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POPULATION AND HOUSEHOLD FORECASTS

City of Armadale

City of Armadale population and household forecasts are designed to inform community groups, Council, investors, business, students and the general public.

Forecasts have been produced for the years, 2006 to 2031.

The data in this report was last reviewed and updated on 10/11/2011.

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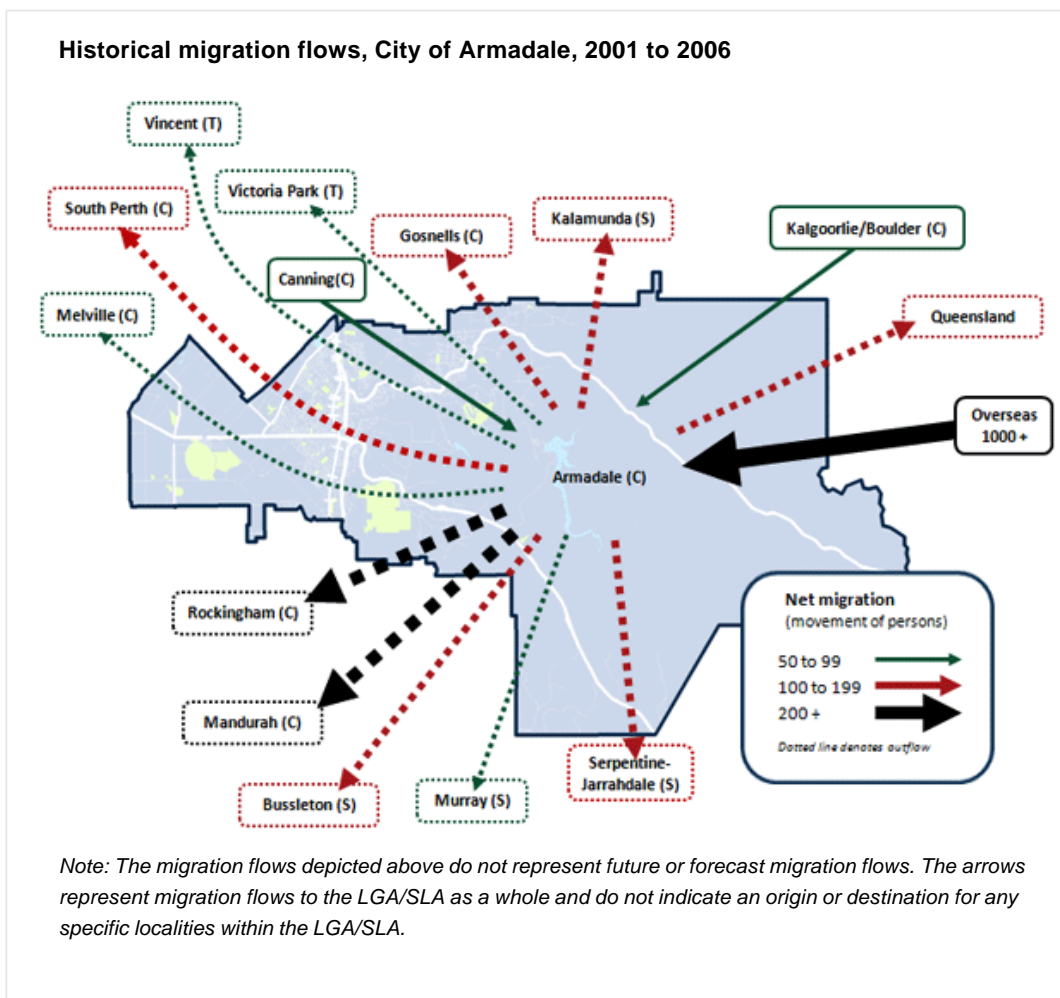
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Summary & key results

Key drivers of change



The City of Armadale is located on the fringe of the Perth metropolitan area, about 20 kilometres south east of the Perth GPO. The City's land use is predominantly divided into three areas. There are the older established parts of the City along the Albany Highway-Railway corridor, based around the historical townships of Armadale and Kelmscott. Areas to the east are more undulating, with horticultural activities and rural residential development more prominent, as well as predominantly State Forest and water catchment areas in the most eastern parts of the City. The western areas of the City are sparsely populated and include large areas of wetlands and lakes, although there is substantial greenfield development planned for much of this area.

The City of Armadale's population grew substantially in recent decades, with the population growing at more than 2.5% per annum during the 1980s. However, population growth slowed during the early 1990s and over the last ten years, the total population has been relatively stagnant at just over 52,000. This has been a result of a number of factors. These include: greater residential development rates in the south-west corridor of Perth; more development in the City of Gosnells and; a maturing of the Armadale age structure leading to more young people leaving the family home and establishing households elsewhere.

However, it is likely that a number of these patterns will change in the next five years. The availability of large tracts of greenfield land in neighbouring areas to the City is decreasing rapidly, most notably Gosnells and Canning. Hence, the large number of net losses to neighbouring Local Government Areas such as Gosnells, Kalamunda and Rockingham experienced in the 2001-2006 period are likely to slow and, in some cases reverse, as more development opportunities in a broader range of housing product are available in the City of Armadale. The migration

flows within the City of Armadale are also expected to reflect where the supply of residential land is located (destination) and where young people have grown up and left home (source).








With the progressive residential development of the City over many decades, the availability of land for development and the broad range of land uses, areas have developed different roles within the housing market. The small area of Armadale South is likely to attract a large number of persons in their late teens and early twenties, which is a reflection on the increasing amount of diverse housing and rental accommodation and being close to the services in central Armadale. Some of these areas, such as Roleystone - Karragullen, Kelmscott East, Mount Nasura-Mount Richon and Bedforddale are attractive to established and mature families looking to upgrade to their second and third home. Areas such as Camillo have had significant residential development in recent decades and are losing a large number of established families seeking new housing opportunities elsewhere, a process likely to affect Seville Grove in the longer term. New development areas in the North Forrestdale Area (Harrisdale and Haynes), Champion Lakes and Brookdale (Haynes, Hilbert) are likely to provide a broader range of housing choices from first home buyers through to 'upgrader' markets. This variety of function and role of the small areas in Armadale means that population outcomes differ significantly across the City.











There are also significant differences in the supply of residential property within the City which will also have a major influence in structuring different population and household futures over the next five to twenty years. Large new 'greenfield' opportunities have been identified in the growth areas of Piara Waters, Harrisdale, Forrestdale, Haynes and Hilbert. There is also significant further potential through smaller developments in Seville Grove, Champion Lakes and through rural residential development in the hills areas. Substantial interest in group dwelling development in the more urban parts of the city (Armadale North and South and Kelmscott East and West) is also likely to occur. There are likely to be other greenfield, rural residential and most notably infill development opportunities throughout the City, albeit at lower levels than the major growth areas identified above. Areas such as Camillo and Mount Nasura-Mount Richon are likely to have very low levels of residential development by comparison with recent decades due to scarcity of greenfield land and redevelopment sites for development.

Summary & key results

Population summary

In 2031, the population of the City of Armadale will be 138,599, an increase of 85,865 persons (162.83%) from 2006. This represents an average annual growth rate of 3.94%.

City of Armadale's areas		Forecast year						Change between 2006 and 2031	
Location	Area name	2006	2011	2016	2021	2026	2031	number	Avg. annual % change
	City of Armadale	52,734	64,795	81,971	101,257	120,233	138,599	85,865	3.94
	Armadale North	5,200	5,555	6,458	6,807	7,268	7,725	2,525	1.60
	Armadale South	7,315	7,906	8,547	9,189	9,940	10,791	3,476	1.57
	Bedforddale - Ashendon - Illawarra	1,867	2,332	2,935	3,210	3,313	3,369	1,502	2.39
	Brookdale - Wungong	2,579	2,872	3,200	3,871	4,916	6,312	3,733	3.65
	Camillo	4,747	4,731	4,927	5,062	5,113	5,188	441	0.36
	Champion Lakes	541	859	1,593	2,056	2,007	1,958	1,417	5.28

	Forrestdale	1,143	1,157	1,231	1,279	1,339	1,724	581	1.66
	Harrisdale	84	3,929	6,523	8,766	10,802	11,372	11,288	21.69
	Haynes	150	130	525	3,057	6,001	8,934	8,784	17.76
	Hilbert	362	634	2,449	7,752	15,811	23,659	23,297	18.20
	Kelmscott East	5,320	5,331	6,123	6,419	6,779	7,262	1,942	1.25
	Kelmscott West	4,523	5,293	5,716	6,181	6,635	7,081	2,558	1.81
	Mount Nasura - Mount Richon	5,041	5,028	5,214	5,384	5,530	5,711	670	0.50
	Piara Waters	95	2,991	8,552	13,076	15,429	18,059	17,964	23.36
	Roleystone - Karragullen - Lesley	6,524	6,874	7,273	7,455	7,618	7,782	1,258	0.71
	Seville Grove	7,243	9,173	10,705	11,693	11,732	11,672	4,429	1.93



Population numbers in forecast.id for the 2006 base year are derived on Estimated Resident Population from the Australian Bureau of Statistics. These differ from (and are usually higher than) Census counts as they factor in population missed by the Census, and population overseas on Census night. They are generally considered a more accurate measure of population size than Census counts

Summary & key results

City of Armadale



The City of Armadale is located in Perth's south-eastern suburbs, approximately 20 kilometres from the Perth GPO. Armadale City is bounded by the municipal boundaries of the City of Gosnells and the Shire of Kalamunda in the north; the Shire of York and the Shire of Beverley in the east; the Shire of Wandering and Serpentine Jarrahdale Shire in the south; and the City of Cockburn in the west.

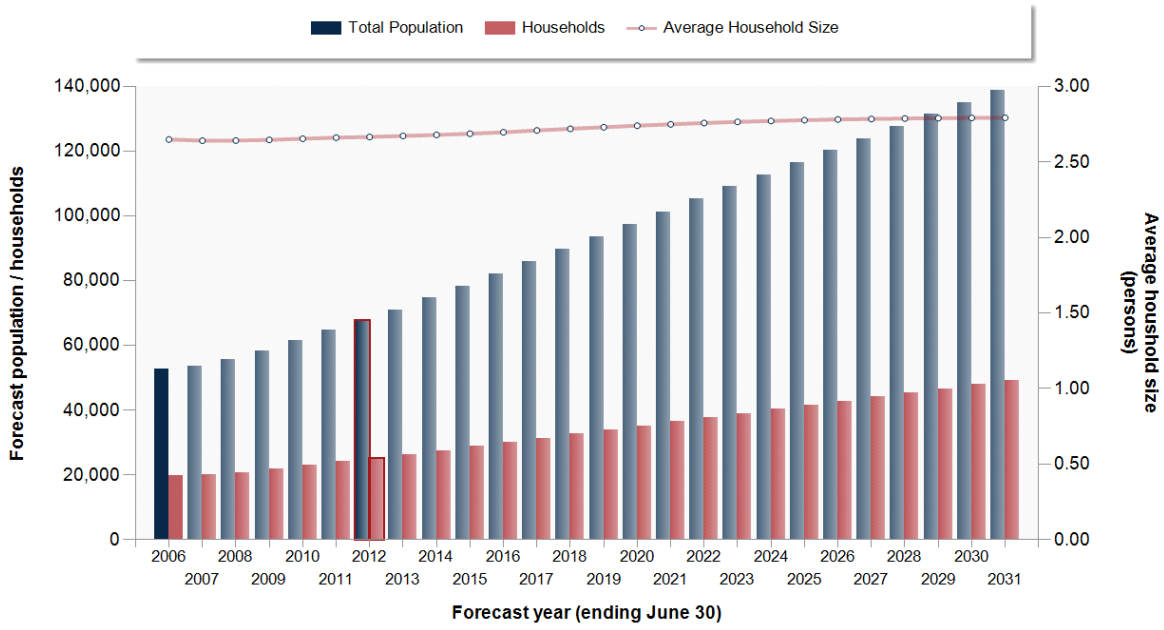
How many will live here in future? - City of Armadale

City of Armadale	Forecast year					
	2006	2011	2016	2021	2026	2031
Population	52,734	64,795	81,971	101,257	120,233	138,599
Change in Population (5yrs)		12,061	17,176	19,286	18,976	18,366
Average Annual Change (%)		4.21	4.82	4.32	3.5	2.88
Households	19,754	24,088	30,042	36,429	42,771	49,161
Average Household Size (persons)	2.65	2.66	2.7	2.75	2.78	2.79
Population in non private dwellings	429	719	969	1,149	1,289	1,359
Dwellings	20,398	24,952	31,008	37,430	43,869	50,358
Dwelling occupancy rate	96.84	96.54	96.88	97.33	97.5	97.62

This summary analyses data for the period 2006 to 2021, as the short to medium term is likely to be the most accurate and useful forecast information for immediate planning purposes. Please note that this data is available for all years between 2006 and 2031.

In 2006, the total population of City of Armadale was estimated at 52,734 people. It is expected to experience an increase of over 48,500 people to 101,257 by 2021, at an average annual growth rate of 4.45% per annum over 15 years. This is based on an increase of over 16,600 households during the period, with the average number of persons per household rising from 2.65 to 2.75 by 2021.

Forecast population, households and average household size, City of Armadale



Summary & key results

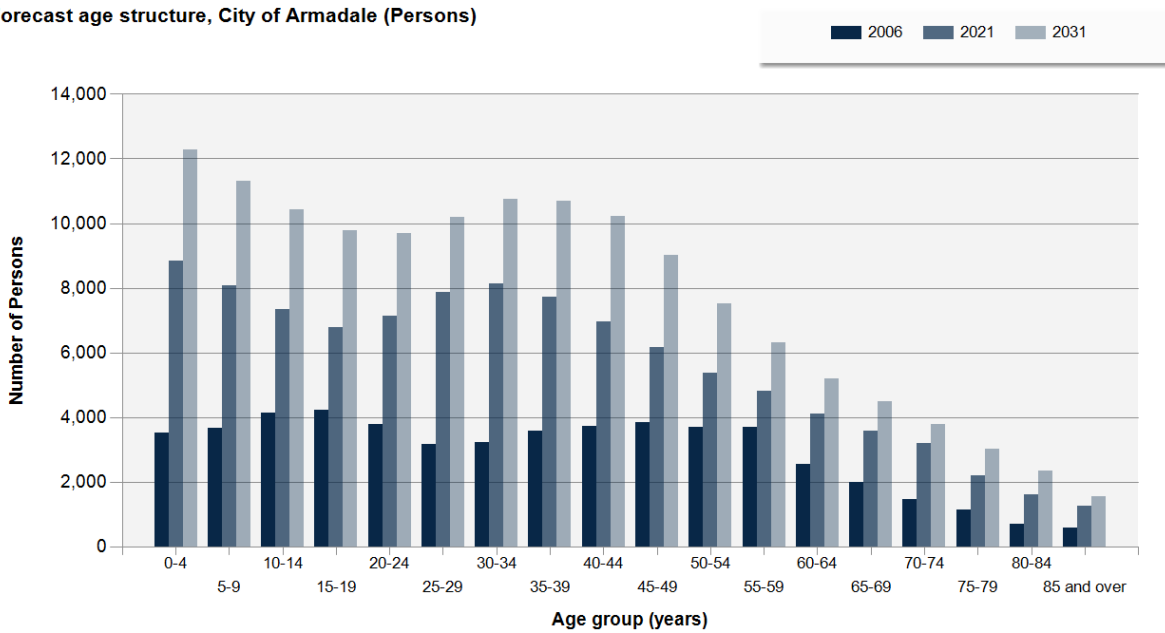
How old will we be?

In 2006, the most populous age group in City of Armadale was 15-19 year olds, with 4,221 persons. In 2021 the most populous forecast age group will be 0-4 year olds, with 8,842 persons.

The number of people aged under 15 is forecast to increase by 12,954 (114.4%), representing a rise in the proportion of the population to 24.0%. The number of people aged over 65 is expected to increase by 6,014 (102.6%), and represent 11.7% of the population by 2021.

The age group which is forecast to have the largest proportional increase (relative to its population size) by 2021 is 30-34 year olds, who are forecast to increase by 152.2% to 8,144 persons.

Forecast age structure, City of Armadale (Persons)



Summary & key results

What type of households will we live in?

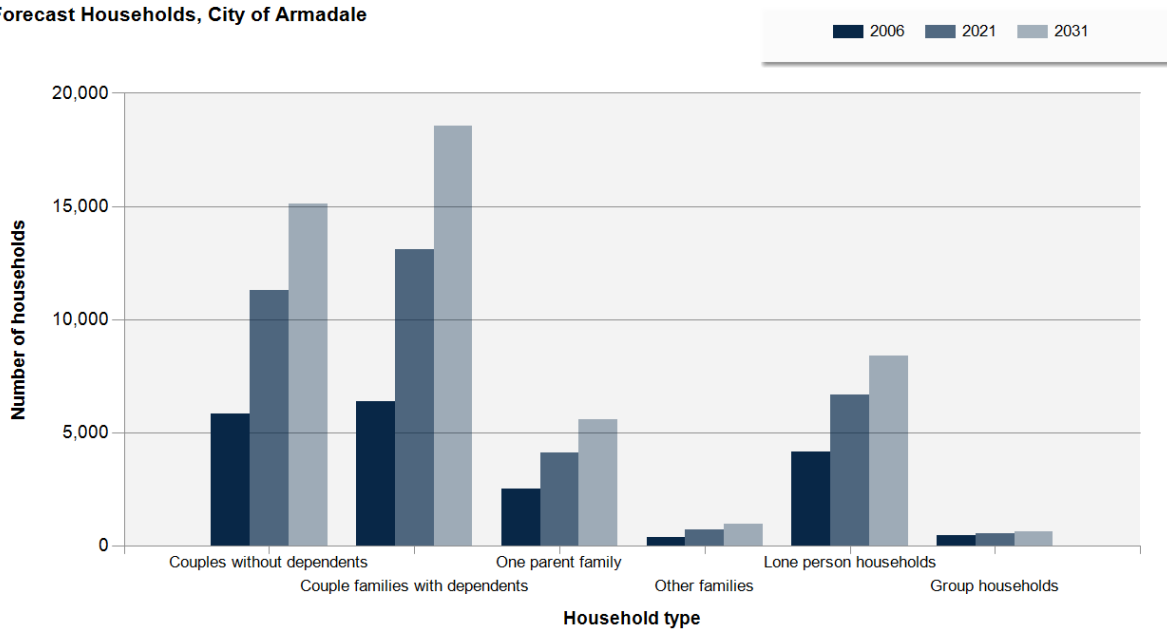
In 2006, the dominant household type in City of Armadale was Couple families with dependents, which accounted for 32.4% of all households.

The main changes in household type between 2006 and 2021 are forecast to be:

The largest increase is forecast to be in Couple families with dependents, which will increase by 6,687 households, comprising 35.9% of all households, compared to 32.4% in 2006.

In contrast Group households is forecast to increase by 99 households, to comprise 1.5% of all households in 2021, compared to 2.2% in 2006.

Forecast Households, City of Armadale



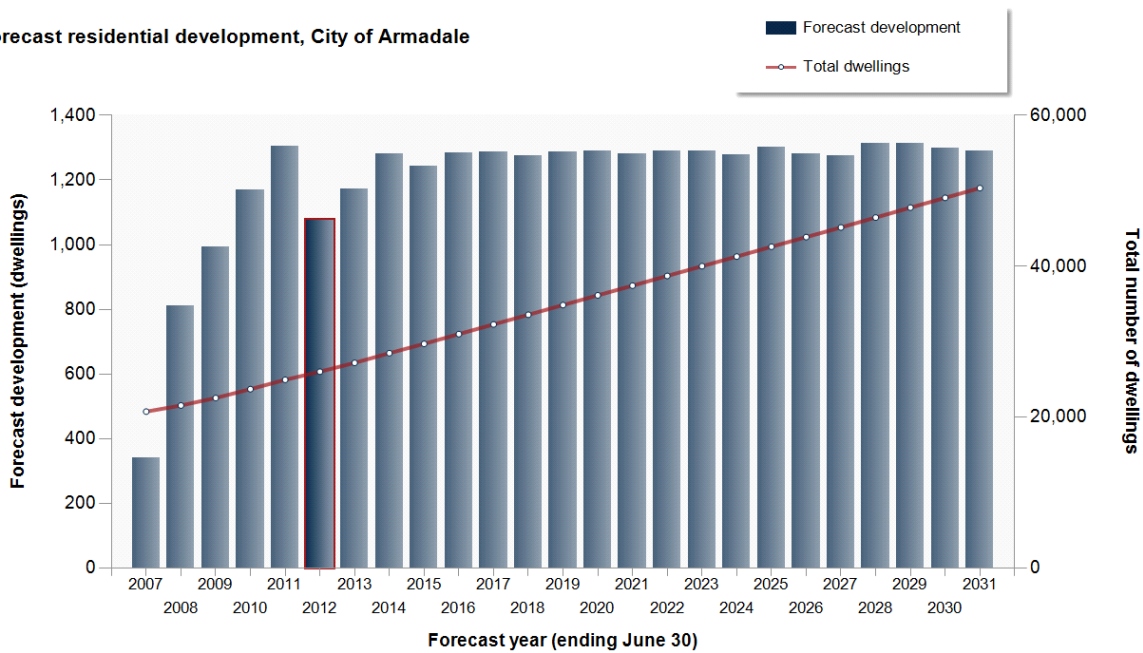
Assumptions

Residential development

Principal forecast land assumptions 2007-2031:

- Hilbert - 7,418 additional dwellings
- Piara Waters - 6,212 additional dwellings
- Harrisdale - 3,868 additional dwellings
- Haynes - 2,774 additional dwellings
- Seville Grove - 1,738 additional dwellings
- Armadale South - 1,548 additional dwellings
- Brookdale - Wungong - 1,326 additional dwellings
- Armadale North - 1,129 additional dwellings
- Kelmscott West - 1,067 additional dwellings
- Kelmscott East - 749 additional dwellings
- Bedforddale - Ashendon - Illawarra - 543 additional dwellings
- Roleystone - Karragullen - Lesley - 538 additional dwellings
- Champion Lakes - 500 additional dwellings
- Mount Nasura - Mount Richon - 302 additional dwellings
- Camillo - 284 additional dwellings
- Forrestdale - 217 additional dwellings

Forecast residential development, City of Armadale



Assumptions

Births and deaths

Fertility (birth) rates:

The forecast number of births in the City of Armadale is a reflection on the fertility rates assumed for small areas within the City of Armadale. These rates are derived from historic age-specific birth rates in the area, modified based on the forecast age structure at each year of the forecast.

Death rates

The forecast number of deaths in City of Armadale is a reflection on the death rates assumed for small areas. For historical years, this will equal the number of deaths published by the ABS, where this information was available at the time of forecasting. These rates are based on historical estimates for City of Armadale, which have been extrapolated into the future, assuming an increase in expectation of life in all age groups (except 85 and over). Although women are still forecast to outlive men, the increase in expectation of life over time for men is expected to be higher.

Assumptions

Non-private dwellings

428 people were estimated to be living in non-private dwellings in the City of Armadale in 2006. Residential non-private dwellings include aged care facilities as well as defence force facilities, hospitals, prisons, staff quarters and boarding houses. The number of persons in non-private dwellings in the City of Armadale is expected to increase to 1,148 persons in 2021 and 1,358 persons in 2031.

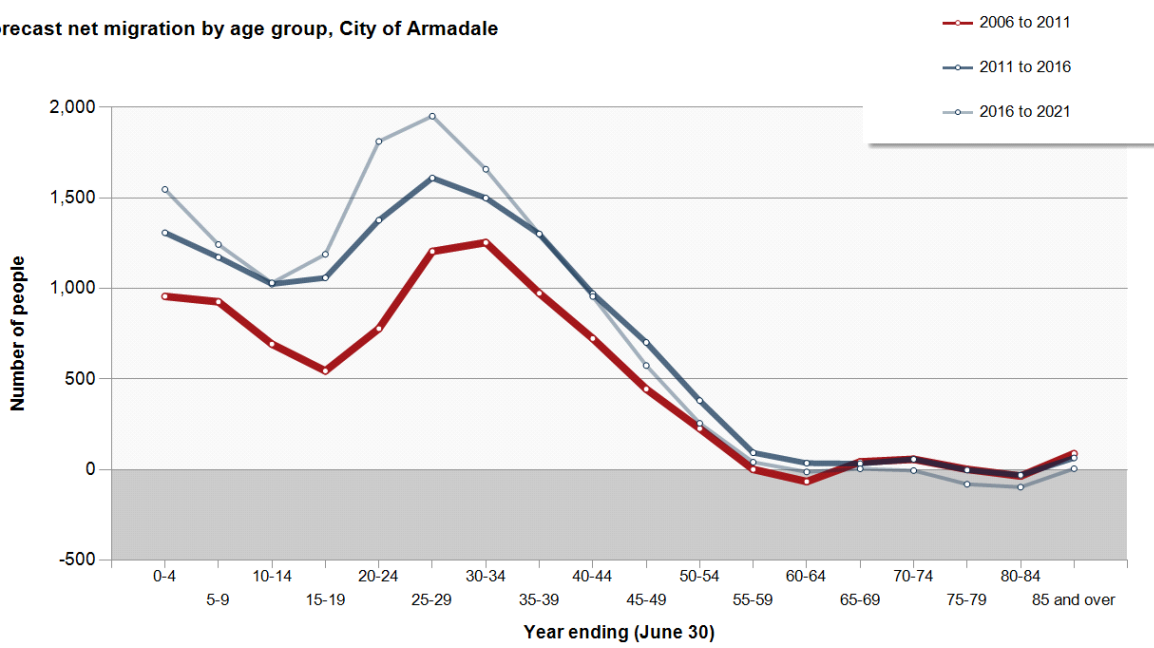
Assumptions

Migration

Major migration assumptions:

- Substantial new housing opportunities in the major growth areas (Harrisdale, Piara Waters, Haynes, Hilbert and Seville Grove) are expected to attract predominantly young couples, young and established families
- Gain of young adults (18-24 years) into Armadale North and South
- Gain of mature and older families into the rural residential areas of the City (Bedforddale and Roleystone)

Forecast net migration by age group, City of Armadale

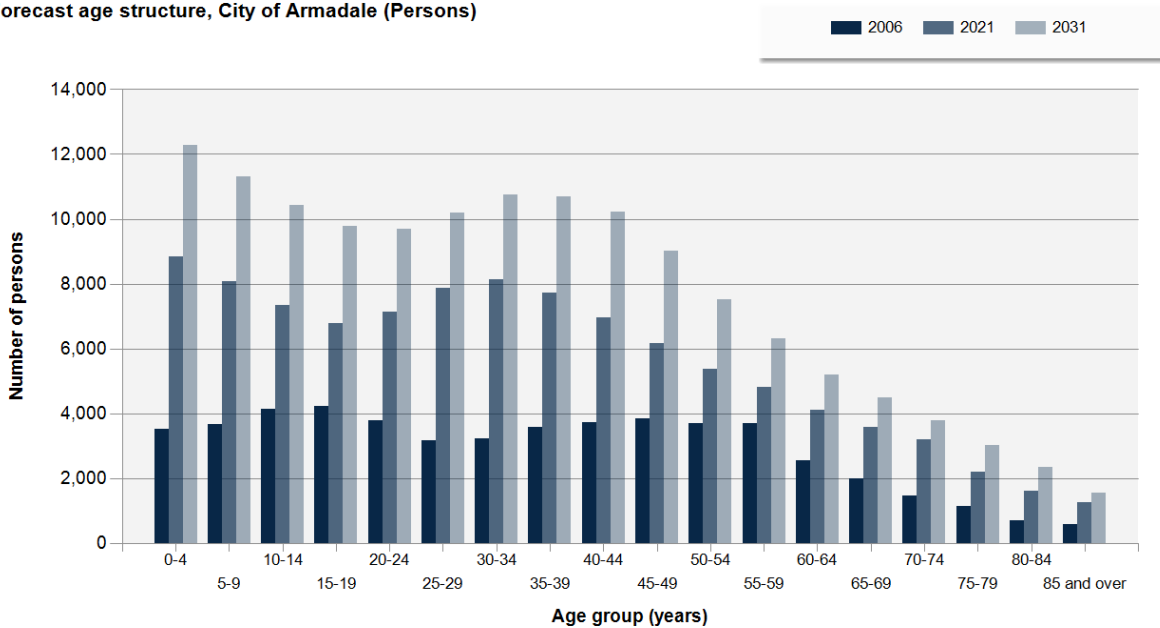


Detailed data

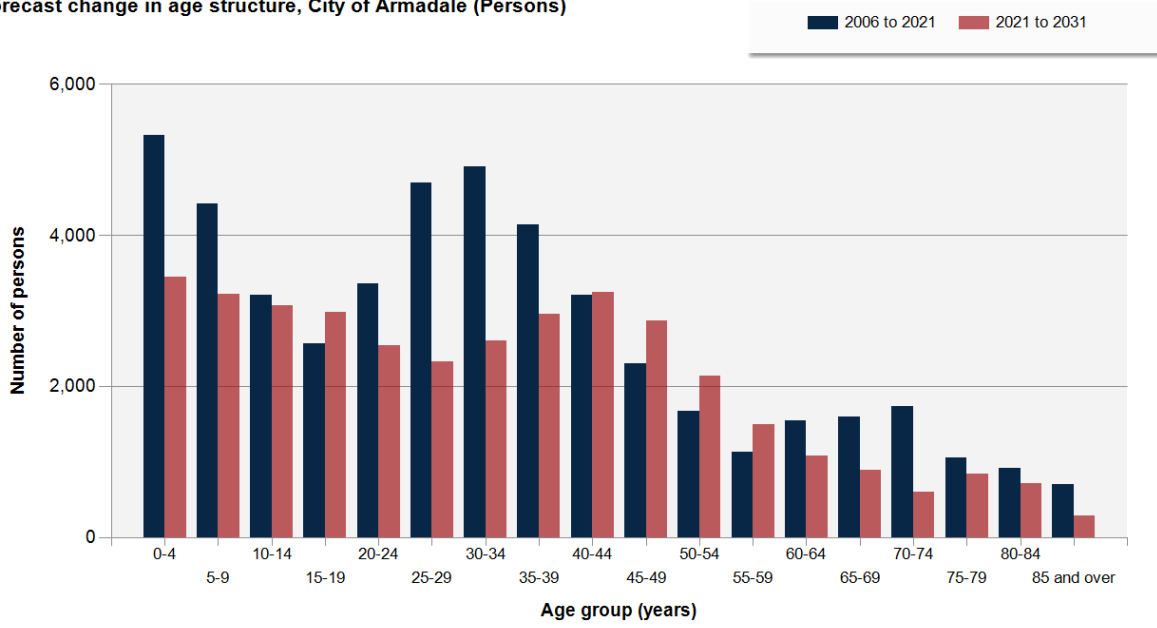
Age structure

Forecast age structure, City of Armadale (Persons)							Change
Age group	2006		2021		2031		2006 to 2031
	number	%	number	%	number	%	
0-4 years	3,519	6.7	8,842	8.7	12,285	8.9	8,766
5-9 years	3,661	6.9	8,080	8.0	11,306	8.2	7,645
10-14 years	4,144	7.9	7,356	7.3	10,424	7.5	6,280
15-19 years	4,221	8.0	6,789	6.7	9,772	7.1	5,551
20-24 years	3,789	7.2	7,147	7.1	9,688	7.0	5,899
25-29 years	3,183	6.0	7,876	7.8	10,204	7.4	7,021
30-34 years	3,229	6.1	8,144	8.0	10,753	7.8	7,524
35-39 years	3,579	6.8	7,725	7.6	10,681	7.7	7,102
40-44 years	3,740	7.1	6,955	6.9	10,207	7.4	6,467
45-49 years	3,851	7.3	6,157	6.1	9,030	6.5	5,179
50-54 years	3,711	7.0	5,381	5.3	7,525	5.4	3,814
55-59 years	3,696	7.0	4,828	4.8	6,326	4.6	2,630
60-64 years	2,548	4.8	4,101	4.1	5,186	3.7	2,638
65-69 years	1,992	3.8	3,591	3.5	4,484	3.2	2,492
70-74 years	1,459	2.8	3,192	3.2	3,790	2.7	2,331
75-79 years	1,131	2.1	2,191	2.2	3,029	2.2	1,898
80-84 years	706	1.3	1,629	1.6	2,349	1.7	1,643
85 years and over	573	1.1	1,272	1.3	1,560	1.1	987
Total Persons	52,732	100.0	101,256	100.0	138,599	100.0	85,867

Forecast age structure, City of Armadale (Persons)



Forecast change in age structure, City of Armadale (Persons)

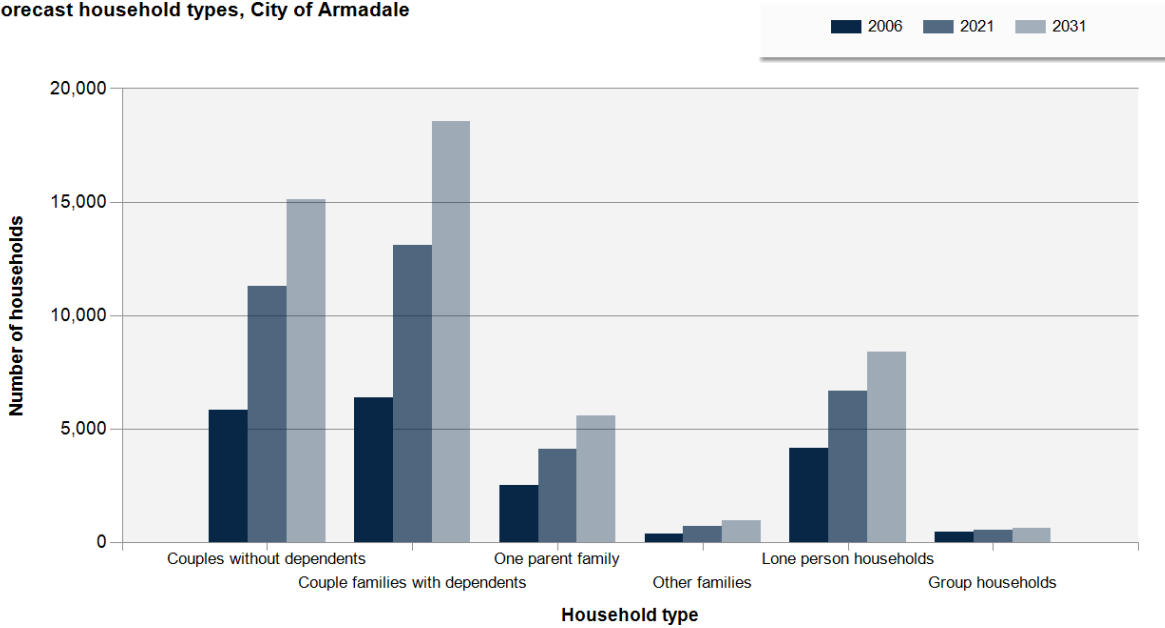


Detailed data

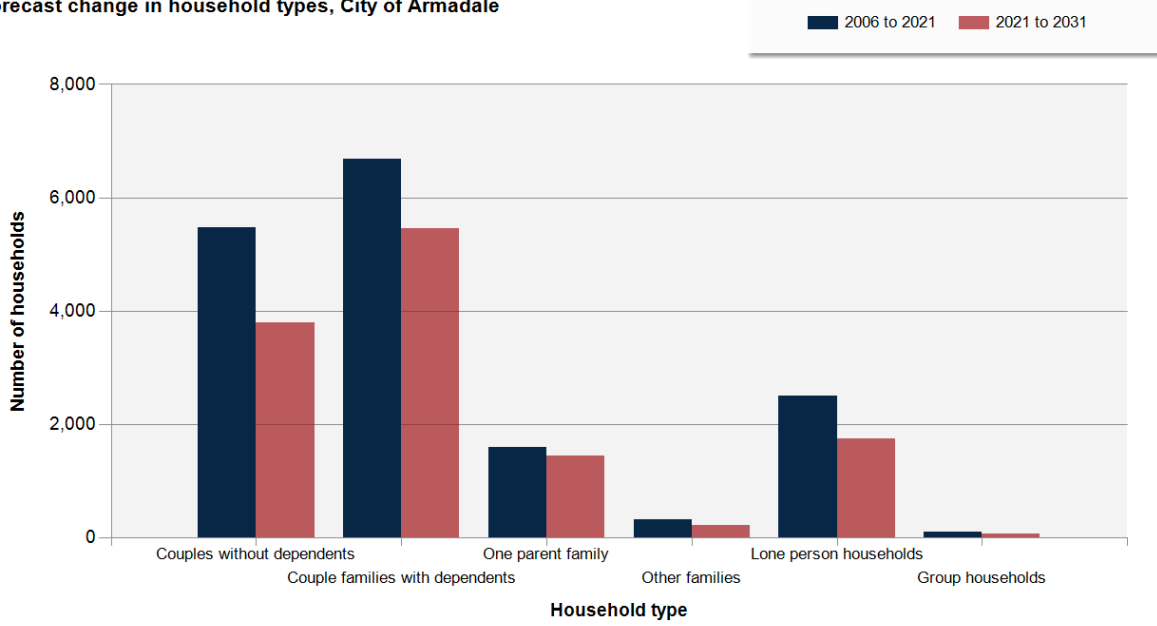
Households

Forecast households, City of Armadale							Change
Type	2006		2021		2031		2006 to 2031
	number	%	number	%	number	%	
Couples without dependents	5,837	29.6	11,301	31.0	15,091	30.7	9,254
Couple families with dependents	6,397	32.4	13,084	35.9	18,540	37.7	12,143
One parent family	2,520	12.8	4,118	11.3	5,567	11.3	3,047
Other families	392	2.0	718	2.0	943	1.9	551
Lone person households	4,163	21.1	6,658	18.3	8,404	17.1	4,241
Group households	443	2.2	542	1.5	610	1.2	167
Total households	19,752	100.0	36,421	100.0	49,155	100.0	29,403

Forecast household types, City of Armadale



Forecast change in household types, City of Armadale



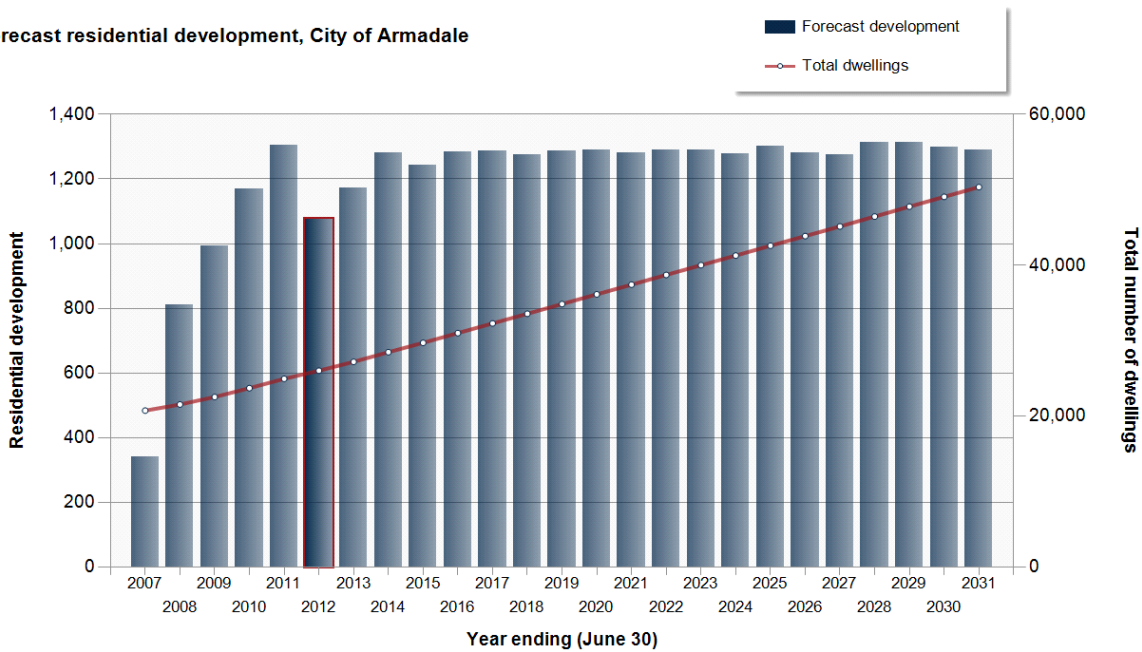
Detailed data

Residential development

Residential development and structural private dwellings, City of Armadale			
Year	Dwelling commencements	Structural private dwellings (inc. commencements)	% change from previous year
2007	340	20,737	1.7
2008	812	21,549	3.9
2009	993	22,542	4.6
2010	1,170	23,712	5.2
2011	1,305	24,951	5.5
2012	1,077	26,028	4.3
2013	1,171	27,199	4.5
2014	1,280	28,479	4.7
2015	1,243	29,722	4.4
2016	1,285	31,007	4.3
2017	1,288	32,295	4.2
2018	1,276	33,571	4.0
2019	1,288	34,859	3.8

Residential development and structural private dwellings, City of Armadale			
Year	Dwelling commencements	Structural private dwellings (inc. commencements)	% change from previous year
2020	1,289	36,148	3.7
2021	1,281	37,429	3.5
2022	1,289	38,718	3.4
2023	1,289	40,007	3.3
2024	1,278	41,285	3.2
2025	1,301	42,586	3.2
2026	1,282	43,868	3.0
2027	1,275	45,143	2.9
2028	1,312	46,455	2.9
2029	1,314	47,769	2.8
2030	1,299	49,068	2.7
2031	1,289	50,357	2.6

Forecast residential development, City of Armadale

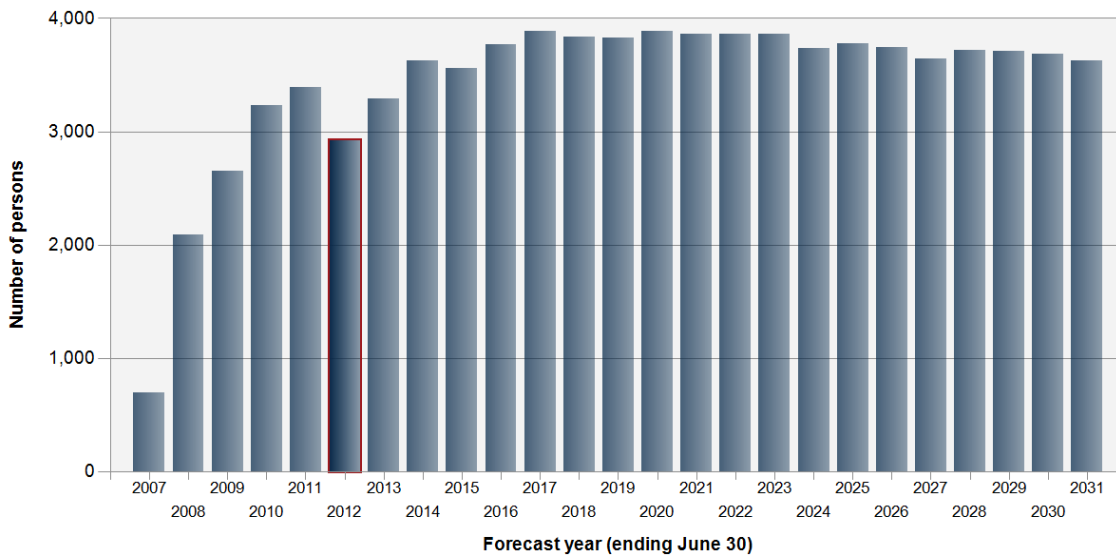


Detailed data

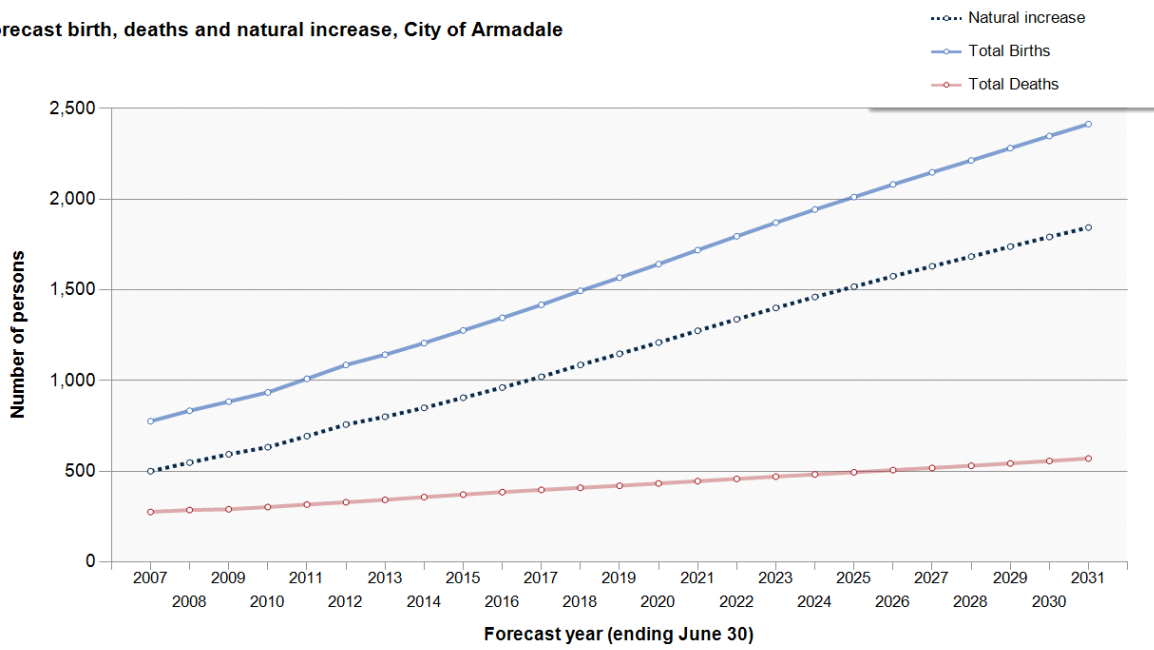
Components of population change

Components of population change, City of Armadale	Forecast period				
	2007 to 2011	2012 to 2016	2017 to 2021	2022 to 2026	2027 to 2031
Births	4,436	6,057	7,840	9,701	11,404
Deaths	1,470	1,784	2,103	2,410	2,717
Net Migration	8,808	12,649	13,369	11,544	9,611
Net Population Change	12,065	17,172	19,287	18,975	18,368

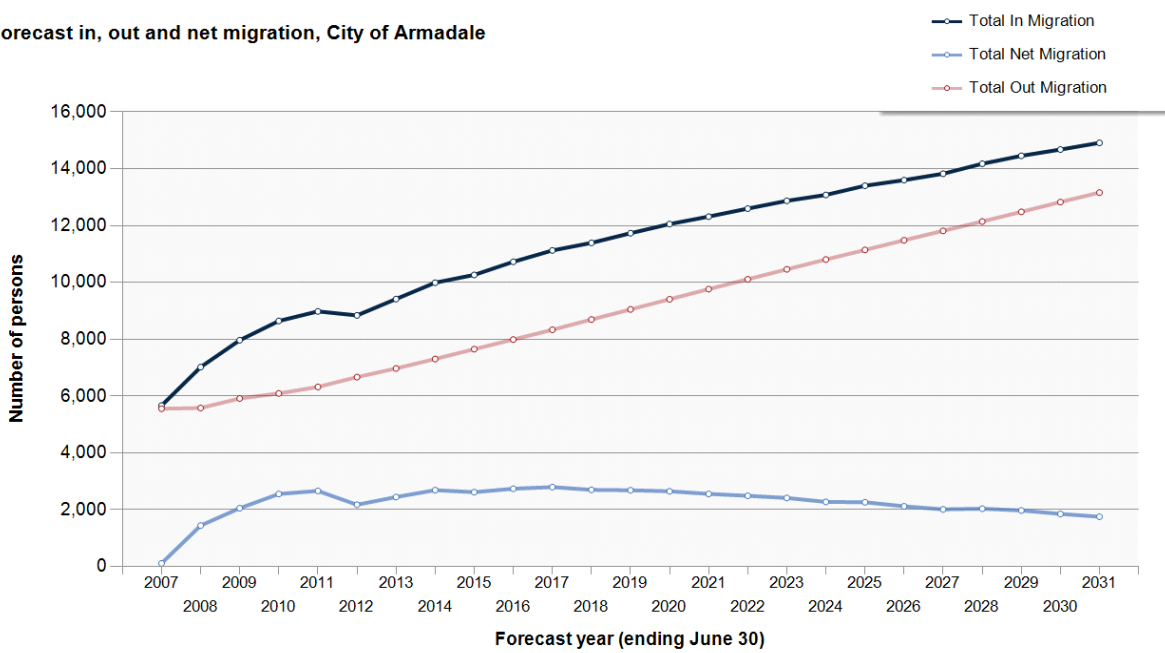
Forecast population change, City of Armadale



Forecast birth, deaths and natural increase, City of Armadale



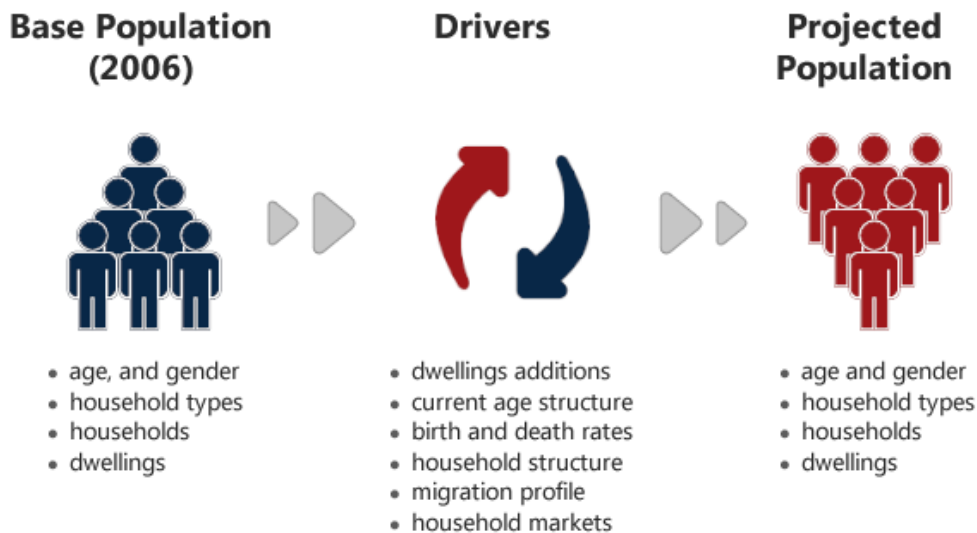
Forecast in, out and net migration, City of Armadale



Supporting info

What factors contribute to population change?

At the small area level, the primary drivers of population change are the age structure of the existing population, the housing markets attracted to and away from an area and their associated demographic characteristics (fertility patterns, household types etc.) and the supply of dwellings and mix of housing stock in the area.



Dwelling additions

The addition of dwellings is the major driver of population growth, providing opportunities for new households (such as young people leaving the family home and divorces) or households relocating from other areas.

Current age structure

The age structure of the local population impacts on the City of Armadale's household types and size, the likelihood of the local population having children and to die, as well as the propensity for people to move. Age specific propensities for a population to have children or die are applied to each small area's base population. An older population will have fewer births, more deaths, while a younger population will have vice versa.

Birth rates

Birth rates are especially influential in determining the number of children in an area, with most inner urban areas having very low birth rates, compared to outer suburban or rural and regional areas. Birth rates have been changing, with a greater share of women bearing children at older ages or not at all. This can have a large impact on the population profile with comparatively fewer children than in previous periods.

Death rates

Death rates are influential in shaping the numbers of older people in an area's population. Death rates too have been changing with higher life expectancy at most ages, with men gaining on women's greater life chances.

Migration

Migration is one of the most important components of population change. While births and deaths are relatively easy to predict due to reliable age specific behaviour, migration is volatile, often changing due to housing market preferences, economic opportunities and changing household circumstances. Migration patterns vary across Australia and change across time, but most moves tend to be short and incremental in nature. Regional areas have

larger moves due to the distances between towns and cities, where people often move for economic reasons, mainly the availability of employment or education and training opportunities.

The most mobile age groups in the population are the young adults. They tend to move to attend educational institutions, seek work and express a change in lifestyle. It is for this reason that young people often move the greatest distances and sometimes move against pre-established patterns. Market research has shown that empty nesters are more likely to move to smaller accommodation if appropriate and affordable alternative housing is supplied in the local area that is accessible to established social networks.

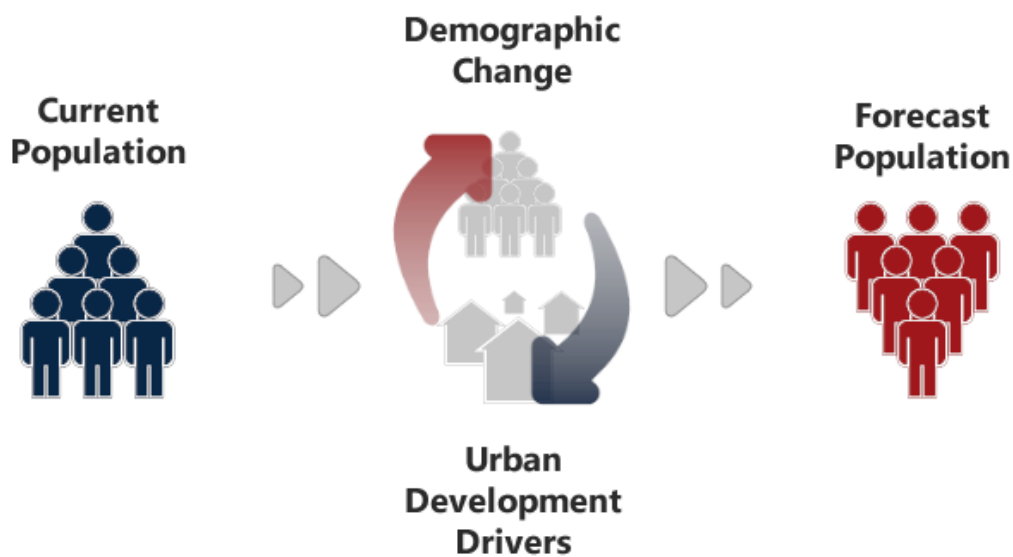
Supporting info

How did we do the forecasts?

Approach

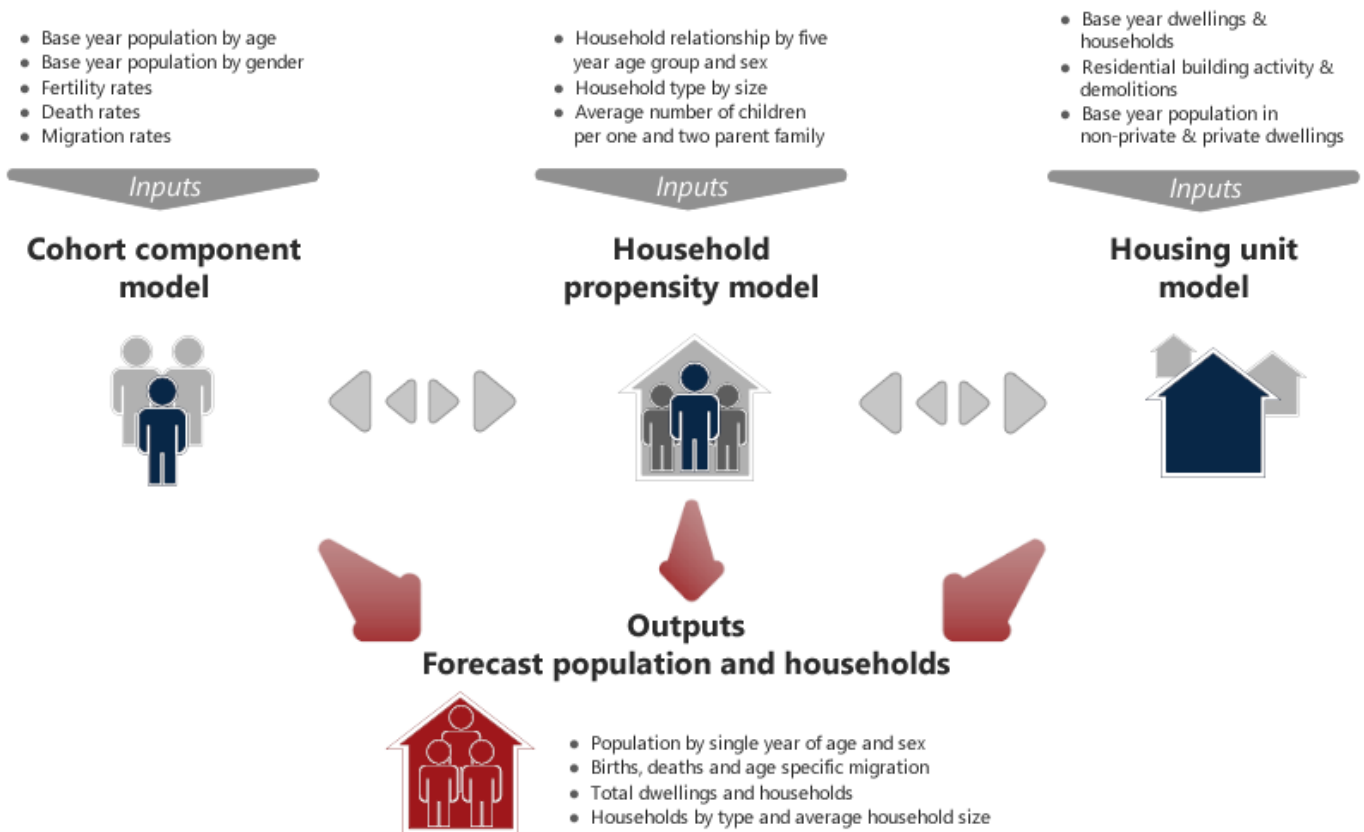
The diagram below describes the general approach used by .id in its population and household forecasts. An analysis of the current population and household structure often reveals the role and function of an area and the degree to which an area may be going through some form of demographic transition.

Demographic changes, such as birth, death and migration rates are applied to the base population. At the same time, scrutiny of urban development drivers is undertaken (residential development opportunities, vacancy rates etc.). The combination of varied assumptions about these inputs results in forecast population and households by type.



Modelling process

The modelling process used for producing the small-area forecasts is based on a 'bottom-up' approach, with all assumptions being derived from a local perspective. The components of the model are derived exclusively from housing and demographic assumptions. The drivers of the forecasts are predominantly based on levels of new residential development and demographic assumptions, such as in and out migration rates from the local areas. The diagram below describes the detail of the modelling process used by .id in its population and household forecasts.



The population forecasts are based on a combination of three statistical models. They include a cohort component model, a housing unit model and a household propensity model. Each of the models has a series of inputs, which when linked to the other models gives the forecast outputs. The models are further explained below.

Cohort Component Model

The cohort component model is a standard demographic model used for population forecasts. It takes a base population by single year of age and sex and makes assumptions about future levels of births, deaths and migration, with the result being a forecast population by age and sex.

Each year the population ages by one year, with additions to population through in-migration and births. Births are derived by multiplying age specific fertility rates of women aged 15-44 by the female population in these age groups for all years during the forecast period. The population decreases are based on out-migration and deaths. Deaths are derived by multiplying age and sex specific mortality rates for all age groups for all years during the forecast period.

In and out migration is based on multiplying the population in each age group by a migration matrix. The base year population is derived from 2006 Census counts and then adjusted to an estimated resident population by small area. Each year through the forecast period, the population is run against age-specific birth, death and migration rates to create new population figures.

Housing Unit Model

The housing unit model is used to forecast future levels of residential development in areas and the resulting impact on the total population and the number of households. This model is critical in giving population forecasts credibility, especially in areas where there are residential development constraints and where historical migration patterns would be expected to change.

The housing unit model is based on forecasting a number of variables. These include total population living in private and non-private dwellings, the number of households and the number of dwellings. The share of housing stock that does not contain households is known as the vacancy rate. The population living in private dwellings divided by the

number of households is known as the average household size.

These variables have changing relationships over time, as households undergo normal demographic processes, such as family formation and ageing. Levels of residential development, vacancy rates and average household size (see housing propensity model below) are used as the drivers of the model. Every year there is an assumption about the level of residential development activity, which adds to the stock of dwellings in an area. This stock of dwellings is multiplied by the vacancy rate, which gives the total number of vacant dwellings and the total number of occupied private dwellings (households). Households are multiplied by the assumed average household size for the year to derive the new number of persons living in private dwellings. The average household size is derived from the household propensity model (see below).

Population in non-private dwellings is modelled separately. A non-private dwelling is a form of housing, which is communal in nature. Examples of non-private dwellings include nursing homes, student accommodation, nursing quarters, military barracks and prisons. In forecasting the number of persons in non-private dwellings, the population is analysed according to the different types of living arrangements. Decisions about future changes may be based on local knowledge through consultation with institutions or local government if there are a large number of people living in non-private dwellings.

Household Propensity Model

This model is used to integrate the cohort component and housing unit models to ensure consistency between the outputs of both models. The model works by assuming that the age structure of the population is an indicator of household size and type. These differences are assumed at the local area based on the household type and size from the 2006 Census.

The population is divided into household types based on five year age groups and sex. Each of these household types has an associated household size. From this relationship, all the household forming population (adults and any non-dependents) effectively represent a share of a household. Dependents in a household (children) represent no share of a household, although their departure frequently drives demand for housing in the region. Lone persons represent 1 or 100% of a household. Couples with dependents represent 50% of household. Couples without dependents represent almost 50% of a household (as they can include related adults). Lone parents represent 100% of a household. Group household members' and other household members' shares vary according to the region (20%-45%, 5 persons to 2.5 persons per household)

These relationships are extrapolated forward from 2006 with some adjustments, depending on the type of area. While the overall trend assumes that a greater share of the population will live in smaller households at all age groups in the future, many areas will go against this trend, depending on their place within the life cycle of suburbs. The projected decrease in the fertility rate and resulting likelihood of smaller families reinforces the assumption that a greater share of the population will live as couples and alone in the future.

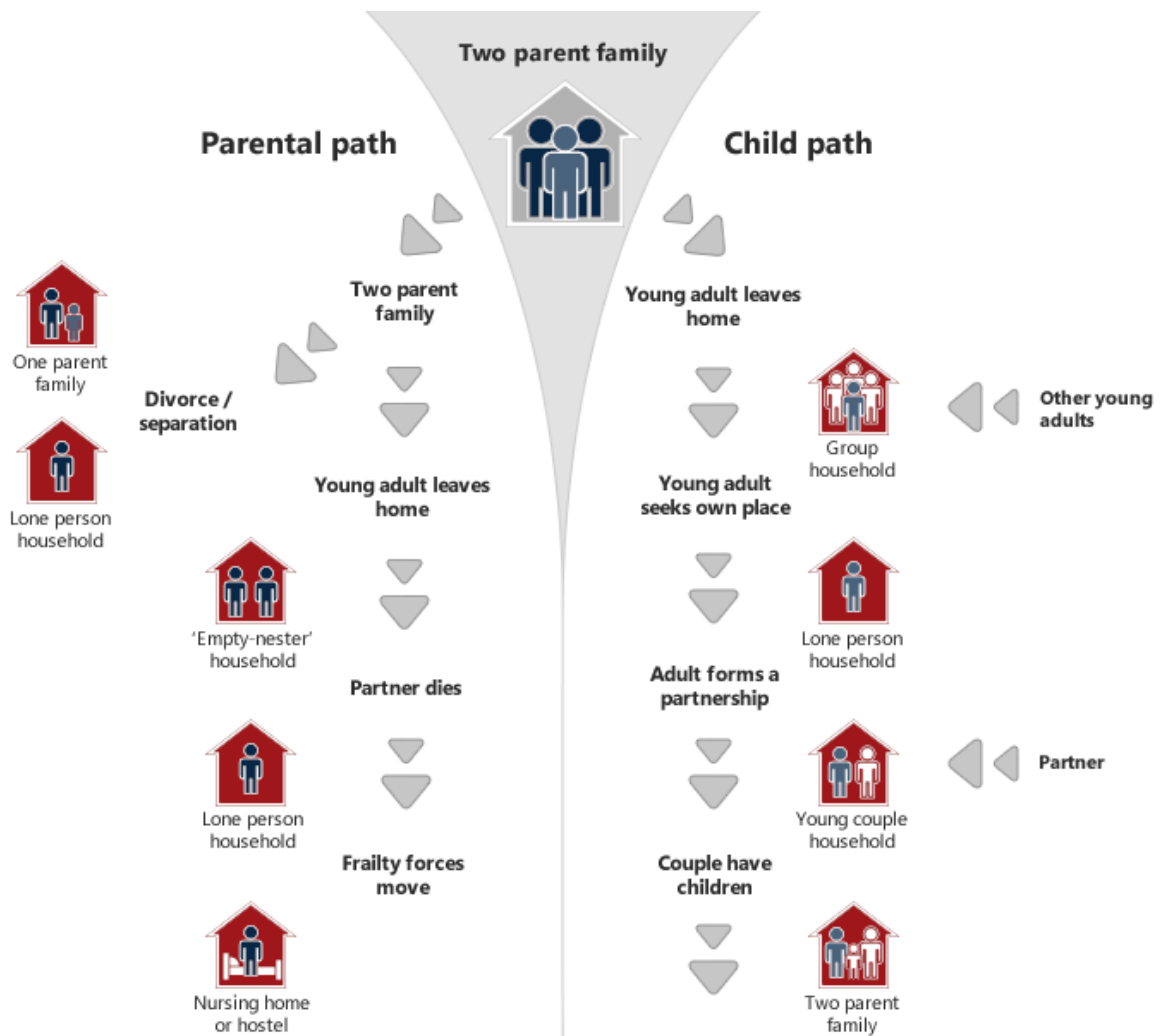
Supporting info

Household & suburb life cycle

Household life cycles

The sorts of households that people live in and changing preferences over time affects the way in which a population changes. As people grow from children to adults and into old age, they change the sorts of households that they live in. The traditional path has been to start as a child in a family household, move into a group or lone person household as a youth, becoming a part of a couple relationship within 5-10 years. Rearing of children is followed by an 'empty-nester' period and ultimately being a lone person, as partners die.

Understanding the changes that people make at different ages in their life, and the different types of housing they are likely to consume at those life stages is an important factor in forecasting future population and household types. The life stage which the majority of households in an area are going through gives an insight into its location in the suburb life-cycle (see below), and the likely life-path of those households in the future.



Suburb life cycles

The dominant household types present in a suburb or town - where the majority of the populations sit in the household life path - dictate in part the role and function of the area. This is shown by its place in the "suburb life cycle".

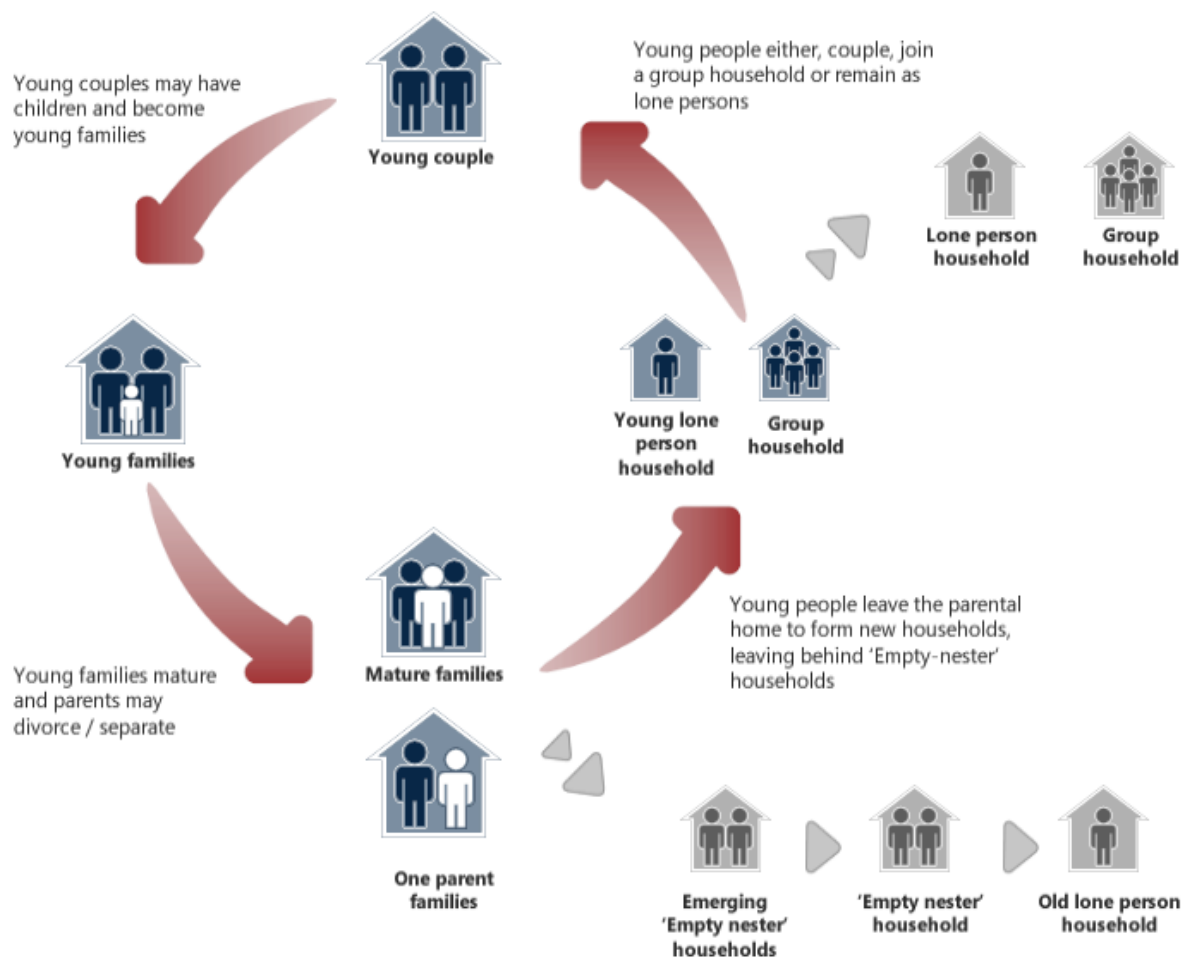
New areas are typically settled by young households (young couples and young families, perhaps some mature

families). As the families grow and mature, household size increases. After initial rapid development, most households "age in place", with slowly shifting demand for services, facilities and dwelling types.

As households age further and children begin to leave home, the average household size decreases, resulting in more empty nester (two person) households, often still living in large family homes. Family breakups can also result in single parent families and lone person households. If a suburb can't attract young families back to the area, it slowly becomes populated by older couples whose children have left home and older lone persons whose partners have died, resulting in declining population for some time.

Alternatively, if a suburb is in a location close to economic drivers of change, it may be able to attract families to move back into the older dwellings in the area, increasing household size and population again. This will generally happen sooner, with less loss of services if the area has a diversity of housing options suiting a wide variety of household types. Empty nesters are likely to downsize into lower maintenance properties, freeing up larger format housing for families to move into, and continue the cycle again. The loop in the diagram represents the process of sustainability of an LGA (or suburb), if it can attract families back into older housing in the area. Depending on the proximity of an area to work and education it may also attract young lone persons and group households. The attractiveness of an area to family groups, group and lone person households is shown in the migration assumptions section.

Generally, more diverse communities are more sustainable in the long term, as they are able to maintain a range of services and facilities useful to all age groups. Certain policy responses can influence the suburb life cycle in different directions.



Supporting info

Data notes & references

Base population estimates

The population figures used in the forecasts for 2006 are derived from estimated resident population from the Australian Bureau of Statistics. These figures are published at the Statistical Local Area level, which are extrapolated to Census Collection District (CCDs) and then aggregated to the chosen small area, sometime splitting CCDs if necessary.

These figures are subject to change or updating from time to time, most notably after census release (usually one to two years after the census is conducted).

Base household estimates

The household estimates used in the forecasts for 2006 were based on age and sex-specific population propensities by different household types. Usual residents' estimates by Census Collection District were extrapolated to Estimated Resident Population and then multiplied by household factors to give estimated 'Resident Households'.

The multiplying factor varies depending on the household type (and the area), such as a factor of 1 for persons living in lone person households to 0.5 for an adult in couple families with dependent households. Children and other dependents, such as elderly parents, are not assumed to 'form' households.

- Australian Bureau of Statistics, 2006 Census of Population and Housing.
- Australian Bureau of Statistics, 2006 Estimated Resident Population (preliminary), June 30 2006, Cat. No: 3235.0.

Supporting info

Glossary

- ▶ **Age Specific Propensities (birth and death)**

This relates to the modelling of births and deaths. At each year of age, there is a certain statistical likelihood of a person dying or giving birth. These age specific propensity rates are applied to the base and forecast population for each year of the forecast period.
- ▶ **Ageing in Place**

This refers to an existing resident population ageing in their current location, as distinct from other impacts on future population such as births, deaths and in and out migration.
- ▶ **Average annual percentage change**

A calculation of the average change in total population for each individual year.
- ▶ **Average household size**

The average number of persons resident in each occupied private dwelling. Calculated as the number of persons in occupied private dwellings divided by the number of occupied private dwellings. This excludes persons living in non-private dwellings, such as prisons, military bases, nursing homes etc.
- ▶ **'Bottom up' forecast**

Population forecast based on assumptions made at the local area level. Local drivers of change such as land stocks and local area migration form the basis.
- ▶ **Broadhectare Land or Sites**

Broadhectare land refers to undeveloped land zoned for residential development on the fringe of the established metropolitan area. These areas are generally used for rural purposes until residential subdivision takes place. This type of land is also referred to as 'greenfield'.
- ▶ **Commencement**

The construction of a new dwelling (or beginning of).
- ▶ **Dwelling**

A habitable residential building.
- ▶ **Dwelling Stock**

The supply of dwellings (either occupied or unoccupied) in a given geographic area.
- ▶ **Empty Nesters**

Parents whose children have left the family home to establish new households elsewhere.
- ▶ **Estimated Resident Occupied Private Dwellings (EROPD)**

This measure attempts to increase the scope of Occupied Private Dwellings definition to include an estimate of SPD's that were temporarily unoccupied at the time of the Census (i.e. the resident was away for an extended period of time and did not fill in a Census form). This measure is not available from the Census and is estimated through the processes described in the most recent Victorian Department of Planning & Community Development population forecasts for Victoria. This measure yields much higher estimates of occupancy rates than the usual OPD measure.
- ▶ **Estimated Resident Population (ERP)**

This is the estimate of the population based on their usual residence. The ERP at the time of the Census is calculated as the sum of the enumerated (counted) population plus persons temporarily absent less persons who are non-permanent (visitor) residents. An undercount of population by small area at Census time is also accounted for. The ERP used in these forecasts is then backdated to June 30. The ERP for forecast years are based on adding to the estimated population the components of natural increase and net migration.
- ▶ **Forecast Period**

In this report, the forecast period is from 2006 to 2031. Most data on the website has focused on the period from 2006 to 2021.
- ▶ **Household**

One or more persons living in a structural private dwelling.

▶ **In-centre development**

Residential development based on increasing dwelling densities around suburb and town centres. Usually around existing transport nodes and service infrastructure, rather than developing previously undeveloped land on the urban fringe.

▶ **'Infill' Development**

Residential development, usually of a relatively small scale, on redevelopment sites in established urban areas. This usually takes place on land previously used for another urban purpose such as industry or schools. Also referred to as 'intensification' of existing areas.

▶ **Mature families**

One and two parent families with older children, generally of secondary and tertiary school age.

▶ **Migration**

The movement of people or households from one location to another.

▶ **Natural Increase**

The increase in population based on the births minus deaths, not including the impact of migration.

▶ **Net Household Additions**

The overall increase in occupied dwellings, determined by the level of new dwelling construction that is permanently occupied, or conversion of non-permanently occupied dwellings to permanently occupied minus demolitions.

▶ **Non-private dwellings**

These dwellings include persons resident in establishments such as prisons, student or nurses' accommodation, nursing homes, military facilities, and hospitals.

▶ **Occupancy Rate**

The proportion of structural private dwellings that are occupied by a household.

▶ **Occupied Private Dwellings (OPD)**

These are all Structural Private Dwellings (SPD's) that are occupied by a household. Excluded are dwellings that were under construction, being demolished or where the house was temporarily vacant.

▶ **Private dwellings**

Self contained dwelling including houses (attached or detached), flats, townhouses etc. Retirement village units are also private dwellings as are houses or flats rented from the government.

▶ **Redevelopment Sites**

These are sites in already established areas not originally developed for residential uses, but identified for conversion to residential use. Examples include former school sites, quarries, derelict industrial land, former petrol stations and the like.

▶ **Structural Private Dwellings (SPD)**

This is the stock of houses, flats, and other dwelling types. The SPD is the usual base stock from which commencements are added and demolitions deducted.

▶ **'Top down' forecast**

Population forecast based on assumptions made at the State and National level and allocated into smaller regions e.g. Local Government Areas, suburbs.

▶ **Visitor population forecasts**

Visitor population forecasts are based on 'non-event' affected, mid-week visitor levels. The 2006 base figures are sourced from Census, with an adjustment for undercount similar to that applied to the resident population (see Estimated Resident Population). Overall forecast levels are based on long term trends in visitor population growth in the Shire, with specific reference to current proposals for the purposes of allocation in the short-term. Visitor population forecasts have been included as they are a significant component of total population and may require specific servicing arrangements pertinent to resource allocation within Council.

▶ **Young families**

One and two parent families with young children, generally of pre and primary school age.

