapter, which investigates where internal migrants to Brisbane came from and where internal migrants from Sydney and Melbourne moved to.

Capital city	In-migration	Out-migration	Net migration	In-migration	Out-migration	Net migration
		2020 to 2021			2016 to 2021	
Sydney	53,546	102,244	-48,698	136,961	293,868	-156,907
Melbourne	60,024	100,853	-40,829	179,845	249,811	-69,966
Brisbane	75,827	62,223	13,604	217,147	166,288	50,859
Adelaide	27,530	24,616	2,914	71,182	74,876	-3,694
Perth	39,945	30,906	9,039	100,770	98,303	2,467
Hobart	9,946	8,569	1,377	26,872	20,095	6,777
Darwin	9,051	10,378	-1,327	21,951	31,199	-9,248
Canberra	24,187	17,878	6,309	59,670	49,429	10,241
Total capital cities	300,056	357,667	-57,614	814,398	983,869	-169,468

Table 3.4 In, out and net migration, individual capital cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratoryoffshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Internal migration by age

Internal migration flows for capital cities are heavily influenced by the age of migrants. Table 3.5 presents the net internal migration flows for all capital cities by different age cohorts. The only age group with positive net migration into the capital cities was 15 to 24 year olds, in both periods. The draw of education, employment and lifestyle opportunities in capital cities is significant for young people, which is a particularly mobile cohort in the population. Over the five years, 110,991 people aged 15 to 24 years moved into a capital city, with only 59,839 leaving.

During the pandemic, those under the age of 35 made up a greater share of both arrivals and departures to the capital cities compared with the five-year period. For example, 15 to 24 year olds represented 9.7 per cent of departures from capital cities over five years, rising to 13.9 per cent of departures in the pandemic year, and its arrivals rose from 24.7 per cent of arrivals to 26.1 per cent during the pandemic.

The proportion of older people among arrivals and departures were correspondingly lower during the pandemic. For those aged 65 and over, departures were even more subdued than arrivals during the pandemic, and the net loss from this group out of the capitals was only 6,066 people, compared with a loss of 38,872 over the five years.

Net losses during the pandemic were relatively elevated from the under 15 years group and the 25 to 34 year group. There was a net loss of 17,761 people aged 25 to 34 years in the pandemic year alone, compared to 32,662 over the whole five years.

	Age (at August 2021)	2021 age distribution (capital cities)	In- migration	In- migration (% of total)	Out- migration	Out- migration (% of total)	Net internal migration
	Under 15 years	18.4	22,145	13.1	32,802	14.5	-10,657
-	15-24 years	12.4	43,976	26.1	31,503	13.9	12,473
202	25-34 years	15.4	41,790	24.8	59,551	26.3	-17,761
ţ	35-54 years	27.4	32,777	19.5	55,521	24.6	-22,744
020	55-64 years	11.1	11,959	7.1	24,832	11.0	-12,873
	65 years and over	15.4	15,764	9.4	21,830	9.7	-6,066
	Total	100.0	168,420	100.0	226,034	100.0	-57,614
	Under 15 years	18.4	51,993	11.6	77,475	12.5	-25,482
_	15-24 years	12.4	110,991	24.7	59,839	9.7	51,152
202	25-34 years	15.4	101,275	22.5	133,937	21.6	-32,662
ţ	35-54 years	27.4	103,606	23.0	179,873	29.1	-76,267
2016	55-64 years	11.1	34,377	7.6	81,686	13.2	-47,309
	65 years and over	15.4	47,423	10.5	86,295	13.9	-38,872
	Total	100.0	449,661	100.0	619,129	100.0	-169,468

Table 3.5 Net internal migration by age, capital cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components. Highlighting denotes negative values.

Figure 3.7 presents net internal migration by age from 2016 to 2021 for Victoria and Queensland by their capital cities and the rest of their states. A feature of the pattern is the high net gain of 19 to 24 year olds to the capitals in contrast to the older cohorts. There is a reverse pattern for the rest of state areas. For example, in Melbourne the net internal migration flows over the five years were positive for those aged between 15 to 24, but negative for all other age cohorts. In contrast, the Rest of Victoria experienced the opposite pattern: outflows of young adults and inflows in all other age cohorts. In the case of Brisbane, there was a similar pattern of the young adult cohort moving to Brisbane in greater numbers, but unlike Melbourne, Brisbane remained an attractive location for migration for older age groups.



Figures 3.7 Net internal migration by age, Victoria and Queensland, August 2016-2021

Internal migration by labour force status

Table 3.6 shows the arrivals, departures and net internal migration to capital cities over one and five years by whether a person was employed, unemployed or not in the labour force. This does not sum to the total internal migration flows as it only includes people aged 15 years and over who stated their labour force status as at August 2021.

There are broad similarities for the capital cities' flows between both time periods. There was a net loss from capitals by each group across both periods. Employed persons accounted for the largest net loss, followed by those not in the labour force. There was only a marginal loss of unemployed persons.

However, there are some variations between the pandemic year and the five years. In the pandemic year, employed persons made up a larger share of the net loss from capital cities compared to the five years. Those outside of the labour force made up a correspondingly smaller share, with unemployed people accounting for a negligible share in both periods.

The overall effect of this was that in the pandemic year, four out of five people aged 15 years and over in the *net* loss from capital cities were employed (79.1 per cent), one in five was not in the labour force, and only 0.4 per cent were unemployed. In comparison to the five-year trend, only three in five people aged 15 and over in the net outflow were

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

employed (60.3 per cent), two in five were outside the labour force (39.1 per cent) and a negligible 0.6 per cent were unemployed.

	Labour force status (August 2021)	In- migration	In- migration (%)	Out- migration	Out- migration (%)	Net internal migration	Per cent of net (15+)
20-21	Employed	92,132	63.3	129,029	67.1	-36,897	79.1
	Unemployed	10,137	7.0	10,336	5.4	-199	0.4
	Not in the labour force	43,293	29.7	52,845	27.5	-9,552	20.5
16-21	Employed	262,878	66.4	349,244	64.8	-86,366	60.3
	Unemployed	20,346	5.1	21,140	3.9	-794	0.6
	Not in the labour force	112,727	28.5	168,754	31.3	-56,027	39.1

Table 3.6 Net internal migration by labour force status, capital cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated. Highlighting denotes negative values.

Case study – origin and destination for the largest capitals

Brisbane has the largest in-migration flows (arrivals) compared to all other capital cities in both August 2020 to 2021, and August 2016 to 2021 (the one and five years). This city has long been an attractive destination for new residents. Over the five-year period, there were around 40,000 more people moving into Brisbane (217,000) than into Melbourne (180,000), the city with the second largest inflows. The trend of strong inflows continued during the pandemic year, with 76,000 people moving into Brisbane.

Map 3.1 presents the origin locations for the five-year movements into Brisbane. The largest inflow was from Sydney, with just over 31,300 arrivals, followed by the Gold Coast-Tweed Heads (26,900), Melbourne (20,720) and the Sunshine Coast (15,960). Of these four cities, only net migration to the Sunshine Coast contributes a loss for Brisbane's population, with the other cities contributing a net gain to Brisbane. Similar to other cities, Brisbane's population draws from its surrounding areas, as well as from other areas within the state, representing around 50 percent of the in-migration flows. Two cities with strong flows towards Brisbane were Townsville and Cairns, primarily in the 15 to 35 years age bracket.



Map 3.1 In-migration (arrivals) to Brisbane, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Data excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Both Sydney and Melbourne experienced high net internal migration losses for both time periods presented. The internal migration away from these cities is the main driver of net internal migration loss for the capital cities group. Maps 3.2 and 3.3 present the out-migration flows (departures) for Sydney and Melbourne to illustrate the major destination locations for these cities.

Map 3.2 presents the destination of the out-migration from Sydney over five years. The largest losses were the departures to Melbourne, Brisbane, Newcastle-Maitland and Gold Coast-Tweed Heads, each with flows above 20,000 people. Significant portions of outward movers from Sydney also chose locations in close proximity of the city, with other popular destinations including Port Macquarie, Coffs Harbour and Orange.

A feature of the Sydney migration flows is the overwhelming *net* internal migration loss to other locations across the country. Sydney had net gains from only a small minority of regions between 2016 and 2021, and even the biggest of these were small (84 people from Griffith, and 32 from Dubbo Surrounds). In contrast, the largest net losses from Sydney (to Brisbane, Gold Coast – Tweed Heads and Newcastle) were between about 12,500 to 16,700 each. This has been a long-standing pattern of internal migration for Sydney, particularly for flows towards regional New South Wales.



Map 3.2 Out-migration (departures) from Sydney, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Data excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Map 3.3 presents the destination of the out-migration (departures) during the pandemic year from Melbourne, which experienced one of the longest lockdowns across the country. The largest losses were towards Sydney, Brisbane, Geelong, Perth and Adelaide, each with flows above 5,000 people. However, collectively the largest outflow was to other regions within Victoria. Outward intrastate flows tended to be towards areas surrounding the city, as well as eastern areas of the state. For example, Warragul-Drouin, to the east of the city, experienced a strong flow into the region, driving this location's high population growth.



Map 3.3 Out-migration (departures) from Melbourne, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Data excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Summary

In 2022, the eight capital cities made up 67.2 per cent of Australia's population, equivalent to nearly 17.5 million people. These cities have been the main growth areas across the country for many years, but during the pandemic, the capital city population collectively declined. For the first time since 1981, Australia's regional population grew more than capital cities. However, there was variation within the capital cities group, with Sydney and Melbourne primarily driving the loss.

All the capital cities had population growth in 2021-22. Melbourne rebounded more quickly than Sydney, despite a lower growth rate in 2020-21. With the waning of the pandemic, the resumption of overseas migration strongly drove population growth across all capital cities. The largest net overseas migration gains in 2021-22 were in Melbourne and Sydney, with smaller gains in Brisbane, Adelaide and Perth.

Over the five years to August 2021, the combined capital cities had a net internal migration loss to the other migration geography groups, except for remote areas – there was a marginal net gain from remote areas of 484 people. However, similar to overall population growth, there is a high degree of variation between the capital cities.

Both Sydney and Melbourne had exceptionally high net internal migration losses for both time periods presented. The internal migration away from these cities is why the capital city group overall has a net internal migration loss. In contrast, Brisbane had the largest net internal migration gains among the capitals in both years, and the largest number of arrivals. This city has long been an attractive destination for people.

There was consistency at the group level between the pandemic year and the five years. The capital cities group had net losses to other groups in both time periods, with the only difference being a net loss to remote areas in the pandemic

year and a modest gain in the five-year period. At the city level, Adelaide is the only capital that experienced a shift in net internal migration from negative to positive during the pandemic year, compared with the five-year average. Over the five-year period, Adelaide lost around 3,700 people to internal migration, but this reversed during the pandemic year to a net internal migration gain of over 2,900 people. This shift in direction is driven by the reverse in flow between Adelaide and Melbourne. Melbourne had worse net internal migration losses than might be expected given the five-year loss, likely reflecting its lockdowns, while Perth had a greater gain in one year than in the whole five-year period.

Throughout the pandemic, young migration groups continued to flow towards capital cities, with the draw of education, employment and lifestyle opportunities. Over the five years, around 111,000 people in the 15 to 24 years age bracket moved into a capital city, with only 60,000 leaving. However, there was a shift in the pandemic year by labour force status, with employed people making up a larger share of the net loss from capitals than in the five years, and those outside of the labour force made up a correspondingly smaller share, with unemployed people a negligible shift.

4. Coastal

Key points

- During the pandemic year, coastal country areas experienced stronger population growth than in previous years (1.6 per cent), while growth in coastal cities was weaker than usual (1.2 per cent), as was the case for most other groups.
- The impact of COVID-19 on the coastal cities group was largely concentrated into a single year (2020-21). By 2021-22, growth in coastal cities (1.6 per cent) once again outpaced coastal country areas (1.4 per cent).
- Generally, the pandemic may have collectively cost coastal cities some population growth, but they were not greatly affected. Compared to the 2017 to 2022 five-year average, 35 of the 58 coastal cities had weaker growth in 2020-21 (60 per cent). Most coastal cities (59 per cent) had improved rates of growth in 2021-22 than the 2020-21 pandemic year. Few had population decline in either year.
- In 2021-22, the population change component that largely determined growth of coastal cities was the net internal migration. In cities with an older age structure, negative natural increase can have a dampening effect.
- Most coastal cities had net internal migration gains over both August 2020 to 2021, and August 2021 to 2016, with 41 out of the 58 coastal cities having net gains over the five years, and 43 out of 58 in the one year.
- During the pandemic year, 81.5 per cent of net internal migration to coastal cities came from capital cities, higher than the 71.8 per cent for the five years. Those departing coastal cities were less likely to go to a capital city, compared with the five-year period.
- Over the five years, coastal cities had a net gain from coastal country areas of 6,627 people, or 5.1 per cent of the net gain to coastal cities. However, the net migration between coastal cities and coastal country was essentially balanced in the pandemic year. This suggests a comparatively stronger appeal of coastal country areas during the pandemic than the five years relative to coastal cities.
- The net gain to coastal cities by 25 to 34 years olds was large in the pandemic year: 10,042 people, compared to 14,867 over the whole five years.
- Coastal country areas generally fared well during the pandemic, with 60 per cent of individual regions experiencing better population growth rates in 2020-21 than the average growth over 2017 to 2022. The following year, 2021-22, about half of the areas had weaker growth rates than in 2020-21.
- Coastal country areas had a net gain of people aged 65 and over between 2016 and 2021 (3,494 people), but lost 804 people from this group over the pandemic year. Coastal country areas gained from all other age groups over both time periods, except for the 15 to 24 year cohort, from which it had strong losses.
- For both time periods, there were net gains to coastal country areas from all three labour force groups, but the emphasis changed in the pandemic year, with more of the net gain being employed. This is true for other migration geography groups outside the capitals, including coastal cities.

Introduction

Coastal areas have long been the preferred destinations for Australians not only to go on holiday, but to live. This is reflected in the long-term population growth and flow of people to coastal areas, whether through the rise of cities such as the Gold Coast or the string of settlements along the coastline as people move for the beach lifestyle. Factors contributing to coastal population growth have included retirement, lifestyle changes and tourism. This chapter has two sections—coastal cities and coastal country areas – exploring the differences in the population growth and migration flows within these groups.

Population change

For many years, coastal cities have had consistently strong population growth, second only to capital cities. This strength is illustrated in Figure 4.1, which shows an index of population for the two coastal groups and Australia over two decades. Coastal cities' population grew faster than the national rate, while coastal country areas have had a slower growth rate than Australia, though this has accelerated in recent years and has kept pace without any negative impact from the pandemic.

For many years, coastal country areas had a very similar annual growth rate to inland cities. But more recently, the rate for coastal country areas climbed from 1.1 to 1.4 per cent from 2016-17 to 2020-21 – overtaking inland cities during this time. In contrast, the rate of growth for coastal cities was stable at between 1.5 and 1.6 per cent over the same period.

In 2020-21, coastal country areas had the strongest growth rate among the six groups at 1.6 per cent, illustrating the attraction of these locations during the pandemic. Coastal cities were more affected, with a below-average growth rate of 1.2 per cent. However, by 2021-22, the coastal cities rate returned its usual level of 1.6 per cent, with coastal country areas growing by 1.4 per cent (ahead of capital cities at 1.3 per cent).



Figure 4.1 Population index, coastal cities and coastal country areas, 2001 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: The population index uses 2001 as a base, and is calculated as current year value/base year value*100. Therefore a value of 120, for example, indicates growth of 20 per cent from the base year.

Coastal cities

Strongest population growth and decline

Table 4.1 lists the ten fastest growing coastal cities between 2017 and 2022, and how this compares to population growth in 2020-21 and 2021-22 for the same regions. The table is ordered by the ten fastest growing regions by number of people, while highlighting in the next column indicates the top ten regions by the five-year average annual growth rate. Regions in both the top ten by number and average annual percentage growth appear with an asterisk.

The last four columns show the change for 2020-21 and 2021-22. Change figures are highlighted in blue when they appear in the top ten for each respective year. This reveals that there is a consistent pattern across the years. Most of the locations with the largest or fastest growth over the five years are also in the top ten for their own years.

Those with the largest increases by number are the large coastal cities: Gold Coast – Tweed Heads, Sunshine Coast, Newcastle – Maitland, Geelong and Wollongong. However, only two of these (Sunshine Coast and Geelong) also had growth rates in the top ten. Wollongong's average annual growth rate (0.8 per cent) was only about half the total coastal city rate of 1.5 per cent.

Coastal city	State	2022 Population	5 year population change, 2017-2022	5 year population change, 2017-2022, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Gold Coast - Tweed Heads	QLD/ NSW	715,653	59,326	1.7	7,302	1.1	13,725	2.0
Sunshine Coast*	QLD	396,969	46,218	2.5	8,331	2.2	9,497	2.5
Newcastle - Maitland	NSW	518,427	36,190	1.5	6,657	1.3	8,252	1.6
Geelong*	Vic.	295,434	33,632	2.4	5,756	2.0	5,868	2.0
Wollongong	NSW	309,598	11,947	0.8	1,297	0.4	3,622	1.2
Warragul – Drouin*	Vic.	44,306	7,423	3.7	1,601	3.9	1,408	3.3
Cairns	QLD	157,889	6,739	0.9	253	0.2	2,315	1.5
Launceston	Tas.	93,447	6,211	1.4	1,201	1.3	255	0.3
Mackay	QLD	86,740	5,799	1.4	1,201	1.4	1,332	1.6
Hervey Bay*	QLD	59,617	5,550	2.0	961	1.7	1,389	2.4
Morisset - Cooranbong	NSW	28,615	3,718	2.8	652	2.4	828	3.0
Port Hedland	WA	16,603	2,091	2.7	505	3.2	350	2.2
Yeppoon	QLD	21,178	2,292	2.3	470	2.3	604	2.9
Victor Harbor - Goolwa	SA	29,429	2,953	2.1	858	3.1	573	2.0
Busselton	WA	42,794	4,267	2.1	948	2.3	885	2.1
Karratha	WA	18,239	1,743	2.0	163	0.9	351	2.0
Total coastal cities		4,234,043	296,871	1.5	48,240	1.2	64,872	1.6
AUSTRALIA		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 4.1 Population change – 10 coastal cities with largest growth, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. Regions denoted by * means they are in the top ten by both number and percentage for 2017-22. Highlighted figures are in the top ten for their relevant column.

Hervey Bay, an established retirement destination in Queensland, also appears in the top ten by both number and average annual percentage growth. Other coastal cities with the strongest average annual growth (all at least 2.0 per cent) included some smaller cities within 90 minutes or less of a capital city CBD (Warragul-Drouin VIC and Victor Harbor-Goolwa SA), and others within close proximity to larger centres (Yeppoon QLD, a tourism and retirement destination

about 40 kilometres from the slightly more inland Rockhampton, and Morisset – Cooranbong NSW, which is within an hour of both Gosford and Newcastle). Busselton and the mining cities of Karratha and Port Hedland, all in Western Australia, are also among these strongest growing coastal cities.

Some coastal cities in this table do not show consistency between the five years and the pandemic year, or between the latest two years. Cairns and Karratha both had weaker growth during the pandemic year, rebounding in 2021-22. Cairns' population grew by 0.2 per cent in 2020-21, but 1.5 per cent the following year; Karratha's rate of 0.9 per cent in 2020-21 was less than half the five-year average, followed by a 2021-22 rate of 2.0 per cent. Launceston had a different pattern: a strong rate in 2020-21 (1.3 per cent), similar to its five-year average, before weakening to 0.3 per cent in 2021-22. As a result, Launceston was in the bottom ten (by growth rate) in 2021-22. There was a similar pattern for other regions in Tasmania. This relationship between the different time periods in discussed further in the following section.

For regions in the bottom ten, there is a strong consistency between the five-year period, the pandemic year and the latest year. Table 4.2 shows those coastal cities ranked in the bottom ten of population change over the five years to 2022, both in number and average annual change. In this instance, they are the same ten regions. The blue highlighting indicates where the figures for 2020-21 and 2021-22 are also in the bottom ten for those years. This shows a high level of consistency between the time periods, in terms of which regions are in the bottom ten.

Coastal city	State	2022 Population	5 year population change, 2017-2022	5 year population change, 2017-2022, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Whyalla*	SA	21,800	-362	-0.3	-82	-0.4	-62	-0.3
Lismore*	NSW	28,684	-269	-0.2	-52	-0.2	-175	-0.6
Port Pirie*	SA	14,201	-115	-0.2	10	0.1	-89	-0.6
Forster - Tuncurry*	NSW	21,008	-33	0.0	-94	-0.4	-4	0.0
Port Augusta*	SA	14,120	67	0.1	48	0.3	0	0.0
Colac*	Vic.	12,621	68	0.1	-77	-0.6	-77	-0.6
Portland*	Vic.	11,171	174	0.3	-15	-0.1	-12	-0.1
Esperance*	WA	12,543	209	0.3	55	0.4	86	0.7
Taree*	NSW	26,698	211	0.2	-33	-0.1	17	0.1
Grafton*	NSW	19,453	300	0.3	-24	-0.1	118	0.6
Total coastal cities		4,234,043	296,871	1.5	48,240	1.2	64,872	1.6
AUSTRALIA		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 4.2 Population change – 10 (coastal cities with largest decline/	[/] smallest growth, 2017 to 2022
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Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. Regions denoted by * means they are in the bottom ten for both number and percentage for 2017-22. Highlighted figures are in the bottom ten for their relevant column.

Reflecting the widespread trend of strong growth for coastal cities, only four coastal cities experienced population loss over the five-year period, ranging between a loss of 362 to 33 people. One of these (Port Pirie) had a marginal gain of ten people in 2020-21, but otherwise they all experienced losses in each of the three time periods. These five-year figures indicate that the population loss or stagnation is part of a longer-term trend and not due to the effects of the pandemic. Port Pirie and Whyalla are both resource processing cities in South Australia that have experienced long-term decline (as is Port Augusta, which also appears in the table with only marginal growth). In early 2022, Lismore experienced extreme flooding, causing mass damage to homes and infrastructure (NSW Independent Flood Inquiry 2022). Grafton was also affected by floods in 2022, but experienced population growth in 2021-22 (0.6 per cent). Most of the other coastal cities on this list tend to have smaller populations. Other coastal cities experienced marginal growth, but were still consistently in the bottom ten for the three time periods: Colac³⁵ and Portland in Victoria, and Taree and Grafton in NSW.

Due to the consistency in ranking across time periods, very few regions in the bottom ten for 2020-21 and 2021-22 do not appear in this table. Sale and Warrnambool in Victoria appear in the bottom 10 by persons in 2021-22 and the bottom ten by both persons and per cent in 2020-21, but their positions were not dramatically different in the five-year ranking. Launceston, which appears in the bottom ten for 2021-22 by growth rate, appears in the top ten by persons for the five years, as discussed above.

The only other coastal city not included in the table that appears in the bottom ten for 2020-21 or 2021-22 is Byron Bay NSW. It had a five-year average annual growth rate of 1.0 per cent (532 people over five years), the twelfth lowest among coastal cities, but negligible change in 2020-21 and a decline of 40 people (or 0.4 per cent) in 2021-22.

Comparing population growth across time for individual regions

Figure 4.2 shows the relationship between the 2017-22 average annual population change and the 2020-21 change for coastal cities to more closely examine how the population change during the pandemic compares to the medium-term average for each city. This reveals a strong linear relationship between the two rates (correlation coefficient = 0.91).

Regions that appear above the 45-degree line have a 2020-21 growth rate higher than their five-year average annual rate. When a coastal city's growth rate was lower during the pandemic, they appear under the 45-degree line. Regions that are further from the 45-degree line have growth rates that differ to a greater extent between the two time periods.

For 35 of the 58 of coastal cities, the pandemic year population growth was weaker than the five-year average annual growth. Given the strong relationship evident between the two rates, this suggests that the pandemic did not largely change which cities grew the most or the least, but instead weakened growth rates more broadly for the majority of coastal cities.

³⁵ Colac's population weighted centroid is around 40 kilometres from the coast.



Figure 4.2 Population change, coastal cities, 2020-21 and 2017-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: For the purpose of this graph, cross-border cities are assigned a state according to where the majority of their population is located.

Looking at the growth rates across the states, coastal cities in Victoria and South Australia tended to have exclusively weak growth rates in both 2020-21 and for the five-year average, with a few notable exceptions such as Warragul-Drouin, Geelong and Victor Harbour - Goolwa. While coastal cities in New South Wales had a range of growth rates, many coastal cities with lower (or negative) growth were in New South Wales. Western Australian and Tasmanian growth rates were largely over 1 per cent for both periods.

Most of the coastal cities in New South Wales, Victoria and Queensland had weaker growth in 2020-21 than the average annual rate for the five years. Cities where the 2020-21 population change was particularly weaker than the five-year average include Karratha WA, Byron Bay NSW, Airlie Beach – Cannonvale QLD, Cairns QLD, Colac in Victoria and Gold Coast – Tweed Heads. These regions' 2020-21 growth rates were between 1.1 and 0.7 percentage points lower than their five-year average.

In South Australia, Western Australia and Tasmania, only a minority of coastal cities had weaker population growth in 2020-21 than in the five years: most strengthened in the pandemic year. Likewise, these were the states with the largest positive differences between the two periods. Three coastal cities had pandemic year growth rates that were over 0.3 percentage points higher than their five-year average: Victor Harbor – Goolwa SA at 0.9 percentage points higher, as well as Port Hedland and Geraldton in WA, both at 0.5 percentage points higher. Other coastal cities with better population growth in the pandemic year compared with the five-year average include Burnie – Somerset in Tasmania, and Port Lincoln, Port Augusta and Port Pirie in South Australia. Note that both Port Augusta and Port Pirie appear in the bottom ten for multiple time periods, having marginal or negative change.

Figure 4.3 below shows the relationship between population growth in 2020-21 and the latest year (2021-22) for each coastal city. The correlation coefficient for the two years is 0.74 – a strong linear relationship. Generally, those with strong growth in 2020-21 had strong growth in 2021-22. However, there can be considerable variation between the years for some individual regions, and 34 of the 58 coastal cities had improved growth in 2021-22 compared with 2020-21.

For 2021-22, all regions with rates below 0.7 per cent were in South Australia, Tasmania, Victoria and New South Wales. Coastal cities with a 2021-22 growth rate above 0.7 per cent were mostly in New South Wales, Western Australia and Queensland. This is a change from 2020-21, when many Queensland coastal areas had weaker growth, and Tasmanian regions had stronger growth.



Figure 4.3 Population change, coastal cities, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: For the purpose of this graph, cross-border cities are assigned a state according to where the majority of their population is located.

Looking at the change by state in more detail, all of the Queensland coastal cities and the majority of those in New South Wales had improved growth rates in 2021-22 compared with 2020-21, showing a solid rebound. These regions appear below the 45-degree line.

Coastal cities with the most improved 2021-22 population change from the 2020-21 rate include Airlie Beach – Cannonvale, Cairns, Gladstone and Townsville in Queensland, Medowie NSW and Karratha WA, with 2021-22 rates all at least a full percentage point higher than their 2020-21 rates. Medowie, within 40 minutes of the Newcastle city centre, had the strongest growth rate in 2021-22.

Some of these coastal cities also had the largest drops between the five years and the 2020-21 rate, and so the gain in the latest year represents a recovery. These include cities in Queensland that were heavily reliant on international and domestic tourism: Airlie Beach – Cannonvale in the Whitsundays and Cairns. The 2020-21 dip reflects the restriction of movement during this time rather than a sustained downward trend. Cairns' growth rate went from 0.2 per cent in 2020-21 to 1.5 per cent in 2021-22. Karratha WA similarly increased from 0.9 per cent to 2.0 per cent in 2021-22, the same as its five-year average annual rate.

The four Tasmanian coastal cities are strikingly uniform in their changes, with strong growth in the five years and during the pandemic, before a drop-off in 2021-22. This reflects the pattern for other regions in Tasmania. The average annual growth for Tasmanian coastal cities from 2017 to 2022 was between 1.1 to 1.5 per cent. Each year's population change since 2017 has been between 1.1 and 1.9 per cent, up to and including the 2020-21 pandemic year, when their rates were between 1.3 and 1.7 per cent. However, the growth for 2021-22 was atypically low: all four had population growth of between 0.3 and 0.5 per cent.

The growth rates for the seven Victorian coastal cities were generally similar between the two years, as can be seen from their proximity to the 45-degree line. The difference in Warragul – Drouin's growth rates was the most pronounced for Victoria, falling 0.6 percentage points to (a still very strong) 3.3 per cent in 2021-22, but it was also the fastest growing coastal city during the pandemic. The others generally had negligible differences across the two years, of between 0.3 and 0 percentage points.

Weaker performances in 2020-21 compared to 2021-22 were not necessarily driven by the pandemic alone, given that regional growth rates in a typical year do not always exceed the previous year's rate. To give some indication of whether the pandemic year variation is typical or unusual, this fluctuation can be compared with how often coastal cities experience weaker growth year-on-year. In 2020-21, it was more common for a region to experience a growth rate weaker than the previous year (occurring for 41 coastal cities) compared to other years from 2016-17 onwards (ranging between 18 and 33 coastal cities). In 2021-22, only 24 coastal cities had a growth rate weaker than the previous year.

Compared with the five-year average, 56 per cent of coastal cities had weaker growth rates in 2021-22. Weaker growth in 2021-22 compared to the five-year rate occurred in all Victorian and Tasmanian coastal cities, most South Australian and Western Australian coastal cities, and just under half of New South Wales coastal cities. Queensland is the exception: all but one of its coastal cities did better in 2021-22 than the five-year average.

These findings support the conclusion that the pandemic did have an observable negative impact on many individual coastal cities' populations and that broadly improved growth rates in 2021-22 reflect a period of recovery, particularly in Queensland and New South Wales. Other states' coastal cities have yet to return to their medium-term growth rates.

As a group, the impact of COVID-19 on population on coastal cities was largely concentrated into a single year (2020-21). The collective population growth rate was an annual average of 1.5 per cent for the five-year period, 1.2 per cent for 2020-21 and 1.6 percent for 2021-22. Queensland and New South Wales together account for 77 per cent of the total coastal city population in 2022. Therefore, the better 2021-22 population growth for coastal cities in these states drove the stronger growth rate for the group overall, despite the weaker growth for many individual coastal cities.

Population components

Figure 4.4 shows the components of population change for 2021-22 (natural increase, net overseas migration and net internal migration) as they contribute to the total population percentage change for selected coastal cities. All three components of change tend to contribute positively to the population growth of larger coastal cities, such as Gold Coast – Tweed Heads and Geelong. However, there are differences in the relative contribution of each component to the growth of many other coastal cities.

In regions with strong population increases, internal migration tended to contribute the most to population growth. Cities such as Medowie, Warragul – Drouin and Morisset – Cooranbong experienced high rates of internal migration, with total population change of at least 3 per cent. These cities are positioned close to their state capitals or close to a larger city, such as Medowie near Newcastle. Hervey Bay and Victor Harbour – Goolwa also had strong internal migration, but this was partially offset by negative natural increases (in other words, the number of deaths in these regions was larger than the number of births). This reflects an older age structure, with Hervey Bay and Victor Harbour – Goolwa having median ages of 51 and 61 respectively in 2021, compared to the national median age of 38 (ABS 2022b). This is in contrast to Port

Hedland, where the strong population growth of 2.2 per cent was mostly due to natural increase (contributing 1.8 per cent), with the city having a median age of 32.



Figure 4.4 Population change components, selected coastal cities, 2021-22

It was less common for net overseas migration to contribute the most to growth of coastal cities, despite the resumption of overseas arrivals in 2021-22. This typically only happened in the coastal cities with the weakest growth overall – i.e. places with a population growth rate of about 0.5 or lower. Only two regions had net overseas migration contributing around 1 per cent to their population growth: Byron Bay and Airlie Beach – Cannonvale, both attractive tourist destinations. Byron Bay also experienced a proportionately large net internal migration loss, which offset the strong gain from the net overseas migration so that the overall population change was negative. Another coastal city experiencing net internal migration loss was Lismore, which also had zero change in its natural increase (with 316 births and the same number of deaths). This migration loss may reflect the floods that impacted the city during this period: while population change ranged between 0 and -0.2 per cent annually in the five years preceding, 2021-22 had the most pronounced decline.

In summary – with some exceptions, the component that largely determines the population growth of coastal cities is the net internal migration. In cities with an older age structure, negative natural increase can have a dampening effect. In other more remote cities, it (infrequently) contributes most to growth. Net overseas migration contributes particularly for internationally-known places such as Cairns, Byron Bay and Airlie Beach – Cannonvale in the Whitsundays.

Source: BCARR analysis of ABS August 2023, Regional Population.
Coastal country areas

During the pandemic year, coastal country areas collectively had their strongest year of population growth relative to other migration geography regions. The growth rate for coastal country areas increased from 1.1 per cent in 2016-17 to 1.6 per cent in 2020-21. This was the highest rate among the migration geography groups that year. Coastal country growth reduced a little in 2021-22, but was still strong at 1.4 per cent, second only to coastal cities.

There are 191 coastal country areas with non-zero populations. These use SA2 geography, with populations typically ranging from 2,000 to 20,000, with about a dozen exceptions (nine with less than 400 people and two above 20,000 people).³⁶

Figure 4.5 shows the distribution of coastal country areas' average annual population change from 2017 to 2022. Each bar represents the number of coastal country areas that had a five-year average growth rate in the specified range, showing the spread of growth rates across the group. There were 40 coastal country areas with an average annual growth rate exceeding 2.0 per cent. Another 17 areas had zero or negative average annual change over the period.

The graph shows that growth rates for most coastal country areas clustered around 0.4 to 1.6 per cent, with a median (mid-point) growth rate of 1.1 per cent. The average for the entire group is slightly higher at 1.3 per cent.³⁷ The average growth rate for the group is higher than the median rate due to the positive skew of the distribution, with a small number of country coastal areas experiencing relatively high growth rates. The highest growth rate was 6.0 per cent for Booral – River Heads. There is also one extreme negative outlier. Jervis Bay, with a 2022 population of 311 people, had an average annual population loss of 4.8 per cent each year (or 87 people over the five years).





Source: BCARR analysis of ABS August 2023, Regional Population.

Note: Any SA2 with a population below 100 in any of the years from 2017 to 2022 has been excluded.

³⁶ In practice, those with populations under 100 for any of the years from 2017 to 2022 are excluded from analysis of individual regions, but included in the total coastal country figures. Only two regions with populations under about 2,000 are considered in the individual analysis (Jervis Bay and French Island). The two regions with larger populations are Wonthaggi – Inverloch (27,529) and Gympie Surrounds (21,254).

³⁷ Note that this average equally weights all coastal country areas in the graph regardless of size, whereas the overall rate for coastal country areas of 1.1 per cent is for the total population of coastal country areas.

Strongest population growth and decline

Table 4.3 shows the ten fastest growing coastal country areas between 2017 and 2022, and the growth rates for the same regions in 2020-21 and 2021-22. This presents both the ten fastest growing regions defined by the number of people added (the first ten), as well as by the five-year average annual growth rate. The top ten for each definition are highlighted in blue. Regions in both the top ten by number and average annual percentage growth appear with an asterisk.

Most of those in the top ten for 2017-22 were also the strongest growing during the pandemic. Half of the regions in the top ten by number of persons are also some of the largest coastal country areas, most notably Wonthaggi – Inverloch and Gympie Surrounds.

Like Gympie Surrounds, the growth for many others on this list is related to their proximity to larger centres. Grafton Surrounds (like Mount Isa Surrounds, discussed later) is best considered together with its related city when considering regional growth trends. Grafton experienced a slight population decline of 0.1 per cent in 2020-21 and had only a modest 0.3 per cent average annual growth over the five years. However, Grafton Surrounds grew by 7.5 per cent over 2020-21, following a decade of growth between 0.1 and 0.4 per cent annually. Maryborough Surrounds – South (Queensland) similarly had much stronger growth than Maryborough itself. Branxton – Greta – Pokolbin, which grew by over 4 per cent in each period, is only 45 minutes from Newcastle in the Hunter Valley. Portarlington and Lorne – Angelsea are near the strongly growing Victorian coastal city of Geelong (at distances of 32 km for Portarlington, 40 km for Angelsea and 70km for Lorne).

		2022	5 year population change,	5 year population change, 2017 22	1 year population change,	1 year population change,	1 year population change,	1 year population change,
Coastal country SA2	State	Population	2017-22	2017-22, (AAG)	2020-21	2020-21	2021-22	2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Wonthaggi - Inverloch*	Vic.	27,529	4,244	3.4	1,061	4.1	784	2.9
Branxton - Greta - Pokolbin*	NSW	13,521	2,792	4.7	553	4.5	728	5.7
Phillip Island*	Vic.	14,069	2,787	4.5	661	5.1	333	2.4
Portarlington*	Vic.	9,926	2,151	5.0	574	6.5	466	4.9
Gympie Surrounds	QLD	21,254	1,994	2.0	415	2.1	618	3.0
Old Bar - Manning Point - Red Head	NSW	12,708	1,705	2.9	286	2.4	275	2.2
Booral - River Heads*	QLD	6,415	1,628	6.0	369	6.8	598	10.3
Wauchope	NSW	13,094	1,529	2.5	299	2.4	284	2.2
Grafton Surrounds	NSW	17,153	1,506	1.9	1,175	7.5	215	1.3
Maryborough Surrounds - South*	QLD	10,042	1,408	3.1	329	3.5	422	4.4
Jacobs Well - Alberton	QLD	4,943	1,140	5.4	242	5.5	306	6.6
Augusta	WA	7,050	1,298	4.2	235	3.6	282	4.2
French Island	Vic.	143	24	3.7	5	3.8	5	3.6
Lorne - Anglesea	Vic.	6,270	888	3.1	300	5.1	78	1.3
Total coastal country areas		1,344,619	88,780	1.4	20,615	1.6	18,683	1.4
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 4.3 Population change – 10 coastal country areas with largest growth, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. Regions with a population below 100 in any of the years presented have been removed. Regions denoted by * means they are in the top ten for both number and percentage for 2017-22. Highlighted figures are in the top ten for their relevant column.

Table 4.4 lists coastal country areas with the largest population declines between 2017 and 2022, both in number and average annual change. There was considerable overlap in the bottom ranking coastal country areas between the five-year period and 2020-21, and most of the bottom ten in 2021-22 were also in the bottom 20 for the five years. Declining coastal country regions almost always had weaker growth in 2020-21 compared to the five-year average, followed by a 2021-22 growth rate higher than both the five-year average and 2020-21. In other words, the fastest declining coastal country areas were negatively affected by the pandemic, but their recovery was strong. The negative impacts to population growth in these ten regions in 2020-21 were offset by growth in other coastal country areas, so that growth was strong at the group level.

The four Queensland coastal country areas on this list are all in the north of the state. Yarrabah is just outside Cairns. Cairns' growth rate was in the top ten for coastal cities for the five-year average, before falling to 0.2 per cent during the pandemic. Innisfail is 100 km to the south of Cairns, an agricultural banana and sugar growing area which has been subject to natural disasters (discussed in the case study at the end of the chapter). Similar to Innisfail, Ayr is a sugar cane growing and manufacturing town an hour south of Townsville, with Burdekin included in its surrounding SA2. The decline across the five years is part of a consistent and longer-term trend: these two regions have declined every year for the better part of a decade, and the 2020-21 rate falls within the typical range for each. In 2021-22, growth rates for both were positive for the first time since 2011-12 (Burdekin) and 2012-13 (Ayr).

Coastal country SA2	State	2022 Population	5 year population change, 2017-22	5 year population change, 2017-22, (AAG)	1 year population change, 2020-2021	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Innisfail*	QLD	9,346	-275	-0.6	-117	-1.2	-58	-0.6
Burdekin*	QLD	7,747	-222	-0.6	-57	-0.7	23	0.3
Casino*	NSW	12,344	-172	-0.3	-120	-1.0	9	0.1
Ayr*	QLD	9,077	-130	-0.3	-43	-0.5	14	0.2
Corangamite - South*	Vic.	7,140	-129	-0.4	-54	-0.8	-6	-0.1
Callala Bay - Currarong*	NSW	3,595	-116	-0.6	-43	-1.2	-32	-0.9
Camperdown*	Vic.	3,453	-92	-0.5	-26	-0.7	-18	-0.5
Jervis Bay*	Territory	311	-87	-4.8	-26	-7.8	2	0.6
Port Macquarie Surrounds	NSW	5,311	-59	-0.2	-37	-0.7	25	0.5
Peterborough - Mount Remarkable	SA	5,436	-57	-0.2	-3	-0.1	-11	-0.2
Yarrabah	QLD	2,619	-44	-0.3	-9	-0.3	22	0.8
Dorrigo	NSW	3,230	-50	-0.3	-29	-0.9	-2	-0.1
Total coastal country areas		1,344,619	88,780	1.4	20,615	1.6	18,683	1.4
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 4.4 Population change – 10 coastal country areas with largest decline, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. SA2s with a population below 100 in any of the years presented have been removed. Regions denoted by * means they are in the bottom ten for both number and percentage for 2017-22. Highlighted figures are in the bottom ten for their relevant column.

Jervis Bay's decline is notable for being in the top ten by number, despite being about a tenth or less of the population size of the others. Jervis Bay is a territory, not part of New South Wales. It is part of a larger tourism area, adjacent to others along the coast such as Huskisson and Vincentia. The SA2 includes Jervis Bay village and Wreck Bay village, run by the Wreck Bay Aboriginal Community Council. Callala Bay – Currarong, also on this list, is just north of Jervis Bay.

Corangamite – South and Camperdown are adjacent regions about 180 km west of Melbourne, between Colac and Warrnambool. They comprise a dairy cattle farming region with associated processing (ABS 2022b). Corangamite – South's population has declined every year since 2011-2012, while Camperdown had modest positive growth every year until 2018-19, when its population began to decline. As with many others on this list, the decline observed in 2020-21 is consistent with longer term trends, rather than an anomaly particular to the pandemic.

Comparing population growth across time for individual regions

To understand the wider pattern between medium-term and pandemic year growth across these regions, this section examines the relationship between the rate of growth for each individual coastal country area in 2020-21 and its average annual rate for 2017 to 2022.

For coastal country areas, there was a strong linear relationship between the five-year average annual growth rate and the 2020-21 growth rate (correlation coefficient = 0.89). If a coastal country area was among the strongest growing in the five years, then it was usually among the strongest growing in the pandemic.

Overall, the majority (60 per cent) of coastal country areas³⁸ had better population growth in 2020-21 than the average annual growth over the five-year period. In other words, these areas generally did well during the pandemic.

However, the impact of the pandemic on coastal country areas differed between states: 60 per cent of New South Wales coastal country areas had weaker growth in 2020-21. For Victoria and Queensland, around 40 per cent of their coastal country areas had lower population growth in the pandemic year. For coastal country areas in South Australia, Western Australia and Tasmania, only a quarter or less of their coastal country areas had lower population growth in the pandemic years. For coastal country areas had lower population growth in the pandemic year. For coastal country areas in South Australia, Western Australia and Tasmania, only a quarter or less of their coastal country areas had lower population growth in the pandemic year than over the five years, faring better compared to other states.





Source: BCARR analysis of ABS August 2023, Regional Population

Note: This graph excludes the smaller coastal country areas, from Jervis Bay (population 311) to those with negligible populations. This is in part for readability, to remove the extremes. Jervis Bay's change is discussed in relation to Table 4.4 above.

There was also variation in the degree of difference between the two periods. As can be seen from the chart, Grafton Surrounds in Queensland had an exceptionally high growth rate during 2020-21 (discussed above in reference to Table 4.3), as well as some Victorian and Tasmanian areas that had considerably better rates of growth in the pandemic year than the five-year average. These include the areas around Geelong of Portarlington and Lorne – Angelsea, and the Tasmanian regions of Deloraine (50 km from Launceston) and St Helens – Scamander in the north east. These all had pandemic year growth rates that were at least 1.8 percentage points higher than their five-year annual average. This may be related to the Melbourne lockdowns, with the surrounding coastal country areas having relatively greater appeal during that time.

³⁸ Those with populations over 100 in all years from 2017 to 2022.

For many of these coastal country regions, the strong growth in 2020-21 did not indicate a sustained trajectory of growth. This can be seen by comparing the 2020-21 year's growth for each region with the following year (Figure 4.7). In all, about half of coastal country areas had weaker growth in 2020-21 than in 2021-22, but this varied considerably by state.



Figure 4.7 Population change, coastal country areas, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: This graph excludes the smaller coastal country areas, from Jervis Bay (population 311) to those with negligible populations. The remaining coastal country areas each have populations of over 2,600 people. It also excludes Booral – River Heads in Queensland, outside Hervey Bay. This removal was to ensure the readability of the graph, as Booral – River Heads is an outlier with population growth in 2021-22 of 10.3 per cent (and population growth in 2020-21 of 6.8 per cent).

For most Tasmanian coastal country areas, population growth was above the five-year average in 2020-21, before a subsequent fall to below the five-year average rate in 2021-22. This pattern is a state-wide phenomenon, consistent with the pattern for Tasmanian coastal cities and Hobart.

Similar to Tasmania, the 2020-21 population growth rates for many South Australian coastal country areas were unusually high in 2020-21 compared to five-year average (Figure 4.6) before weakening again in 2021-22 (Figure 4.7).

Queensland coastal country areas had a different pattern. Many of the strongest growing coastal country areas for 2021-22 were in Queensland, and most of these had improved growth in 2021-22 compared with 2020-21. This is consistent with the coastal city pattern. For 60 per cent of Queensland coastal country areas, the 2020-21 rate was better than the 2017 to 2022 average (as can be seen in the chart above). However, 83 per cent of Queensland coastal country areas had better growth in 2021-22 than 2020-21, and likewise 83 per cent also had a better 2021-22 growth rate than their 2017 to 2022 average. In summary, population growth for country coastal areas experienced an overall boost during the pandemic, but the degree to which this continued in 2021-22 varied by state. The majority of Queensland coastal country areas experienced better growth in 2020-21 than their five-year annual average, which strengthened further in 2021-22, while for other areas, particularly Tasmania, strong growth in 2020-21 was followed by a weakening in 2021-22 to below the five-year average.

Internal migration flows

The popularity of coastal locations is reflected in the internal migration flows, particularly for coastal cities. This section examines internal migration to and from coastal cities and coastal country areas by comparing moves between August 2020 to 2021, and August 2016 to 2021 (the one- and five-year time frames). This section also examines the flows by age and labour force status, with coastal areas being long-established lifestyle and retirement destinations.

Map 4.1 shows the net internal migration for coastal cities and coastal country areas during the pandemic year to August 2021. Net internal migration to individual coastal areas was largely positive. With few exceptions, this is particularly the case for the larger regions and those adjacent to a capital city.



Map 4.1 Net internal migration, coastal cities and country areas, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Map 4.2 shows the same data for the five years, with a very similar pattern: mostly positive in-migration, with net internal migration loss tending to occur in the more remote coastal areas.





Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Coastal cities

Coastal cities had a net gain of more than 130,000 people from August 2016 to 2021 from the other five geography groups (see Table 4.5). Most (71.8 per cent of the total net gain) came from capital cities. This pattern was broadly similar during the year to August 2021, except that an even greater share came from capital cities: 10 percentage points larger, at 81.5 per cent of the net gain.

Another difference between the one and five years was that the net internal migration between coastal cities and coastal country areas was essentially balanced in the pandemic year. Approximately 37,000 arrivals from and 37,000 departures to coastal country areas created a negligible net change. However, over the five years, coastal cities had a net gain from coastal country areas of 6,627 people, or 5.1 per cent of the five-year net gain to coastal cities.

In terms of arrivals (in-migration), over 189,300 people moved into coastal cities from the other migration geography groups over the one-year period. The share from capital cities remained relatively stable over the two time periods: capital cities represented 62.0 per cent of all arrivals to coastal cities for the pandemic year, only slightly higher than the 61.5 per cent for the five years. The share of arrivals for the other groups was likewise consistent between the one and five years, all within 0.5 percentage points.

There was a more pronounced difference between the share of departures (out-migration) from coastal cities across the groups for the two time periods. The largest change was the lower likelihood of departing residents going to a capital city in the one-year period, dropping from 58.0 per cent of departures from coastal cities in the five-year period to 56.5 per cent in the pandemic year. Those who departed from the coastal cities group in the pandemic year were 1.5 percentage points less likely to go to a capital city compared with the five years, and marginally more likely to go to coastal country areas (0.9 percentage points) and remote areas (0.6 percentage points). The shares of coastal city residents who went to inland areas were stable.



Figure 4.8 Net internal migration flows, coastal cities, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

	Regional classification	Overseas	Capital cities	Coastal country areas	Inland cities	Inland country areas	Remote	Total
	In-migration	21,333	117,421	37,019	14,128	14,339	6,407	189,314
	Out- migration	na	83,437	37,038	10,261	11,612	5,246	147,594
o 2021	Net- migration	na	33,984	-19	3,867	2,727	1,161	41,720
2020 t	In-migration share		62.0	19.6	7.5	7.6	3.4	100.0
	Out-migration share		56.5	25.1	7.0	7.9	3.6	100.0
	Net migration share		81.5	0.0	9.3	6.5	2.8	100.0
	In-migration	125,360	319,091	100,387	40,578	41,964	16,892	518,912
_	Out- migration	na	225,275	93,760	26,952	30,571	11,614	388,172
0 202	Net- migration	na	93,816	6,627	13,626	11,393	5,278	130,740
2016 to	In-migration share		61.5	19.3	7.8	8.1	3.3	100.0
	Out-migration share		58.0	24.2	6.9	7.9	3.0	100.0
	Net migration share		71.8	5.1	10.4	8.7	4.0	100.0

Table 4.5 In, out and net migration flows, coastal cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components, and small numbers are indicative only. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Internal migration by age

As Chapter 2 showed, the flows between the migration geography groups varied by age cohort. This section considers further the flows of different age cohorts to and from coastal cities over the one- and five-year periods.

In both time periods, coastal cities had a positive net gain from almost all age groups. The one exception is the net loss in the 15 to 24 year category over the one year (see Table 4.6). However, this loss was so small as to be negligible (142 people), as was the small gain over five years (120 people). Essentially, this age group showed net stability in both time periods, with arrivals largely balancing out departures. This is different to other migration geography groups outside the capitals, which had a net loss of people aged between 15 to 24 over the five years.

	Age (at August 2021)	2021 age distribution (coastal cities)	In-migration	In-migration (% of total)	Out- migration	Out- migration (% of total)	Net internal migration
	Under 15 years	17.9	29,338	15.5	22,061	14.9	7,277
_	15-24 years	11.6	31,334	16.6	31,476	21.3	-142
202	25-34 years	12.6	45,551	24.1	35,509	24.1	10,042
to	35-54 years	25.1	43,941	23.2	31,655	21.4	12,286
020	55-64 years	12.5	18,411	9.7	12,954	8.8	5,457
7	65 years and over	20.3	20,713	10.9	13,951	9.5	6,762
	Total	100.0	189,314	100.0	147,594	100.0	41,720
	Under 15 years	17.9	69,307	13.4	49,681	12.8	19,626
_	15-24 years	11.6	71,703	13.8	71,583	18.4	120
2021	25-34 years	12.6	103,417	19.9	88,550	22.8	14,867
ţ	35-54 years	25.1	140,310	27.0	98,061	25.3	42,249
016	55-64 years	12.5	58,547	11.3	37,966	9.8	20,581
7	65 years and over	20.3	75,640	14.6	42,317	10.9	33,323
	Total	100.0	518,912	100.0	388,172	100.0	130,740

Table 4.6 Net internal migration by age, coastal cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components, and small numbers are indicative only. Highlighting denotes negative values.

A big difference between the one- and five-year periods was the size of the net migration gain to coastal cities by 25 to 34 year olds. The net gain to coastal cities by this group was 10,042 in the pandemic year, compared to 14,867 over the whole five years. They were also overrepresented among both arrivals and departures relative to their share of the coastal city population, which reflects this group's mobility. The elevated net gain during the pandemic corresponds to the elevated net loss of this group from the capital cities (a loss of 17,760 people for one year compared to a loss of 32,660 people over the five years), and the potential for greater numbers of this group people wanting to move out of capital cities under lockdown.

In contrast, movement in the older age categories was relatively subdued in the one year. The 65 years and over group contributed a net gain to coastal cities over one year of 6,762, compared with the five-year gain of 33,323. This was a lower net gain than expected relative to the five-year figure. Overall, each of the three groups below the age of 35 had a greater share of total coastal city arrivals and departures for the one year relative to the five years, while the three age group categories for people 35 years and over each had a smaller share.

Internal migration by labour force

Table 4.7 shows the arrivals, departures and net internal migration for coastal cities over both time periods by labour force status as at August 2021. The scope includes people aged 15 years and over with a stated labour force status.

For each labour force group, there was a net internal migration gain in both time periods to coastal cities. The pandemic year net gain for those aged 15 and over was comprised of a higher share of employed people (65.9 per cent, compared with 54.5 per cent over five years) and unemployed (4.2 per cent compared with 2.9 per cent for five years). Conversely, those outside the labour force comprised a lower share of the one-year net gain of those 15 and above (29.9 per cent, compared with 42.5 per cent for the five years). Note that the labour force status is always as at August 2021, rather than at the time of moving.

We can see the change in both arrivals and departures. During the pandemic year, employed people represented 65.1 per cent of all coastal city arrivals aged 15 years and over, higher than five-year proportion of 64.0 per cent. Likewise, during

the pandemic there was a lower proportion of employed people among those departing (64.9 per cent of departures by those 15 and over) compared with the five years (67.1 per cent).

	Labour force status (August 2021)	In- migration	In- migration (%)	Out- migration	Out- migration (%)	Net internal migration	Per cent of net (aged 15+)
н	Employed	103,631	65.1	81,040	64.9	22,591	65.9
0-2	Unemployed	8,953	5.6	7,514	6.0	1,439	4.2
7	Not in the labour force	46,543	29.2	36,287	29.1	10,256	29.9
	Employed	286,560	64.0	226,232	67.1	60,328	54.5
-21	Unemployed	18,424	4.1	15,164	4.5	3,260	2.9
16	Not in the labour force	142,569	31.9	95,537	28.4	47,032	42.5

Table 4.7 Net internal migration by labour force status, coastal cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated.

Individual coastal cities and net internal migration, 1 and 5 years

Figures 4.9 and 4.10 shows the net internal migration for August 2020 to 2021 and August 2016 to 2021. Of the 58 coastal cities, 43 had positive net internal migration during the year to August 2021, with a similar figure (41 cities) over five years.

The largest net gains in both time periods were to the Gold Coast – Tweed Heads, Sunshine Coast, Newcastle – Maitland and Geelong, four of the five largest cities. They collectively had a net gain of 25,583 in the one year, and 90,338 over the five years. Total net gain to coastal cities was driven by these large and capital city-adjacent locations. Those with net losses tended to be relatively more remote, such as Karratha, Townsville and Whyalla.



Figure 4.9 Net internal migration, coastal cities, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.





Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

However, the size of a coastal city's net internal migration gain is not just driven by overall population size. Table 4.8 shows the 15 coastal cities with the largest net internal migration, and how each of the migration group categories contributed to the net. While the top five are large, this table includes a range of population sizes, down to 14,500.

Coastal city	State	Rank	For comparison: 5 year rank	1 year net: Capital cities	1 year net: Coastal cities	1 year net: Coastal Country areas	1 year net: Inland cities	1 year net: Inland Country areas	1 year net: Remote areas	1 year net internal migration
Gold Coast - Tweed	QLD/	1	1	7,999	957	-239	387	89	-12	9,181
Sunshine Coast	QLD	2	2	6,074	632	-525	540	160	28	6,909
Newcastle - Maitland	NSW	3	4	4,301	362	-338	641	238	14	5,218
Geelong	Vic.	4	3	4,304	-486	-327	473	361	-50	4,275
Wollongong	NSW	5	7	2,149	-504	-254	205	-125	-41	1,430
Hervey Bay	QLD	6	6	686	403	69	91	199	-22	1,426
Port Macquarie	NSW	7	8	769	66	34	166	140	23	1,198
Warragul - Drouin	Vic.	8	5	1,316	-81	2	-50	-33	0	1,154
Bundaberg	QLD	9	9	111	391	184	168	205	48	1,107
Launceston	Tas.	10	14	910	-47	14	60	-62	42	917
Morisset - Cooranbong	NSW	11	11	1,001	-212	-30	40	-25	-9	765
Bowral - Mittagong	NSW	12	15	1,141	-249	-24	-84	-66	-6	712
Bunbury	WA	13	44	6	298	121	92	114	29	660
Victor Harbor - Goolwa	SA	14	10	446	28	76	28	80	0	658
Airlie Beach - Cannonvale	QLD	15	35	408	163	-44	36	78	11	652

 Table 4.8 Net internal migration, Top 15 (net gain) coastal cities, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

The four cities with the largest net internal migration gains each had net internal migration of over 4,000 people over the year. These cities all had net gains from capital cities, inland cities and inland country areas, as well as net losses to coastal country areas. Gains and losses to and from other coastal cities and remote areas were mixed. The gains from capital cities had by far the most influence on the overall net internal migration figures, as expected from their large collective population.

Like the largest coastal cities, many of the net gains for other cities were driven by capital cities, especially those within 90 minutes of a capital (Wollongong, Victor Harbor – Goolwa, Warragul – Drouin, Bowral – Mittagong and Morisset – Cooranbong). However, some coastal cities had greater net contributions from other areas. Bunbury and Bundaberg gained more from each of the four inland and coastal categories than the capital cities, particularly other coastal cities.

The net gain from capital cities to Bunbury was negligible, despite being only two hours from Perth. This is because a net loss to Perth of 180 people was offset by net gains from other capitals, particularly Sydney and Melbourne, which were two of the three largest net gain regions for Bunbury during the pandemic.

Between August 2016 and 2021, 41 of the 58 coastal cities experienced net internal migration gains. Table 4.9 shows the 15 coastal cities with the largest gains in net internal migration. These are largely the same as those in the top 15 for the pandemic year.

Comparing the two tables, the rankings were stable across years. If a region was in the top 15 for the one year (Table 4.8), then it also tended to be in the top 15 for the five years (Table 4.9). This is consistent with CIE (2023, p.82), which recently found that "[t]he clearest predictor of future net migration is historical net migration, showing that there is considerable persistence in migration patterns." The two exceptions were Bunbury and Airlie Beach – Cannonvale. Both ranked much higher in the pandemic year than in the five years. Airlie Beach – Cannonvale had a net internal migration gain of 652 people in the pandemic year, but only 231 over five years. As mentioned previously, Airlie Beach – Cannonvale had weaker overall population change in 2020-21 (0.8 per cent) than both its average for 2017 to 2022 (1.8 per cent) and 2021-22 (2.3 per cent). This was likely driven by the decrease in overseas migration resulting from border closures, rather than internal migration gain which remained relatively strong³⁹. The other exception was Bunbury, the only coastal city that appears in the top 15 for the year to August 2021, and in the bottom 15 for the five-year period.

Another notable difference between the two tables is Camden Haven. It was in the top 15 for the five-year period, but not for the pandemic year. This was the only coastal city that dropped its rank by ten or more positions, from 13th in the five years to 23rd in the one year. Its net internal migration was 349 people over one year, compared with 1,969 over five years.

						5 year		5 year		
				5 year	5 year	net:	5 year	net:	5 year	5 year
			For	net:	net:	Coastal	net:	Inland	net:	net:
			comparison:	Capital	Coastal	Country	Inland	Country	Remote	internal
Coastal city	State	Rank	1 year rank	cities	cities	areas	cities	areas	areas	migration
Gold Coast - Tweed Heads	QLD/ NSW	1	1	22,074	3,757	-343	1,586	645	-7	27,712
Sunshine Coast	QLD	2	2	19,583	4,168	-220	2,150	1,341	202	27,224
Geelong	Vic.	3	4	16,870	-271	-863	2,063	1,120	-60	18,859
Newcastle - Maitland	NSW	4	3	11,806	1,438	-967	2,846	1,235	185	16,543
Warragul - Drouin	Vic.	5	8	5,168	-203	72	-15	-187	-2	4,833
Hervey Bay	QLD	6	6	1,734	1,392	480	466	639	69	4,780
Wollongong	NSW	7	5	6,693	-1,754	-631	521	-30	-68	4,731
Port Macquarie	NSW	8	7	2,757	-88	-135	600	466	32	3,632
Bundaberg	QLD	9	9	76	605	1,157	327	561	110	2,836
Victor Harbor - Goolwa	SA	10	14	1,806	111	364	145	234	112	2,772
Morisset - Cooranbong	NSW	11	11	3,100	-405	-260	24	-26	-20	2,413
Ballina	NSW	12	17	1,519	71	543	107	110	6	2,356
Camden Haven	NSW	13	23	1,403	144	43	181	166	32	1,969
Launceston	Tas.	14	10	1,106	102	538	97	-65	84	1,862
Bowral - Mittagong	NSW	15	12	3,252	-855	-204	-157	-199	20	1,857

Table 4.9 Net internal migration, Top 15 (net gain) coastal cities, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

³⁹ There are no current estimates for net overseas migration for 2020-21 for these regions. While the Census internal migration data and the internal migration estimates are not directly comparable, the net internal migration component for the 2021-22 year was 91 people.

Table 4.10 shows the only 15 coastal cities with net internal migration losses for August 2020 to 2021. The remaining 43 cities experienced net gains.

These 15 coastal cities uniformly experienced net loss to other coastal cities, and tended to have net losses to capitals and coastal country areas. Those few with gains from capitals are largely in regional Victoria. Most had net gains from remote areas, but these were often so small as to be negligible.

The smallest coastal cities are on this list, but like the top 15, it also includes a range of population sizes. The largest net losses tended to be in coastal cities further from a capital city. Townsville, the sixth largest coastal city, experienced the third largest net migration loss (of 316 people). This was driven by net losses to capital and other coastal cities.

Some of these cities had a much higher rank in the five-year period. Mackay in Queensland dropped from 38 to 54 in the ranking (fifth from the bottom), with a net internal migration gain of 109 people in the five-year period, and a net internal migration loss of 189 people over the pandemic year. Warrnambool and Portland, both in western coastal Victoria, experienced net loss in the pandemic year, but over the five years had net internal migration gains of 509 people (Warrnambool) and 215 people (Portland). Both had little or no population growth in 2020-21.

			For comparison	1 year net: Capital	1 year net: Coastal	1 year net: Coastal Country	1 year net: Inland	1 year net: Inland Country	1 year net: Remote	1 year net: internal
Coastal city	State	Rank	:5 year rank	cities	cities	areas	cities	areas	areas	migration
Byron Bay	NSW	58	52	278	-403	-281	5	20	-24	-405
Karratha	WA	57	50	-169	-128	-45	-4	-49	39	-356
Townsville	QLD	56	58	-825	-215	323	146	113	142	-316
Gladstone	QLD	55	54	-191	-55	-91	48	58	5	-226
Mackay	QLD	54	38	-240	-185	-91	122	134	71	-189
Broome	WA	53	56	-102	-114	-30	23	-21	69	-175
Whyalla	SA	52	53	-91	-26	-12	35	-3	-19	-116
Port Hedland	WA	51	47	-81	-14	-11	-1	-12	11	-108
Warrnambool	Vic.	50	29	48	-84	-16	-31	29	-8	-62
Portland	Vic.	49	36	39	-58	-11	-34	22	3	-39
Lismore	NSW	48	42	-14	-42	34	-11	-3	-2	-38
Port Augusta	SA	47	51	5	-9	-34	1	-3	4	-36
Sale	Vic.	46	37	66	-31	-48	-16	11	-11	-29
Esperance	WA	45	48	-89	-7	11	6	-8	63	-24
Colac	Vic.	44	40	-8	-70	62	-6	7	3	-12

Table 4.10 Net internal migration, Bottom 15 (net loss) coastal cities, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Table 4.11 shows the bottom 15 coastal cities for net internal migration in the five years to August 2021. The largest net losses were from the relatively more remote coastal cities in Queensland, Western Australia and South Australia. They almost all had net losses to capitals and other coastal cities. Almost all had net gains from remote areas. There was a mix of gains and losses to inland and coastal country groups. For example, Townsville, Gladstone and Rockhampton had net losses to capitals and other coastal cities from all other groups.

Four regions which did much better in the pandemic, experiencing net internal migration gains, in contrast to their fiveyear losses, are in Queensland (Rockhampton, Cairns) and Western Australia (Bunbury, Geraldton). These two states were less affected by internal restrictions at the time, although still impacted by international border closures. This may have given them a greater advantage for net gains domestically compared with similar locations in Victoria and New South Wales. Over the five years these four coastal cities lost between about 200 to 1,170 people to other parts of Australia. During the pandemic, all had net gains, between about 260 and 660 people between August 2020 and 2021.

Coastal city	State	Rank	For comparison: 1 year rank	5 year net: Capital cities	5 year net: Coastal cities	5 year net: Coastal Country areas	5 year net: Inland cities	5 year net: Inland Country areas	5 year net: Remote areas	5 year net: internal migration
Townsville	QLD	58	56	-4,489	-1,108	1,073	332	513	568	-3,111
Cairns	QLD	57	19	-1,027	-862	-406	217	113	797	-1,168
Broome	WA	56	53	-548	-371	-188	-58	-16	228	-953
Rockhampton	QLD	55	22	-1,651	-650	356	170	532	295	-948
Gladstone	QLD	54	55	-1,222	-335	343	40	243	72	-859
Whyalla	SA	53	52	-624	-34	-15	-17	-21	-31	-742
Byron Bay	NSW	52	58	746	-933	-562	6	10	2	-731
Port Augusta	SA	51	47	-449	-26	-141	-13	-55	2	-682
Karratha	WA	50	57	-626	-76	-85	-15	-100	255	-647
Geraldton	WA	49	29	-1,343	-260	120	76	117	701	-589
Esperance	WA	48	45	-480	-180	-40	-10	-18	157	-571
Port Hedland	WA	47	51	-187	-119	-50	27	-20	65	-284
Mount Gambier	SA	46	42	-568	-165	365	-41	167	14	-228
Port Pirie	SA	45	41	-351	-28	73	29	19	43	-215
Bunbury	WA	44	13	-1,966	222	875	281	318	69	-201

Table 4	.11 N	let internal	migration.	Bottom 15	(net loss)) coastal cities	August 2016-2021
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Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Case study: Geelong

Geelong is the largest regional city in Victoria, with a 2022 population of 295,434. It had the fourth highest net internal migration gain among coastal cities between August 2020 and 2021 (4,275), and the third highest between August 2016 and 2021 (18,859). Geelong is just to the west of Melbourne, with about 75 km distance between each city's CBD. The two are closely linked, with frequent commuter trains in both directions.

Table 4.12 shows the main arrival and departure regions for Geelong over the one and five years. Overwhelmingly, Geelong arrivals were from Melbourne in both time periods – around twenty times as many people arrived from Melbourne than the next largest source region, nearby Ballarat.

	2020 to 2021	2016 to 2021
Arrivals from: region #1	Melbourne	Melbourne
Arrivals from: region #1 (persons)	8,994	24,935
Arrivals from: region #2	Ballarat	Ballarat
Arrivals from: region #2 (persons)	437	1,288
Arrivals from: region #3	Portarlington	Sydney
Arrivals from: region #3 (persons)	354	1,177
Departure to: region #1	Melbourne	Melbourne
Departure to: region #1 (persons)	4,273	8,655
Departure to: region #2	Brisbane	Bannockburn
Departure to: region #2 (persons)	418	1,282
Departure to: region #3	Golden Plains - South	Golden Plains - South
Departure to: region #3 (persons)	402	1,048
Net internal migration gain region #1	Melbourne	Melbourne
Net internal migration gain region #1 (persons)	4,721	16,280
Net internal migration gain region #2	Bendigo	Sydney
Net internal migration gain region #2 (persons)	120	675
Net internal migration gain region #3	Ballarat	Ballarat
Net internal migration gain region #3 (persons)	101	460
Net internal migration loss region #1	Brisbane	Gold Coast - Tweed Heads
Net internal migration loss region #1 (persons)	-243	-518
Net internal migration loss region #2	Gold Coast - Tweed Heads	Golden Plains - South
Net internal migration loss region #2 (persons)	-213	-439
Net internal migration loss region #3	Golden Plains - South	Bannockburn
Net internal migration loss region #3 (persons)	-206	-426

Table 4.12 Main arrival and departure regions, Geelong, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Those departing Geelong also largely went to Melbourne, but at less than half the number of arrivals from Melbourne. Consequently, Melbourne represents the largest net gain region for Geelong over both the one-year (4,721 people net gain) and five-year (16,280) periods. The other largest net gain regions contributed only a fraction of Geelong's total net gains (Bendigo and Ballarat in the one year, Ballarat and Sydney in the five years). The greatest net loss region in the

pandemic year was Brisbane. In both time periods, Geelong had net losses to Gold Coast – Tweed Heads and Golden Plains – South, the latter adjacent to Geelong.⁴⁰

While employment opportunities often play a role in internal migration decisions, in some cases, people who moved to Geelong in recent years have a job in their former location. Table 4.13 shows the place of work for those whose place of residence was Geelong at August 2021. This is segmented into place of usual residence one year earlier in August 2020 for selected locations. For Geelong residents who were also living in Geelong a year earlier, about 4 out of 5 also worked in Geelong and 13.5 per cent worked in Melbourne. Other regions were an insignificant proportion of employment (0.5 per cent or less), excluding no fixed workplace address in Victoria.

For those Geelong residents who lived in Melbourne a year earlier, almost half of them worked in Melbourne in 2021, just slightly higher than the proportion working in Geelong. Those Geelong residents from locations either further away (such as Sydney) or smaller (such as Portarlington) were more likely to be working locally in Geelong rather in their former place of residence. They were less likely than former Melbourne residents to be working in Melbourne. The figures for former Sydney residents who now lived in Geelong indicate that about a quarter of these were working in Melbourne, also taking advantage of the proximity to the capital. But they were less likely to do so than former Melbournians.

This indicates that there is a very strong employment link retained between Melbourne and Geelong for those people who moved residence from Melbourne to Geelong, but access Melbourne as a place of work. This suggests that part of the appeal of Geelong as a place of residence is the fact that its labour market offering overlaps (to some degree) with the capital city.

	August 20	21 empl	oyed Geelo	ng resider	nts: in 20	20, lived	d in:			
	Geelong		Melbourr	Melbourne		Ballarat		/	Portarlington	
August 2021 place of work	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Geelong	100,524	77.9	2,570	44.2	172	61.6	76	53.9	129	72.9
Melbourne	17,456	13.5	2,780	47.9	37	13.3	37	26.2	22	12.4
No Fixed Address (Vic.)	6,266	4.9	272	4.7	10	3.6	3	2.1	8	4.5
Portarlington	614	0.5	14	0.2	0	0.0	0	0.0	16	9.0
Ballarat	480	0.4	14	0.2	47	16.8	0	0.0	0	0.0
Sydney	285	0.2	31	0.5	0	0.0	13	9.2	0	0.0
Total (all places of work)	129,116		5,808		279		141		177	

Table 4.13 Place of work for Geelong residents, August 2021, and where resident one year earlier

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: highlighting indicates where Geelong residents worked in the same location in 2021 as where they lived in 2020. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Over five years, we can also consider the share of employed Geelong residents in 2021 who resided in Melbourne in 2016 and worked in Melbourne in 2021. This was smaller at 37.4 per cent than the share of those who lived in Melbourne in 2020 (47.9), but still much larger than those employed Geelong residents working in Melbourne who also lived in Geelong in 2016 (11.8 per cent). In other words, this strong connection was still there in the five-year data (noting that it will include people who moved within those five years, including more recently).

The link between origin region in 2016 and place of employment in 2021 was weaker for areas other than Melbourne. For Geelong residents who previously lived in other origin regions five years ago, only a small proportion of them currently

⁴⁰ See the case study on Orange in Chapter 5 for a similar dynamic. Orange has net gains from its surrounding area, nearby inland cities and Sydney, but loses to large coastal regions and other capitals, including Brisbane and Gold Coast – Tweed Heads (see Map 5.5).

work in a job based in their former place of residence (shown in green in Table 4.14). The majority share of their employment is in Geelong.⁴¹

August 2021 employed Geelong residents: in 2016, lived in:											
	Geelong		Melbourne		Ballarat		Sydney		Portarlington		
August 2021 place of work	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	
Geelong	83,798	80.0	8,422	54.0	589	70.2	478	65.0	303	73.4	
Melbourne	12,327	11.8	5 <i>,</i> 833	37.4	94	11.2	162	22.0	55	13.3	
No Fixed Address (Vic.)	5,089	4.9	773	5.0	42	5.0	28	3.8	28	6.8	
Portarlington	489	0.5	54	0.3	5	0.6	4	0.5	28	6.8	
Ballarat	343	0.3	49	0.3	82	9.8	0	0.0	0	0.0	
Sydney	183	0.2	74	0.5	0	0.0	34	4.6	0	0.0	
Total (all places of work)	104,787		15,597		839		735		413		

Table 4.14 Place of work for Geelong residents, August 2021, and where resident five years earlier

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: highlighting indicates where Geelong residents worked in the same location in 2021 as where they lived in 2016. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

⁴¹ Where numbers are small, they should be treated as indicative due to random adjustment by the ABS for confidentiality.

Coastal country

Coastal country areas had net internal migration gains from all other groups during the pandemic (Table 4.15). The overall net gain was driven by capital cities, with 9 out of 10 people in the total net gain from the capitals, or 10,134 people. Inland country areas and remote areas only contributed about 530 people each. Net gains from coastal and inland cities were negligible.

However, between August 2016 and 2021, coastal country areas lost a net 6,627 people to coastal cities (Figure 4.11). This was the most striking difference between the pandemic and the five-year period.

Looking at the flows of arrivals and departures shows the strong connection between coastal country areas and coastal cities. During the pandemic year, there were slightly more arrivals from coastal cities than any other group - around 37,000 people compared with 34,500 from the capitals. However, half of all departing coastal country residents moved to coastal cities, compared with about a third going to capital cities. This resulted in the higher net gain from capital cities.

Similarly, the flows were greater between inland country areas and coastal country areas (7,000 arrivals and 6,500 departures) than remote areas (2,800 arrivals and 2,300 departures), despite the same net gain from both groups.

There was a shift in emphasis for arrivals in the pandemic year. Over the five years, there were more arrivals to coastal country areas from capital cities (105,470 or 44.0 per cent of all arrivals) than coastal cities (93,760 or 39.1 per cent). In the pandemic year, arrivals from capital cities dropped to 40.4 per cent of arrivals, while the coastal cities share increased to 43.4 per cent. There was a smaller change in the share of destination regions for departures. Half of those departing coastal country areas moved to coastal cities in the pandemic, slightly lower than the 51.3 per cent in the five years. Departures to capitals was a slightly higher share of 32.9 per cent, compared to 32.1 per cent in the five-year period.

Figure 4.11 Net internal migration flows, coastal country areas, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

			Capital	Coastal	Inland	Inland country	-	
	Coastal country	Overseas	cities	cities	cities	areas	Remote	Total
	In-migration	3,946	34,449	37,038	4,046	6,978	2,784	85,295
021	Out-migration	na	24,315	37,019	3,960	6,451	2,256	74,001
0 to 2(Net-migration	na	10,134	19	86	527	528	11,294
202	In-migration share		40.4	43.4	4.7	8.2	3.3	100.0
	Out-migration share		32.9	50.0	5.4	8.7	3.0	100.0
	In-migration	18,570	105,470	93,760	11,710	21,314	7,518	239,772
021	Out-migration	na	62,813	100,387	10,774	16,669	5,018	195,661
6 to 2	Net-migration	na	42,657	-6,627	936	4,645	2,500	44,111
201	In-migration share		44.0	39.1	4.9	8.9	3.1	100.0
	Out-migration share		32.1	51.3	5.5	8.5	2.6	100.0

Table 4.15 In, out and net migration flows, coastal country areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Internal migration by age

Table 4.16 shows the internal migration flows for coastal country areas over one and five years to August 2021 by age. Coastal country areas have the oldest age structure among the BCARR migration geography groups. In 2021, a full quarter of current coastal country area residents were aged 65 years and over, compared with 17.2 per cent nationally. Coastal country areas also had the highest proportion of 55 to 64 year olds (16.4 per cent, compared with 11.8 per cent nationally).

While allowing that some of this older age structure is attributable to aging in place, we might expect to see strong net gains to coastal country areas from older age cohorts, given these areas are known for being attractive retirement destinations. However, while the five-year net gain was 3,494 for those aged 65 years and over, there was a net loss in this group of 804 over the pandemic year.

	Age (at August	2021 age	In microtion	In-migration	Out-	Out- migration	Net internal
	2021) Linder 15 years		In-migration	(% of total)	migration 10 737	(% of total) 14 5	migration 3 618
	15 24 years	10.5	10 2 2 9	12.1	16,737	22.2	6 101
E.	15-24 years	9.2	10,528	12.1	10,429	22.2	-0,101
202	25-34 years	9.2	16,506	19.4	13,367	18.1	3,139
to	35-54 years	23.6	21,288	25.0	14,606	19.7	6,682
020	55-64 years	16.4	12,238	14.3	7,474	10.1	4,764
3	65 years and over	25.0	10,579	12.4	11,383	15.4	-804
	Total	100.0	85,295	100.0	74,001	100.0	11,294
	Under 15 years	16.5	33,592	14.0	23,385	12.0	10,207
_	15-24 years	9.2	21,730	9.1	43,323	22.1	-21,593
202	25-34 years	9.2	39,088	16.3	30,425	15.5	8,663
to	35-54 years	23.6	67,065	28.0	42,397	21.7	24,668
016	55-64 years	16.4	39,543	16.5	20,883	10.7	18,660
7	65 years and over	25.0	38,753	16.2	35,259	18.0	3,494
	Total	100.0	239,772	100.0	195,661	100.0	44,111

Table 4.16 Net internal migration by age, coastal country areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components. Highlighting denotes negative values.

The gross flows were subdued in the pandemic year for this age group. Those aged 65 and over as a proportion of total arrivals was 16.2 per cent over the five years, falling to 12.4 per cent for the pandemic year. This was not unique to coastal country areas: the equivalent share was smaller in the one year for all migration geography groups. Similarly, the proportion of those aged 65 and over in departures from coastal country areas was a smaller share in the pandemic year (15.4 per cent, compared with 18.0 per cent for the five years) – and this also occurred for all other migration geographies.

This was part of a larger pattern also observed for coastal cities: the three younger age cohorts (those under 35 years) all had higher shares of both the arrivals and departures during the pandemic, while the three older age cohorts had lower shares. These older groups were more likely to remain in place during this time compared with the five years. Again, much like the coastal cities, arrivals were more affected by this shift than the departures, resulting in the negative net migration for the 65 years and over cohort.

Internal migration by labour force

Table 4.17 shows the internal migration flows by labour force status for coastal country areas. For both time periods, there were net gains to coastal country areas for employed, unemployed and those not in the labour force, but the emphasis shifted between years.

Between August 2016 and 2021, those not in the labour force accounted for more than a third of the net internal migration to coastal country areas by these 15 years and over, while employed persons accounted for just under two-thirds. In the pandemic year, most of the net gains among those 15 years and over was comprised of employed persons (almost 9 in 10), with nearly 1 in 10 not in the labour force. The share of unemployed persons was twice as big in the pandemic as the five years, though still only 1.5 percent of the net movement. The increase in the share of employed persons people in net migration was also observed in other migration geography groups, as noted in Chapter 2.

The share of departures by those outside the labour force remained consistent across the two time periods, at about 36 per cent of departures (of those aged 15 and over). However, the share of arrivals for those outside the labour force declined from 36.2 per cent of arrivals (of those aged 15 and over) in the five years to 33.2 per cent in the pandemic year.

The share of employed in arrivals was higher at 61.7 per cent in the pandemic, compared with 60.1 per cent in the five years.

	Labour force status (August 2021)	In- migration	In- migration (%)	Out- migration	Out- migration (%)	Net internal migration	Per cent of net (aged 15+)
	Employed	43,503	61.7	36,693	58.4	6,810	89.1
-21	Unemployed	3,630	5.1	3,513	5.6	117	1.5
20-	Not in the labour force	23,374	33.2	22,657	36.0	717	9.4
	Employed	123,196	60.1	101,526	59.3	21,670	64.1
-21	Unemployed	7,709	3.8	7,459	4.4	250	0.7
16	Not in the labour force	74,158	36.2	62,275	36.4	11,883	35.2

Table 4.17 Net internal migration by labour force status, coastal country areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated.

Internal migration for individual coastal country areas

Table 4.18 shows the top five coastal country areas by net migration by gains and losses. Most coastal country areas had net migration gains in both periods. Some of the largest net gains over the one year occurred in the largest coastal country areas: Wonthaggi – Inverloch in Victoria and Gympie Surrounds in Queensland, which are the only coastal country areas with populations over 20,000.

Top regions by net gain were consistent between the one- and five-year periods. Three of these in both lists: Portarlington, Wonthaggi – Inverloch and Branxton - Greta – Pokolbin. All the top regions also appear in the top ten table for population gains over 2020-21 and the five years to 2022 (see Table 4.3).

Coastal country SA2	State	In- migration	Out- migration	Net- migration	Coastal country SA2	State	In- migration	Out- migration	Net- migratio n
		2	2020 to 2021					2016 to 2021	
Wonthaggi - Inverloch	Vic.	2,288	1,470	818	Wonthaggi - Inverloch	Vic.	6,950	3,293	3,657
Branxton - Greta - Pokolbin	NSW	1,488	995	493	Phillip Island	Vic.	3,873	1,833	2,040
Booral - River Heads	NSW	873	471	402	Portarlington	Vic.	3,313	1,613	1,700
Gympie Surrounds	QLD	1,902	1,502	400	Branxton - Greta - Pokolbin	NSW	4,028	2,533	1,495
Portarlington	Vic.	1,150	786	364	Old Bar - Manning Point - Red Head	NSW	3,478	2,275	1,203
Corangamite - South	Vic.	342	488	-146	Innisfail	QLD	1,537	1,967	-430
Bacchus Marsh Surrounds	Vic.	445	563	-118	Gladstone Hinterland	QLD	2,321	2,691	-370
Mullumbimby	NSW	838	939	-101	Ayr	QLD	1,337	1,622	-285
Guanaba - Springbrook	QLD	383	475	-92	Johnstone	QLD	1,297	1,555	-258
Lorne - Anglesea	Vic.	653	744	-91	Tablelands	QLD	859	1,107	-248

Table 4.18 Top 5 net migration flows, coastal country areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Highlighting denotes negative values. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

The largest net losses over the five years were all in central and north Queensland, while most regions in the one-year period were in central west Victoria: Bacchus Marsh Surrounds just outside Melbourne, Lorne – Angelsea, and the more distant Corangamite - South. These regions are geographically close to Portarlington, which appears in the top five for the one-year period, and Geelong, which also experienced positive internal migration during the pandemic. While there was no consistency between the largest net loss regions across time periods for the bottom five, a few regions had more consistency looking beyond the bottom five. Corangamite – South was ranked 8th from the bottom in the five years, and Ayr was 6th from the bottom in the pandemic year. Others had different internal migration outcomes between the one and five years. The five-year net internal migration from the Census shows a gain for Lorne – Angelsea of 738.

Further, there were also some differences in the one-year period between overall 2020-21 population growth (ABS estimated resident population) and the Census internal migration data.⁴² Mullumbimby, Bacchus March Surrounds and Lorne – Angelsea experienced population growth in 2020-21 despite internal migration losses in the Census data. For Lorne – Angelsea, this population growth was strong at 5.1 per cent: it also appears in Table 4.3 as one of the ten fastest growing coastal country areas from 2017 to 2022. This is more consistent with the strong five-year net internal migration gain.

⁴² Note that these are two different data sources, and we do not expect perfect alignment. Additionally, population growth includes natural increase and net overseas migration as well as net internal migration.

Case study – Innisfail Queensland

Innsifail Queensland is an example of a dynamic where some country coastal towns experience a net loss of people to larger centres, but still have net gains from their surrounding rural areas.

Innisfail is an agricultural town with sugar cane and banana growing. It is an hour south of Cairns, with a 2022 population of 9,346. It has a slightly older age structure (a median age of 41 compared to 38 nationally), and has a higher than national share of employment in aged care (ABS 2022).

Innisfail declined in population over all three time periods: 2017 to 2022 (an average annual decline of 0.6 per cent), 2020-21 (a 1.2 per cent decline) and 2021-22 (a 0.6 per cent decline). Innisfail has also had longer-term population decline, and has been greatly impacted by natural disasters. The town was hit by two cyclones in the last twenty years: Cyclone Larry in 2006, and Cyclone Yasi in 2011. The 2006 cyclone damaged over half the homes and infrastructure, and the 2011 cyclone destroyed, or made uninhabitable, 800 homes over its impact areas (including outside the township). Cyclone Yasi also destroyed hundreds of millions dollar worth of crops, impacting employment and the local economy (King and Gurtner 2020). King and Gurtner (2020) discussed the population loss in the context of the wider decline of the tourism industry in the Cassowary Coast, commodity price declines of tropical fruit and sugar, local governance and economic instability. They discuss the changing demographics of the area, particularly the aging population, with young people leaving to access opportunities elsewhere.

Innisfail also experienced the largest net internal migration loss among coastal country areas between August 2016 and 2021 (of 430 people), and a net loss of 31 people between August 2020 and 2021. The source and destination regions for migration to and from Innisfail were very consistent. In both the one year and the five years to August 2021, the top three sources of arrivals were Johnstone, Cairns and Brisbane, and these were also the top three destination regions of those departing Innisfail for elsewhere in Australia over both time periods. Johnstone SA2 (population 8,098) is a rural area immediately to the south of Innisfail. As can be seen in Table 4.20 above, Johnstone also had net internal migration loss over the five years. Several small towns within it, including South Johnstone, Wangan and Mourilyan are within ten kilometres of Innisfail. As shown in Table 4.19, a very similar number of people left Innisfail for Johnstone, Cairns and Brisbane (270 to 304 people), but people were more likely to move from Johnstone to Innisfail than they were from Cairns or Brisbane, with the latter two contributing fewer arrivals.

As a result, the greatest net loss from Innisfail was to Cairns followed by Brisbane in both time periods (with a net loss to Babinda equal to Brisbane for the one year). The largest net gain source regions were more local: Innisfail had its largest net gains from Johnstone and Tully in the one year; and similarly, Johnstone and Daintree for the five years.⁴³

As can be seen from the table, the age structure of arrivals and departures (and the subsequent net effect) is very different for the three regions. The net gain from the adjacent rural region was due to the older age group, whereas the net losses to Cairns and Brisbane were due to the younger working-age groups: the largest losses were in the 15-24 age group, consistent with the pattern observed more generally at the migration geography group scale.

The net gain to Innisfail from Johnstone suggests a process by which older people from the immediate rural surrounds, including farmers, move to a nearby town to be closer to services as they age. This is also occurring in the context of agricultural consolidation, with bigger farms acquiring more land. The outflow of the young to Cairns and Brisbane reflects the appeal of a larger labour market and potentially opportunities for greater wages, as well as following the more general trend of younger people being drawn to large cities.

This demonstrates a key process which leads small agricultural towns to develop an older age structure (allowing also for the effect of ageing in place). More generally, it also illustrates the dynamics that can play out between towns, smaller rural surrounds and more distant regional and capital cities.

⁴³ Tully is adjacent to Johnstone. Babinda is to the north of Innisfail. Daintree is just to the north of Cairns.

	Johnstone				Cairns		Brisbane		
Age (at August 2021)	Arrivals to Innisfail	Departures from Innisfail	Net	Arrivals to Innisfail	Departures from Innisfail	Net	Arrivals to Innisfail	Departures from Innisfail	Net
0-14 years	50	70	-20	34	41	-7	23	29	-6
15-24 years	57	43	14	20	68	-48	24	89	-65
25-34 years	63	67	-4	38	71	-33	42	61	-19
35-54 years	82	80	2	58	69	-11	40	41	-1
55-64 years	32	23	9	20	22	-2	20	22	-2
65 years and over	69	13	56	11	26	-15	24	31	-7
Total	354	304	50	180	304	-124	164	270	-106

Table 4.19 Top origin and destination regions for Innisfail, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Highlighting denotes negative values.

Summary

Coastal areas have long had strong appeal. For many years, the coastal city population collectively grew at a rate second only to the capital cities, with coastal country areas following. In the years prior to the pandemic, the difference in population growth between the two coastal groups was closing.

The pandemic had different impacts on the population growth rates for coastal cities and coastal country areas, but they collectively maintained their popularity among regional areas. In 2020-21, coastal country areas experienced stronger growth than in previous years, continuing their year on year improvement, while growth in coastal cities was negatively impacted by the pandemic. However, while the pandemic may have collectively cost coastal cities some growth, they were not greatly affected, and most had a better growth rate in 2021-22 than the year earlier.

Population in coastal country areas grew more strongly in 2020-21 than coastal cities and all other groups. However, by 2021-22, growth in coastal cities once again outpaced coastal country areas. About 60 per cent of coastal country regions experienced better rates of population growth in 2020-21 than over the five years, but this strength tapered off in the following year.

In the wake of long-term lockdown mandates in Melbourne and other cities, the share of coastal cities' net migration gain from capital cities was larger in the year to August 2021 than the five years, and those departing coastal cities were less likely to move to a capital city during the pandemic.

Consistent with population, most coastal cities and coastal country areas largely had positive net migration gains over both the one-year and five-year periods to August 2021. The relative appeal of the two areas shifted: there was a net loss from coastal country areas to coastal cities in the five years, but a net balance during the pandemic, suggesting relative improvement in the appeal of coastal country areas during this time.

For age groups, the most notable change in the pandemic year for coastal cities was the increase in net migration gain by 25 to 34 year olds. Changes in movements for those aged 65 and over during the pandemic resulted in a net loss of this group from coastal country areas, compared to a net gain over the five years.

Overall, the population dynamics of individual coastal regions were impacted by the outbreak of COVID-19, particularly in areas where people sought alternatives to lockdowns in capital cities. There is considerable variation in whether the impacts lasted into the subsequent year, with continued growth for many Queensland regions, while most other regions returned to longer-term trends.

5. Inland

Key points

- Over 2.6 million people lived in inland cities or inland country areas in 2022. The population growth of both inland cities and inland country areas has been slower than the national rate over the past two decades, with the exception of 2020-21.
- Both inland groups' growth rates slowed in 2020-21, with inland cities more impacted. The inland cities rate fell by 0.3 percentage points to 0.6 per cent off a pattern of slowing growth. The rate for inland country areas fell marginally by 0.1 percentage point to 0.4 per cent off a stable rate in previous years.
- About three quarters of inland cities (76 per cent) grew between 2017 and 2022, with a large proportion of this growth towards the largest cities: Toowoomba, Ballarat, Bendigo and Albury-Wodonga.
- About three quarters of the inland cities (74 per cent) had weaker growth in 2020-21 than their annual average growth over the five-year period. By 2021-22, most (59 per cent) had improved population rates compared with 2020-21, and almost half (44 per cent) had improved rates compared with the five-year average.
- Inland cities collectively experienced net internal migration gains for both August 2020 to 2021 and August 2016 to 2021. These cities consistently had net gains from capital cities, inland country areas and remote areas, but lost people to coastal regions, particularly to coastal cities.
- Capital cities contributed the greatest net number of people to inland cities in the pandemic year, while inland country areas contributed the most in the five years. Inland cities also lost fewer people (net) to coastal country areas than expected during the pandemic, given the five-year pattern.
- About 60 per cent of inland country areas had weaker growth in 2020-21 than their 2017-22 average annual rate. About 58 per cent then had a better population growth rate in 2021-22 than in 2020-21, with just over half (55 per cent) having better rates than their 2017-22 average annual rate.
- Inland country areas collectively experienced a net gain of over 2,100 people during the pandemic year, compared to a net loss in the five years of just under 400 people. In both periods, net gains came from the capital cities and remote areas, and net losses went to both coastal groups and inland cities.
- There was a net migration loss of persons aged 15 to 24 for the inland groups over both time frames. In the case of inland cities, the 65 years and over group contributed the most to the net gain for both periods. In contrast, inland country areas lose people from this group, suggesting the importance of services in regional cities for older residents.
- The 35 to 54 years age cohort had a net loss from inland cities in the five years (of 488 people), and a net gain of 115 in the pandemic year. This was the only age cohort in either inland group to change directions between the two time periods.
- During the pandemic, the net internal migration gain by those aged 15 years and over to inland cities was driven by employed people. The five-year net migration gain was driven by those not in the labour force. The net gain to both inland areas of employed people was even larger in the one year than over the whole five years.

Introduction

Inland areas cover a diverse range of environments - mountains, rainforests and plains – reflecting the many different regions within this classification. Collectively, inland areas had a population of over 2.6 million people in 2022, representing 10 per cent of the nation's population. The population growth and migration flows for these regions are also diverse, with some growing strongly above the national average, while others have declined. This chapter separates into two sections—inland cities and inland country areas – to explore the population growth and migration flows.

Population change

Overall, inland areas have grown more slowly than Australia over the past 20 years (see Figure 5.1), as illustrated by the increasing gap between these groups and Australia. However, during the pandemic year, while the drop in Australia's growth rate is clear, the impact on the inland areas was much more limited.

The inland cities population growth rate fell 0.3 percentage points from the previous year to 0.6 per cent in 2020-21 (see Chapter 2, Figure 2.1). This followed a several years-long pattern of slowing growth, with rates about 0.1 percentage points lower each year.⁴⁴ The sharper 2020-21 fall suggests the impact of the pandemic rather than being solely a continuation of the medium-term trend. The growth rate for inland country areas was only marginally affected during the pandemic, falling from a stable 0.5 per cent annually in the years prior to 0.4 per cent.

In 2021-22, there was a good recovery for both groups, with 0.9 per cent growth in inland cities and 0.6 per cent growth in inland country areas, the strongest rate since 2016-17.



Figure 5.1 Population index, inland areas, 2001 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: The population index uses 2001 as a base, and is calculated as current year value/base year value*100. Therefore a value of 120, for example, indicates growth of 20 per cent from the base year.

⁴⁴ The annual population growth rate of inland cities peaked in 2016-17 at 1.3 percent, then declined to 2019-20 each year with consecutive rates of 1.2, 1.1 and 1.0 per cent.

Inland cities

Over 1.26 million people live in 34 inland cities, with an average size of just over 37,000 in 2022. The cities range from the largest city of Toowoomba with a population of around 147,000 people to Kingaroy, with just over 10,700 people.

As a group, inland cities have grown more slowly than coastal cities. However, most inland cities (76 per cent) experienced positive population growth between 2017 and 2022 (see Table 5.1). A major proportion of this growth occurred in the four largest inland cities of Toowoomba, Ballarat, Bendigo and Albury-Wodonga, which together contributed 33,855 people to the overall net growth of 59,583 in the inland cities category. In Table 5.1, the top five cities that experienced the largest growth and decline (both in terms of number and percentage) are highlighted in dark blue and light blue respectively. Cities that were in the top five (and bottom five) for 2020-21 and 2021-22 are also highlighted.

Over the five-year period, only seven inland cities had higher average annual growth in population than the national rate. The Victorian city of Ballarat had the highest rate at 1.9 per cent, and continued to experience strong population growth during the pandemic. The second highest was in the central New South Wales city of Dubbo (1.6 per cent), which is an attractive destination for migration from more remote locations such as Nyngan-Warren and Bourke-Brewarrina.

Some of the inland cities that experienced population declines over the five-year period have an association with mining. The largest loss, both in terms of proportion and number, was for Lithgow in the Western Coalfield region. It had a decline of 589 people, with an annual average loss of 0.9 per cent. Inland cities experiencing population declines across the five-year time frame did not generally experience growth in 2020-21 and 2021-22 either.

In 2021-22, the inland cities as a group returned to about the same level of growth rate as in 2019-20, but most individual inland cities still had weaker growth in 2021-22 than before the pandemic. The inland cities with the strongest population growth over 2021-22 were Toowoomba and Ballarat, at over 2 per cent for each, followed by the Queensland coal mining city of Emerald at 1.9 per cent, driven by the number of births. In 2020-21, no inland city grew more than 1.7 per cent. The largest loss by number in 2021-22 was from Griffith, which experienced a population decline of 151 people in the latest year, primarily driven by net internal migration loss.

Table 5.1 Population change, inland cities, 2017-22, 2020-21 and 2021-22

BCARR migration	State	2022 Population	5 year population change, 2017-2022	5 year population change, 2017- 2022 (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
	51010	nercons	nersons	ner cent	nersons	ner cent	nersons	ner cent
Toowoomba	QLD	146 786	10 732	15	1 581	1 1	2 844	2.0
Ballarat	Vic.	114.198	10.470	1.9	1.862	1.7	2.474	2.2
Bendigo	Vic.	103,818	6,313	1.3	917	0.9	878	0.9
Albury - Wodonga	NSW/Vic.	98,738	6,340	1.3	1,144	1.2	1,008	1.0
Wagga Wagga	NSW	57,470	1,228	0.4	-1	0.0	210	0.4
Shepparton - Mooroopna	Vic.	54,329	2,812	1.1	83	0.2	343	0.6
Mildura - Buronga	NSW/Vic.	54,013	2,192	0.8	-173	-0.3	338	0.6
Tamworth	NSW	44,979	2,294	1.1	234	0.5	611	1.4
Traralgon - Morwell	Vic.	43,497	1,729	0.8	228	0.5	353	0.8
Orange	NSW	42,379	2,161	1.1	357	0.9	214	0.5
Dubbo	NSW	41,321	3,223	1.6	528	1.3	295	0.7
Bathurst	NSW	37,900	1,645	0.9	298	0.8	391	1.0
Queanbeyan	NSW	37,787	-211	-0.1	-137	-0.4	19	0.1
Kalgoorlie - Boulder	WA	30,459	-254	-0.2	61	0.2	38	0.1
Alice Springs	NT	28,855	1,966	1.4	454	1.6	372	1.3
Goulburn	NSW	24,840	1,106	0.9	55	0.2	150	0.6
Armidale	NSW	24,178	-120	-0.1	-239	-1.0	8	0.0
Echuca - Moama	NSW/Vic.	22,767	1,603	1.5	369	1.7	280	1.2
Moe - Newborough	Vic.	22,047	492	0.5	104	0.5	82	0.4
Griffith	NSW	20,531	526	0.5	6	0.0	-151	-0.7
Wangaratta	Vic.	19,960	767	0.8	168	0.9	76	0.4
Murray Bridge	SA	19,067	750	0.8	68	0.4	212	1.1
Mount Isa	QLD	18,652	-365	-0.4	-108	-0.6	-146	-0.8
Broken Hill	NSW	17,569	-425	-0.5	-56	-0.3	-93	-0.5
Singleton	NSW	17,431	759	0.9	166	1.0	292	1.7
Horsham	Vic.	16,930	371	0.4	9	0.1	-21	-0.1
Warwick	QLD	15,892	431	0.6	134	0.9	136	0.9
Emerald	QLD	14,621	704	1.0	46	0.3	269	1.9
Mudgee	NSW	12,571	359	0.6	-36	-0.3	-10	-0.1
Muswellbrook	NSW	12,417	-29	0.0	-74	-0.6	33	0.3
Lithgow	NSW	12,372	-589	-0.9	-191	-1.5	-38	-0.3
Castlemaine	Vic.	11,344	456	0.8	14	0.1	53	0.5
Swan Hill	Vic.	11,025	-128	-0.2	-105	-0.9	-148	-1.3
Kingaroy	QLD	10,755	275	0.5	77	0.7	96	0.9
Total inland cities		1,261,498	59,583	1.0	7,843	0.6	11,468	0.9
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. For its categorisation as an inland city, Queanbeyan consists of the four SA2s in the Canberra-Queanbeyan SUA that are outside of the ACT (Karabar, Queanbeyan, Queanbeyan – East and Queanbeyan West – Jerrabomberra). Highlighting represents the top five and bottom five in each column.

Comparing population growth across time for regions

Figure 5.2 shows the relationship for each inland city between the average annual change from 2017 to 2022 and the 2020-21 change. Those furthest from the 45-degree line have the largest percentage point difference between their population growth rates in the two time periods.

Only nine of the 34 inland cities (26 per cent) had a better growth rate in the pandemic year than the average five-year rate. While the remaining 74 per cent of inland cities had better growth rates in 2020-21, these rates were not greatly different than their five-year average annual rates.

The chart reveals a strong linear relationship between the two growth rates (correlation coefficient = 0.87). Cities with strong growth in both periods, in the top right of the chart, include Ballarat and Toowoomba, the two largest regional inland cities.

Likewise, inland cities with the weakest growth in one period tended to have the weakest growth in the other. However, Broken Hill and Kalgoorlie – Boulder both had population loss over the five years, but were two of the nine with improved rates in 2020-21. Broken Hill's rate was still negative in 2020-21; Kalgoorlie – Boulder's was marginally positive.



Figure 5.2 Population change, inland cities, 2020-21 and 2017-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: For the purpose of this graph, cross-border cities are assigned a state according to where the majority of their population is located.

The remaining cities with population loss in the five years did worse in the pandemic. Cities with population loss in both periods include Lithgow, Broken Hill, Mt Isa, Swan Hill, Queanbeyan, Muswellbrook and Armidale. These are mostly smaller cities, some of which are also remote and/or associated with mining. However, several of these cities are adjacent to non-urban areas experiencing stronger growth, which should be considered for an overall picture of regional population change.

For example, just outside Queanbeyan is Googong, a new township established in 2014 that is classified as an inland country area. It had very strong average annual population growth between 2017 and 2022 (21.1 per cent). Similarly, Mount Isa Surrounds was the second strongest growing remote area in the five years, in contrast to Mount Isa's population decline, giving a fuller picture of this region's change. However, this is not the case for all inland cities and their surrounds: for example, both Armidale Surrounds – North and Armidale Surrounds – South had negative or weak growth over all three time periods, as did Armidale itself.

Inland cities with a 2020-21 growth rate better than the five-year average are above the 45-degree line. As mentioned earlier, Kalgoorlie-Boulder, which had population loss over the five years but modest growth (0.2 per cent) over 2020-21; Warwick and Kingaroy in Queensland; and Alice Springs, which had one of the strongest growth rates for an inland city in both time periods (1.4 per cent average annual over the five years, and 1.6 per cent in 2020-21). That said, the difference between their growth rates over the two time periods for these cities only amounted to 0.4 percentage points at most.

There was a more pronounced difference between the two periods' growth rates for regions where the pandemic year change is weaker. Mildura – Buronga, Shepparton – Mooroopna, Armidale and Mudgee all had population change in 2020-21 that was between 0.9 and 1.2 percentage points lower than the five-year average annual rate.

While overall growth in inland cities slowed during the pandemic year, there was considerable recovery across the group in the subsequent year. Figure 5.3 shows the relationship between population change in 2020-21 and 2021-22 (correlation coefficient = 0.75). This chart reveals that most inland cities (59 per cent) had improved population growth rates in 2021-22 (those below the 45-degree line). Armidale and Mildura - Buronga, for example, which had worse rates in 2020-21 than their five-year averages, showed some of the most pronounced improvements in 2021-22. Others that did notably better in 2021-22 than the year before include Emerald and Toowoomba in Queensland; and Lithgow NSW (although still with a loss). Emerald's change was considerable: It went from 0.3 per cent change in 2020-21 to 1.9 per cent growth in 2021-22, the third strongest that year, as mentioned above. This was mostly driven by natural increase.

It was rare for those with growth in 2020-21 to have population loss in the following year. This only occurred for Griffith and Horsham, where the population growth for 2020-21 was negligible (fewer than ten persons).

Over half of inland cities (56 per cent) had weaker growth in 2021-22 than the annual average for 2017 to 2022. Collectively the inland cities rate had been falling annually off a high of 1.3 per cent in 2016-17, and so the comparison between 2020-21 and 2021-22 is more instructive in understanding the recovery after the main population impact of the pandemic.



Figure 5.3 Population change, inland cities, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: For the purpose of this graph, cross-border cities are assigned a state according to where the majority of their population is located.

Population components

Figure 5.4 shows the components of population change for 2021-22 (natural increase, net overseas migration and net internal migration) as they contribute to the total percentage change for selected inland cities. Similar to coastal cities, all three components of population change tend to contribute to the population growth of larger inland cities, such as Ballarat and Toowoomba. For these cities, internal migration was a significant contributor to growth.

There is a wide variation in which components contributed most to population change, whether positive or negative. While the largest cities displayed similar patterns to large coastal cities, other inland cities experienced a greater proportion of internal migration losses than their coastal counterparts.

In contrast to coastal cities, where only a minority experienced net internal migration losses, around half of inland cities had net internal migration losses in 2021-22. The strongest net migration losses were from Queanbeyan, Mount Isa and Griffith. However, in the case of Mount Isa, the adjacent Mount Isa Surrounds experienced net internal migration gains.⁴⁵

⁴⁵ See the discussion for Figure 5.2, where there is a similar story for population.

Natural increase was a significant contributor to growth for inland cities with strong mining connections such as Mount Isa, Kalgoorlie-Boulder and Emerald. This was similar for mining regions classified as coastal cities, such as Port Hedland. Cities with negative natural increase (where deaths exceeded births) were cities with older demographics such as Moe – Newborough and Castlemaine.

It was less common for net overseas migration to contribute strongly to population growth, but some cities did experience large gains. Alice Springs had the highest contribution to its population by net overseas migration at 1.4 per cent, followed by Murray Bridge. The other two components are very different for these two regions: Alice Springs had natural increase of 1.0 per cent, but the overall rate was reduced by a similar sized loss of internal migrants. The change to these groups for Murray Bridge was negligible, and overseas migration contributed nearly all the population growth of 1.1 per cent. This illustrates the value of considering what is driving the population change, as regions have different dynamics at play. In terms of the number of people gained through net overseas migration, Toowoomba and Ballarat had the largest inflows with 552 and 496 people respectively.



Figure 5.4 Population change components, selected inland cities, 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population.
Inland country areas

Inland country areas are Statistical Areas Level 2 (SA2s) (outside cities) whose population centres are 50 kilometres or more from the coast and who are not classified as remote or very remote (based on the ABS 2021 Remoteness structure). There are 213 SA2s classified as an inland country area, of which 209 have a population above zero. Populations typically range between 2,500 to 20,000.⁴⁶

Compared with the other BCARR migration geographies regions, the total population of the inland country group had slow but very stable growth of between 0.5 and 0.6 per cent each year since 2017, with a very slight fall to 0.4 per cent in the pandemic year. This put the average annual rate of growth between 2017 and 2022 at 0.5 per cent. This was less than half of the Australian rate over the same period (1.1 per cent).

Figure 5.5 shows the distribution of inland country areas' average annual population change from 2017 to 2022. Each bar represents the number of inland country areas that had a five-year average growth rate in the specified range, showing the spread of growth rates across the group. Only 15 inland country areas had annual growth rates exceeding 2.0 per cent, compared to 40 in coastal country areas. Another 78 inland country areas had zero or negative average annual change over the period.

The strongest growth occurred in Googong, a location just outside Canberra and Queanbeyan, at 21.1 per cent. This rate of growth illustrates its status as a new 'suburb' of a major city (Googong has not been included in the histogram because of its outlier nature). The location with the largest decrease in population was West Wyalong, in central New South Wales, with an average annual decline of 1.6 per cent. This decline has been a longstanding pattern for this region since 2016.



Figure 5.5 Distribution of average annual population change, inland country areas, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population.

Note: SA2 Googong has been removed (as its average annual growth of 21.1 is an outlier), as has any SA2 with a population below 100 in any of the years from 2017 to 2022.

⁴⁶ Those with populations under 100 for any of the years from 2017 to 2022 are excluded from analysis of individual regions, but included in the total inland country figures. The only region left in the individual region analysis with a population under about 2,500 is Yarra Valley (244 people).

Several inland country areas experienced some of the fastest growth rates across the country. Table 5.2 presents the population change for the top ten SA2s by average annual growth rate and number from 2017 to 2022, with the highlighting showing regions in the top ten for each column. Googong also had the largest increase by number, and will be subject to a case study at the end of the chapter. Other locations with strong growth include those with connections to a capital or a regional city, such as Wagga Wagga surrounds, Kilmore-Broadford, Bendigo surrounds – South, Goulburn surrounds and Yass surrounds. Growth in these areas reflects the expansion of cities and the increased attraction to move to 'peri-urban' areas, illustrating the transitional nature of peri-urban landscapes between cities and rural areas.

Inland country SA2	State	2022 Population	5 year population change, 2017-22	5 year population change, 2017-22, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Googong*	NSW	6,748	4,156	21.1	790	14.5	494	7.9
Wagga Wagga Surrounds*	NSW	18,174	2,622	3.2	656	3.8	340	1.9
Mansfield*	Vic.	10,680	1,512	3.1	347	3.4	217	2.1
Kilmore - Broadford	Vic.	15,772	1,380	1.8	193	1.3	249	1.6
Queanbeyan Surrounds	NSW	16,864	1,087	1.3	232	1.4	326	2.0
Jindabyne - Berridale*	NSW	8,224	992	2.6	263	3.4	174	2.2
Bendigo Surrounds - South*	Vic.	8,571	991	2.5	153	1.9	260	3.1
Goulburn Surrounds	NSW	13,946	912	1.4	198	1.5	152	1.1
Bridgetown - Boyup Brook*	WA	7,464	912	2.6	229	3.3	214	3.0
Yass Surrounds	NSW	12,792	828	1.3	237	1.9	115	0.9
Upper Yarra Valley	Vic.	244	51	4.8	16	7.1	4	1.7
Central Highlands	Tas.	2,492	362	3.2	110	4.6	5	0.2
Yea	Vic.	4,256	558	2.9	123	3.1	114	2.8
Yackandandah	Vic.	5,327	665	2.7	137	2.7	138	2.7
Total inland country areas		1,363,587	34,627	0.5	6,012	0.4	7,662	0.6
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 5.2 Population change – 10 inland country areas with largest growth, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. SA2s with a population below 100 in any of the years presented have been removed. Regions denoted by * means they are in the top ten for both number and percentage for 2017-22. Highlighted figures are in the top ten for their relevant column.

This list also illustrates the strong overlap between regions in the top ten in each of the three time periods – highlighted in blue. For example, Bridgetown-Boyup Brook in south west of Western Australia has experienced strong population growth across the three identified periods. It is an attractive location for a 'tree change' lifestyle, along with economic opportunities geared towards lithium mining, cattle and sheep farming employment.

Table 5.3 presents the ten inland country areas with the largest population decline in terms of both number and average annual rate from 2017. During this period, 78 inland country areas (38 per cent) experienced a decline. As mentioned above, the largest loss was in West Wyalong, both in terms of number and proportion. Founded on gold mining, this town experienced stable population for several years between 2011 to 2016, but population losses have increased since then. The area also has a strong cattle, grain and sheep farming industry, which was impacted by the drought affecting many

parts of rural New South Wales. More broadly, the effects of the drought could also explain the high proportion of inland country areas from New South Wales in the list.

There is a high degree of overlap between regions which have been experiencing long-term decline and regions which experienced decline during the pandemic year. For example, within the table, only Murray in Western Australia experienced positive growth during 2020-21, comprised of only six people.

Table 5.3 Population change – 10 inland country areas with largest decline, 2017 to 2022

Inland country area	State	2022 Population	5 year population change, 2017-22	5 year population change, 2017-22, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
West Wyalong*	NSW	5,462	-448	-1.6	-106	-1.9	-55	-1.0
Deniliquin*	NSW	7,032	-399	-1.1	-107	-1.5	17	0.2
Narrabri*	NSW	6,898	-380	-1.1	-106	-1.5	-68	-1.0
Moree	NSW	8,009	-367	-0.9	-24	-0.3	13	0.2
Forbes	NSW	10,038	-335	-0.7	-119	-1.2	-52	-0.5
Griffith Surrounds	NSW	12,840	-329	-0.5	-116	-0.9	-66	-0.5
Condobolin*	NSW	6,404	-325	-1.0	-81	-1.2	-31	-0.5
Moree Surrounds*	NSW	5,311	-301	-1.1	-70	-1.3	-109	-2.0
Tara*	QLD	3,930	-282	-1.4	-23	-0.6	39	1.0
Yarriambiack	Vic.	6,374	-274	-0.8	-130	-2.0	-79	-1.2
Parkes Surrounds	NSW	3,201	-224	-1.3	-67	-2.0	-80	-2.4
Murray	WA	2,454	-137	-1.1	6	0.2	7	0.3
Narrabri Surrounds	NSW	4,642	-248	-1.0	-100	-2.1	-13	-0.3
Narrogin	WA	4,534	-234	-1.0	-40	-0.9	14	0.3
Total inland country areas		1,363,587	34,627	0.5	6,012	0.4	7,662	0.6
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. SA2s with a population below 100 in any of the years presented have been removed. Regions denoted by * means they are in the bottom ten for both number and percentage for 2017-22. Highlighted figures are in the bottom ten for their relevant column.

Comparing population growth across time for individual regions

Figure 5.6 shows the relationship between population percentage change in each inland country area for 2020-21 and the average annual change between 2017 and 2022. Overall, 60 per cent of inland country areas had weaker growth in 2020-21 than the five-year average.

There was a very strong relationship between the two time periods, noting that the five-year rate includes the one year (correlation coefficient = 0.90). Greater distance from the 45-degree line indicates a larger difference between a region's average annual growth rate for the five years and the growth rate for the pandemic year.

Across the positive and negative extremes, inland country areas with strong growth over the medium term did even better in the pandemic year, while inland country areas already declining over the medium term did even worse in the pandemic year.

Inland country areas with a five-year average annual growth rate over 2 per cent tended to have the strongest growth in 2020-21. In addition, the growth rates for these locations were higher in 2020-21 than the five years.

Those whose growth rates were particularly better in the pandemic compared with the five years include areas of Victoria (Maryborough Surrounds, Upper Yarra Valley); Tasmania (Longford, Northern Midlands and Central Highlands); Western Australia (Kambalda – Coolgardie – Norseman, Murray and Wagin) and Queensland (Banana and Broadsound – Nebo). Most of these had relatively strong growth rates of at least 1.8 per cent in 2020-21.

Most inland country areas with population decline over the five-year period also had population decline during the pandemic, such as West Wyalong and Parkes Surrounds.



Figure 5.6 Population change, inland country areas, 2020-21 and 2017-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: This graph excludes the inland country areas with populations of under 100 people in any year from 2017 to 2022. The graph also excludes several outliers to maintain readability of the graph: Googong (average annual population growth of 21.1 per cent for the five years, and 14.5 per cent in 2020-21) and Upper Yarra Valley (average annual growth of 4.8 per cent over the five years, and 7.1 per cent in 2020-21, and with a population of 244).

Areas where the growth rate was considerably worse during the pandemic year included those just outside larger centres in New South Wales (Googong, Inverell Surrounds – West, Narrabri Surrounds); Ararat, Robinvale, Yarriambiack and Red Cliffs in Victoria; Central Highlands – East and Biloela in Queensland and Berri in South Australia. Most of these areas had population declines of 1.5 per cent or more in 2020-21 (Robinvale had a 0.5 per cent decline but this was compared to a five-year average growth of 1.1 per cent). Further, their growth rates for the pandemic year were worse than the five-year average by at least 0.9 percentage points. A notable exception is Googong, mentioned earlier, which had an extremely strong average annual growth rate over the five years (21.1 per cent), as well as the pandemic year (14.5 per cent), and so the fall in the pandemic year is very different in nature to most of the others which did much worse in the pandemic (Googong is not pictured in the graph to maintain readability).

Figure 5.7 shows the relationship between the 2020-21 and 2021-22 growth by inland country area. This shows a looser, but still positive, linear relationship compared to the figure above (correlation coefficient = 0.74). The correlation coefficient between the five years and the following year, 2021-22, was also 0.74. About 58 per cent of inland country areas had better growth rates in 2021-22 than in 2020-21, with just over half (55 per cent) having better rates than their 2017-22 average annual rate.



Figure 5.7 Population change, inland country areas, 2020-21 and 2021-22

Source: BCARR analysis of ABS August 2023, Regional Population

Note: This graph excludes the inland country areas with populations of under 100 people in any year from 2017 to 2022. The graph also excludes several outliers to maintain readability of the graph: Googong (population growth of 7.9 per cent in 2021-22, and 14.5 per cent in 2020-21) and Upper Yarra Valley (average annual growth of 1.7 per cent over the five years, and 7.1 per cent in 2020-21, and with a population of 244).

The four Tasmanian inland country areas had a similar pattern to Tasmanian regions in other groups. All had much stronger growth in 2020-21 than the five-year average, but in 2021-22 the growth rate fell below the rates for both 2020-21 and the five-year period.

The pattern for inland country areas in Western Australia was similar to remote areas (discussed in the next section), which saw an improvement from decline over time. Most of the Western Australian coastal country areas had population loss over the five-year period (11 of 15); only seven had population loss in 2020-21; and by 2021-22, only two had decline (Moora and Brookton).

For Queensland, just over half of its inland country regions had weaker growth in 2020-21 than the five-year average. By 2021-22 there was a uniform recovery, with almost all (27 of 31) having improved population growth rates compared with 2020-21. Almost all of them also had better growth in 2021-22 than the five-year period.

Internal migration flows

The flow of people to inland areas has often been described as a 'tree change', as people are attracted to the lifestyle afforded by these regions. This section covers the internal migration flows for both the inland cities and inland country areas between August 2020 to 2021, and how this compares with flows for the August 2016 to 2021 time period. Maps 5.1 and 5.2 present the net internal migration for each of the two periods.

A feature of the internal migration flows for this category is that regions closer to the coast and close to a capital city tend to have higher positive net growth. However, the pattern is not uniform, particularly between the one- and five-year migration flows. The following section includes separate analysis of internal migration flows for inland cities and inland country areas, each with a case study to illustrate an aspect of internal migration for this category.



Map 5.1 Net internal migration, inland cities and country areas, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.



Map 5.2 Net internal migration, inland cities and country areas, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Inland cities

The inland cities group experienced net internal migration gains for both the one- and five-year periods to August 2021. These cities had net gains from capital cities, inland country areas and remote areas, but lost people to coastal regions, particularly towards coastal cities. This broad pattern was the same between the two time periods (see Table 5.4). Vij et al (2023, p.11) found that based on stated preference experiments conducted in a survey of 2,970 households in early 2023, 'the average Australian not in the workforce is willing to pay roughly \$1,600 more per month to live in a coastal regional city rather than an inland regional city'.

The largest flows (arrivals and departures) were between capital cities and inland cities. This resulted in a net gain from the capitals of nearly 6,400 people over the five years. Another feature of these migration flows is the attraction of inland cities for people residing in an inland country area. Inland country areas contributed the largest net gain to inland cities over the five years, with a net increase of nearly 14,000 people. This was offset by a net loss of almost 14,000 people moving from an inland city to a coastal city.

The emphasis between capitals and inland country areas shifted during the pandemic, with inland cities gaining a greater net 4,500 people from capitals than the almost 2,800 from inland country areas. Inland cities also experienced a smaller net loss to coastal country areas than expected during the pandemic, given the five-year pattern.

In terms of gross in-migration, arrivals in the pandemic were more likely to come from capital cities than over the five years (with 46.5 per cent of arrivals, compared with 43.7 per cent in the five years). They were less likely to come from inland country areas during the pandemic. However, the share of departures to the capitals was steady across the time periods, at 42.2 per cent of departures from inland cities. Those departing inland cities were less likely in the pandemic to go to coastal cities than in the five years, and more likely to be going to inland country areas.

Figure 5.8 Net internal migration flows, inland cities, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Table 5.4 In, out and net migration flows, inland cities, August 2020-2021 and 2016-2021

			Capital	Coastal	Coastal country	Inland country		
	Inland cities	Overseas	cities	cities	areas	areas	Remote	Total
	In-migration	5,682	32,162	10,261	3,960	20,832	2,015	69,230
121	Out-migration	na	27,657	14,128	4,046	18,049	1,713	65,593
0 to 20	Net-migration	na	4,505	-3,867	-86	2,783	302	3,637
202	In-migration share		46.5	14.8	5.7	30.1	2.9	100.0
	Out-migration share		42.2	21.5	6.2	27.5	2.6	100.0
	In-migration	38,910	80,318	26,952	10,774	59,592	6,100	183,736
021	Out-migration	na	73,940	40,578	11,710	45,647	3,530	175,405
6 to 2(Net-migration	na	6,378	-13,626	-936	13,945	2,570	8,331
201	In-migration share		43.7	14.7	5.9	32.4	3.3	100.0
	Out-migration share		42.2	23.1	6.7	26.0	2.0	100.0

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Internal migration by age

Table 5.5 presents the age group breakdown of the migration flows for inland cities. The overall net gain for inland cities across both periods was driven by the 65 years and over cohort, despite this group accounting for some of the lowest number of arrivals and departures. Over the five years, inland cities gained 8,621 people from this age cohort. There was a similar pattern during the pandemic. Inland country areas contributed the largest share of arrivals of persons aged over 65, suggesting that older people may be moving for increased access to services, but choosing to remain in a regional location.

Within the working age group, the largest net gain to inland city population came from the 25 to 34 year cohort, with a net increase of 2,453 people. In contrast, there was a small net loss from the 35 to 54 year cohort of 488 people. The net migration from the latter age group reversed direction during the pandemic with a small positive net increase of 115 people.

Consistent with other regional migration geography groups, people aged between 15 and 24 tend to contribute an internal migration loss, usually towards a capital city. This is also the case for inland cities with a net migration loss for both periods. An exception to this pattern is coastal cities (discussed in the previous chapter) which had almost net stability for the 15 to 24 cohort for both time periods. The net loss of those under 15 years old indicates a loss of families with children.

	Age (at August 2021)	2021 age distribution	In-migration	In-migration (% of total)	Out- migration	Out- migration (% of total)	Net internal migration
	Under 15 years	19.4	11,050	16.0	11,319	17.3	-269
_	15-24 years	12.2	14,285	20.6	14,508	22.1	-223
202	25-34 years	13.9	18,046	26.1	16,489	25.1	1,557
5	35-54 years	24.2	14,285	20.6	14,170	21.6	115
020	55-64 years	11.8	5,126	7.4	4,711	7.2	415
7	65 years and over	18.5	6,464	9.3	4,388	6.7	2,076
	Total	100.0	69,230	100.0	65,593	100.0	3,637
	Under 15 years	19.4	24,917	13.6	26,410	15.1	-1,493
_	15-24 years	12.2	31,085	16.9	33,155	18.9	-2,070
202	25-34 years	13.9	42,800	23.3	40,347	23.0	2,453
ę	35-54 years	24.2	45,535	24.8	46,023	26.2	-488
016	55-64 years	11.8	16,423	8.9	15,134	8.6	1,289
7	65 years and over	18.5	22,970	12.5	14,349	8.2	8,621
	Total	100.0	183,736	100.0	175,405	100.0	8,331

Table 5.5 Net internal migration by age, inland cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components. Highlighting denotes negative values.

Internal migration by labour force status

Table 5.6 presents data for internal migration by labour force status for inland cities. The net internal migration between the two time periods is consistently positive for employed people and those not in the labour force. It is negative (but small) for unemployed people for both periods.

However, the two time periods differ in the composition of net internal migration. The net gain of employed people into inland cities was greater over the pandemic year (just under 2,600 people) than the five-year period (2,360 people). The net gain of people not in the labour force into inland cities was 7,846 for five years compared with 1,610 for one year (one fifth of the five-year figure). As a result, the positive net internal migration to inland cities was largely made up of employed people during the pandemic, while the five-year net internal migration was largely comprised of those not in the labour force (noting that the labour force status is as at August 2021, and not necessarily at the time of the move).

			In-		Out-	
	Labour force status	In-	migration	Out-	migration	Net internal
	(August 2021)	migration	(%)	migration	(%)	migration
H	Employed	39,333	68.0	36,742	68.1	2,591
0-2	Unemployed	3,011	5.2	3,310	6.1	-299
2	Not in the labour force	15,512	26.8	13,902	25.8	1,610
-	Employed	105,311	66.6	102,951	69.4	2,360
6-2	Unemployed	6,153	3.9	6,667	4.5	-514
-	Not in the labour force	46,560	29.5	38,714	26.1	7,846

Table 5.6 Net internal migration by labour force status, inland cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated. Highlighting denotes negative values.

Individual inland cities and net internal migration, 1 and 5 years

Figure 5.9 presents the internal migration flows for inland cities. Net migration outcomes for inland cities displayed a familiar trend across other BCARR migration geography areas: regions that previously experienced positive (or negative) flows continued a similar growth trajectory during the pandemic year, with some exceptions.

The large inland cities of Ballarat, Bendigo, Albury-Wodonga and Toowoomba had the largest net migration for both periods. Ballarat had the highest net migration flows for both periods, with 6,258 people in five years and 1,812 in the one year. Melbourne is the main source of people moving to Ballarat, contributing 40 per cent of arrivals between 2016 and 2021.

Out-migration from the state's capital also flowed towards other Victorian inland cities (or border cities), with Melbourne the main source of people moving to Bendigo, Albury-Wodonga and Echuca-Moama, all of which experienced high net gains, particularly for the five-year period. In contrast, Mildura-Buronga, another border city on the Murray River, experienced net internal migration losses in both periods. However, people moving into Mildura were from surrounding areas such as Robinvale, Mildura surrounds and Broken Hill, while departures were primarily towards capital cities such as Melbourne, Adelaide and Brisbane.

Inland cities such as Kalgoorlie-Boulder and Alice Springs had the largest net migration losses over the five years and this continued during the pandemic year. In the case of Kalgoorlie-Boulder, a Western Australian mining city, the inward and outward flows between Perth are large, influencing the overall migration pattern for the inland city. In the case of Alice Springs, the top three origin and destination regions for both periods were the capitals Darwin, Adelaide and Melbourne.

For some inland cities, the net losses and gains to and from other regions could change. While Swan Hill had negative net migration losses towards both Bendigo and Geelong in the pandemic year and the five years, a large shift occurred in the flows between Swan Hill and Melbourne. Swan Hill experienced a net loss towards Melbourne of 145 people over the five years, but there was a negligible net flow between the two during the pandemic.

While most inland cities had either both net gains or net losses across the two time periods, Tamworth was one example of a city which experienced a change from a net migration loss over five years to a net migration gain in the pandemic year. In both periods, the largest net gains to Tamworth were from Sydney, the adjacent region of Quirindi (to the south) and the inland city of Armidale to the north, and the largest net losses were to Newcastle-Maitland and Brisbane, and other coastal regions like Port Macquarie and Coffs Harbour. Despite this consistency, in the pandemic year, the gains outpaced the losses. This dynamic between inland cities and their surrounding regions is explored further by investigating the city of Orange in central New South Wales.



Figure 5.9 Net internal migration, inland cities, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Case study – Orange and its surrounding region

The inland city of Orange had a population of 42,379 in 2022, and is an important service hub for the surrounding regions in New South Wales. The city grew by an average annual rate of 1.1 per cent (or 2,161 people) between 2017 and 2022. Orange had a net internal migration gain of 805 people between August 2016 and 2021, but it was negligible between August 2020 and 2021.

Orange can be used to illustrate the role of a regional city for the surrounding area, and its impact on settlement shifts. Maps 5.3, 5.4 and 5.5 present the out, in and net migration flows for Orange between 2016 and 2021, highlighting the regions with the most interaction, and the complexity in the movement of people.

Outward migration flows (departures) from Orange are primarily focused towards Sydney and Orange Surrounds. Sydney is the main destination for people moving out of Orange, with a flow of over 1,100 people (representing 17 per cent of the out-migration). The second largest outward flow was towards Orange Surrounds, an area that encompasses the city with nearly 1,000 people, forming a peri-urban structure around the city. There were also departures towards other capital cities such as Melbourne, Canberra and Brisbane, and the coastal cities of Newcastle and Wollongong. For those departing Orange for Wollongong and Canberra, the 15 to 24 age group represented 58 per cent and 46 per cent of the total out-migration respectively. This potentially represents people in this age group taking up education opportunities.

Other motivations for out-movement suggested by the destination chosen include retirement lifestyle, with 25 per cent of the migration flows towards the coastal city of the Gold Coast being people aged 55 and over. Proximity to Orange also appears to be a desirable factor, with nearby Blayney, Bathurst, Wellington and Mudgee representing a high proportion of the migration flows.

Over the one-year period, the choice of destination did not change very much. The top ten locations were the same as for the five years, with only a small number of regions changing their order within the top ten.



Map 5.3 Out-migration (departures) from Orange, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

People moving into Orange are attracted to the 'tree change' lifestyle, with a wide range of services such as a hospital and a university. Map 5.4 presents the in-migration (arrivals) for Orange over five years. It illustrates the draw of Orange for people in the western areas of the state, such as Forbes, Condobolin, Parkes and Dubbo, which collectively contributed around 450 people moving to Orange. Younger cohorts are a large proportion of the people moving into Orange. For example, of the people who moved from Parkes to Orange, 52 per cent were aged between 15 to 34.

As with the outflows, the largest number of arrivals (inflows) were from Sydney and Orange Surrounds contributing around 2,400 and 1,040 people respectively. Together these represent almost half of the total in-migration flows. Two

other locations of note are the nearby Blayney and Bathurst, from which 291 and 250 people respectively moved into Orange.



Map 5.4 In-migration (arrivals) to Orange, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Map 5.5 presents the net migration outcomes resulting from the gross in and out migration flows illustrated in Maps 5.3 and 5.4. Regions are presented as blue when they represent net gains to Orange, and red or orange when they represent net losses from Orange. There are four notable characteristics of the internal migration flows:

- The state capital city is a major component of gross migration flows. Sydney has experienced a long-standing loss of people through internal migration. Over the five years, Orange gained a net 1,280 people from Sydney. Between August 2020 and 2021, the net gain from Sydney was 470 people. This pattern is similar for locations across the state.
- Some other capital cities are important origins and destinations in terms of gross migration flows. Orange experienced a net loss to Brisbane, Canberra and Hobart. These capitals experienced positive net migration flows from other locations across the country, particularly in the case of Brisbane.
- Net losses from Orange tend toward locations that are coastal or other cities. Newcastle Maitland represents both characteristics. Over the five-year period, Orange experienced the largest net loss to this city, of 236 people. In the case of the other inland cities such as Albury-Wodonga and Wagga Wagga, the net loss from Orange was very marginal with less than 20 people. Overall, net outward movement was towards the larger, often coastal, cities. The one-year pattern has some differences. Over August 2020 to 2021, Orange lost a net 50 people to Newcastle Maitland, with similar net losses to the ACT, Wollongong and Bathurst, but the largest net losses were to Blayney and Orange Surrounds, which both gained about a net 70 people from Orange.

 Regional cities are influential to the movement patterns of their surrounding areas. In the case of Orange, over the five-year period, many of the surrounding locations had a positive net migration towards the city. This outcome is the cumulative result of many gross flows around the region. Orange Surrounds had a net loss of 70 people to Orange after many in and out migrations between the two locations, illustrating the dynamic nature of this flow. In some cases, large numbers of movements in and out of Orange resulted in a negligible net result. This was the case for Blayney over the five-year period. During the one-year period, this balance shifted, with Orange experiencing a net loss of 70 people to Blayney.





Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Inland country areas

Inland country areas experienced a sharp shift in migration flows between the medium term (August 2016 to 2021) and the pandemic year from August 2020 to 2021. Table 5.7 presents the net, in and out migration flows for inland country areas towards the other migration geography groups for both periods.

Inland country areas collectively experienced a net gain of over 2,100 people during the pandemic year, compared to a net loss in the five years of just under 400 people. Despite this change, the pattern of gains and losses were consistent across the time periods: inland country areas had net gains from capital cities and remote areas, and net losses to inland cities, coastal cities and coastal country areas.

The net inflow from capitals was substantially larger than the net inflow from remote areas, which is unsurprising given their relative sizes. This means that gains to inland country areas are largely due to the net effect of the capitals, offset by the net losses to regional cities.

Figure 5.10 Net internal migration flows, inland country areas, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Table 5.7 In, out and net migration flows, inland country areas, August 2020-2021 and 2016-2021

	Inland country	Overseas	Capital cities	Coastal cities	Coastal country areas	Inland cities	Remote	Total
	In-migration	4,020	32,319	11,612	6,451	18,049	2,777	71,208
121	Out-migration	na	24,569	14,339	6,978	20,832	2,343	69,061
) to 20	Net-migration	na	7,750	-2,727	-527	-2,783	434	2,147
202(In-migration share		45.4	16.3	9.1	25.3	3.9	100.0
	Out-migration share		35.6	20.8	10.1	30.2	3.4	100.0
	In-migration	21,152	92,928	30,571	16,669	45,647	7,695	193,510
121	Out-migration	na	65,827	41,964	21,314	59,592	5,198	193,895
5 to 2(Net-migration	na	27,101	-11,393	-4,645	-13,945	2,497	-385
201(In-migration share		48.0	15.8	8.6	23.6	4.0	100.0
	Out-migration share		33.9	21.6	11.0	30.7	2.7	100.0

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratoryoffshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Comparing the pandemic year with the five years, the net gain from capitals in the one year was more prominent, and the loss to coastal country areas more subdued.⁴⁷

Capital cities were likewise the largest source of arrivals and departures for inland country areas in both time periods. In the pandemic year, 45.4 per cent of arrivals came from the capitals, while 35.6 per cent of departures went to capitals.

⁴⁷ Based on considering the one-year figure as a proportion of the five-year figure.

There were much higher numbers of arrivals and departures to and from inland cities than to and from coastal cities, showing a stronger connection with these regions. However, the net effect for each city group was similar.

Internal migration by age

The gross migration flows for the one- and five-year periods by age is presented in Table 5.8. The broad pattern of agebased migration flows was constant over the two periods: net losses of young adults and those of retirement age were offset by gains in the other working age groups. This reflects the attraction of cities for younger people to pursue educational opportunities. In contrast, there is inward movement to inland country areas from people with families moving to raise their children, along with those looking for employment opportunities.

There were positive net internal migration flows for people aged between 24 to 64 for both the one and five years. Several factors could be contributing to this, such as people searching for 'better lifestyle' options and housing affordability. This is not a new phenomenon, with Budge (2005) highlighting that by leaving urban centres, people may be choosing what they believe to be a slower pace of life in high-amenity smaller communities, pursuing greater recreational opportunities, or perhaps seeking to live in what they perceive to be communities with lower crime rates and congestion than those found in capital cities.

A large share of the out-migration of young adults is towards capital cities, which is also the case for departures from other migration geography groups. A higher proportion of young people departing inland country areas also go to inland cities and coastal cities. For example, 42 per cent of people aged between 15 to 24 who left inland country areas moved to a capital city over the five-year period. The departures for this group towards a regional city was just over 50 percent.

The net loss from inland country areas of those aged over 65 was about 3,450 people over the five years. Departures by this group over the five years were primarily towards inland cities, followed by capital cities and coastal cities. This could be due to seeking improved access to health and community services as people age (BITRE 2011).

Table 5.8 Net internal migration by age, inland country areas, August 2020-2021 and 2016-2021

	Age (at August 2021)	2021 age distribution	In- migration	In- migration (% of total)	Out- migration	Out- migration (% of total)	Net internal migration
	Under 15 years	17.8	12,464	17.5	10,785	15.6	1,679
_	15-24 years	10.2	11,145	15.7	17,194	24.9	-6,049
202	25-34 years	10.3	15,590	21.9	13,646	19.8	1,944
ţ	35-54 years	23.8	16,905	23.7	13,326	19.3	3,579
020	55-64 years	14.9	8,079	11.3	5,839	8.5	2,240
7	65 years and over	22.9	7,025	9.9	8,249	11.9	-1,224
	Total	100.0	71,208	100.0	69,061	100.0	2,147
	Under 15 years	17.8	28,989	15.0	26,546	13.7	2,443
_	15-24 years	10.2	21,772	11.3	45,430	23.4	-23,658
2021	25-34 years	10.3	37,432	19.3	32,664	16.8	4,768
ţ	35-54 years	23.8	54,555	28.2	42,299	21.8	12,256
016	55-64 years	14.9	25,866	13.4	18,654	9.6	7,212
7	65 years and over	22.9	24,878	12.9	28,329	14.6	-3,451
	Total	100.0	193,510	100.0	193,895	100.0	-385

Source: BCARR analysis of ABS Census of Population and Housing 2021.

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components, and small numbers are indicative only. Highlighting denotes negative values.

Internal migration by labour force status

Table 5.9 shows the internal migration, arrivals and departures for inland country areas by labour force status as of August 2021, for those aged 15 years and over. Over the two time periods, there was a consistent net loss of unemployed and those not in the labour force, and a consistent net gain of employed people. This was similar to remote areas (discussed in the next chapter). However, there was a shift in emphasis across the groups. The net gain of employed people in 2020-21 (2,421) was even greater than the gain over the five years (1,876). This greater emphasis on a net gain of employed people during the pandemic also occurs in the other regional migration geography groups. Considering the gross flows, employed people made up a greater share of arrivals to inland country areas during the pandemic, and a lower share of departures.

	Labour force status	In-	In- migration	Out-	Out- migration	Net internal
	(August 2021)	migration	(%)	migration	(%)	migration
-	Employed	38,157	65.4	35,736	61.7	2,421
0-2	Unemployed	2,806	4.8	3,489	6.0	-683
2	Not in the labour force	17,377	29.8	18,706	32.3	-1,329
-	Employed	105,929	64.8	104,053	62.5	1,876
6-2	Unemployed	5,952	3.6	7,145	4.3	-1,193
-	Not in the labour force	51,689	31.6	55,274	33.2	-3,585

Table 5.9 Net internal migration by labour force status, inland country areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated. Highlighting denotes negative values.

Internal migration for individual inland country areas

Maps 5.6 and 5.7 show the net internal migration flows over both time periods for the south-east corner of Australia. They include both inland cities and inland country areas, to show the relationship between the two. In both periods, some cities had net gains while the areas around them had negligible change or net loss. For example, see Bathurst, Orange and Duboo between 2016 and 2021, or Ballarat and Echuca-Moama between 2020 and 2021. In other areas, both the city and its surrounds have net losses (Muswellbrook, Armidale, Mildura – Buronga, for example).

In a more unusual case, the inland city of Wagga Wagga over the five-year period experienced a net internal migration loss of over 1,000 people, in contrast to the surrounding area. This results from the classification of the Significant Urban Area (SUA) geography which defines Wagga Wagga. New development areas such as Gobbagombalin are positioned just outside the statistical boundary. In practical terms, these locations are essentially suburbs of Wagga Wagga. Hence, there was a net gain of 525 people from Wagga Wagga to Wagga Wagga Surrounds, just outside the city boundary. The CIE (2023) reports that migration within a city or region is primarily motivated by housing, such as moving to a larger house, downsizing, or changing rental properties.

In the regions surrounding Melbourne, inland country areas experienced a decline or negligible change in the pandemic year, in comparison to the five-year flows. For example, Kilmore-Broadford to the North of Melbourne had a net internal migration gain of 963 over the five years, compared to a net loss (of 78) in the pandemic year. Melbourne in both periods has the largest net flows to Kilmore-Broadford, with a net movement out of Melbourne.



Map 5.6 Net internal migration, inland cities and country areas, Victoria and NSW, August 2020-2021

Map 5.7 Net internal migration, inland cities and country areas, Victoria and NSW, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Table 5.10 presents the top and bottom five inland country areas for the one and five years, in terms of the greatest net internal migration gains and losses.

The largest increases in both time periods were consistently for Wagga Wagga Surrounds, Googong and Mansfield, each with a gain of over 400 people in the pandemic year. All three locations are associated with a dominant city. For example's Mansfield's overall net gain is dominated by the net gain from Melbourne. A case study of Googong is in the following section.

Northam, appearing among the strongest one-year gains, is a Western Australian inland town positioned on the Avon river, about 100 kilometres east of Perth. Over the one year, Northam had a net migration gain of 222 people. In contrast, the net migration was negative over the five years, with a loss of 133 people. This reversal comes about from the shift in Perth migration flows. Over the five years, Northam lost a net 239 people to Perth, which shifted to a net positive in the pandemic year of 130 people. This shift was driven by a significant improvement in the net internal migration balance for the 15 to 24 year age group.

Table 5.10 Top 5 net migration flows, inland country areas, August 2020-2021 and 2016-2021

Inland country	State	In- migration	Out- migration	Net internal migration	Inland country	State	In- migration	Out- migration	Net internal migration
	202	20 to 2021				2	016 to 2021		
Wagga Wagga Surrounds	NSW	2,054	1,505	549	Googong	NSW	3,704	596	3,108
Googong	NSW	1,059	628	431	Wagga Wagga Surrounds	NSW	4,705	3,275	1,430
Mansfield	Vic.	1,066	652	414	Mansfield	Vic.	2,512	1,282	1,230
Northam	WA	813	591	222	Kilmore - Broadford	Vic.	3,775	2,812	963
Bendigo Surrounds - South	Vic.	781	588	193	Yarrawonga	Vic.	2,045	1,301	744
Moranbah	QLD	863	1,127	-264	Griffith Surrounds	NSW	1,710	2,610	-900
Griffith Surrounds	NSW	747	966	-219	Moree	NSW	925	1,613	-688
Robinvale	Vic.	122	334	-212	Broadsound - Nebo	QLD	1,993	2,613	-620
Roma	QLD	576	765	-189	Condobolin	NSW	604	1,194	-590
Central Highlands - East	QLD	580	762	-182	Wambo	QLD	2,711	3,290	-579

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

A feature of the net migration losses in Table 5.10 is that the locations listed had losses for both time periods. Some of these regions have had long-term population decline. For example, Griffith Surrounds, located in central New South Wales, has experienced declines in population since 2001, with only a short period of stabilisation between 2012 to 2016. The city of Griffith itself also experienced net migration losses over the longer-term, but experienced population growth in 2021-22.

Net internal migration losses in regions such as Wambo and Broadsound-Nebo reflect the shifts in the employment patterns of the mining industry. Dalby, a town within the inland country area of Wambo in central Queensland, experienced strong population growth from 2008 to 2013 through the Coal Seam Gas (CSG) development. This period resulted in a construction phase, which attracted many people into the area, along with non-resident workers. By 2016, the construction boom was slowing and subsequently employment for this sector declined. This is reflected in the net migration losses for this area, with people moving to coastal cities or the capitals. Despite the ebbing of employment demand, the region has experienced a small increase in population since 2016.

Case study – Googong inland country area

The New South Wales inland city of Queanbeyan sits adjacent to the nation's capital of Canberra. These cities are strongly connected, particularly in relation to their labour markets and access to services. As stated earlier in the chapter, Googong is a township established in 2014, with a 2022 population of 6,748. It is only 10 km from the centre of Queanbeyan. Map 5.8 presents the average annual population growth between 2017 and 2022 for Canberra (ACT), the SA2s within the inland city of Queanbeyan, and the inland country areas of the Queanbeyan region. These three areas are classified separately in terms of the BCARR migration geography.

Map 5.8 Population change, ACT, Queanbeyan and Googong, 2017 to 2022



Source: BCARR analysis of ABS August 2023, Regional Population

Note: As defined here, ACT SUA is the Canberra part of the Canberra-Queanbeyan SUA, and Queanbeyan SUA is the part of the Canberra-Queanbeyan SUA that is located in NSW, which is the definition of Queanbeyan for the migration geography classification.

While each area in isolation recorded dissimilar population trends, these areas can be discussed together as one geography to demonstrate a wider settlement pattern dynamic that is occurring across the country. The population trends for each area over the past five years include the following:

- Canberra experienced strong population growth at 1.9 per cent average annual growth over the five years to 2022. Suburbs in the ACT recorded some of the highest growth rates across the capital cities over the last five years – particularly in emerging suburbs such as Denman Prospect and Throsby.
- The inland city of Queanbeyan experienced population decline over the five years of around 210 people, with an average annual decline of 0.1 per cent. Within the city, Queanbeyan East grew very slowly, with only 74 people added to the population, while Queanbeyan West Jerrabomberra declined by 311 people (see Map 5.8). The city also declined by 137 people during the pandemic year, but grew by a small amount (19 people) in 2021-22.
- Queanbeyan Surrounds and Googong have experienced strong population growth. Googong grew at an average annual rate of 21.1 percent between 2017 and 2022. This reflects the creation of a new 'suburb' for Queanbeyan, going from a population of 54 people in 2012 to over 6,740 people a decade later. These regions also grew strongly over recent years, with Queanbeyan Surrounds increasing by over 1,087 people (1.3 percent) over the five-year period. This was likely driven by population movements towards housing developments in the town of Bungendore and the increased popularity of hobby farming.

When considering these areas together, the stagnant growth in Queanbeyan is offset by the strong growth in the surrounding regions, with new developments and appealing lifestyle options attracting new populations. At the same time, established suburbs experience lower or declining growth as areas approach the end of the suburban life cycle.

The flow of people into Queanbeyan Surrounds and Googong is overwhelmingly from Canberra or Queanbeyan city, with the cities accounting for about two thirds of arrivals for both inland country regions. The inter-connection between Canberra and the surrounding Queanbeyan region is illustrated by the high proportion of people working for the Australian Government. For example, over the five years, the share of people working for the Australian Government was about a third and a quarter of all employed arrivals to Googong and Queanbeyan Surrounds respectively. In contrast the proportion of people working for the Australian Government was 4 per cent in the 2021 Census.

Summary

Over 2.6 million people live in an inland area, with the flow of people to these areas often described as a 'tree change', as people are attracted to the lifestyle of those regions. The population of these areas has collectively grown more slowly than the total Australia growth rate over the past 20 years. However, population growth of inland areas was less impacted by the pandemic Australia's overall.

At a group level, inland cities grew more slowly than coastal cities, but most inland cities experienced positive growth between 2017 and 2022. Most of the overall growth was due to the four largest inland cities of Toowoomba, Ballarat, Bendigo and Albury-Wodonga.

Three quarters of the inland cities had weaker growth in 2020-21 than their average over the five-year period, but most had a better growth rate in 2021-22 than the previous year. Inland cities with the weakest growth over the medium-term tended also to have the weakest growth in the 2020-21 and 2021-22 years.

Compared with the other BCARR migration geography regions, inland country areas had slow but stable population growth over a number of years of between 0.5 and 0.6 per cent, with a very slight fall to 0.4 per cent in the pandemic year. In a similar pattern to the other regional categories, there is a high degree of overlap of regions that experienced medium term population decline and regions that experienced decline during the pandemic year.

Inland cities as a group experienced positive net internal migration flows for both the one and five years. These cities had net gains from capital cities, inland country areas and remote areas, but lost people to coastal regions, particularly towards coastal cities. In contrast, inland country areas experienced a net gain of over 2,100 people at the group level during the pandemic year, compared to a net loss in the five years of just under 400 people.

In both time periods, the net gains to inland cities were driven by strong net gains from the 25 to 34 age group and those aged 65 years and over, and offset by losses of those aged 24 and under. While the 35 to 54 years cohort had a net loss of 488 between August 2016 to 2021, there was a small gain of 115 between August 2020 and 2021. For inland country areas, for both time periods the young adult group and those aged 65 years and over had net losses, while net gains occurred in the other working age groups and those under 15, suggesting the appeal of these locations to young families. The gain to inland cities of those 65 and over, in contrast to the loss from this group for inland country areas, suggests the importance of services in the cities.

Over the two time periods, there was a consistent net gain to inland cities of employed people and those not in the labour force, and a net loss of unemployed people. Inland country areas had net gains of employed people, but net losses of both the unemployed and those not in the labour force. This was similar to remote areas (explored in the next chapter). However, for both inland cities and inland country areas, the emphasis shifted in the pandemic. While the five-year net internal migration gain for inland cities was largely comprised of those not in the labour force, during the pandemic year, net internal migration to inland cities was largely made up of employed people. For inland country areas, the net gain of employed people was even larger in the pandemic year than over the five-year period.

Four characteristics of the overall internal migration patterns for inland areas include: the influence of the state capital, the role of other capital cities, the connection between regional cities and the influence of an inland city on its surrounding region.

6. Remote areas

Key points

- The remote areas group is the smallest in terms of population, with 335,614 people in 2022, but the largest in terms of area.
- Some remote areas are subject to population fluctuations, collectively experiencing periods of rapid growth and decline over the long term. This group has strong ties to its economic structure, and lost people every year from 2013-14 to 2020-21 following the slowing of the mining boom. However, the population losses were smaller each year, before the group finally gained population in 2021-22.
- While the remote area group had population decline between 2017 to 2022 (with an average annual loss of 0.3 per cent), over half of individual remote regions had population growth over this period. This was similar in the 2020-21 pandemic year, with the growth rates between the two periods being highly correlated.
- Remote locations experienced net internal migration losses to all other migration geography groups between August 2016 and 2021. The largest difference in the pandemic year was a substantial net *gain* from capital cities that year. Considering the year on year improvement to population before the pandemic, this gain from the capitals could result from the longer-term trend and the economic features of remote areas.
- The economy and local industries are factors in population movements for remote areas, especially for those regions with a resource industry base. Remote locations experienced net internal migration gains of those aged 25 to 34 years for both the pandemic year and the five year period. These were mostly from capital cities, with this cohort taking advantage of economic opportunities. Other working age groups went from having strongly negative net losses from remote areas between August 2016 and 2021, to having negligible or small positive gains in August 2021 to 2022. This emphasis on employment is also reflected in the net migration gains for employed people to remote areas, which were small over the five years (132 people) but much larger in the pandemic year (around 2,500), and the net migration losses in both periods for those unemployed and outside the labour force.

Introduction

Most people have an iconic image of the Australian outback, whether it is the red dust of the desert or Uluru. Remote Australia is the geographically largest of the migration categories, covering an area of 6 million square kilometres. However, it is the least populated, with only 1.3 per cent of the country's population in 2022.

Population

The population growth of remote areas has shifted over time, contrasting with the sustained growth at the national level over the past two decades. Figure 6.1 presents an index of population growth for remote areas and Australia from 2001 to 2022. This enables a comparison of population change by adjusting for differences in population size. Population in remote areas has been in decline over the past 10 years, but the decline has lessened each year. In 2021-22, the rate of change was positive for the first time since 2012-13, the peak of the mining boom. There was a slight growth of about 1,000 persons in 2021-22, resulting in a total population figure of 335,614. In comparison, remote Australia's population was just under 358,000 people during its peak in 2013. In contrast to the protracted decline in the remote population,

Australia's national-level growth rate has remained steadily, with the exception of the very low growth rate during the pandemic.



Figure 6.1 Population index, remote areas, 2001 to 2022

Note: The population index uses 2001 as a base, and is calculated as current year value/base year value*100. Therefore a value of 120, for example, indicates growth of 20 per cent from the base year.

The pattern of population growth for remote areas is largely driven by the impact of the mining boom, which according to the Reserve Bank of Australia (RBA) began in the early 2000s, with a surge in mining investment and commodity prices (RBA 2010). The mining sector undertook large scale capital investment, which 'saw total mining investment increase from an average of around 2 per cent of Gross Domestic Product (GDP) in the decade or so before the boom to a peak of about 9 per cent in 2012-13' (RBA 2018). This increased demand for mining and construction workers, primarily in remote areas of the country adjacent to large mineral deposits. To illustrate, Figure 6.2 presents the private new capital expenditure for mining, which tracks a similar pattern of population growth and decline for remote areas.



Figure 6.2 Private new capital actual expenditure mining and remote population, 2001 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population and ABS 2023, Private New Capital Expenditure and Expected Expenditure, Australia

Source: BCARR analysis of ABS August 2023, Regional Population

Not all remote areas have experienced the same patterns of population change but there are consistent features. Figure 6.3 shows the distribution of each remote areas' average annual population change from 2017 to 2022. Each bar represents the number of remote areas that had a five-year average annual growth rate in the specified range, showing the spread of growth rates across the group. This distribution illustrates that a high proportion (79 percent) of remote areas had an average annual growth below the national rate of 1.1 per cent. The distribution is negatively skewed, with several remote areas experiencing relatively large declines in population. In particular, there is an extreme negative outlier apparent on the left-hand side of the graph. This remote area is Ashburton (WA), which had an annual average decline of 8.5 per cent. Outback in South Australia was also a negative outlier with an average annual decline of 4.5 per cent.

As a group, remote areas declined by 0.3 per cent over this period, with around half of individual remote areas experiencing population declines. The shift to positive growth in 2021-22, in contrast to this widespread medium-term decline, is explored further in the following section.



Figure 6.3 Distribution of average annual population change, remote areas, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Any remote area with a population below 100 in any of the years from 2017 to 2022 has been removed.

Strongest population growth and decline

Table 6.1 presents the top ten remote SA2s by population growth, both in terms of number and average annual growth over the five years. Change figures are highlighted in blue when they appear in the top ten for that column. This list illustrates the wide geographical range of remote areas that experienced population growth - from Tasmania to the top of Western Australia. There is a strong overlap between those in the top ten by average annual growth and the top ten by net gain of people, with only Kununurra, Eyre Peninsula, Victoria River and Cocos (Keeling) Islands not falling into both categories.

A high degree of overlap for the top ten across years is evident for several regions such as Halls Creek – primarily driven by natural increase in 2021-22. Norfolk Island's had marginal population decline of 8 people in 2021-22. This was driven entirely by natural increase rather than internal or overseas migration. However, there was strong population growth in the prior year, with over 100 people added to the population, consistent with the annual population increases across the medium-term.

Remote area	State	2022 Population	5 year population change, 2017-22	5 year population change, 2017-22, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Triabunna - Bicheno*	Tas.	5,172	658	2.8	140	2.8	84	1.7
Mount Isa Surrounds*	QLD	4,179	577	3.0	186	4.7	61	1.5
West Arnhem*	NT	6,080	560	2.0	115	2.0	82	1.4
Kununurra	WA	8,057	549	1.4	146	1.8	7	0.1
Collinsville*	QLD	3,964	517	2.8	129	3.4	30	0.8
Halls Creek*	WA	4,138	489	2.5	107	2.7	66	1.6
Exmouth*	WA	4,953	484	2.1	70	1.5	115	2.4
Norfolk Island*	Territory	2,213	368	3.7	119	5.7	-8	-0.4
Nhulunbuy*	NT	3,642	323	1.9	71	2.0	78	2.2
Eyre Peninsula	SA	7,020	308	0.9	90	1.3	50	0.7
Cocos (Keeling) Islands	Territory	614	62	2.2	-5	-0.8	11	1.8
Victoria River	NT	3,046	216	1.5	53	1.8	51	1.7
Total remote areas		335,614	-4,239	-0.3	-520	-0.2	1,004	0.3
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 6.1 Po	pulation chang	e – 10 remote	e areas with la	argest growth.	2017 to	2022
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Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. Remote areas with a population below 100 in any of the years presented have been removed. Regions denoted by * means they are in the top ten for both number and percentage for 2017-22. Highlighted figures are in the top ten for their relevant column.

The Tasmanian east coast region of Triabunna – Bicheno experienced strong population growth from 2016 onward (see Figure 6.4), with a population of 5,172 in 2022. This was driven by internal migration flows (explored further in the next section), after a long period of no real population change. The region is made up of small number of towns such as Bicheno, Swansea, Triabunna and Orford, which are attractive locations for tourism. While this location is classified as remote, it has many of the features of a coastal country area.

The second largest growth occurred in Mount Isa Surrounds, located in the north-west of Queensland. As the name suggests, this is the region surrounding the inland city of Mount Isa which functions as an administrative and services centre to the wider area. This had a different pattern to Triabunna – Bicheno, with decline until 2016, then strong, steady growth in the years following. Both Mount Isa and its surrounds are sensitive to fluctuations in mining demand. For example, Mount Isa surrounds was influenced by the rise in mineral prices, which led to an increase in employment demand for this industry during the five-year period.



Figure 6.4 Population index, Triabunna-Bicheno and Mount Isa surrounds, 2012 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: The population index uses 2012 as a base, and is calculated as current year value/base year value*100. Therefore a value of 120, for example, indicates growth of 20 per cent from the base year.

Population decline for many remote areas has been a long-standing trend. Table 6.2 presents the ten remote SA2s with the largest declines by both number of people and average annual decline from 2017 to 2022. The largest loss of people was in Ashburton in the north-west region of Western Australia. Ashburton experienced strong population growth from 2001 to 2016, after which the population fell by just under 4,500 people over the five years to 2022, with a very steep average annual decline of 8.5 per cent. This was the strongest decline across all migration geography categories. A key driver was loss of employment (see Figure 6.5). The construction, mining and professional, scientific and technical services industries had a combined employment loss of 3,670 jobs, representing 86 per cent of the change from 2016 to 2021. This loss was from the completion of construction projects in the local area. This illustrates the strong connection between employment and population growth for these types of regions, compared to retirement locations that attract people outside the labour market.

While mining cycles influence the overall pattern, other locations have experienced slow long-term population declines over extended periods. This is representative of four locations in north west New South Wales: Walgett-Lightning Ridge, Cobar, Bourke-Brewarrina and Nyngan-Warren. All four locations have populations of less than 6,000 persons each and a focus towards agriculture (with the exception of Cobar). These locations are examined further later in the chapter by considering the internal migration flows for these areas.

Remote SA2	State	2022 Population	5 year population change, 2017-22	5 year population change, 2017-22, (AAG)	1 year population change, 2020-21	1 year population change, 2020-21	1 year population change, 2021-22	1 year population change, 2021-22
		persons	persons	per cent	persons	per cent	persons	per cent
Ashburton *	WA	7,834	-4,374	-8.5	-1,146	-12.8	53	0.7
Walgett - Lightning Ridge*	NSW	5,813	-666	-2.1	-115	-1.9	-74	-1.3
Central Highlands - West	QLD	7,599	-583	-1.5	-134	-1.7	-81	-1.1
Cobar*	NSW	4,125	-575	-2.6	-121	-2.8	-44	-1.1
Bourke - Brewarrina*	NSW	3,515	-559	-2.9	-102	-2.7	-101	-2.8
East Pilbara	WA	6,211	-549	-1.7	-119	-1.8	-107	-1.7
Outback*	SA	2,011	-517	-4.5	-146	-6.5	-86	-4.1
Petermann - Simpson*	NT	2,205	-420	-3.4	-120	-5.2	15	0.7
Nyngan - Warren	NSW	4,595	-418	-1.7	-84	-1.8	-37	-0.8
Torres Strait Islands	QLD	4,286	-402	-1.8	-61	-1.4	-8	-0.2
Aurukun	QLD	1,124	-177	-2.9	-66	-5.5	-6	-0.5
Coober Pedy	SA	1,574	-232	-2.7	-67	-4.0	-48	-3.0
Palm Island	QLD	2,194	-271	-2.3	-25	-1.1	14	0.6
Thamarrurr	NT	2,446	-283	-2.2	-42	-1.7	0	0.0
Total remote areas		335,614	-4,239	-0.3	-520	-0.2	1,004	0.3
Australia		26,005,540	1,412,952	1.1	36,164	0.1	320,128	1.2

Table 6.2 Population change – 10 remote areas with largest decline, 2017 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: Average annual growth (AAG) and annual change to June of the reference year. Remote areas with a population below 100 in any of the years presented have been removed. Regions denoted by * means they are in the top ten for both number and percentage for 2017-22. Highlighted figures are in the bottom ten for their relevant column.

Figure 6.5 Change in employment by industry, Ashburton, August 2016-2021



Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Comparing population growth across time

As shown in Figure 6.6, there is a high correlation between the five-year growth rates for individual remote areas and their rates during the pandemic year – similar to the other migration categories. This illustrates the strong relationship between population growth in the five years and the pandemic year for each remote area (correlation coefficient = 0.93). About 45 per cent of remote areas had weaker growth in 2020-21 than their annual average for 2017 to 2022.

Those with the strongest population growth over the five years tended to have the strongest growth in 2020-21 (including Triabunna – Bicheno in Tasmania and Mount Isa Surrounds). Many areas with strong five-year growth experienced even better growth during 2020-21. This includes Meekatharra and Esperance Surrounds in Western Australia. These were the third and fourth strongest growing remote areas in 2020-21, increasing from their lower but still strong rankings for the five years (of 13th and 19th position respectively). Along with Norfolk Island, which had the strongest growth in both periods, Meekatharra and Esperance Surrounds had the most pronounced increase in growth for 2020-21 compared with the five-year average (with percentage point differences of 2.0 or more between their 2020-21 rate and their five-year average rates).

In contrast to Norfolk Island, another external territory, Cocos (Keeling) Islands, had one of the most pronounced negative departures from its medium-term rate. Its population grew by an average of 2.2 per cent over the five years, but fell by 0.8 per cent in 2020-21.



Figure 6.6 Population change, remote areas, 2020-21 and 2017-2022

Source: BCARR analysis of ABS August 2023, Regional Population.

Note: Three remote areas with small populations (of less than 100 for any year since 2017) have been removed: Western in South Australia (population 144 in 2022), and in Tasmania, Wilderness – East and Wilderness – West with populations of fewer than 10 people.

Regions with the greatest population declines over the five years tended to have even greater rates of decline in 2020-21. These include Outback and Coober Pedy in South Australia, Aurukun in Queensland, Peterman – Simpson in the NT, and most notably, Ashburton in WA. Ashburton had by far the most negative rates in both time periods among remote areas. It was also the region with the largest percentage point difference between the five years and 2020-21 (with the 2020-21 decline of 12.8 a full 4.3 percentage points lower than its five-year rate).

The changes for 2020-21 and 2021-22 have a weaker relationship (correlation coefficient = 0.44), as the 2021-22 population growth signified a shift across remote areas as a group (Figure 6.7). There were pronounced changes in some regions. Following strong growth in 2020-21, Norfolk Island experienced population decline in 2021-22 (of 0.4 per cent), while Christmas Island grew by 4.1 per cent, off the back of a decline in the previous year – the strongest growth rate for a remote area in 2021-22.



Figure 6.7 Population change, remote areas, 2020-21 and 2021-22

Source: ABS August 2023, Regional population

Note: Three remote areas with small populations (of less than 100 for any year since 2017) have been removed: Western in South Australia (population 144 in 2022), and in Tasmania, Wilderness – East and Wilderness – West with populations of fewer than 10 people.

Most strikingly, Ashburton had population growth of 0.7 per cent in 2021-22, more than twice the growth rate of remote areas overall, and a pronounced departure from the previous year's loss of 12.8 per cent. Among other regions with prior strong declines, some continued to experience strong loss in 2021-22 (Coober Pedy and Outback in South Australia, and Bourke – Brewarrina in New South Wales), while others, like Ashburton, fared better: Aurukun's decline was comparatively slight in 2021-22, and Peterman – Simpson, the remote area with the fourth largest population decline in 2020-21, grew by 0.7 per cent the subsequent year.

Many of those with strong growth in 2020-21 had more moderate rates in 2021-22, such as Meekatharra and Esperance Surrounds in WA, and Mount Isa Surrounds and Collinsville in Queensland.

Population components

Figure 6.8 presents the population components for 2021-22 for a selection of remote areas. The drivers of population growth across these locations is diverse, but overall around two thirds of remote areas experienced net internal migration loss that year. Outback in South Australia experienced loss from net internal migration of over 5 per cent, somewhat offset by slightly positive natural increase and net overseas migration, resulting in an overall population loss of 4.1 per cent. Similar patterns occurred for Coober Pedy and Bourke-Brewarrina. Other locations had negative net internal migration that was offset by higher natural increases so that their population growth was positive. This includes Kowanyama – Pormpuraaw, in Cape York with a natural increase of nearly 3 per cent, resulting in an overall population growth rate of 2 per cent.

Remote areas with high net internal migration tend to have a high degree of similarity to coastal country areas, such as Triabunna-Bicheno, Kangaroo Island and Exmouth. This is examined further in the following section with a focus on the Tasmanian area of Triabunna-Bicheno.

Similar to other regional categories, net overseas migration was not a primary driver for population growth with a few exceptions. Christmas Island, positioned in the Indian ocean, has a proportional increase in overseas net arrivals of 3.5 per cent, which translates to 64 people out of a population of 1,700.⁴⁸





Source: BCARR analysis of ABS August 2023, Regional Population

Internal migration flows

Migration flows for remote areas are heavily influenced by the local economy, particularly for those regions with a strong mining presence. Maps 6.1 and 6.2 present the net internal migration flows for the individual regions that make up the remote category. Over the five years, many locations experienced a net loss from internal migration, particularly in New South Wales and Queensland. Only a few had positive or negligible net internal migration.

However, during the pandemic year, several remote regions shifted to a net internal migration gain. This may have resulted from travel restrictions between states, particularly for Western Australia, over nearly two years. Restrictions may have resulted in people choosing to stay longer in a remote location, as their ability to move around the country for employment was limited. It also aligns with the improvement in the remote population growth rate over time, from very negative to only marginally negative by 2020-21.

⁴⁸ Note that ABS estimated residential population includes anyone who usually lives in Australia, regardless of nationality or citizenship.



Map 6.1 Net internal migration, remote areas, August 2020-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.



Map 6.2 Net internal migration, remote areas, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Map excludes regions with (2021 Census) population of under 200. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Over both periods, remote areas collectively experienced net internal migration loss. Table 6.3 presents the migration flows over for the one- and five-year periods. During the five years, remote areas lost people to all other migration geography groups. In particular, remote areas experienced a net loss of almost 5,300 people to coastal cities. Between August 2020 and 2021, the strong outflow towards coastal cities remained, but this was partially offset by a net increase from capital cities. In both periods, the largest arrivals and departures were to and from the capital cities.



Figure 6.9 Net internal migration flows, remote areas, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

able 6.3 In, out and net migration flows, r	emote areas, August 2020-2021 and 2016-2021
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	Remote	Overseas	Capital cities	Coastal cities	Coastal country areas	Inland cities	Inland country areas	Total
	In-migration	1,148	9,683	5,246	2,256	1,713	2,343	21,241
	Out-migration	na	8,442	6,407	2,784	2,015	2,777	22,425
to 2021	Net migration	na	1,241	-1,161	-528	-302	-434	-1,184
20201	In-migration share		45.6	24.7	10.6	8.1	11	100
	Out-migration share		37.6	28.6	12.4	9	12.4	100
	In-migration	6,211	21,322	11,614	5,018	3,530	5,198	46,682
_	Out-migration	na	21,806	16,892	7,518	6,100	7,695	60,011
2016 to 2021	Net migration	na	-484	-5,278	-2,500	-2,570	-2,497	-13,329
	In-migration share		45.7	24.9	10.7	7.6	11.1	100
	Out-migration share		36.3	28.1	12.5	10.2	12.8	100

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratoryoffshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Internal migration by age

The pattern of internal migration by age for remote areas suggests a trend of working-age cohorts moving in the pursuit of employment opportunities. Table 6.4 presents remote migration flows by age. Net losses occurred in most age brackets, with gains concentrated in the 25 to 34 year age group in both periods. This may reflect young adults (mostly from capital cities) taking advantage of economic opportunities in selected remote locations. Over the five-year period, 18 per cent of this age bracket worked in the mining industry, 4 percentage points higher than the next highest category of Education and Training.

Between August 2020 to 2021, very small net gains occurred in other working age groups of 15-24 years and 35-54 years. This is a marked reversal from the net losses in these age cohorts during the five-year period (a loss of almost 4,000 for 15-24 year olds, and of 2,400 for 35-54 year olds). As a share of total arrivals and departures, there were proportionately more arrivals and departures in the pandemic year for the three groups under 35 years, and those 65 and over. The flows were proportionately smaller for 35 to 65 year olds.

	Age (at August 2021)	2021 age distribution	In- migration	In- migration (% of total)	Out- migration	Out- migration (% of total)	Net internal migration
	Under 15 years	20.5	3,141	14.8	4,789	21.4	-1,648
	15-24 years	11.7	3,631	17.1	3,589	16.0	42
2021	25-34 years	15.0	5,665	26.7	4,586	20.4	1,079
2020 to 2	35-54 years	26.1	5,369	25.3	5,287	23.6	82
	55-64 years	12.9	2,250	10.6	2,253	10.0	-3
	65 years and over	13.8	1,179	5.6	1,923	8.6	-744
	Total	100.0	21,241	100.0	22,425	100.0	-1,184
	Under 15 years	20.5	6,137	13.1	11,438	19.1	-5,301
_	15-24 years	11.7	6,258	13.4	10,209	17.0	-3,951
2016 to 2021	25-34 years	15.0	11,495	24.6	9,584	16.0	1,911
	35-54 years	26.1	13,787	29.5	16,205	27.0	-2,418
	55-64 years	12.9	5,792	12.4	6,225	10.4	-433
	65 years and over	13.8	3,220	6.9	6,335	10.6	-3,115
	Total	100.0	46,682	100.0	60,011	100.0	-13,329

Table 6.4 Net internal migration by age, remote areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Numbers are subject to perturbation by the ABS to ensure confidentiality, and so totals can slightly vary from the sum of components, and small numbers are indicative only. Highlighting denotes negative values.

Internal migration by labour force status

Table 6.5 shows the internal migration, arrivals and departures for remote areas by labour force status as of August 2021, for those aged 15 years and over. As with inland country areas, there is a consistent pattern of net loss of unemployed and those not in the labour force, and a net gain of employed people.

In both the one- and five-year periods, arrivals were dominated by employed people. In the pandemic year, they represented 76.3 per cent of arrivals aged 15 and over, with only one in five (19.6 per cent) out of the labour force, and 4.1 percent unemployed. The composition of departures by those aged 15 and over was still largely employed people, but only 63.9 per cent, with 29.8 per cent of departures out of the labour force and 6.3 per cent unemployed. Labour force status is a point-in-time measurement as at August 2021 so there may be time lags, but this still indicates that

people largely move to remote areas if they are (or will be) employed there, and those without a local attachment to the labour force make up a greater share of the departures than they do of the arrivals.

A big change between the one- and five-year periods is the net number of employed moving into remote areas. Over five years, this was negligible (132 people). In the pandemic year, remote areas had a net gain of 2,484 employed people, about 19 times higher than the number over the five years. The number of arrivals was 44.1 per cent of the five-year figure, while the departures were 36.3 per cent of the five-year figure. This suggests that the arrivals were the more important factor in this change.

			In-		Out-	
	Labour force status (August 2021)	In- migration	migration (%)	Out- migration	migration (%)	Net internal migration
20-21	Employed	13,697	76.3	11,213	63.9	2,484
	Unemployed	731	4.1	1,106	6.3	-375
	Not in the labour force	3,515	19.6	5,217	29.8	-1,702
16-21	Employed	31,059	77.1	30,927	64.0	132
	Unemployed	1,221	3.0	2,230	4.6	-1,009
	Not in the labour force	8,014	19.9	15,163	31.4	-7,149

Table 6.5 Net internal migration by labour force status, remote areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: This table does not include people under 15 or the not stated category for labour force status, and so will not sum to the total net movements. This is different from the analysis by age category, which includes all people, because ages are imputed when not stated. Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Highlighting denotes negative values.

The migration flows for remote areas have a high degree of turnover. The Migration Turnover Rate (MTR) is similar to an employee turnover rate 'in that it measures the turnover through in-migration and out-migration of the population of an area during a given period of time' (Israelsen et al. 2006, p.1). The MTR here is calculated from the sum of gross inmigration and gross out-migration as a percentage of the region's population. MTR measures the dynamic population change within the region, which is not captured through net or gross migration alone.

Region	State	Did not move	In-migration	Out- migration	Net migration	MTR
Newman	WA	1,563	1,467	1,881	-414	79.0
Ashburton (WA)	WA	2,353	2,734	2,921	-187	76.5
Roxby Downs	SA	1,734	1,216	1,509	-293	68.5
Petermann - Simpson	NT	863	553	774	-221	67.7
Weipa	QLD	1,813	1,230	1,405	-175	64.3
Remote areas		194,580	46,682	60,011	-13,329	33.7

Table 6.6 In, out and net migration and Migration Turnover Rate for remote areas, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021, Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. "Remote areas" represents the remote group, and so movements between remote areas are treated as 'did not move'. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values.

Remote areas generally demonstrate very high degrees of turnover, especially those associated with mining. Table 6.6 presents the top five remote areas for MTR between 2016 and 2021– with remote SA2s representing six of the top ten
locations with high turnover rates. For example, Newman, a small town in the Pilbara region of Western Australia that has nearly 40 percent of its local working population employed in Metal Ore Iron mining, has a turnover rate of nearly 80 percent. Hence, turnover of a population is closely associated with the mobility of labour.

Internal migration in smaller remote areas

Table 6.7 shows the remote regions with the highest and lowest net internal migration over two time periods. East Pilbara stands out for having a high level of net internal migration for both periods. This contrasts with the population estimates, with declines in each year from 2013-14 (see Table 6.2). This highlights the difficulty of understanding population flows at a small scale and the role that fly-in/fly-out can have on local economies. In contrast, Leinster-Leonora, a mining area in Western Australia, experienced slow population growth from 2016 which is consistent with the Census positive net internal migration flows. In both cases Perth is overwhelmingly the most common origin and destination for these regions, illustrating the mining industry connections with the capital, including fly-in/fly out work arrangements.

As highlighted earlier, the remote region of Triabunna – Bicheno experienced strong population growth since 2016-17. The primary source for its net internal migration gain came from the capital cities of Hobart, Melbourne and Sydney for both periods, accounting for almost 60 percent of the in-flow between 2016 to 2021. A feature of this growth is the strong movement of people aged over 55 years, with this location's lifestyle attractive for those in retirement, similar to other coastal locations. This contrasts with the overall age flows for other remote areas.

Remote area	State	In- migration	Out- migration	Net- migration	Remote area	State	In- migration	Out- migration	Net- migration	
	2020 to 2021					2016 to 2021				
East Pilbara	WA	835	178	657	East Pilbara	WA	1,491	323	1,168	
Leinster - Leonora	WA	494	322	172	Triabunna - Bicheno	Tas.	1,136	840	296	
Barkly	NT	235	137	98	Leinster - Leonora	WA	905	632	273	
Meekatharra	WA	337	246	91	Norfolk Island	от	437	215	222	
Triabunna - Bicheno	Tas.	484	393	91	Kangaroo Island	SA	788	654	134	
Katherine	NT	1,112	1,400	-288	Katherine	NT	2,353	3,310	-957	
Newman	WA	557	738	-181	Cobar	NSW	572	1,252	-680	
			000	450	Central Highlands -	015	1 500	2 224	650	
Kununurra	WA	/3/	893	-156	West	QLD	1,582	2,234	-652	
					Walgett - Lightning					
Tennant Creek	NT	261	410	-149	Ridge	NSW	598	1,243	-645	
Torres Strait Islands	QLD	123	252	-129	Kununurra	WA	1,447	2,039	-592	

Table 6.7 Top 5 net migration flows, remote areas, August 2020-2021 and 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality. Movements represent internal migration to and from migration geography regions, and so excludes those with no usual address, migratory-offshore-shipping, non-responses, and those that could not be assigned to a migration geography region. Highlighting denotes negative values. OT = Other Territories.

Case study – North Western New South Wales

Some remote regions have experienced population declines over an extended period. Figure 6.10 presents the population index for four SA2s located in the north-west of New South Wales: Walgett-Lightning Ridge, Nyngan-Warren, Bourke-Brewarrina and Cobar. This timeframe includes a period of severe drought between 2017 to 2020. The NSW Department of Planning and Environment (2023) describes the drought as 'drier and hotter than any other NSW drought in the last 120 years'. This had an impact on agricultural-based local industries. More generally, the combined employment loss of these regions between the last two Censuses (2016 and 2021) was over 600 jobs, but these regions collectively lost around 12 per cent of their labour force, with Walgett – Lightning Ridge particularly impacted (less so for Nyngan-Warren).



Figure 6.10 Population index, four remote areas in New South Wales, 2001 to 2022

Source: BCARR analysis of ABS August 2023, Regional Population

Note: The population index uses 2001 as a base, and is calculated as current year value/base year value*100. Therefore a value of 120, for example, indicates growth of 20 per cent from the base year.

The 2021 Census provides an insight into where people moved over the five-year period and some of the characteristics of these movers. Figure 6.11 presents the top arrival sources and departure destinations for people for these four remote areas. In a similar pattern to other regions, there are strong flows based on proximity, as well as with the state capital, regardless of whether it is in or out migration.

In terms of arrivals, the trend of people moving out of Sydney towards other areas within New South Wales is observed here. Among these remote areas, the largest proportion of Sydney arrivals was for Bourke-Brewarrina, at 25 per cent of the region's total arrivals. The lowest proportion was for Cobar at about 11 per cent, but this was the largest proportion of arrival sources for the area. People moving to these areas from Sydney are largely between the ages of 25 and 34 across all locations. In addition, most people are employed, particularly in the industries of public administration and safety, education and health care services.

The most popular destination for people moving out of the four locations was the inland city of Dubbo, which is in close proximity to all locations. Dubbo made up the highest proportion of out migration flows for Nyngan-Warren with about 15 per cent of departures, representing 149 arrivals to Dubbo. Employment in the industries of mining and construction are common amongst those departing, but health care remains the top industry. The second largest destination was Sydney. For Sydney-bound movers, those that are employed largely work in the industries of public administration and safety, education and health care services, with accommodation and construction also featuring strongly.

This highlights the importance of understanding what is happening in the local area, the flow of people that are being attracted to the area, and those that are leaving. This allows us to move beyond a single number to consider the overall picture of in and out migration flows and their characteristics.



Figure 6.11 Main origin and destination regions for four remote areas in New South Wales, August 2016-2021

Source: BCARR analysis of ABS Census of Population and Housing 2021 Tablebuilder

Note: Small numbers are indicative only, due to perturbation by the ABS to ensure confidentiality.

Summary

Remote regions of Australia cover an area of 6 million kilometres, but collectively have a relatively small population of about 335,600 people in 2022. This migration group experienced both population growth and decline over the past two decades, losing 4,239 people at the group level between 2017 and 2022. However, in 2021-22, the total remote population grew again by just over 1,000 people, at 0.3 per cent.

While remote areas overall have experienced a population decline, just over half of remote areas had population growth between 2017 and 2022, particularly those in attractive coastal locations or with a strong minerals sector.

Another determining factor of population change in remote locations is the strong role of internal migration. Overall, the remote category experienced net migration losses to all other regional classifications in the five-year period, with the largest loss to coastal cities. During the pandemic year there was a net migration gain to remote areas from capital cities, and a smaller net loss, but remote areas still lost people to all other groups. When decomposed by age group, there was a net gain of persons aged between 25 and 34 in both periods, which may reflect young adults (mostly from capital cities) taking advantage of economic opportunities in some remote locations.

The economy and local industry are factors that influence the settlement patterns of individuals in remote locations, especially for those regions with a resource industry base. The positive shift in the latest year from the longstanding downward trend for the remote area group may reflect a new trajectory in population dynamics for some remote regions.

7. Conclusion

Australia's settlement pattern is subject to long term pressures of change, and is evolving in the face of these pressures. It is important to understand these changes to the settlement pattern for service and infrastructure provision, and managing pressures relating to the growth and decline of regions. For example, population ageing means a greater number of people making location decisions outside of employment considerations, placing a greater emphasis on health services, while increased use of digital technology, as seen in the widespread adoption of working from home during the pandemic, gives people greater choice about where to live in relation to their workplace.

Shocks can create shorter, and potentially sharper, pressures for change, whether or not this change proves to be permanent.⁴⁹ The outbreak of COVID-19 is an example of one such shock. This report has provided a region-based assessment of Australia's population changes and internal migration flows during the peak period of the COVID-19 outbreak, framed in comparison to the medium-term trends, in order to draw out insights into dynamics of population movement.

Population

In the years leading to the pandemic, population growth rates were generally stable across the migration geography groups, but not fixed. For example, growth rates for coastal country areas and remote areas improved every year. Remote areas went from strong declines to small declines each year, and became positive in 2021-22. Coastal country areas grew in appeal, while the population growth rate of inland cities slowed.

Even prior to the pandemic, the settlement pattern was subject to forces of change. This includes both long-term pressures, such as the ageing population and the appeal of coastal communities to retirees, and more medium-term pressures, such as changes to the mining industry influencing migration to and from remote areas.

The pandemic shock had several implications for movement: a closed international border (impacting the net overseas migration); national, state and local lockdowns, border closures, and other restrictions that varied in duration and intensity; and an increased ability for people to undertake remote activities, and work in particular.

Effects from both the international and domestic restrictions were visible in the population data. The international border closure had the largest impact on capital cities. Under normal circumstances, capital cities collectively have strong population gain but net internal migration loss, driven by losses from Sydney and Melbourne. These losses are normally offset by much larger population growth from net overseas migration, and so overall capital city growth usually exceeds that of regional areas. With the border closed, the strongest source of new residents was gone, and the capital city population collectively declined. Sydney and Melbourne lost population in 2020-21, while other capitals had lower growth rates compared with the previous year. However, we can also see the role of the domestic restrictions for Melbourne. Melbourne had more restrictions with longer lockdowns than other cities, and its population had the greatest fall. Sydney might otherwise have had the greatest impact, since it usually has a greater net migration loss.

The growth rates of both coastal and inland cities were more impacted in 2020-21 than country and remote areas outside these cities. However, the impact to regional cities was more moderate than the capitals and these groups just had lower growth than usual. Outside regional cities, both coastal country areas and remote areas continued their pattern of improved growth rates, and the effect of the pandemic on inland country areas was negligible. Coastal country areas had the strongest growth rate for that year.

Strikingly, the impact on population movements was largely temporary. The international border was opened to all vaccinated visa holders in February 2022, and in 2021-22 almost all regional groups returned to at least their 2019-20 rates – when the effects of the pandemic had commenced but were not complete. The remote group continued its pattern of improvement and had positive growth that year. All the capital cities experienced population growth in 2021-

⁴⁹ For an assessment of the possible long-term impacts of the pandemic on spatial patterns of employment activity and residential settlement, see *The future of Australian cities and regions in a post-pandemic world* (Vij et al. 2023).

22. Melbourne in particular rebounded more quickly than Sydney, despite the greater impact of the pandemic in 2020-21. Overall, the 2021-22 population change was greater than the five-year average for most regional groups. The exception was inland cities, which remained only 0.1 percentage points lower than its medium-term average.

At the individual region level within each group, existing patterns generally prevailed. On the whole, the pandemic year of 2020-21 cost some population growth for most regions, but did not change which regions tended to grow fastest, and which declined. There was a strong linear relationship between the average 2017-2022 growth rates and 2020-21 growth rates for all groups outside the capitals. Those that had strong growth in the medium term also had comparatively strong growth during the pandemic, and those with medium term low growth (or decline) also had poor growth rates in the pandemic.

Regions within remote and coastal country areas tended to fare better during 2020-21, often outperforming their medium-term trends. Most (74 per cent) of the inland cities had weaker growth in 2020-21 than their average over 2017 to 2022, compared with 60 per cent for both coastal cities and inland country areas. However, only 40 per cent of coastal country areas and 45 percent of remote areas had weaker growth than their five-year average. This reflects what we observed at the group level, with remote and coastal country areas in particular faring better in 2020-21 than in the years leading up to it.

Outside the capitals, population growth rates for 2020-21 had a strong positive relationship with growth rates in 2021-22 across regional groups. The relationship was weaker for remote areas and coastal country areas. Half of coastal country areas had improved growth rates in 2021-22 compared with 2020-21, while for the other groups, about 60 per cent of their regions improved their growth rates in 2021-22 compared to the previous year.

There was variation by state in how population growth rates fared over this time. For example, the population growth rates for many coastal areas in Queensland fell during 2020-21, but by 2021-22 had rates exceeding not just 2020-21 but also the five years. In contrast, growth rates for Tasmanian coastal areas during 2020-21 were on par with their five-year average, but worsened in 2021-22. This is consistent with the fall in Hobart's rate, and so reflects the state's overall weaker growth.

Internal migration

The paper also considered the net internal migration flows for the pandemic (using data for August 2020 to 2021), and the medium term (August 2016 to 2021). The high-level net migration flows during the pandemic were largely the same as in the five-year period, characterised by net losses from the capital cities and remote areas, and net gains to coastal regions and inland cities. Inland areas lost people to coastal areas, but gained from the capitals and remote areas.

Despite these broad similarities, we can also observe some differences during the pandemic year. Remote areas had a much smaller loss than across the five years, with a net gain from the capitals. Inland country areas went from a small net loss over five years to a net gain in the pandemic.

There were also differences between groups. Coastal country areas lost people to coastal cities over the five years, but the flows were largely balanced during the pandemic year.

Internal migration patterns also shifted within regional groups. Net internal migration losses for capital cities has been a consistent pattern over time, but there are longer term differences between the cities such as a movement away from Sydney and a flow towards Brisbane, which precedes the pandemic. The size of the net migration loss from Melbourne was closer to Sydney's in the year to August 2021, likely due to people responding to restrictions, but much smaller than Sydney's over the five years. We can see the effect of this in some other regions – Adelaide, for example, experienced a net loss to Melbourne of just over 3,000 people over the five years. This reversed during the pandemic year with a net gain from Melbourne of over 2,000 people. As a result, Adelaide was the only capital that experienced a shift in net internal migration from negative to positive between the five years and the pandemic year. Perth received a larger net internal migration gain in the year to August 2021 than over the whole period of August 2016 to 2021, which may be related to the comparative lack of restrictions in Western Australia.

During the pandemic year, there were some changes to internal migration patterns in terms of age groups and labour force status, which are two demographic characteristics that influence migration choices. The direction of overall migration flows remained largely unchanged, but there were shifts in composition between demographic categories.

Age has a strong influence on migration, not only in terms of a person's propensity to migrate but also the choice of location. People aged 15 to 24 have a positive net migration towards capital cities, with negative net movements away from other geographical areas. In comparison, people aged between 35 to 54 tend to prefer coastal areas. The pattern of younger people moving to the cities still stands even with the impact of the pandemic. The attraction of education, employment and entertainment opportunities draw the young to these locations. In contrast, older people are leaving capital cities and are attracted to more regional locations.

There were some variations in the pandemic year. For example, coastal cities gained more 25 to 34 year olds in the year to August 2021 than over the whole five years. In addition, coastal country areas experienced a net loss of those age 65 and over, compared with a strong five-year gain.

In the pandemic year, employed people made up a greater share of the net loss from capitals than in the five years, and those outside of the labour force made up a correspondingly smaller share. This shift is reflected in other migration flows, with employed people comprising a higher share of the net gain to other regions. Strikingly, inland cities, inland country areas and remote areas received a larger net gain of employed people in the pandemic year than over the whole five years.

Ultimately, both the population and internal migration data show a story of persistence of existing patterns with some particular disruptions at the finer level. The attraction of coastal and urban lifestyles remained a draw. Coastal regions continued to attract people from every other region group in the pandemic, illustrating a strong preference for coastal living. Urban environments in regional locations were also preferred, whether on the coast or inland, reflecting the attraction of high amenity locations.

The COVID-19 pandemic represented a large shock to Australia and the world, with some unprecedented impacts on movement and population in the short term. The Australian population changes in 2020-21 reflect the extremity of this event. However, only one year later, growth largely recovered to normal levels (or close to them), despite the continued occurrences of lockdowns and dramatic increases in case numbers in 2021-22. This return to form indicates the resilience of the existing pattern, driven by the strong ties between people and the places they choose to live.

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