Western Australia

Is it all doom and gloom after the boom?

.id the population experts

March 2017

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As the population experts, .id's team of population forecasters analyse populations to understand how they will change in the future.

Using detailed analysis of a wide range of data sources, .id produce granular population forecasts known as SAFi (Small Area Forecast information). In WA, these forecasts cover almost 3,000 small areas.

SAFi provides unprecedented insight into the future of Australia's population, from the macro to the micro level. Businesses, governments and organisations use this information to inform future planning decisions regarding service and infrastructure provision.

These recently updated population forecasts for WA form the basis of this eBook, where we explore how broad demographic trends affect the state's population, the future outlook for WA's population and the way change plays out at a local level.

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A state of contrast

Western Australia (WA) is an interesting and unique place in terms of its demography and future population prospects. It is an unusually resource rich, yet sparsely settled region of Australia.

Much of the impetus for population growth comes from the mining industry. In the last fifteen years, WA has experienced unprecedented levels of population growth, driven by substantially increased overseas migration, population gain from the Eastern States and a rise in birth rates.

Population growth was predominantly based on the vast expansion of iron ore and gas resources, especially in the Pilbara Region. Other mining industries in WA, notably gold, received a boost after the Global Financial Crisis of 2008-09, due to their status as refuge stock. These conditions provided an incentive for further development and exploitation of resources.

While the economy thrives as a result of resources in some of the more remote and less hospitable parts of the state, WA's population is heavily concentrated around Perth. This is reinforced by:

- The preference of people to live in large urban centres for lifestyle reasons
- The need for a services hub, especially given the dispersed nature of mining and primary industries
- Heavy reliance on FIFO (fly-in, fly-out) workers
- The isolation of Perth compared to other major Australian cities
- More moderate climatic conditions in Perth and the South West

Since 2001, there have been large population increases in the Perth metropolitan region and the South West including Bunbury and Busselton. Mining regions, such as Karratha and Port Hedland have experienced strong growth, however, the end of the mining investment boom has resulted in a substantial turnaround in population growth across the state.

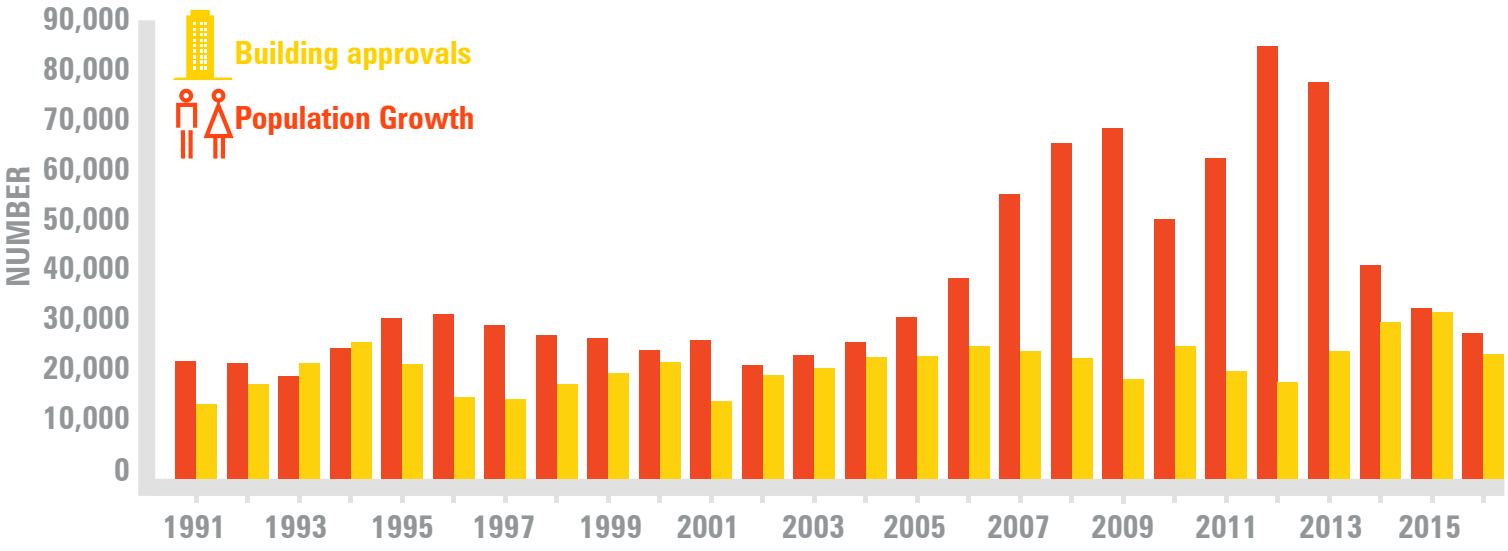
FUTURE OUTLOOK
Is it all doom and gloom after the boom?

Due to the nature of the WA economy, population growth is likely to vary in the future. It is difficult to say when the next boom will occur however, .id anticipates growth will return to higher levels after the current ebb of 2015-17. The state is likely to become more attractive to overseas and interstate migrants with a return to more consumption-based growth and greater investment in services and infrastructure.

With the iron ore industry experiencing a roller coaster ride over the last decade, the recent recovery in the iron ore price has provided some stability in the industry and a platform for the future. Liquefied Natural Gas (LNG) has been another booming resource industry for WA which offers further potential for development in the Pilbara and the Kimberley Regions. The price of LNG has been relatively depressed since peaking in late 2007 however, the market for cleaner alternatives to fossil fuel means demand is likely to rise in the medium to longer term.

Investment in mining regions and the demand for tradespeople has distorted residential building activity, leading to a notable undersupply of housing in Perth between 2009 and 2014. A building boom in Perth over the last two years has likely relieved this situation, especially given declining rates of housing demand as population growth slows.

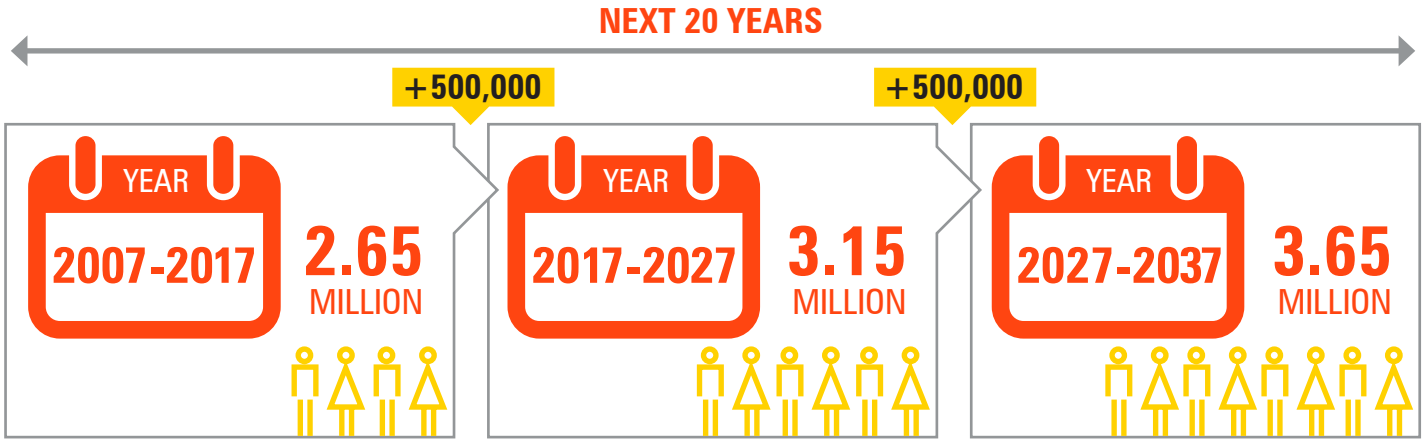
CHART 1 POPULATION GROWTH & BUILDING APPROVALS, WESTERN AUSTRALIA 1991-2016



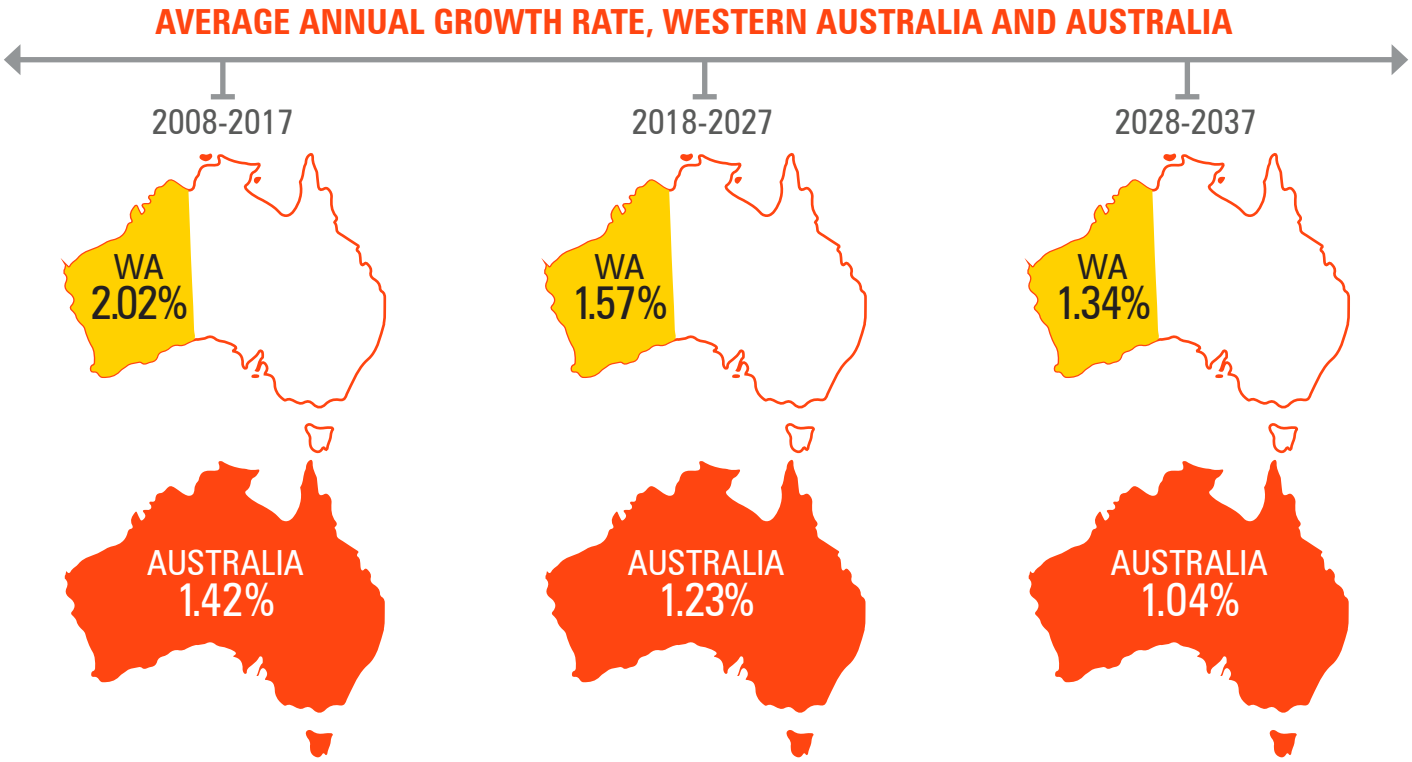
Compiled and presented by .id – the population experts.
Source: ABS, Australian Demographic Statistics, 2016 (Cat.3101.0), ABS, Building Approvals, Australia, 2017 (Cat. 8731.0)

What does the future hold?

WA's population is set to increase by more than a million people over the next 20 years.



Despite the current ebb in population, it's not all bad news for WA, with population growth expected to remain above the Australian average in the longer term.



As a 'frontier state', WA's natural resources provide future potential for employment opportunities that will attract people to the state, both from overseas and interstate. The current trough in the level of overseas and interstate migration is expected to recover as overseas migration is expected to return to 29,000 by 2020.

With an ageing population, there will be a growing number of deaths which effectively slows population growth rates as there is less natural increase in the population (the result of births minus deaths).

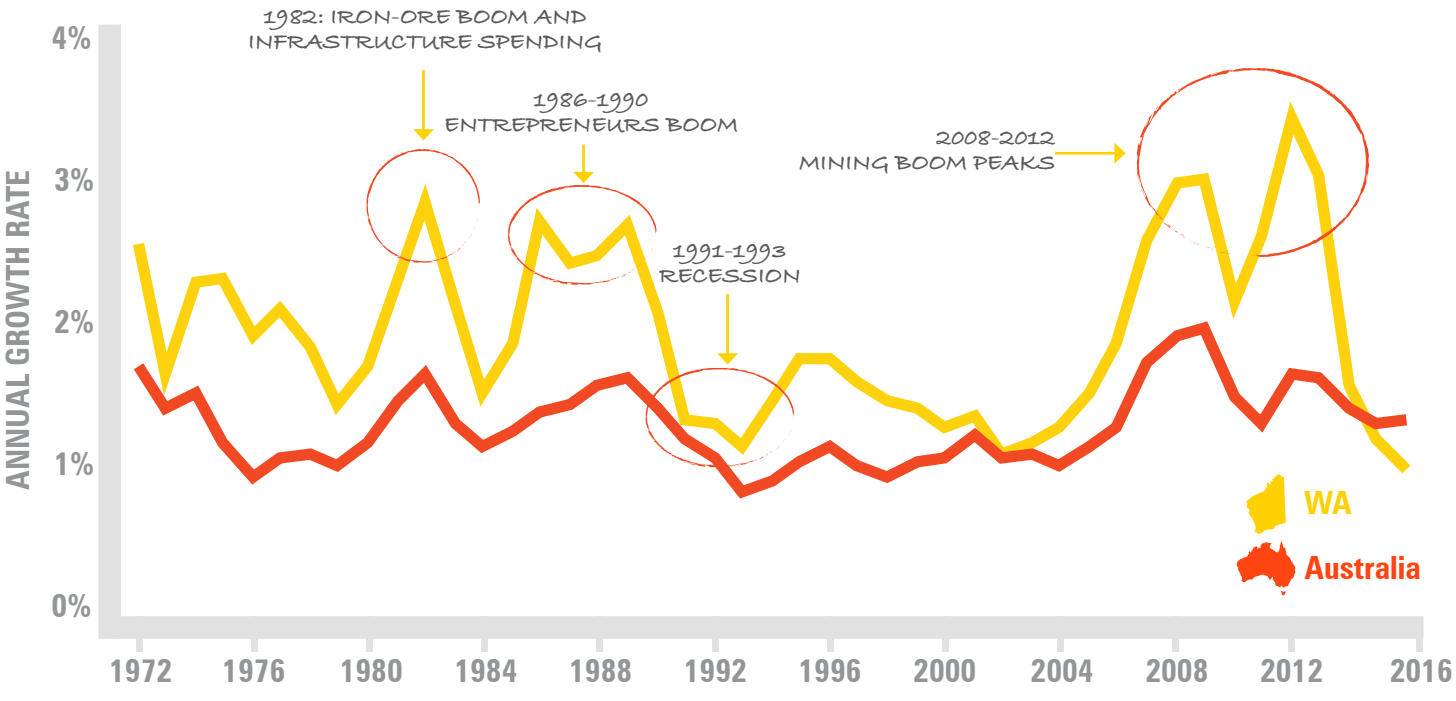
What's driving change?

To forecast what the population of WA will look like in the future, it's important to understand the patterns of the past.

Led by the mining boom, WA's population increased by over 511,000 in the last decade, boosting the state's total population to over 2.65 million in 2017. Population growth has been strong, growing at an average annual rate of over 2.1% per annum in the period from 2001 to 2016 and peaking at 3.6% in 2012.

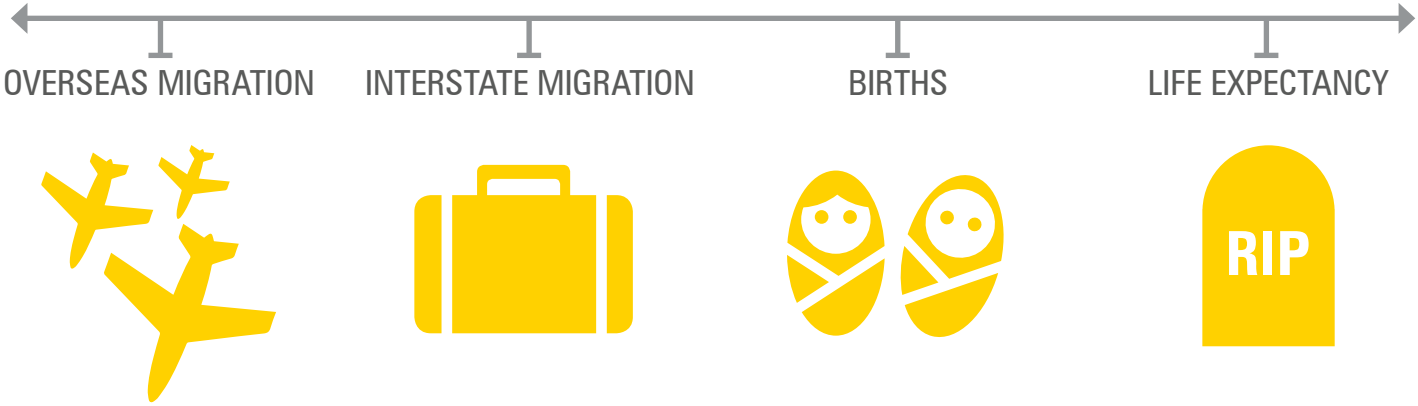
2017 POPULATION 2.65 MILLION + WA WILL ADD HALF A MILLION NEW RESIDENTS IN THE NEXT 10 YEARS = ROUGHLY EQUIVALENT TO ADDING THE POPULATION OF TASMANIA!

CHART 2 POPULATION GROWTH RATE, WESTERN AUSTRALIA AND AUSTRALIA 1972-2016



Compiled and presented by .id – the population experts.
Source: ABS, Australian Historical Population Statistics, 2014 (Cat. 3105.0), ABS, Australian Demographic Statistics, 2016 (Cat. 3101.0)

4 KEY DEMOGRAPHIC DRIVERS INFLUENCING CHANGE IN WA'S POPULATION

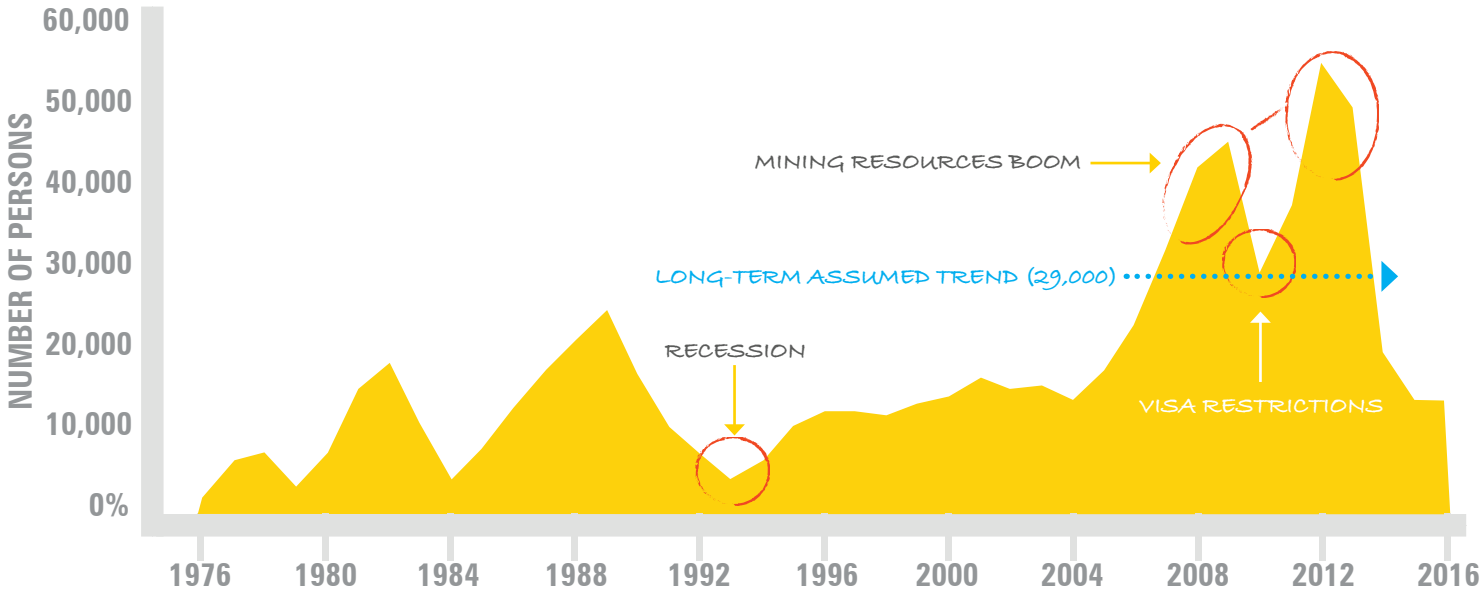


OVERSEAS MIGRATION

The number of migrants doubles then dives

Overseas migration into WA has been a major contributor to population growth, more than doubling in the last ten years. In recent years, overseas migration has taken a dive, with net numbers of overseas migrants entering the state dropping from a peak of 53,200 in 2012 to just over 15,000 in 2016.

CHART 3 NET OVERSEAS MIGRATION, WESTERN AUSTRALIA 1976-2016



Compiled and presented by .id – the population experts.
Source: ABS, Australian Historical Population Statistics, 2014 (Cat. 3105.0), ABS, Australian Demographic Statistics, 2016 (Cat. 3101.0)

The drop in overseas migration to WA has been amplified by the state's large number of temporary skilled work visa holders, who have now left the country after being employed in mining-related projects.

Even with the recent drop in migrants to WA, overseas migration is still expected to have a significant impact on population growth in the future, with annual levels anticipated to return to 29,000 by 2020.

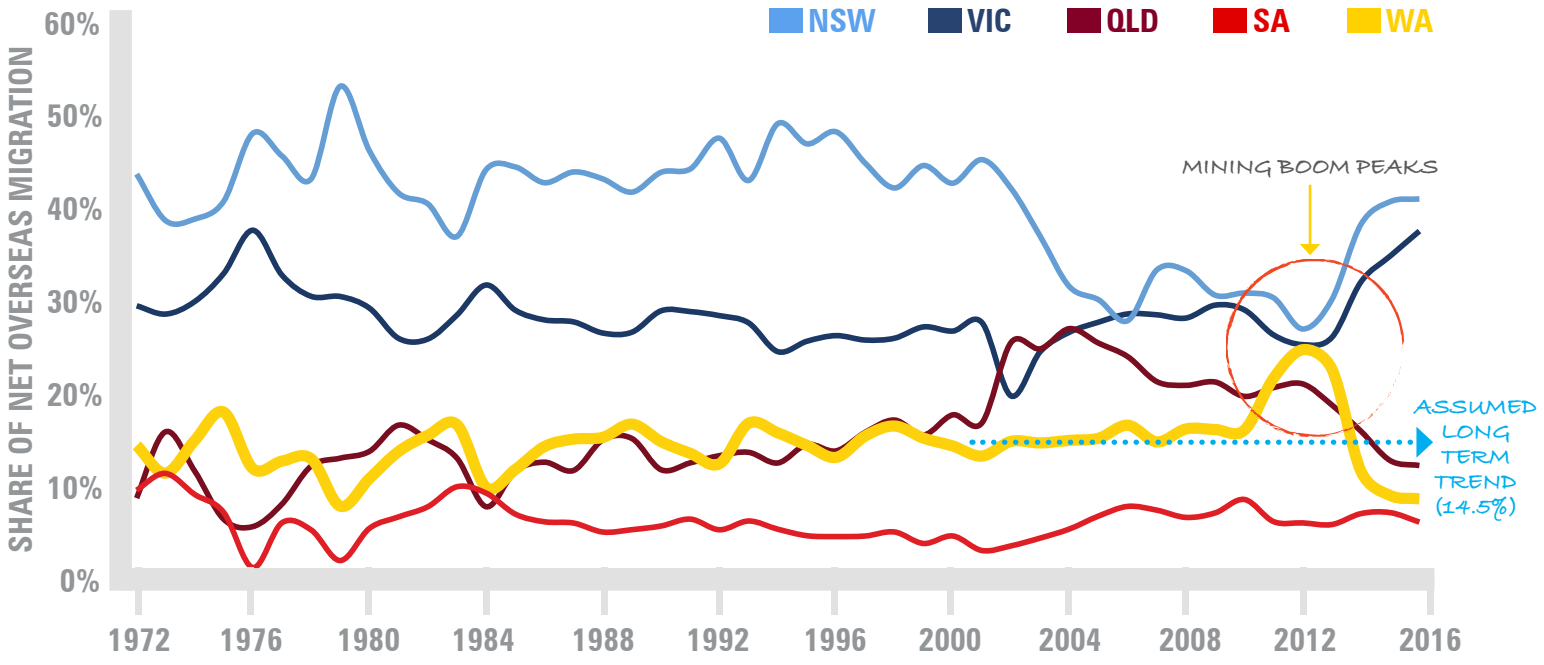
WA loses its lustre

While levels of overseas migration to Australia have fallen in recent years, this trend was amplified in WA as the state lost its attractiveness as a destination for overseas migrants. WA's share of net overseas migration to Australia has fallen in the past ten years, dropping from a peak of 23.2% in 2012 down to 7.5% in 2016. At its peak, WA's share of overseas migration exceeded Queensland's share for the first time since 1994.

In contrast, WA's share of Australian migration dropped to record lows of 7.5% in 2016, the state's lowest share since 1979.

Longer term, it is anticipated that WA will recover its share of Australia's migration, returning to 14.5% from 2020 onwards.

CHART 4 SHARE OF AUSTRALIA'S NET OVERSEAS MIGRATION, SELECTED STATES 1972-2016



Compiled and presented by .id – the population experts.
Source: ABS, Australian Historical Population Statistics, 2014 (Cat. 3105.0), ABS, Australian Demographic Statistics, 2016 (Cat. 3101.0)

INTERSTATE MIGRATION

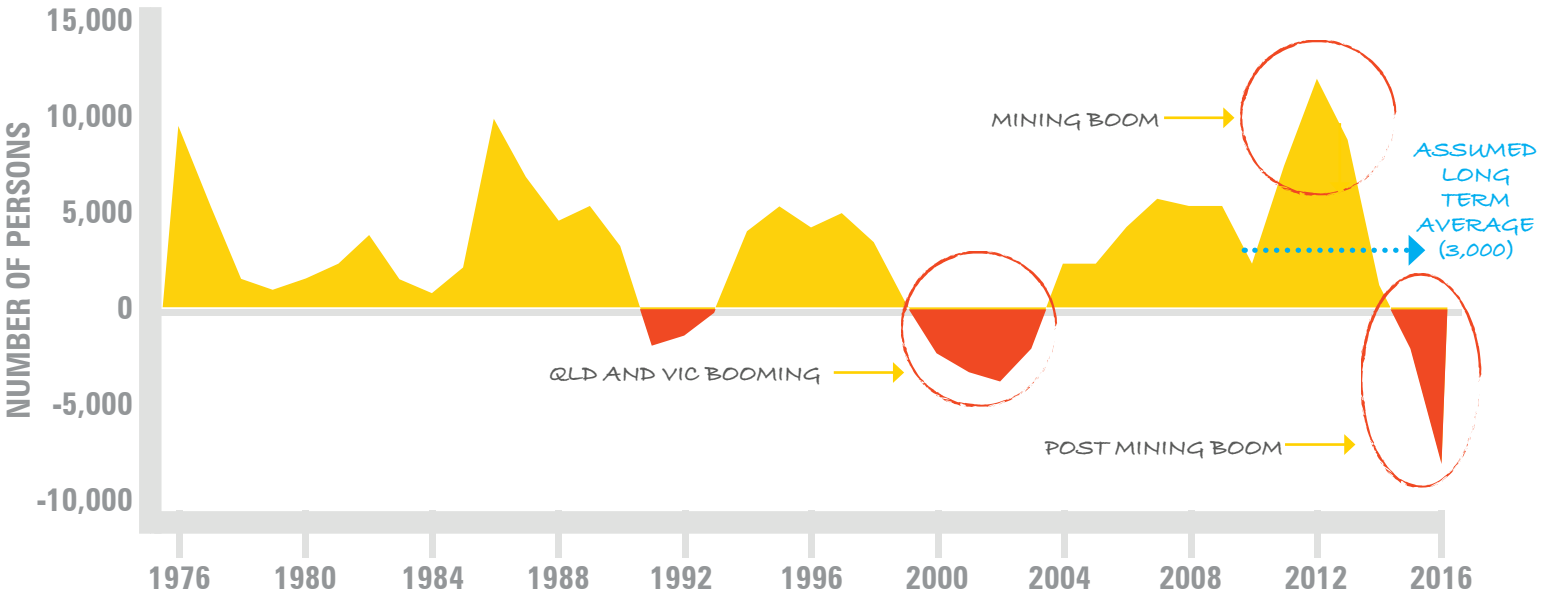
A reversal of fortunes

During the mining boom, WA attracted high levels of both overseas and interstate migration. Over the last decade to 2016, WA attracted an average of 3,500 new residents each year through interstate migration, while in the previous decade the state averaged only 560 people each year. In 2012, the number of people moving to WA from other states in Australia reached a high point of over 11,400 net gain.

Since its peak, the in-flows of people moving to WA from other states has slowed. The turnaround in recent years has been dramatic, with interstate migration dropping to an unprecedented loss of more than 7,700 people in 2016 as workers sought employment opportunities in the Eastern States.

WA is expected to recover levels of interstate migration in the future, rising back up to gains of around 3,000 people each year.

CHART 5 NET INTERSTATE MIGRATION, WESTERN AUSTRALIA 1976-2016



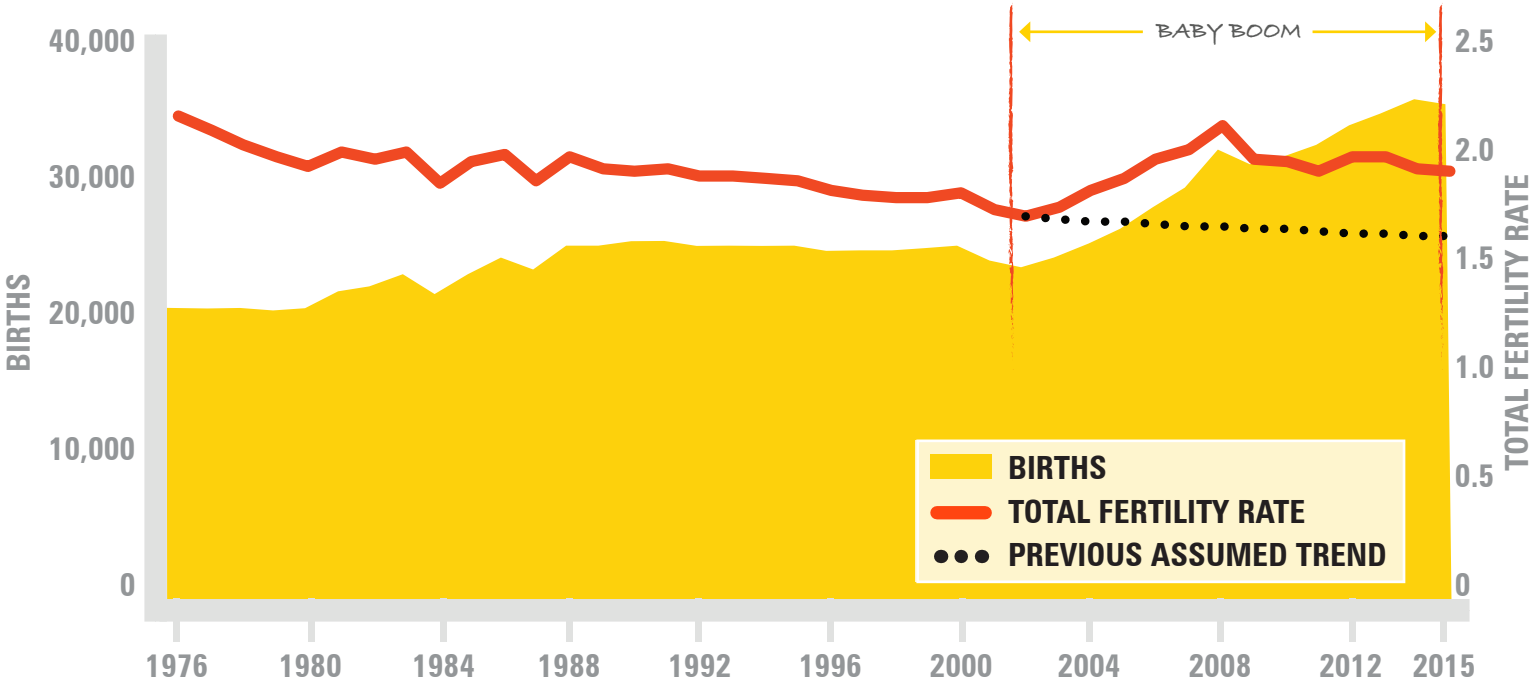
Compiled and presented by .id – the population experts.
Source: ABS, Australian Historical Population Statistics, 2014 (Cat. 3105.0), ABS, Australian Demographic Statistics, 2016 (Cat. 3101.0)

FERTILITY

Births are booming

Like the rest of Australia, WA is experiencing a baby boom. Since the late 1980s, the number of babies born each year has remained fairly constant at around 25,000. In the decade to 2015, the average number of births each year has surged to 32,200. This equates to an extra 72,000 children in the population over the last decade, over and above historic long-term averages.

CHART 6 FERTILITY RATES AND NUMBER OF BIRTHS, WESTERN AUSTRALIA 1976-2015

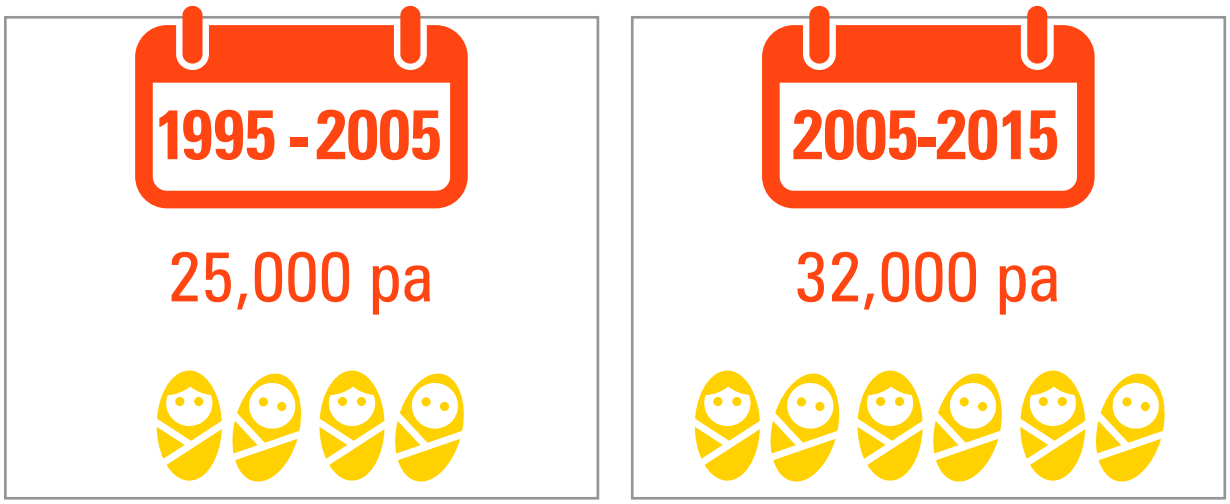


Compiled and presented by .id – the population experts.
Source: ABS, Australian Historical Statistics (Cat. 3105.0) 2014

The surge in births reflects an increase in the fertility rate (the average number of children born per woman of childbearing ages) and a substantial rise in the number of potential mothers as a result of overseas migration (overseas migrants are typically young adults).

The increase in fertility has caught many by surprise, as it was assumed the long-running declining trend would continue through the early 2000s. Instead, the large number of additional children born each year has had implications for child-related services including education and childcare. In the longer term, fertility trends are expected to gently decline.

AVERAGE NUMBER OF BIRTHS PER YEAR IN WESTERN AUSTRALIA



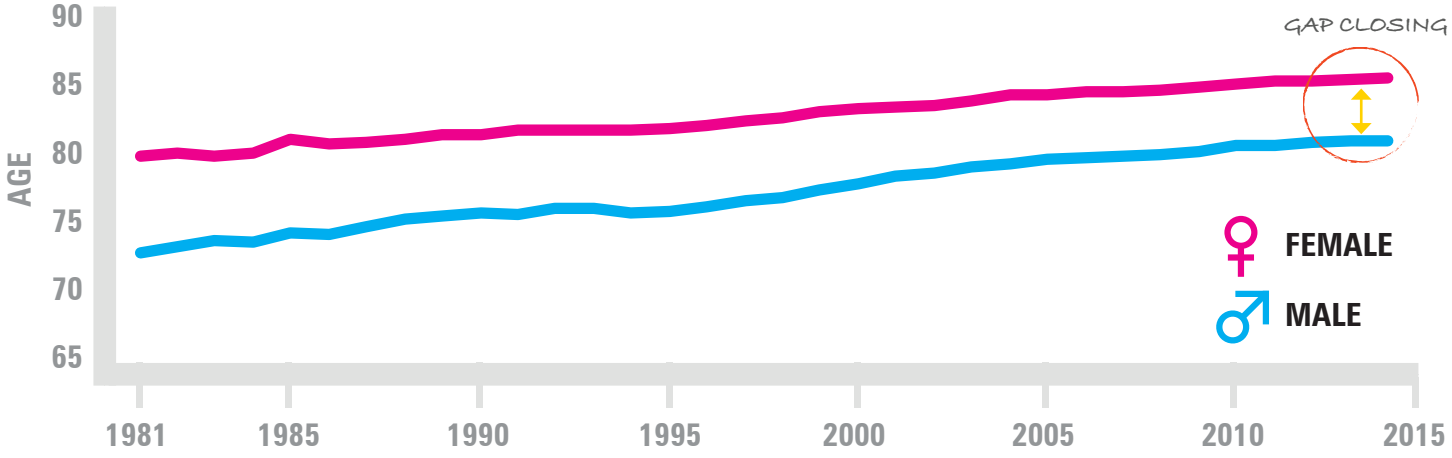
LIFE EXPECTANCY

Living longer, males closing the gap

Over the last 40 years, life expectancy in WA has increased substantially, with males increasing over 10 years while women increased by 7.5 years. Over time, the gap between female and male life expectancy has converged as males 'catch-up' to females, a trend likely to continue in the future.

Although these trends in longevity are longer-run and slower moving, longer life expectancy compounds with increases in fertility rates and high migration to drive population growth. Life expectancy trends have a significant impact when considering the shape and size of populations over long-term horizons.

CHART 7 LIFE EXPECTANCY, WESTERN AUSTRALIA 1981-2015

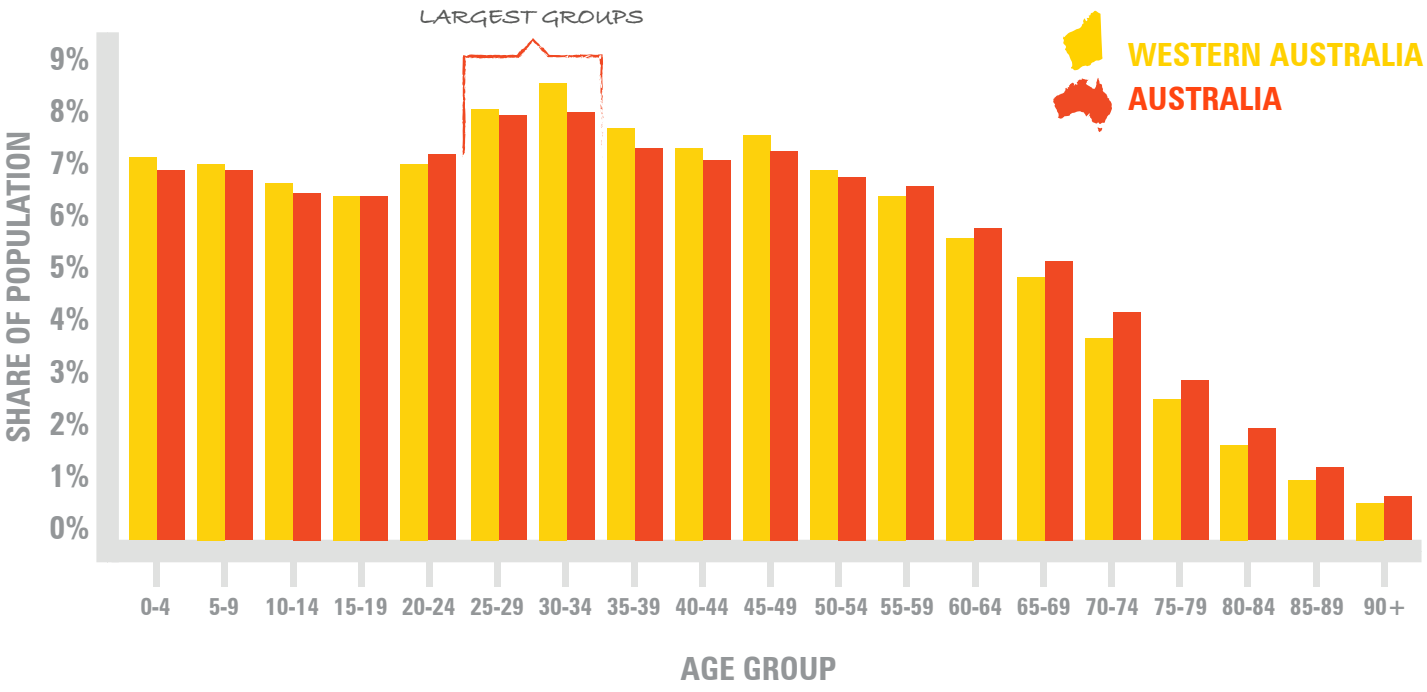


Compiled and presented by .id – the population experts.
Source: ABS, Australian Historical Statistics (Cat. 3105.0) 2014, ABS, Deaths (Cat.3302.0) 2016, ABS, Life Tables (Cat. 3302.0) 2016

What does it all mean?

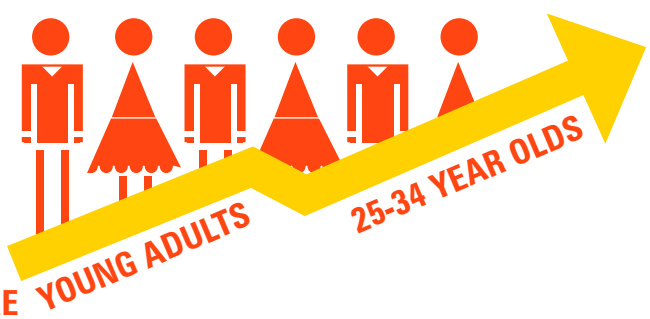
While demographic trends impact total population numbers, they also affect the make-up of WA's population, changing the age structure of the state over time.

CHART 8 FORECAST POPULATION BY SHARE OF AGE GROUP, WESTERN AUSTRALIA AND AUSTRALIA 2017



Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

Currently, the largest age groups in WA are 25-29 and 30-34 year-olds. This large group of family-forming adults has been affected by increased levels of overseas migration, as migrants are typically young adults. As a result, WA has a younger population than Australia.



HIGH LEVELS OF OVERSEAS MIGRATION LEADS TO MORE

When we look at how the age structure of WA will change in the next 10 years, we can see three distinct peaks in population growth:

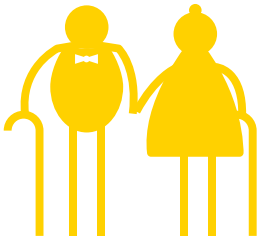
CHILDREN
+72,000

10-19 YEAR OLDS

PARENTS AND WORKFORCE
+103,000

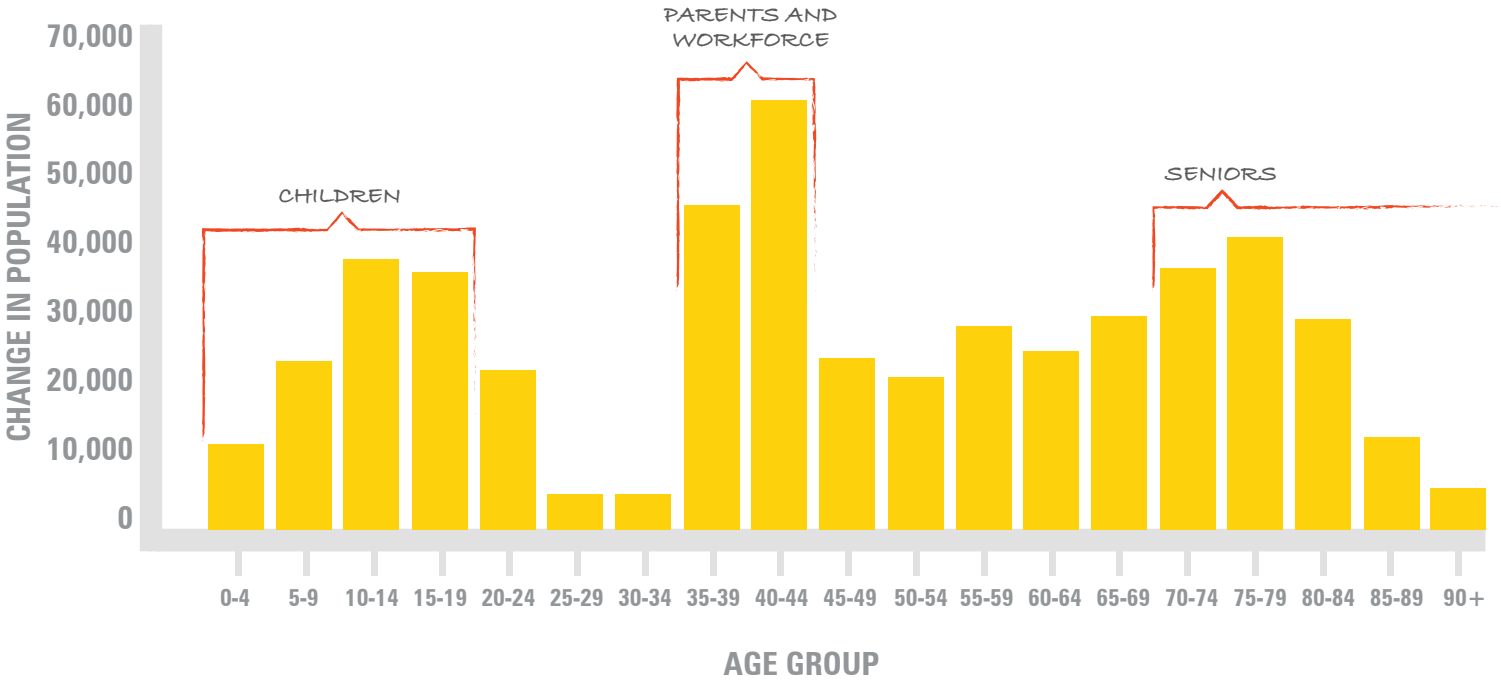
35-44 YEAR OLDS

SENIORS
+76,000



70-79 YEAR OLDS

CHART 9 FORECAST POPULATION CHANGE BY AGE GROUP, WESTERN AUSTRALIA 2017-2027



Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

These emerging groups present new opportunities and challenges for different industries, including growth in mature age groups such as empty-nesters with disposable income to burn. Even though the family forming age groups of people aged 25-34 only appear to show small increases, growth in these age groups is obscured by the large base size of this group (currently the largest age group).

Changing age structure

PROPORTION OF PEOPLE BY KEY AGE GROUPS WESTERN AUSTRALIA 2007 - 2037

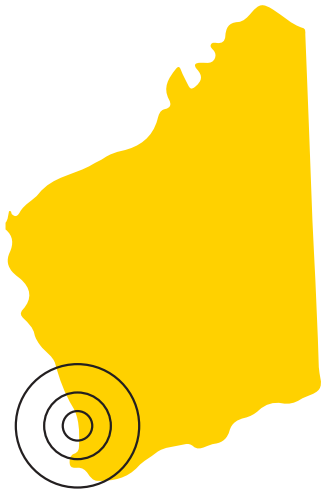
		YEAR 2007	YEAR 2017	YEAR 2027	YEAR 2037
CHILDREN AND TEENAGERS	AGES 0-19	27%	25%	25%	23%
YOUNG WORKFORCE AND FAMILY-FORMING ADULTS	AGES 20-39	29%	29%	27%	26%
ESTABLISHED FAMILIES AND HOMEBUILDERS	AGES 40-59	28%	26%	26%	26%
SENIORS AND EMPTY-NESTERS	AGES 60-79	14%	16%	17%	18%
ELDERLY	AGES 80+	3%	3%	4%	6%

GEOGRAPHIC CONTEXT: UNDERSTANDING HOW CHANGE UNFOLDS IN THE FUTURE

Where will population growth occur?

The real value for business and government planners comes in assessing how broad demographic trends will manifest locally for communities, suburbs and specific geographic catchments. Given the vast size of WA and its varying economy and population, it is important to understand where and when trends will play out in different places across the state.

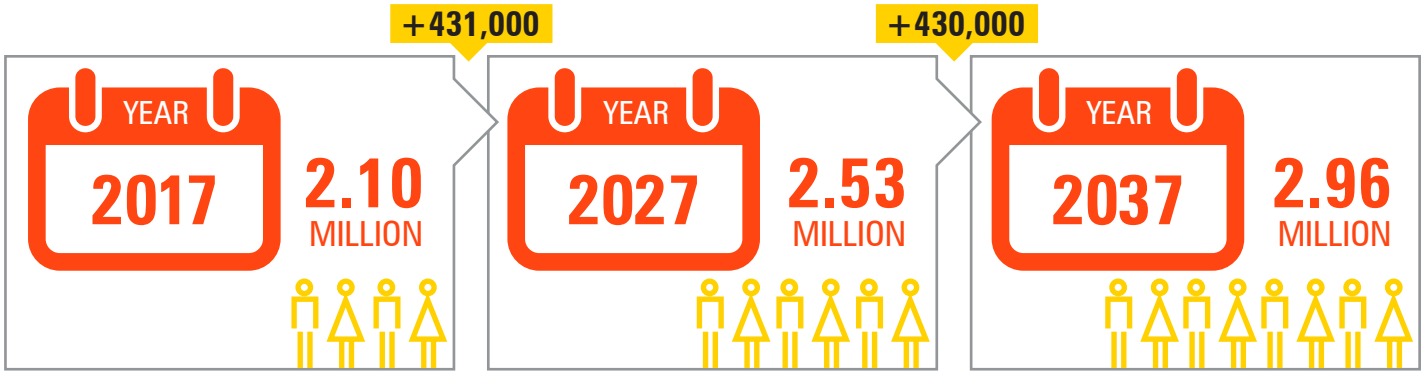
Perth grows and slows



In both a global and Australian context, Perth is highly isolated relative to other cities of more than one million inhabitants. As such, Perth provides a focus for investment in the state's infrastructure and transport, business, education, finance and other services, and as a hub for WA's dispersed mining industry.

The Perth metropolitan area is forecast to grow by around 431,100 between 2017 and 2027 (1.9% per annum) and by a similar amount between 2027 and 2037 (1.6% per annum). Despite an assumed recovery in migration, the population growth rate is forecast to slow as an ageing population means a higher number of deaths in the population over time.

FORECAST POPULATION, GREATER PERTH



IN 20 YEARS, PERTH WILL BE LARGER THAN THE SIZE OF THE ENTIRE POPULATION OF WA IS NOW

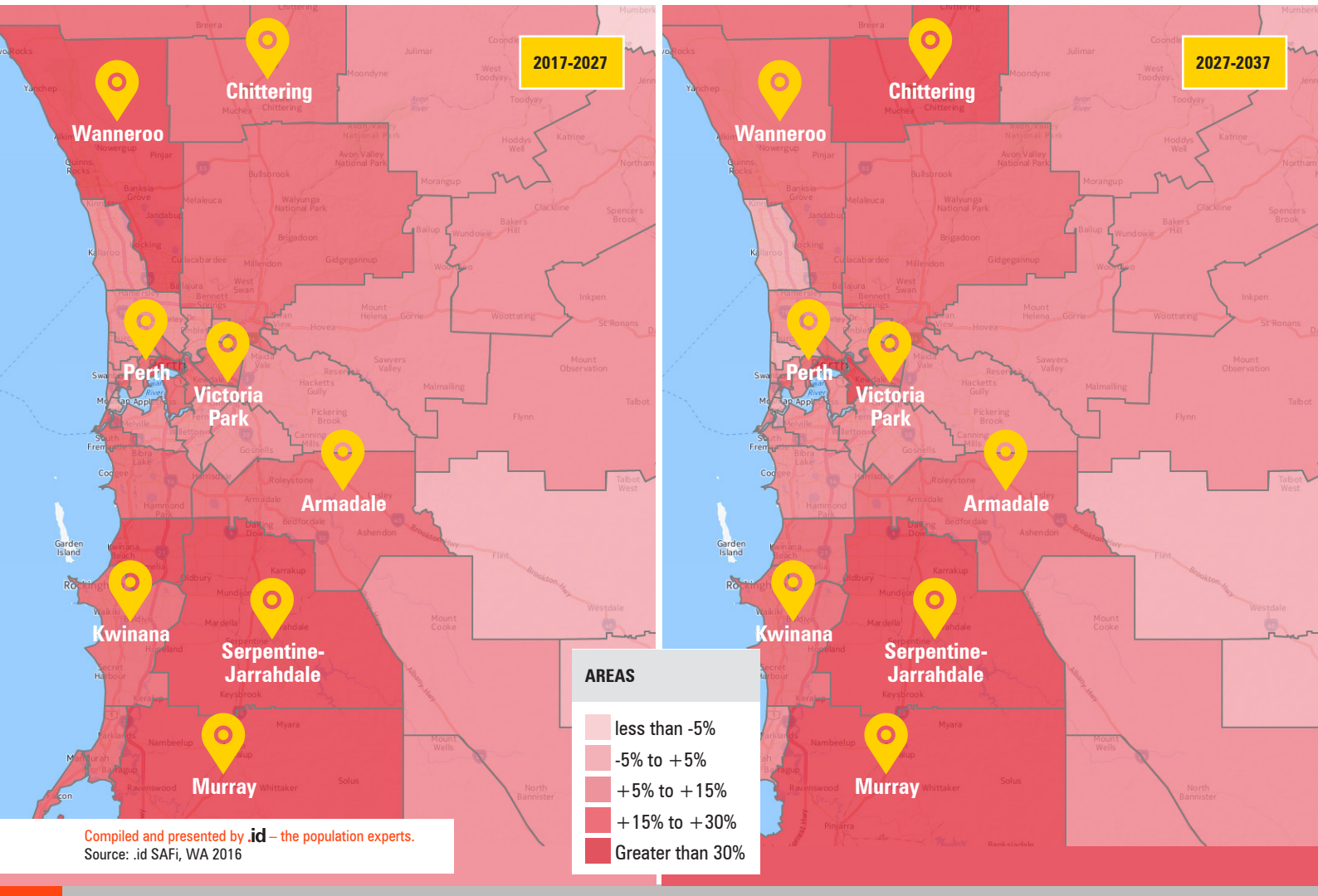
In Perth, the largest areas of population growth are typically on the fringe of the city in Local Government Areas (LGAs) including Kwinana, Serpentine-Jarrahdale, Murray, Armadale, Wanneroo, and Chittering. Most metropolitan LGAs in Perth are expected to increase to 2027, based on more infill, unit and apartment development. The LGA of Victoria Park shows notable

gains in population as apartment development reaches its crescendo in the Burswood area between 2027 and 2037. Substantial gains are also expected in and around the city, with Perth LGA a major focus for apartment development to 2027.

Residential development has boomed in the inner suburbs of Perth and significant growth is expected to continue in the Perth CBD and hubs such as South Perth and Burswood. Unit and apartment development in the middle suburbs has increased in the last 15 years. Active 'up-zoning' policies of the WA government suggest that this pattern will continue even in a lower growth environment. The impetus for this growth ranges from industrial turnover, notably in Belmont and the inner north, the desire to increase densities around transit nodes and the release of surplus government land for residential purposes.

Population growth follows a similar pattern between 2027 to 2037. Large percentage slow-downs are evident in some fringe LGAs, although this can be due to larger base populations rather than a slow-down in net terms. Growth is likely to occur in the Shire of Murray over time, as other areas in Southern Perth exhaust their greenfield supply.

MAP 1 PERCENTAGE CHANGE IN POPULATION, PERTH LGAs 2017-2027 AND 2027-2037



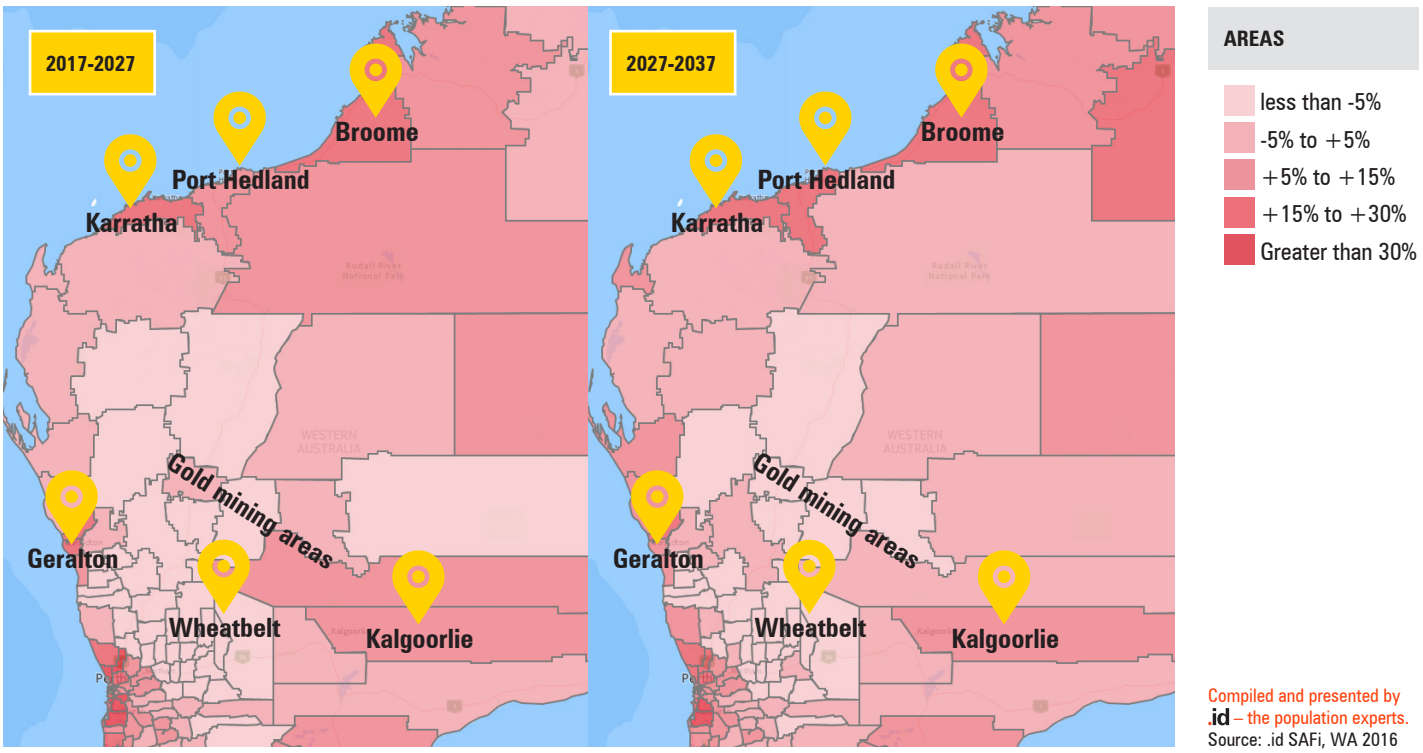
Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

Pockets of population growth in Regional WA

Regional WA is a patchwork of population growth between 2017 and 2027. A number of mining areas, notably those associated with the iron ore industry (such as Karratha), are still expected to increase in population, albeit slower than in the past decade. South-West WA and areas along the coastal strip are also expected to grow strongly, with areas near Perth benefiting from retirement and holiday migration from the metropolitan area. Cities such as Geraldton, Bunbury and Albany act as a focus for investment and employment growth. By contrast, many inland areas are expected to stagnate or decline in population, with the greatest falls forecast in wheatbelt areas, stretching into common gold mining areas.

Population growth remains more consistent in the following ten years between 2027 and 2037. Interesting exceptions include Dardanup Shire where population gains come about as a result of residential development around Bunbury moving from Harvey and Capel Shires into Dardanup, specifically the Wanju area. The Pilbara and Kimberley regions also show increases, with Derby-West Kimberley and Halls Creek forecast to grow on the back of employment gains from further gas exploration and exploitation between 2027 and 2037. Population growth is forecast to rebound in Port Hedland, with renewed investment and development of the regional iron ore industry.

MAP 2 PERCENTAGE CHANGE IN POPULATION, WA LGAs 2017-2027 AND 2027-2037



Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

SUBURBAN CONTRAST
Inner suburban versus outer fringe growth

As the population of an area changes, the underlying age structure of the people living there changes too. Planning and delivering many services such as schools and retirement living is based on which age groups will be present in geographic areas over time.

Age structure varies significantly by place, influenced by the base population of the area, the residential development and infrastructure provision occurring, and the characteristics of people attracted to housing opportunities in the area.

While some areas will age, others remain more youthful. Understanding where a suburb is at in its lifecycle is critical in forecasting the future age structure of its residents.

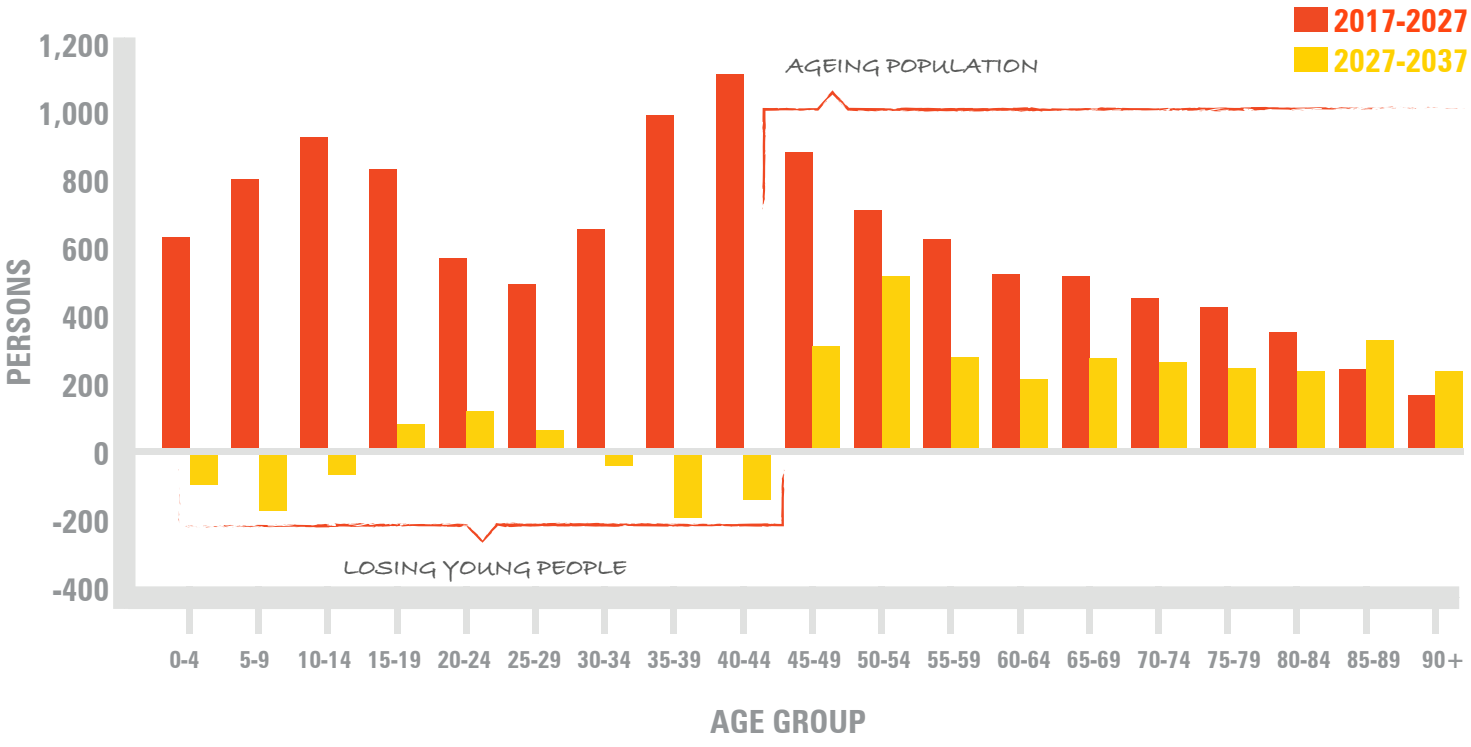
Here are two suburban stories which contrast different types of population growth in inner suburban and outer growth fringe areas.

GROWTH IN THE OUTER FRINGE
Byford

For more than a decade, Byford has been growing strongly on the back of new greenfield development, a trend which is likely to continue in the short term. Over the next ten years, the population is expected to increase across all ages, with the largest gains concentrated in family age groups (0-19 and 35-49). These increases reflect the age groups of people migrating to the area, as well as the ageing in place of many migrants to the area.

From 2027 to 2037, population growth declines and the key component of change is 'ageing in place'. The largest increases in this time are people aged 45 and over, with younger people starting to leave as they are attracted to newer developments in places like Mundijong.

CHART 10 POPULATION CHANGE BY AGE, BYFORD SA2 2017-2037



Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

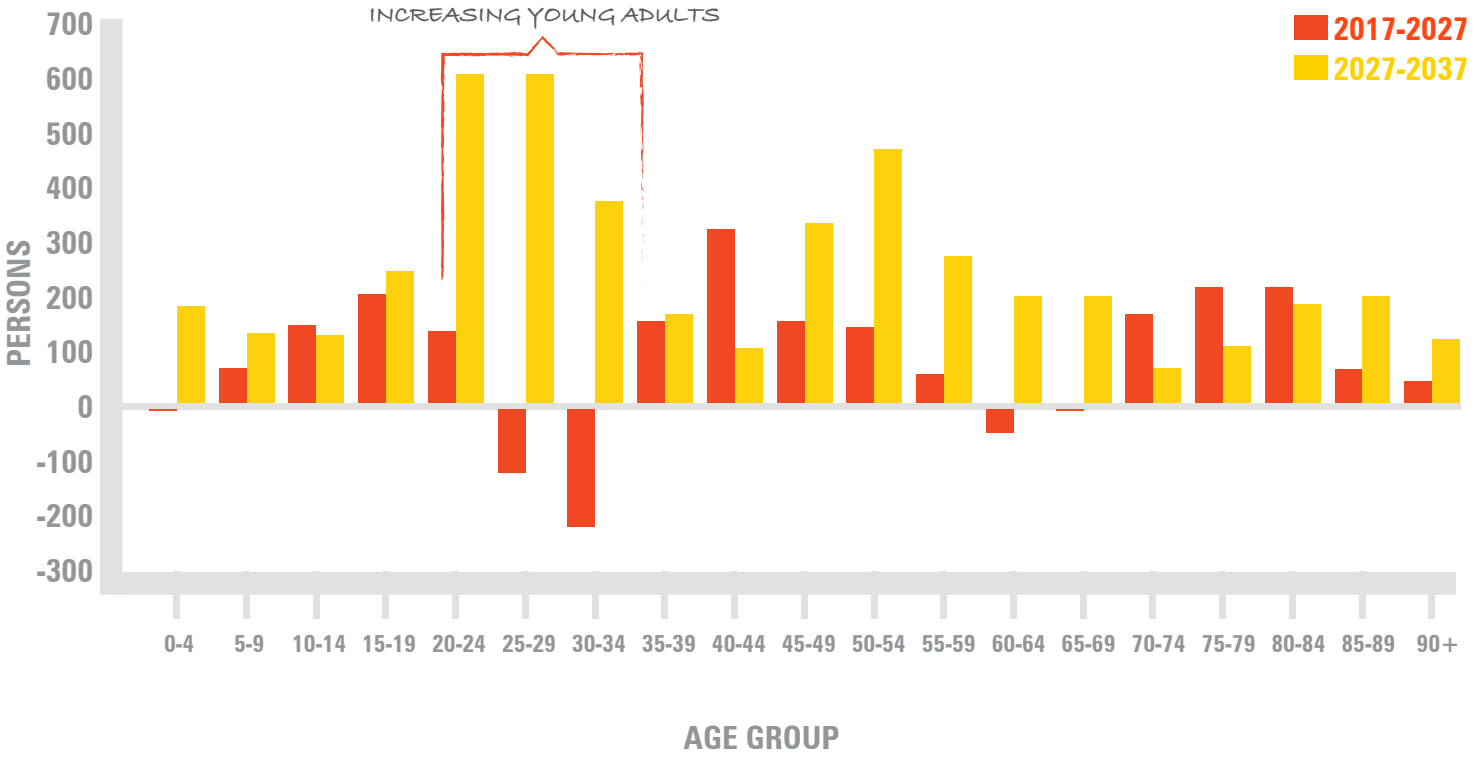
INNER SUBURBAN GROWTH

Como

By contrast, population change in Como reflects its role in the metropolitan housing market. The area doesn't show much population growth between 2017 and 2027. The largest gains are in the mature family age groups, which reflects the area's mature housing stock and its access to schools and employment.

In the ten-year period to 2037, the area is expected to have substantially more development around Canning Bridge Railway Station and along the Canning Highway corridor. This will most likely attract a more youthful population, with increases in people aged 20-34. Although there are some increases in children (0-14 years), a larger share of young adults in the area do not have children. The other notable increase in population is in 45 to 59-year-olds, which reflects the present concentration of young and mature adults and the expectation that many will 'age in place'.

CHART 11 POPULATION CHANGE BY AGE, COMO SA2 2017-2037



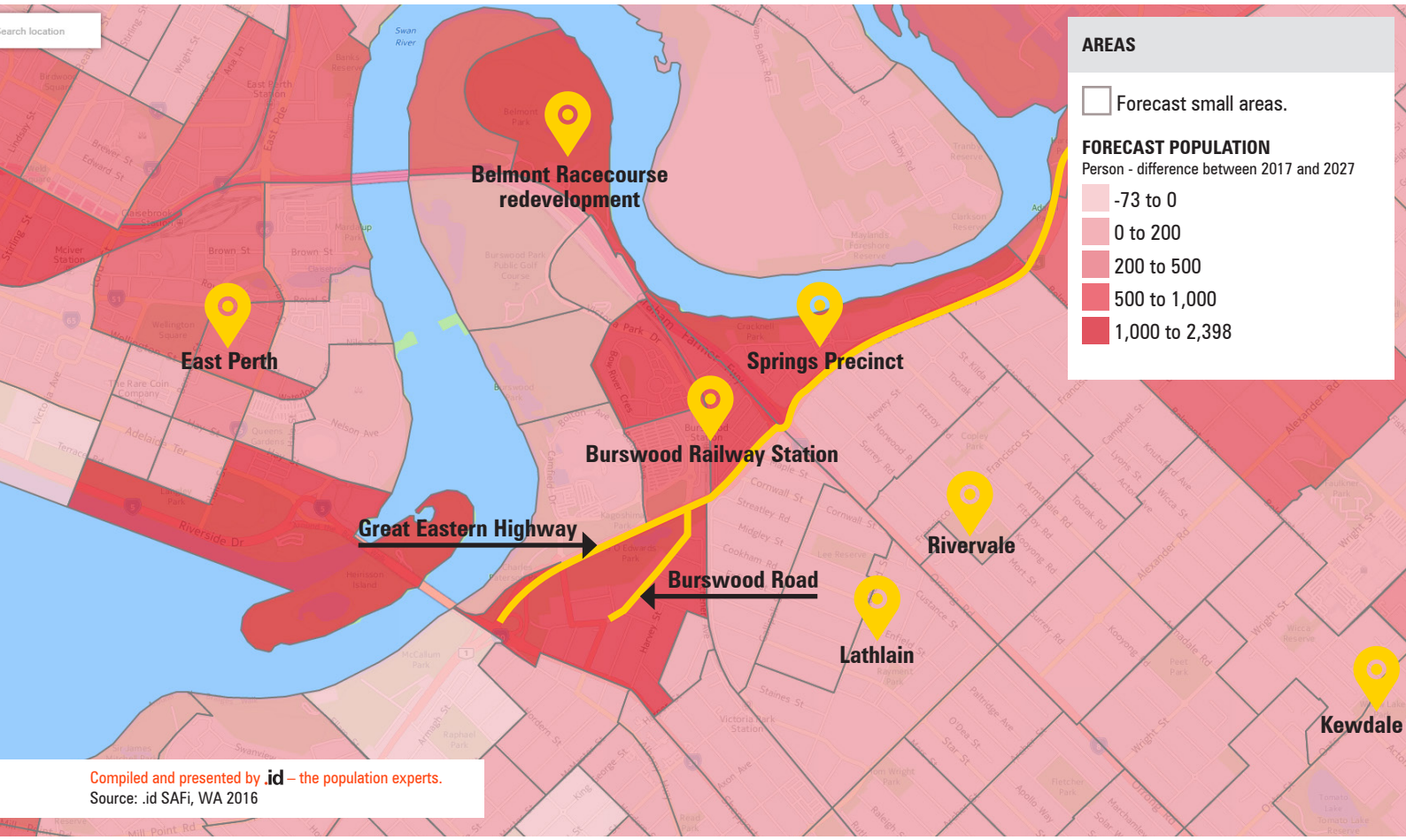
Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

UNDER THE MICROSCOPE
Suburban snapshot

The strength of .id's Small Area Forecast information (SAFi) becomes even more apparent as we delve into the detail. SAFi is built in granular detail (2,986 small areas in WA) using a combination of top-down and bottom-up methodology, which makes it possible to zoom in on small areas to unpack growth and drivers of change at a local level.

The Burswood Peninsula and the eastern end of the City is an area that will experience significant change over the next 20 years. A large number of residential development sites have been identified and there are many precincts where expansion can take place. The population will increase in these areas as sites develop. The map below shows how population growth plays out locally from 2017 to 2027.

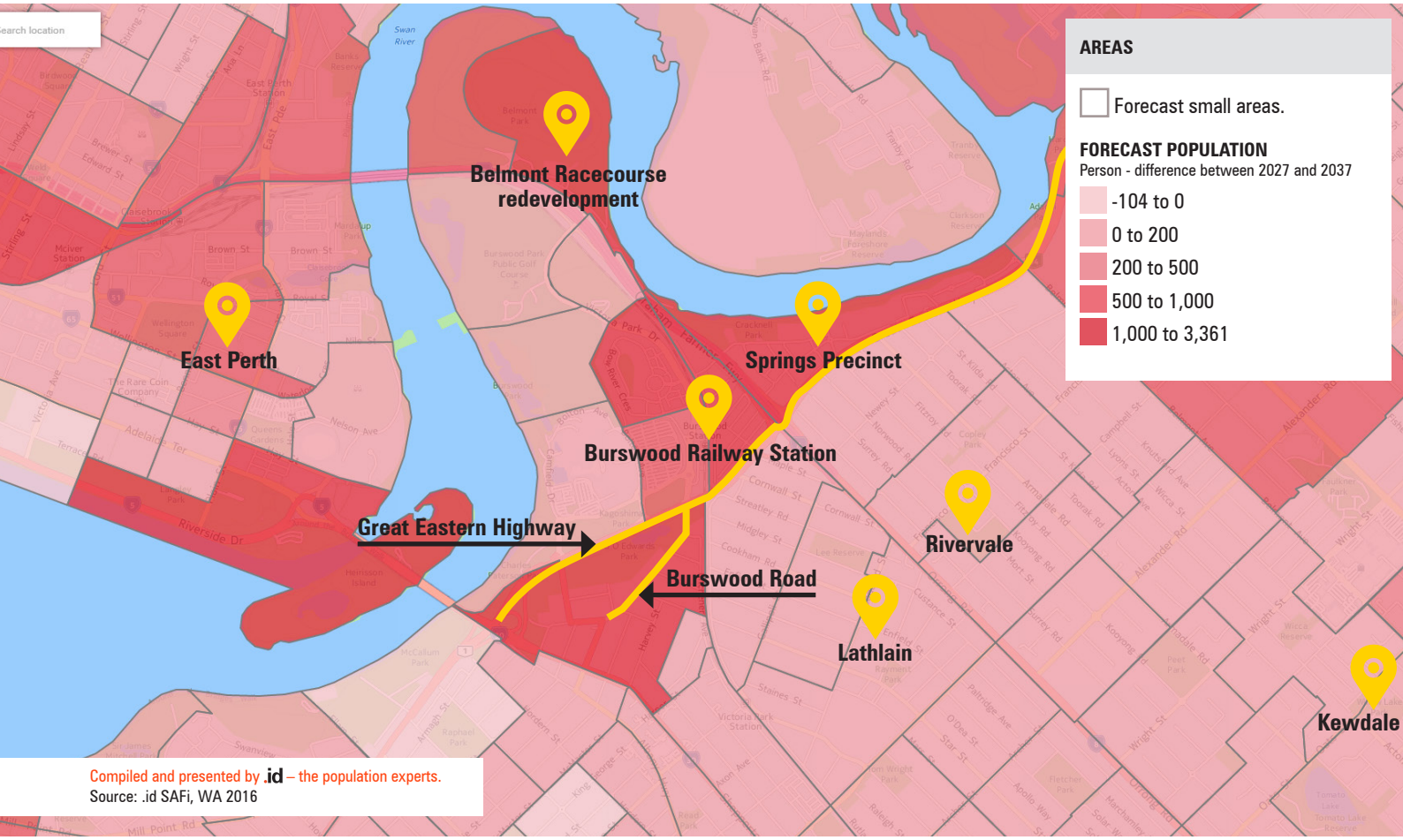
MAP 3 NET POPULATION CHANGE BY FORECAST SMALL AREAS 2017-2027



Significant increases are expected in the southeastern corner of East Perth (Riverside Development), in areas of industrial turnover especially along Burswood Road in Burswood, as well as around the Burswood Railway Station, the Springs precinct in Rivervale and as a result of the redevelopment of the Belmont Park Racecourse. By contrast, large areas of Lathlain, Kewdale and the southern part of Rivervale have comparatively minimal population gains, based on lower dwelling growth.

Below we can compare the same area of Perth to see the forecast change in population between 2027 and 2037.

MAP 4 NET POPULATION CHANGE BY FORECAST SMALL AREAS 2027-2037



Compiled and presented by .id – the population experts.
Source: .id SAFi, WA 2016

Population growth changes over the following decade as residential development is exhausted in one location and begins in another. Growth is still going strong around the Burswood Railway Station and in the Belmont Park Racecourse. However, growth slows in the Burswood Road area and ceases in the Springs precinct. Development of the Riverside project is expected to move to the north, while development in the Belmont Business Park is expected to heighten during this period.

See the future in sharper detail

.id's independent population forecasts (SAFi) are built from the ground-up, modelled using detailed development and land-use assumptions which provide the ability to see granular demographic information at suburb-level or as a customised catchment area.

Our Small Area Forecast information (.id SAFi) and interactive spatial mapping (.id Placemaker) are used by community builders to look at demographic information through a spatial lens, unpacking where and when demand will occur. This provides a powerful view of the future, helping organisations make evidence-based decisions.

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