Willoughby City Council

2021 Census – overview of updated trends from the Census, and a focus on the social atlas and population forecasts.

May 2023

About .id at Willoughby City Council

.id is a company of demographers, housing analysts, forecasters and Census data experts.
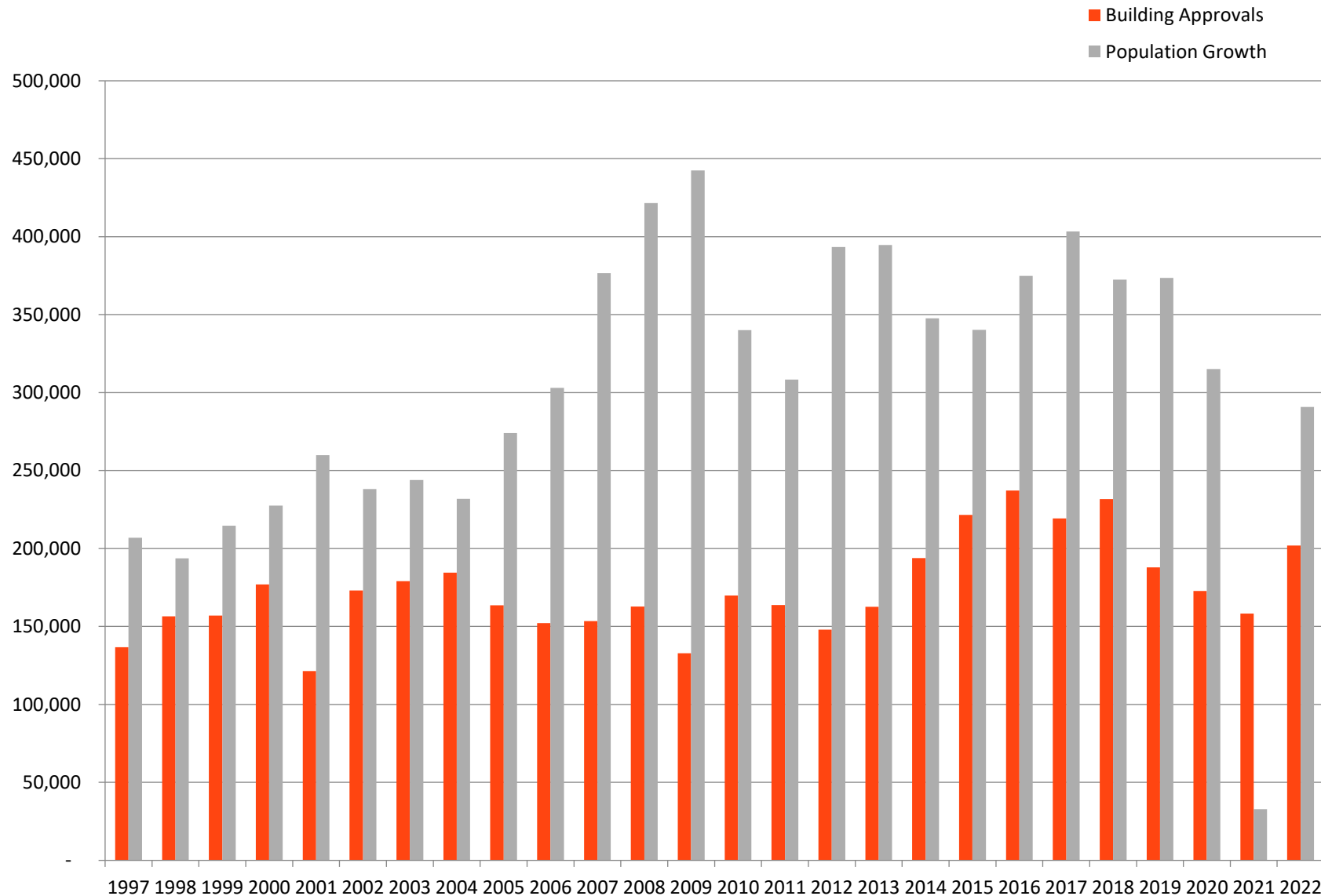
We work with council to promote evidence-based decision making, consulting with you for grant funding applications, demographic and economic studies and advocacy.

We have been working with Willoughby City Council for over 12 years and the Council subscribes to .id's community profile, social atlas and economic profile tools.

This session focusses on the more recent second release results from the Census (workforce etc.) and provides an introduction primarily to the atlas, forecast and economy modules.

community profile

understand your community over multiple timescales

community views

hear community views

social atlas

allocate your resources at a local level

housing monitor

monitor housing provision and affordability

population forecast

plan for the future based on a set of agreed assumptions

economic profile

analyse jobs, industry and model economic change

.id

National population trends – growth bounce back after COVID

Legend: Building Approvals, Population Growth

Australia ended a record period of population growth with COVID border closures. The year ended June 2021 was the lowest growth rate in over 100 years.

The growth rate for the year of 0.13% was the lowest national growth rate recorded since 1916, when the population declined due to World War I. The following year (FY 2022) saw a bounce back when the borders reopened, but still lower growth than the previous 15 years.
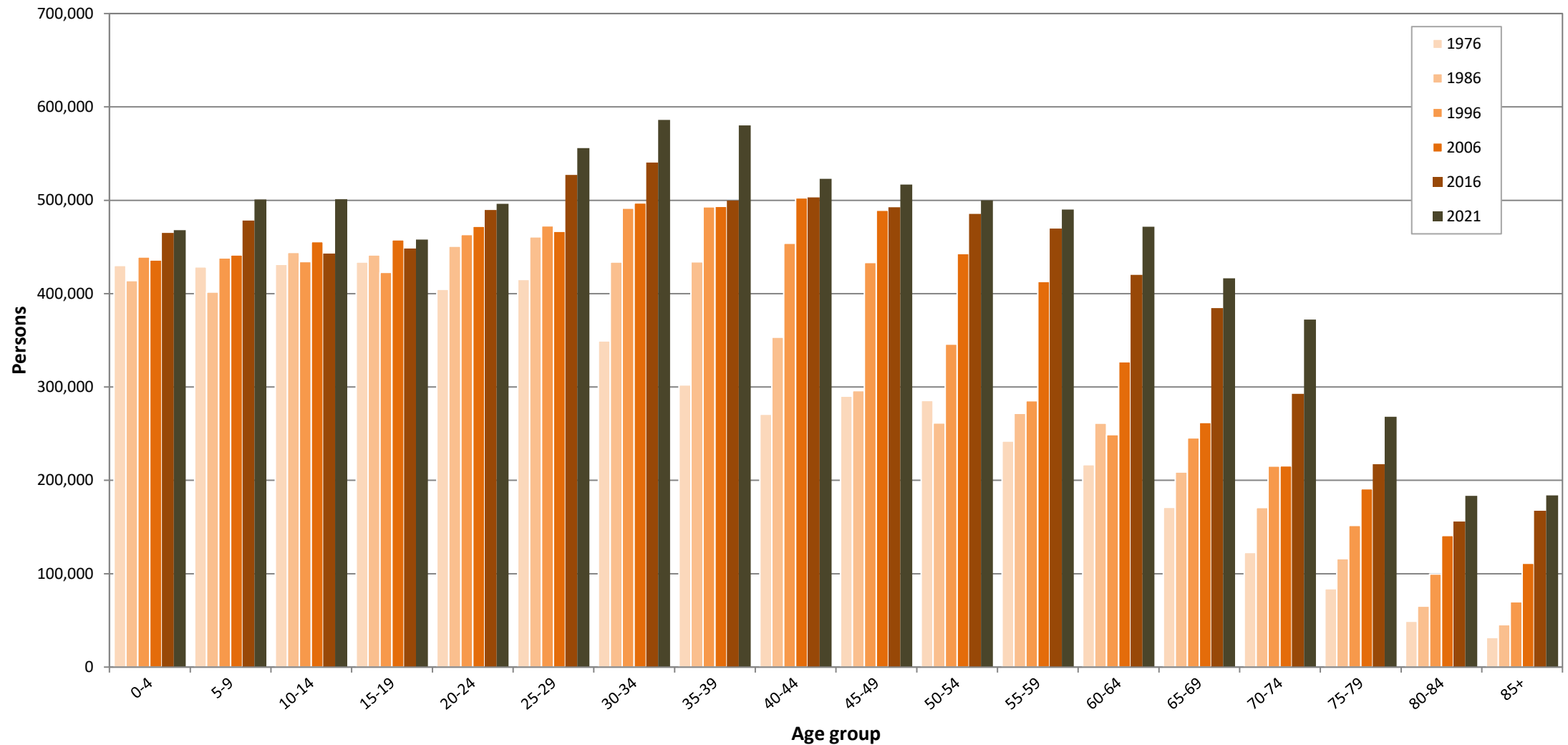
Building approvals were still quite strong however.

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# State population change – 2021-22 – percent and absolute
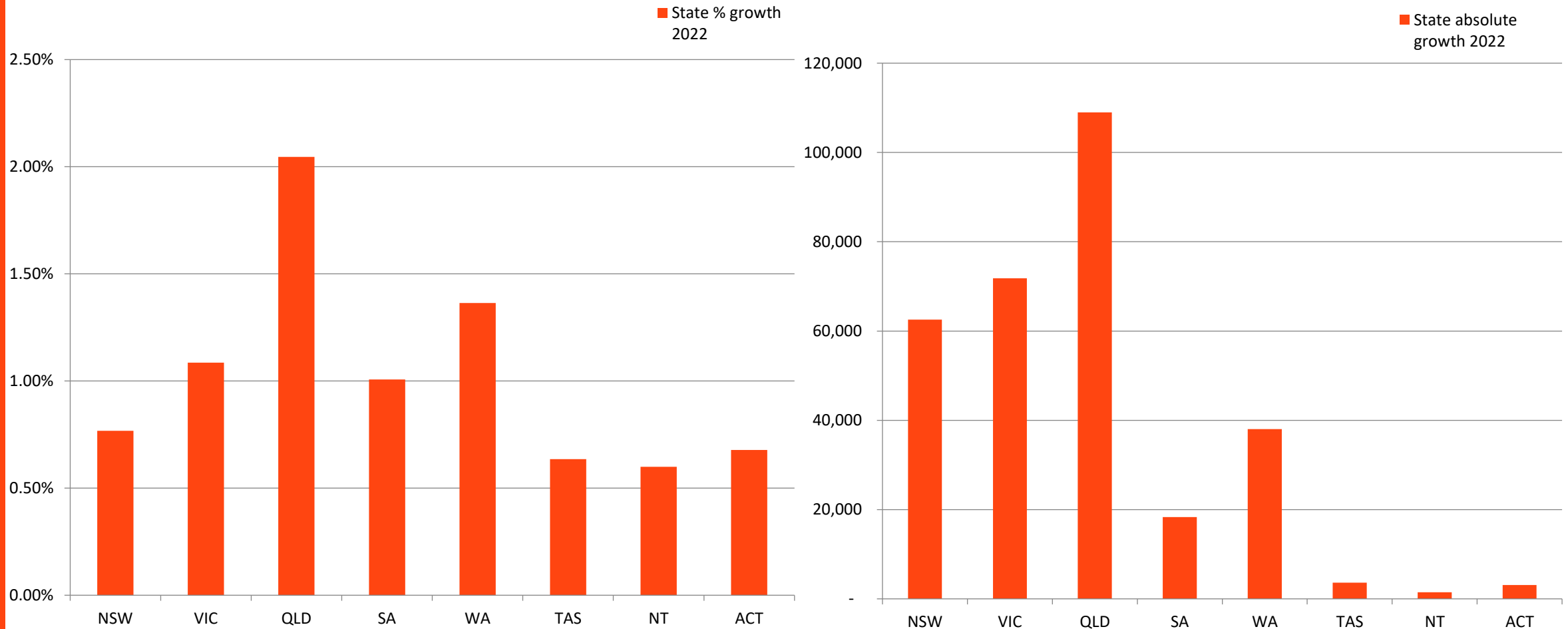
2022 saw a return to growth for all states and territories, with NSW showing a modest 0.8% growth after a flat 2021. Queensland's state growth is now far higher than any other jurisdiction.

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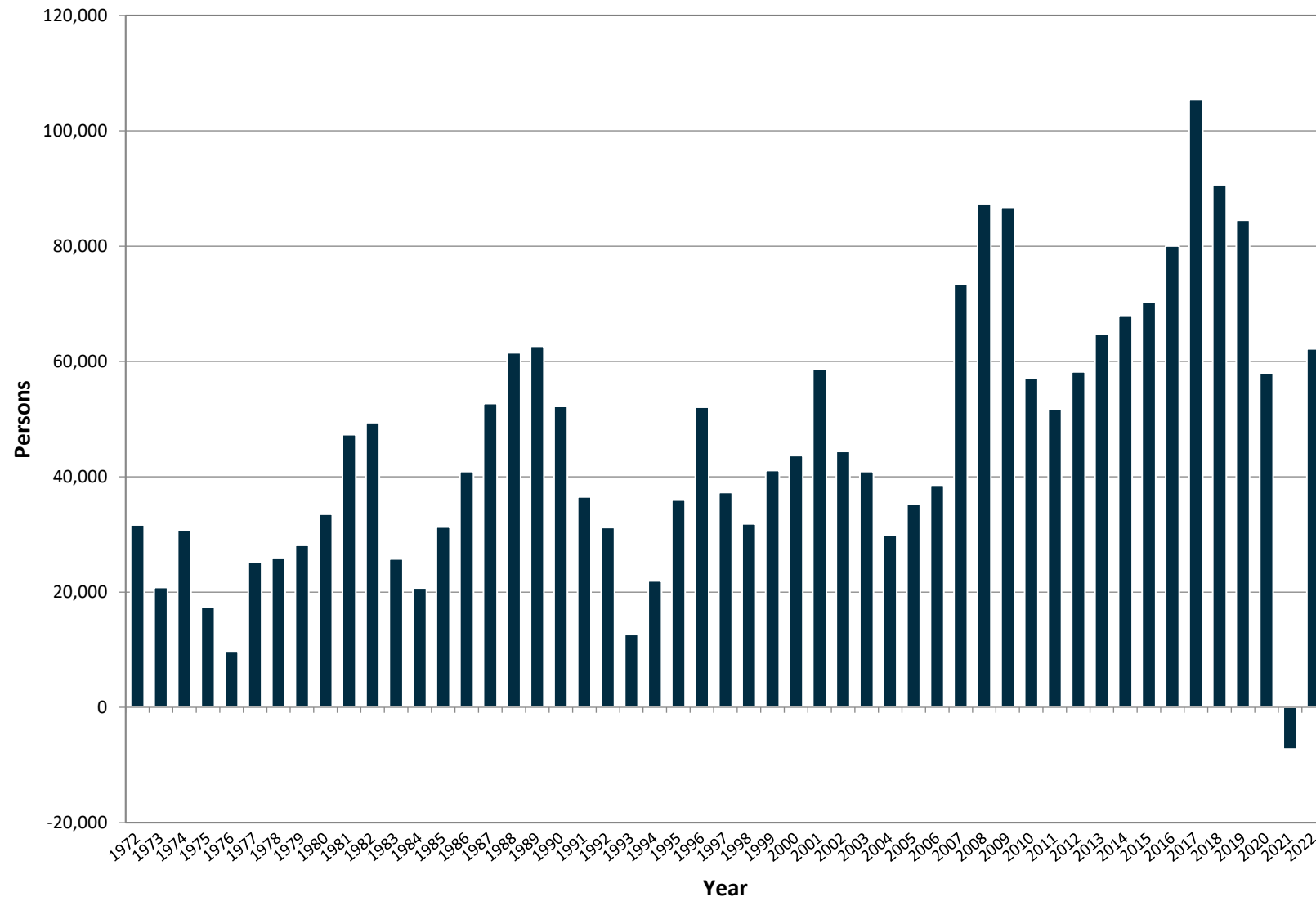# Population by 5 year age groups across 45 years, NSW

NSW median age increased by just one year between 2016-2021, from 38 to 39.

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National fertility rate, 1932 to 2021

National fertility rate, 1933-2021 (annotated)
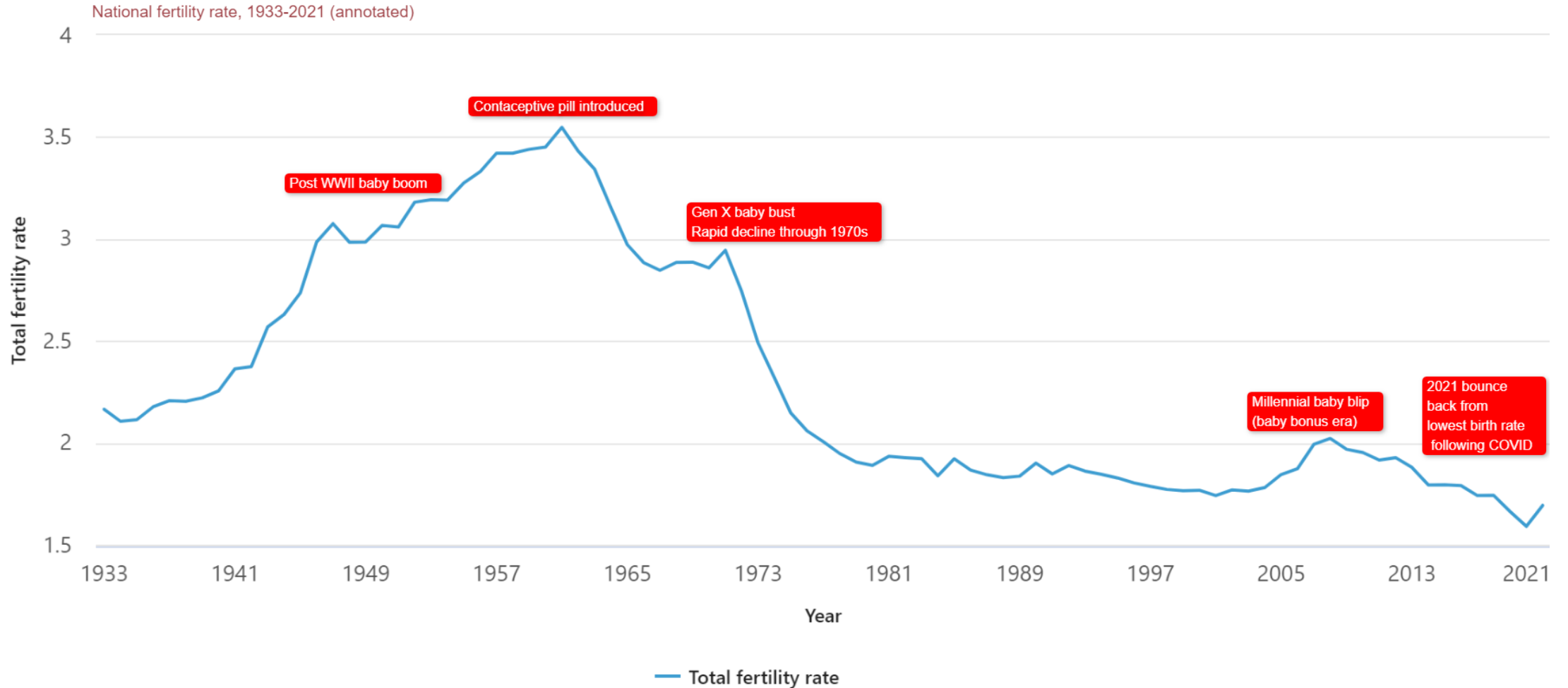
Source: ABS, Births Australia, 2022, 3301.0

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Net overseas migration – NSW, 1972-2021

Overseas migration was negative for NSW in 2020-21, but came back strongly in late 2021/early 2022 when the borders reopened, reaching 60,000 for the year, lower than the last 10 years but still fairly strong, and approximately equalling total population growth.

As parts of Sydney get most of the overseas migration, the loss of migration during the pandemic had the largest effect on these areas.
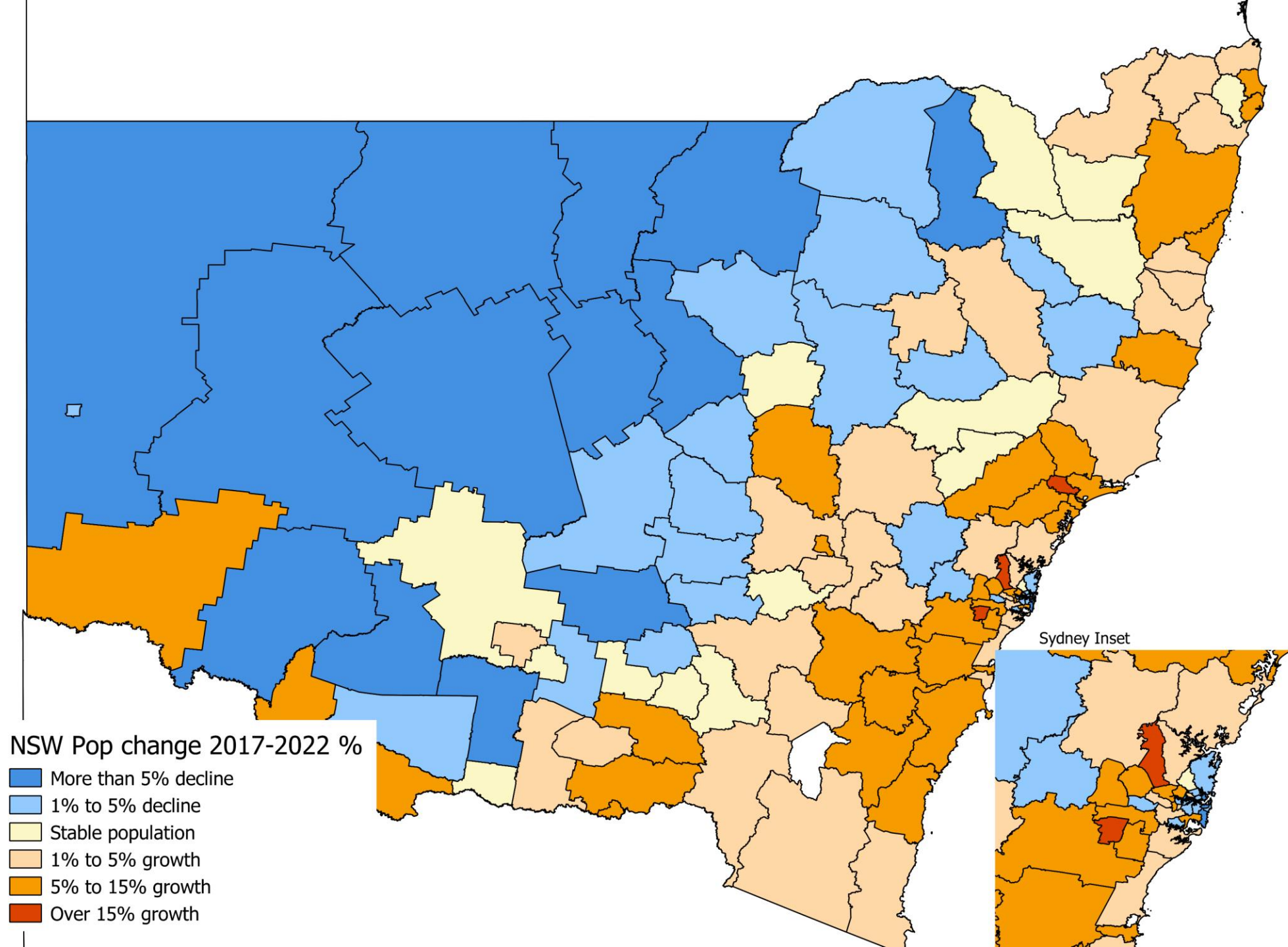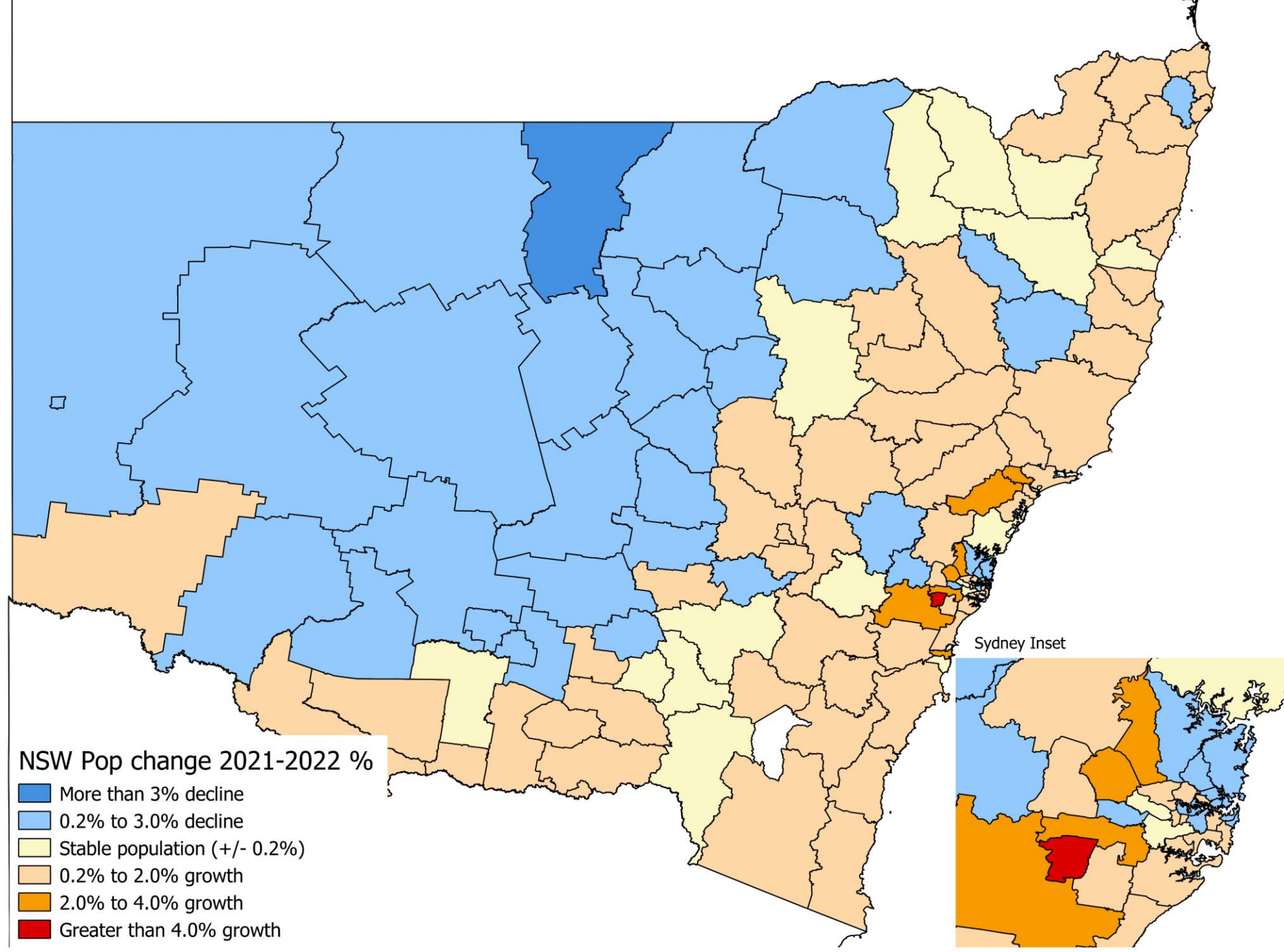
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Net interstate migration – NSW, 1972-2021
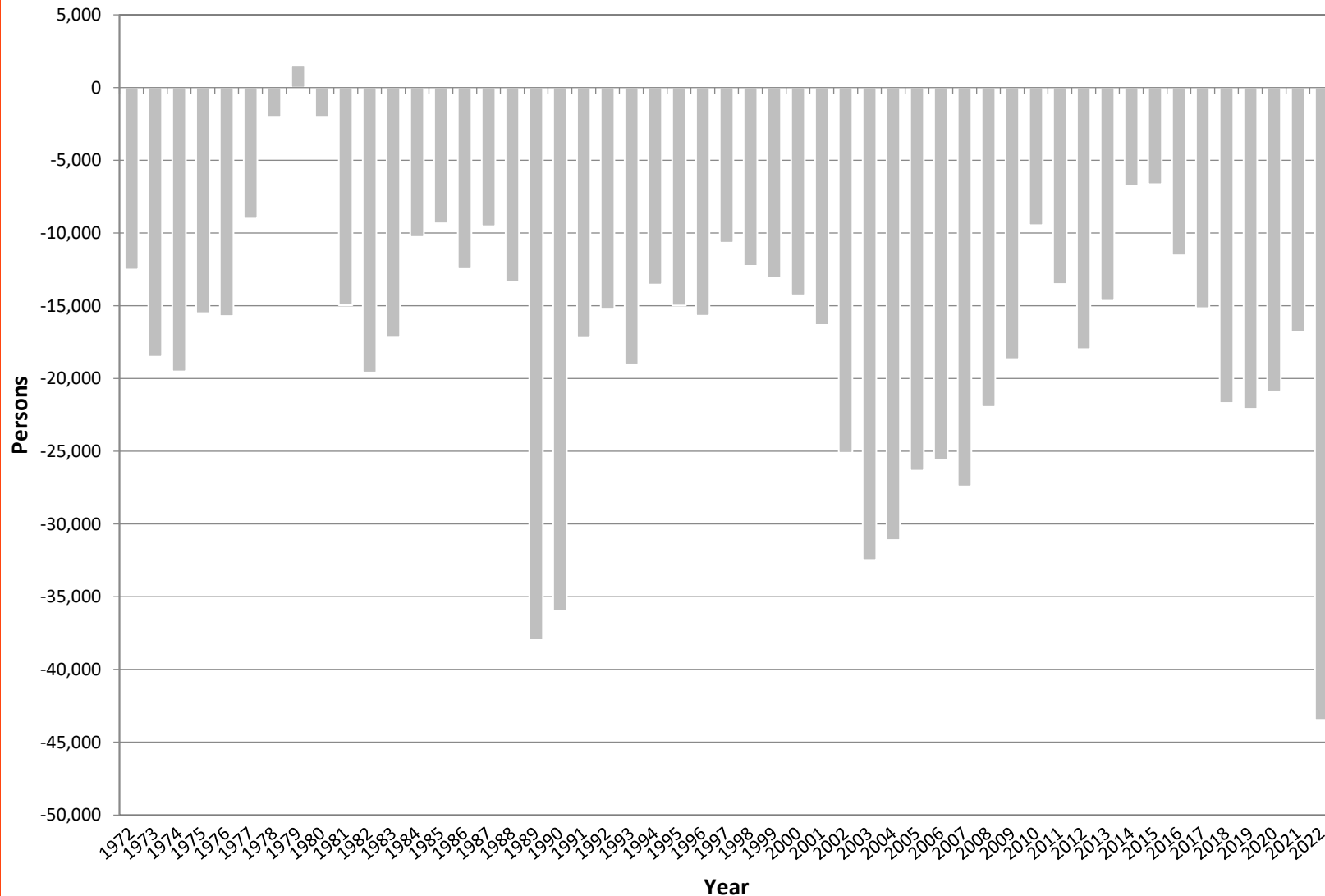
This is the strongest trend in NSW – substantial movement out to (mainly) Queensland and accelerating after lockdowns – 2022 was a record net migration loss (but moderating towards the end of the financial year after lockdowns ended).

There is also a strong movement out of Sydney to the urban fringe and to Regional NSW, with the widespread availability of Work From Home.

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NSW LGA population change, 2017-2022

NSW Pop change 2017-2022 %

- More than 5% decline
- 1% to 5% decline
- Stable population
- 1% to 5% growth
- 5% to 15% growth
- Over 15% growth

Sydney Inset

NSW LGA population change, 2021-2022

NSW Pop change 2021-2022 %
- More than 3% decline
- 0.2% to 3.0% decline
- Stable population (+/- 0.2%)
- 0.2% to 2.0% growth
- 2.0% to 4.0% growth
- Greater than 4.0% growth

Sydney Inset

Population trends in 2021 (and change from 2016)

TREND	Willoughby Council	New South Wales
Population (ERP – 2021)	76,034 (-1,854 people, -2.3%) ▼	8,093,815 (+360,957, +4.7%) ▲
Population (Census – 2021)	75,613 (+1,311 people, +1.8%) ▲	8,072,163 (+591,935, +7.9%) ▲
Dwelling change 2016-2021	31,170 dwellings (+1,149, +3.8%) ▲	3,364,777 (+297,791, +9.7%) ▲
Average household size	2.58 (-0.02) ▼	2.57 (-0.04) ▼

NSW population estimate is now very close to the Census count because so many more people were counted at home due to lockdowns. For most areas, the Census count has grown more than the population, and Willoughby is no exception. In fact the ABS now says that Willoughby had negative population growth over 5 years (all due to the last 2) yet the Census count actually increased, with fewer people overseas. Dwelling growth is higher again but average household size declined and there were more unoccupied dwellings, with less visitors staying in the area over the COVID lockdown period.

Population trends – 10 years

Small area	2021	2016	2011	5 year change	10 year change
Artarmon	9,417	9,568	8,623	-1.6%	9.2%
Castle Cove - Middle Cove	3,974	3,882	3,797	2.4%	4.7%
Castlecrag	2,965	2,938	2,965	0.9%	0.0%
Chatswood	25,553	24,951	21,004	2.4%	21.7%
Chatswood West - Lane Cove North	3,707	3,694	3,510	0.4%	5.6%
Naremburn	5,924	5,881	5,433	0.7%	9.0%
North Willoughby - Willoughby East	6,022	6,004	5,754	0.3%	4.7%
Northbridge	6,493	6,348	5,925	2.3%	9.6%
Roseville	2,321	2,388	2,272	-2.8%	2.2%
St Leonards	2,106	2,200	2,026	-4.3%	3.9%
Willoughby	7,124	6,448	6,034	10.5%	18.1%
Willoughby City	**75,613**	**74,302**	**67,355**	**1.8%**	**12.3%**
Greater Sydney	**5,231,147**	**4,823,991**	**4,391,636**	**8.4%**	**19.1%**
New South Wales	**8,072,163**	**7,480,228**	**6,917,601**	**7.9%**	**16.7%**
Australia	**25,422,797**	**23,401,890**	**21,504,691**	**8.6%**	**18.2%**

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2022 population update (1-year and components of change)

TREND	Willoughby	New South Wales
Population (ERP – 2022) and growth (1-year)	75,409 (-625, -0.8%) ▼	8,156,386 (+62,571, +0.8%) ▲
Components of change (1-year)	Natural increase: +236 Overseas migration: +1,086 Internal migration: -1,947	

Thought not losing population at the same rate as the pandemic, the latest figures show that Willoughby continued to decline in population in 2021-22. The components of change show that this is entirely due to continued migration outward to other parts of Australia.

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Migration (5 yearly)

For Willoughby, most migration is within a corridor, from central Sydney towards the north Shore and Central Coast. There is a large net loss in this direction, as well as further north to coastal areas of NSW and South East Queensland.

Main areas of movement to and from Willoughby City Council in 5 years 2016-2021	Numbers
North Sydney	+906
Georges River	+250
Randwick	+127
Mosman	+73
Ku-ring-gai	-1,252
Ryde	-856
Northern Beaches	-630
Hornsby	-559
Parramatta	-391
Central Coast	-362

Map of net gains and losses by LGA

Willoughby City Council - between 2016 and 2021
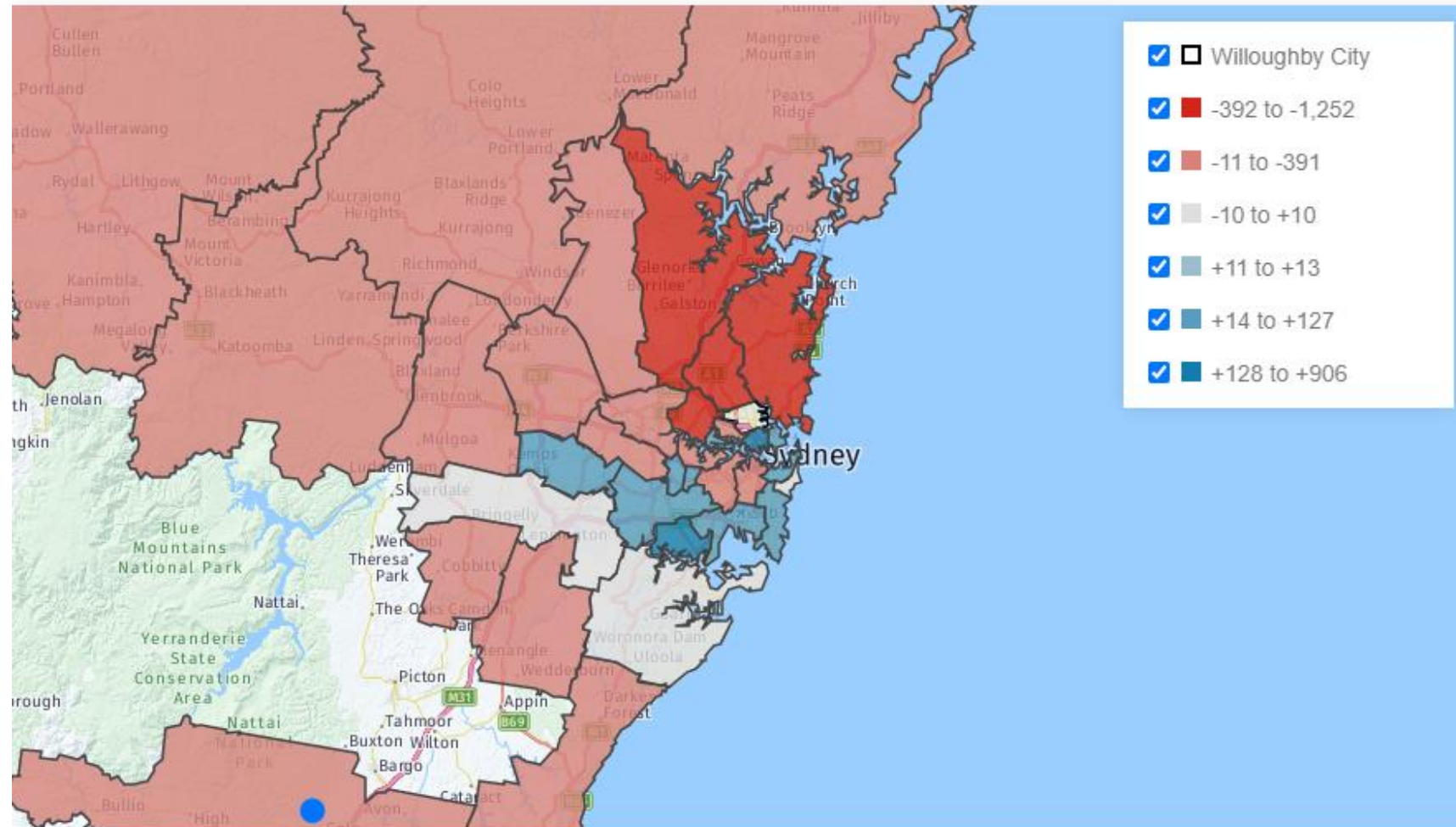
- ☑ ☐ Willoughby City
- ☑ ■ -392 to -1,252
- ☑ ■ -11 to -391
- ☑ ■ -10 to +10
- ☑ ■ +11 to +13
- ☑ ■ +14 to +127
- ☑ ■ +128 to +906

Source: Australian Bureau of Statistics, Census of Population and Housing 2021.
Compiled and presented in profile.id by .id (informed decisions).

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Migration (5 yearly)

There was negative movement out in every age group, but particularly family formation ages in their 20s and 30s.
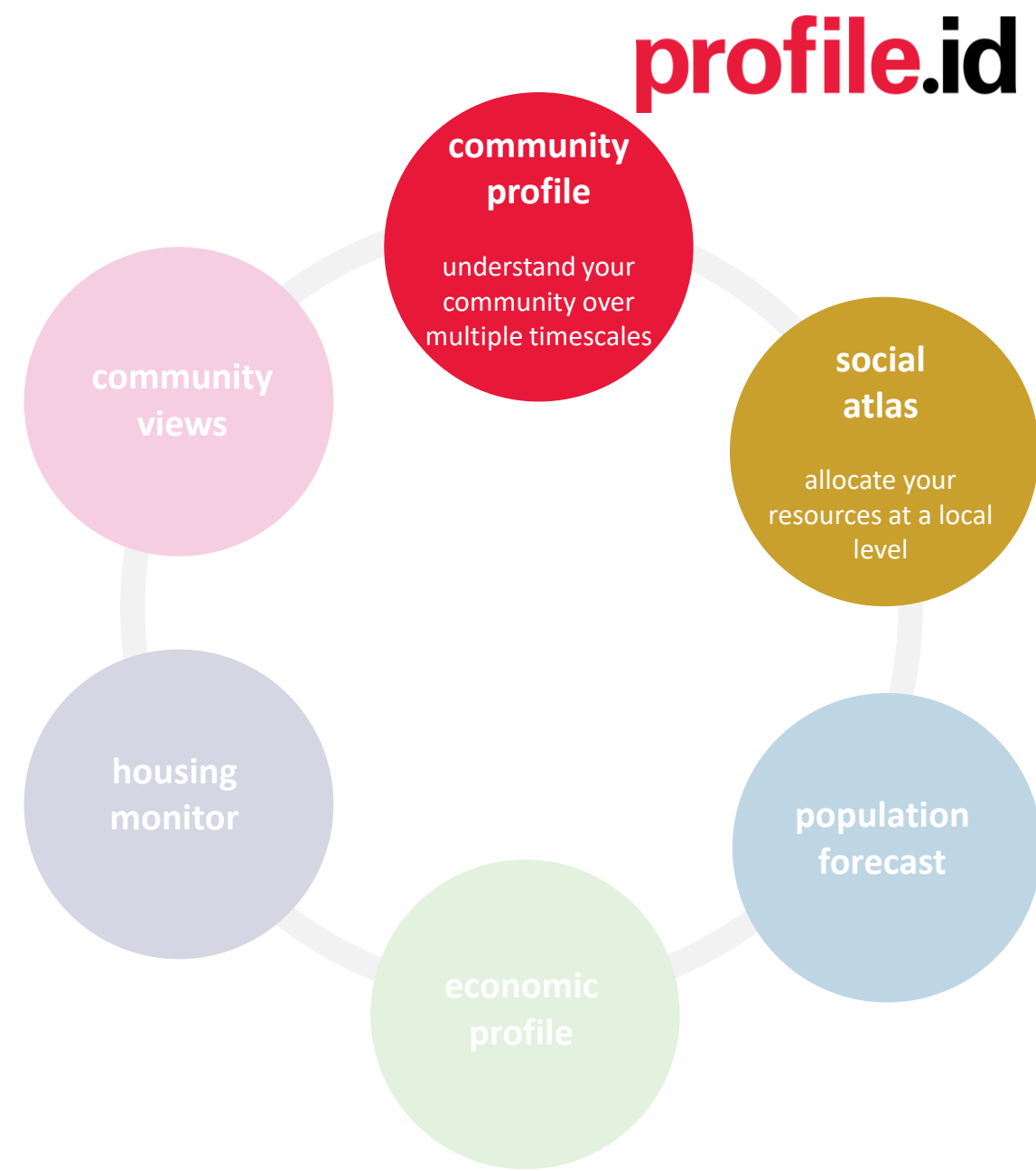
Net migration by age group 2021

Willoughby City

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residents data). Compiled and presented in profile.id by .id (informed decisions).

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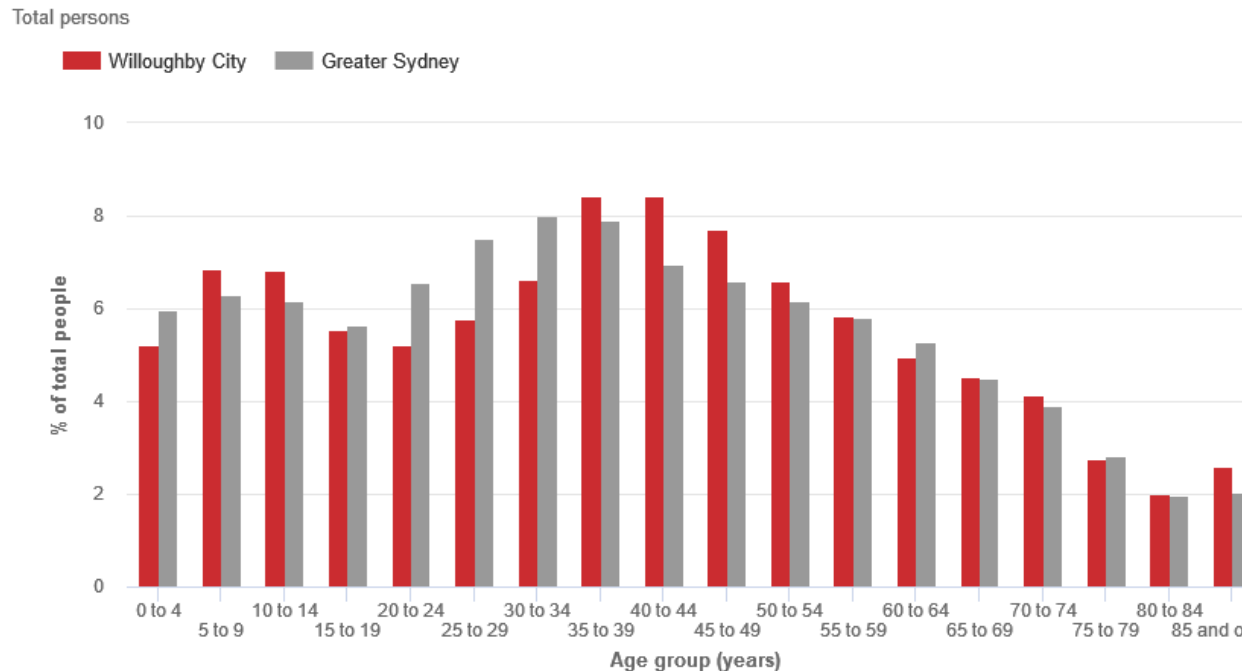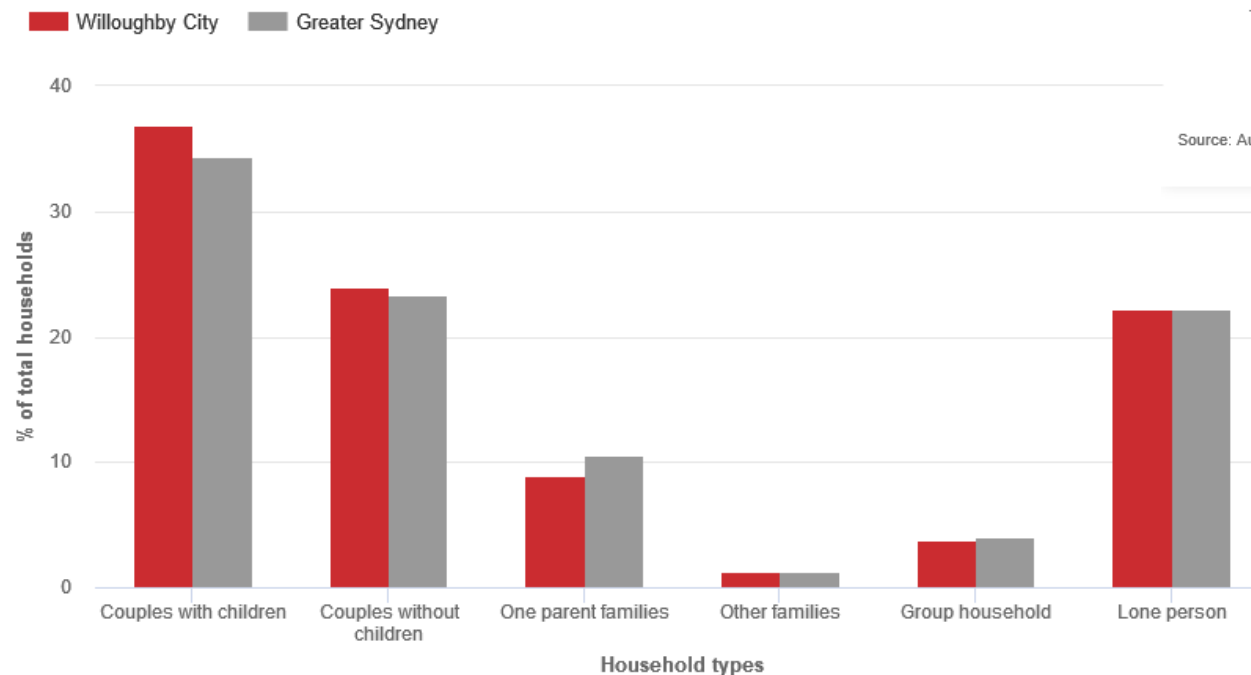# profile.id and atlas.id

- Online information tool, for council staff, and for the public.

- 1991, 1996, 2001, 2006, 2011, 2016 and 2021 Census data.

- 39 demographic topics to tell the story of your changing area.

- Broken into 11 suburbs, 4 wards and a Chatswood CBD overlay - with full Census data for each, for all years where available.

- Detailed migration and SEIFA datasets.

- Reporting and data export options designed to integrate with other output tools.

- Communities of Interest module with specific information about sub-population groups.

- 2021 Census data rollout is now complete

- Monthly building approvals and JobSeeker updates.

- http://profile.id.com.au/willoughby

- Atlas – spatial mapping to pinpoint communities of interest and points of disadvantaged population.

- http://atlas.id.com.au/willoughby DEMONSTRATION

profile.id

community profile
understand your community over multiple timescales

social atlas
allocate your resources at a local level

population forecast

economic profile

housing monitor

community views

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Willoughby City Council Age Structure 2021

Age structure - five year age groups, 2021
Total persons

■ Willoughby City ■ Greater Sydney

Change in age structure - five year age groups, 2016 to 2021
Willoughby City - Total persons
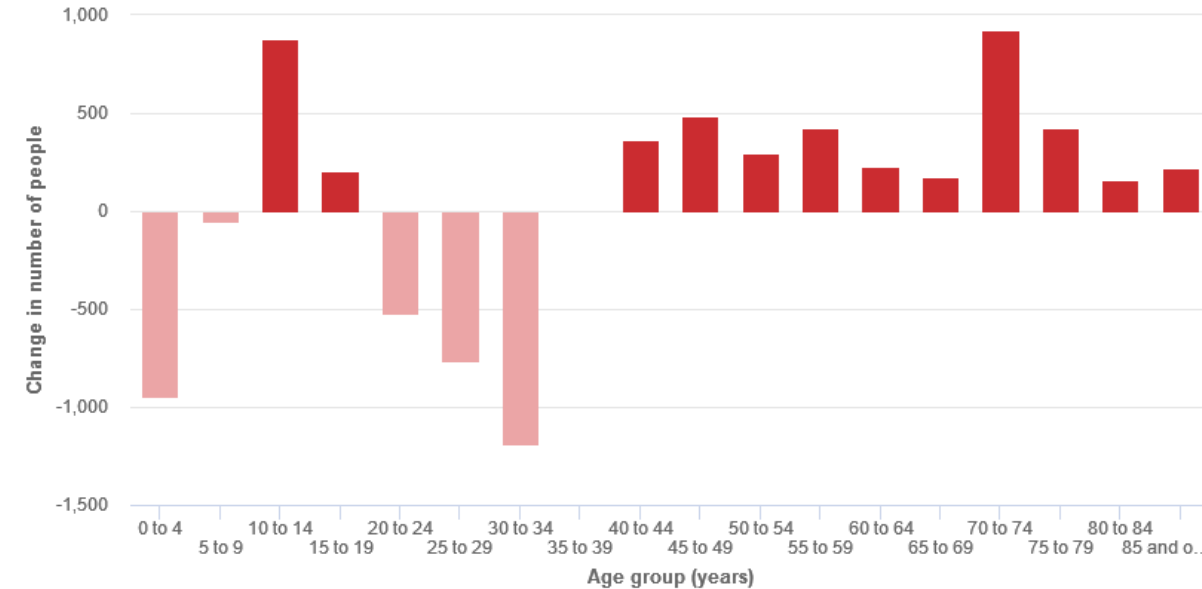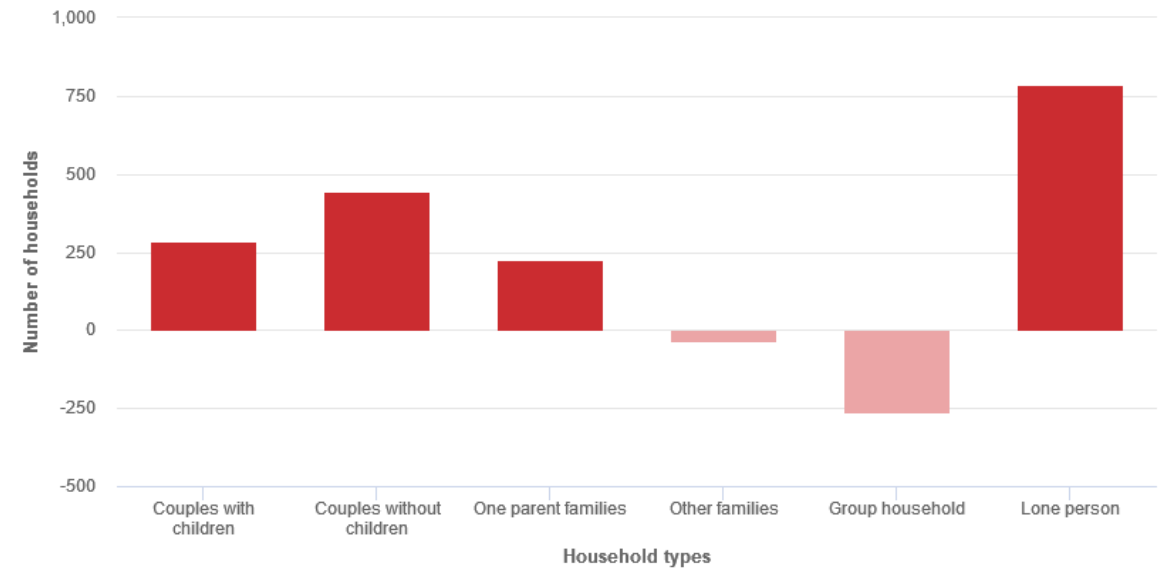
Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).
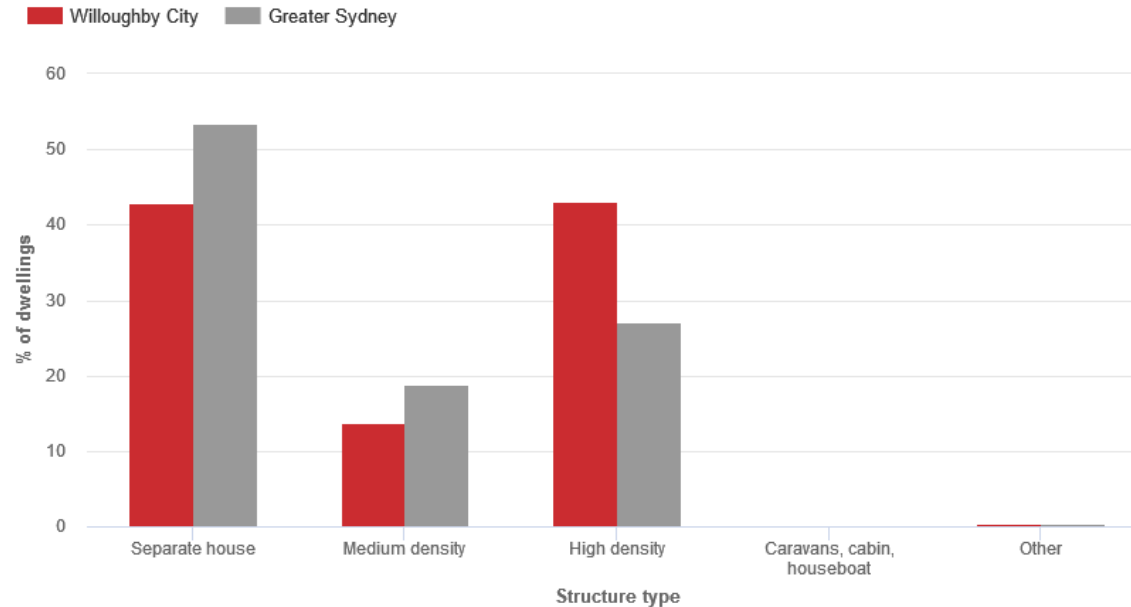
Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 and 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).

Willoughby has an age structure similar to Sydney overall, but with a few more families and older children, as well as a few more elderly. The median age of 39 has aged 2 years in the past 5, and most of the population growth has been among older children, and baby boomers ageing into their 70s, while families with young children declined.

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Household type trends

Family households are dominant, particularly those with children

Change in household type, 2016 to 2021
Willoughby City

Household type, 2021

■ Willoughby City ■ Greater Sydney

There is a significant shift into lone person and couples without children households, and away from the group households – as students and young migrant households are less prominent due to border closures.
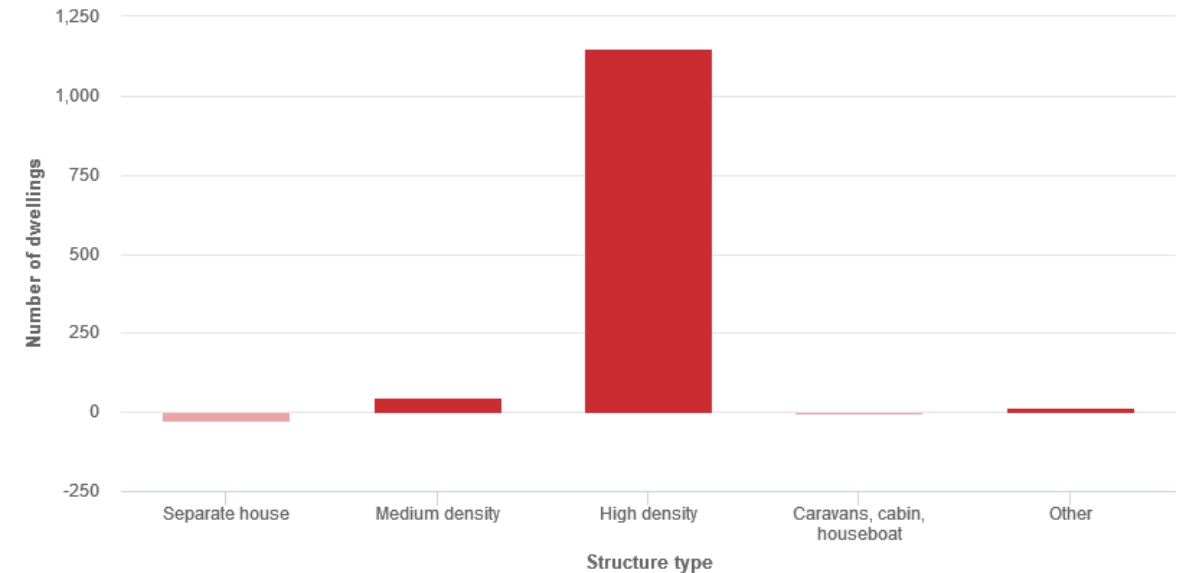
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Housing trends

Dwelling structure, 2021

■ Willoughby City   ■ Greater Sydney

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Enumerated data). Compiled and presented in profile.id by .id (informed decisions).

Change in dwelling structure, 2016 to 2021

Willoughby City

Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 and 2021 (Enumerated data). Compiled and presented in profile.id by .id (informed decisions).

With a large increase in high density dwellings of 1-2 bedrooms, it's a little surprising that household size has not fallen by more.

.id

Housing trends

Housing tenure, 2021

Willoughby City ■ Greater Sydney ■

Renting

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Enumerated data). Compiled and presented in profile.id by .id (informed decisions).

Change in housing tenure, 2016 to 2021

Willoughby City

Renting

Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 and 2021 (Enumerated data). Compiled and presented in profile.id by .id (informed decisions).
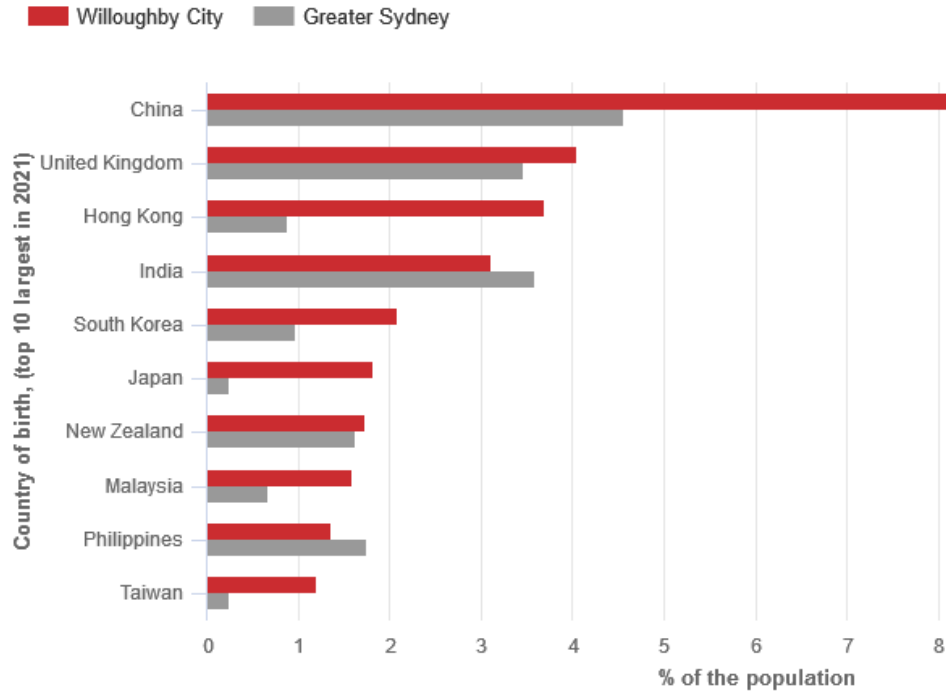
Full home ownership is quite high, with a slightly older population contributing to this. But renting has increased the most in the last 5 years.

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Diverse populations

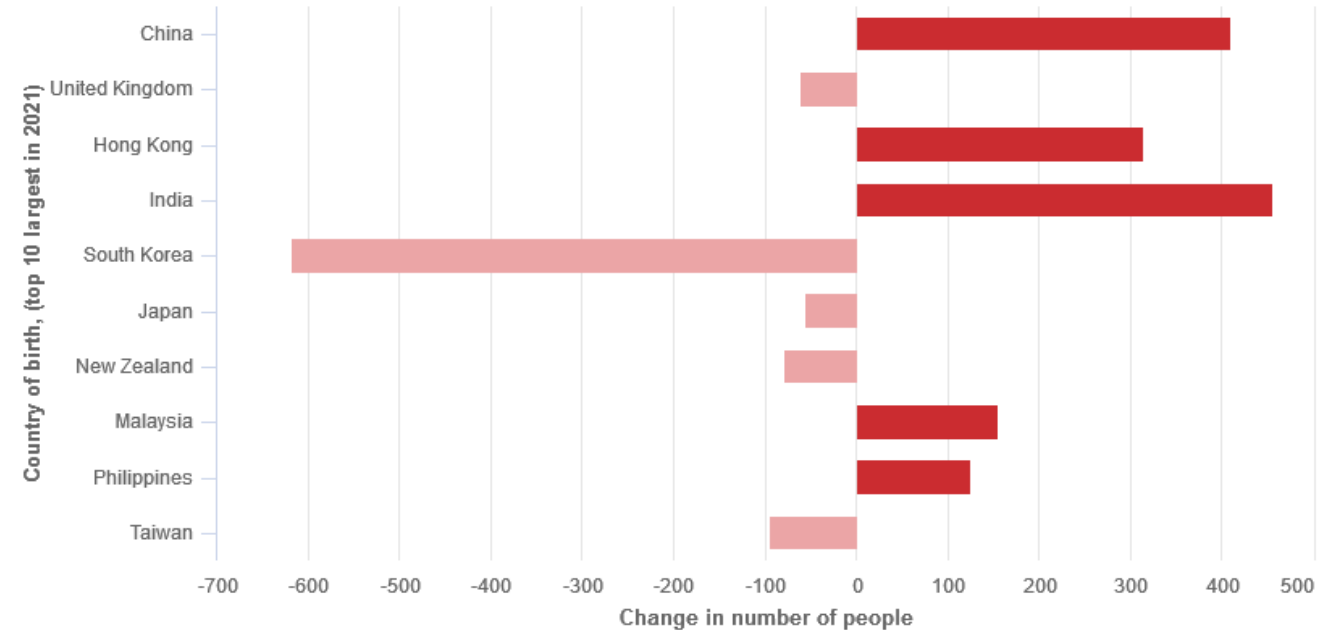| TREND	Willoughby City Council	New South Wales
Aboriginal and Torres Strait Islander (First Nations)	208 people, 0.3% ◀▶	3.4%% (+0.5%) ▲
Overseas-born	35,168 people, 46.5%, ▲ (+1.1%)	29.3% ▲ (+1.7%)
Speaking non-English language at home	31,035 people, 41.0% ▲ (+0.8%)	26.6% ▲ (+1.5%)
No Religion/secular	43.4% ▲ (+6.6%) Main religions – Catholicism, Anglican	33.0% ▲ (+7.6%)

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Countries of Birth

Birthplace, 2021

Willoughby City **Greater Sydney**

Country of birth, (top 10 largest in 2021)
- China
- United Kingdom
- Hong Kong
- India
- South Korea
- Japan
- New Zealand
- Malaysia
- Philippines
- Taiwan

% of the population (0 1 2 3 4 5 6 7 8)

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented

Change in birthplace, 2016 to 2021

Willoughby City

Country of birth, (top 10 largest in 2021)
- China
- United Kingdom
- Hong Kong
- India
- South Korea
- Japan
- New Zealand
- Malaysia
- Philippines
- Taiwan

Change in number of people (-700 -600 -500 -400 -300 -200 -100 0 100 200 300 400 500)
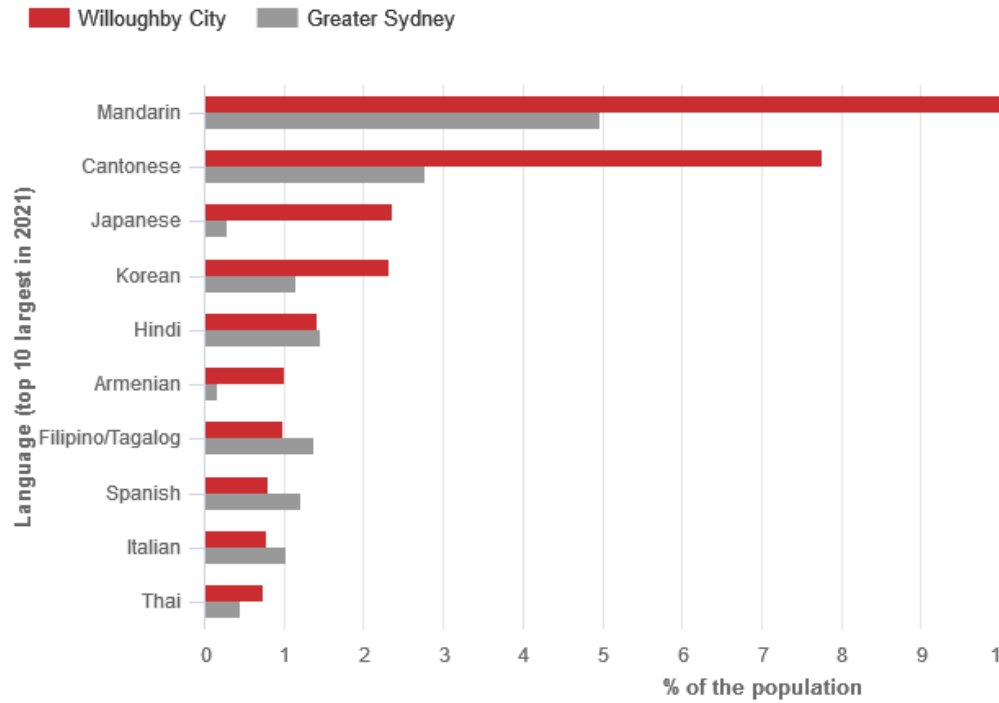
Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 and 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).
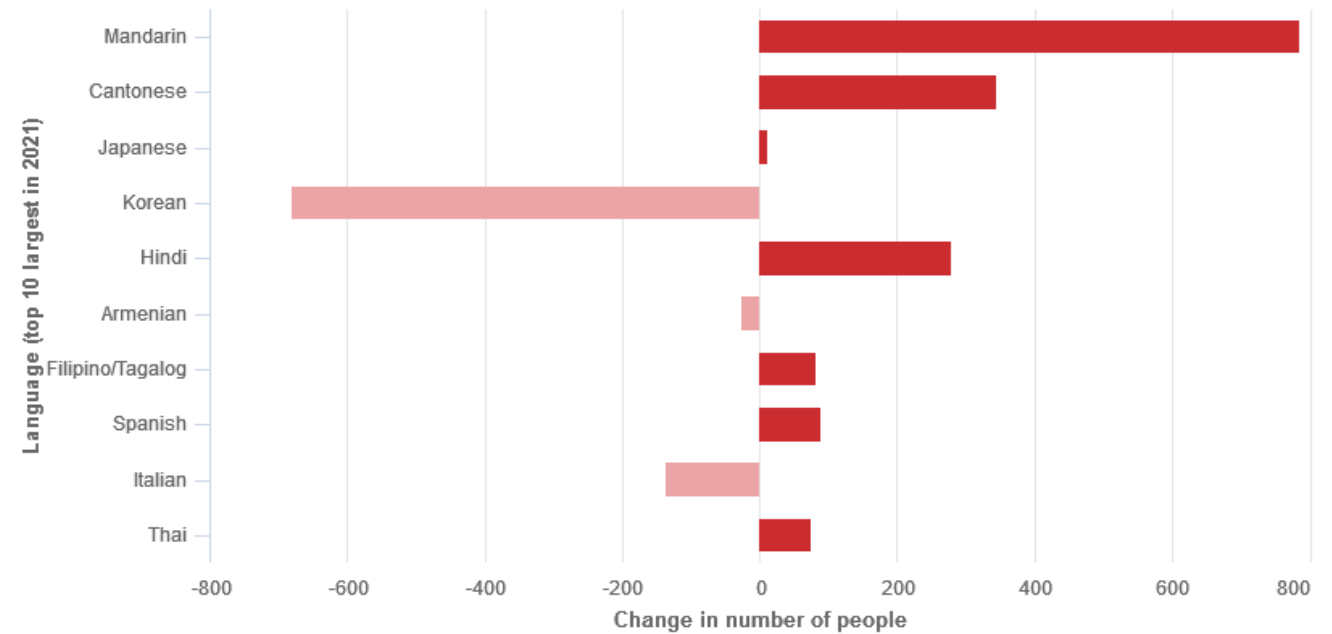
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Languages spoken

Language spoken at home, 2021

Willoughby City   Greater Sydney

Language (top 10 largest in 2021): Mandarin, Cantonese, Japanese, Korean, Hindi, Armenian, Filipino/Tagalog, Spanish, Italian, Thai

% of the population (0 to 10)

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented i

Change in language spoken at home, 2016 to 2021

Willoughby City

Language (top 10 largest in 2021): Mandarin, Cantonese, Japanese, Korean, Hindi, Armenian, Filipino/Tagalog, Spanish, Italian, Thai

Change in number of people (-800 to 800)

Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 and 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).
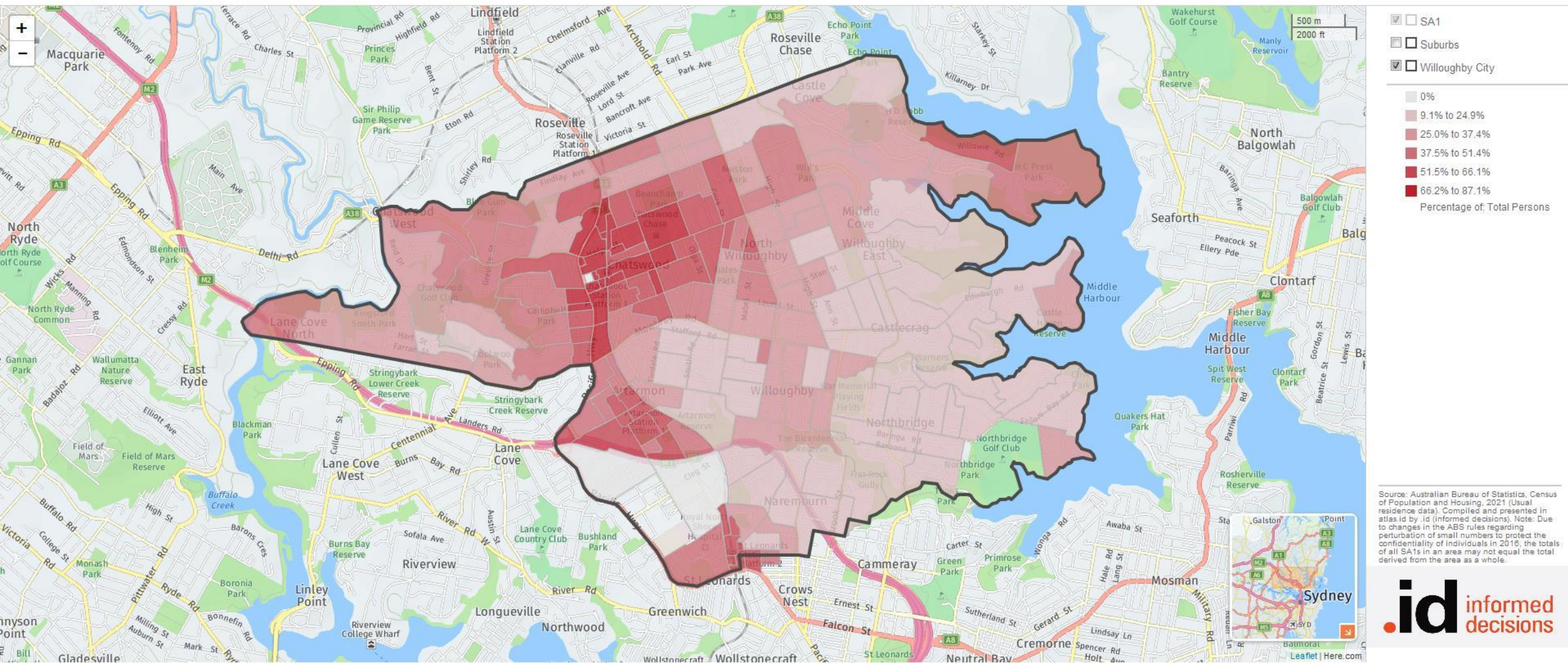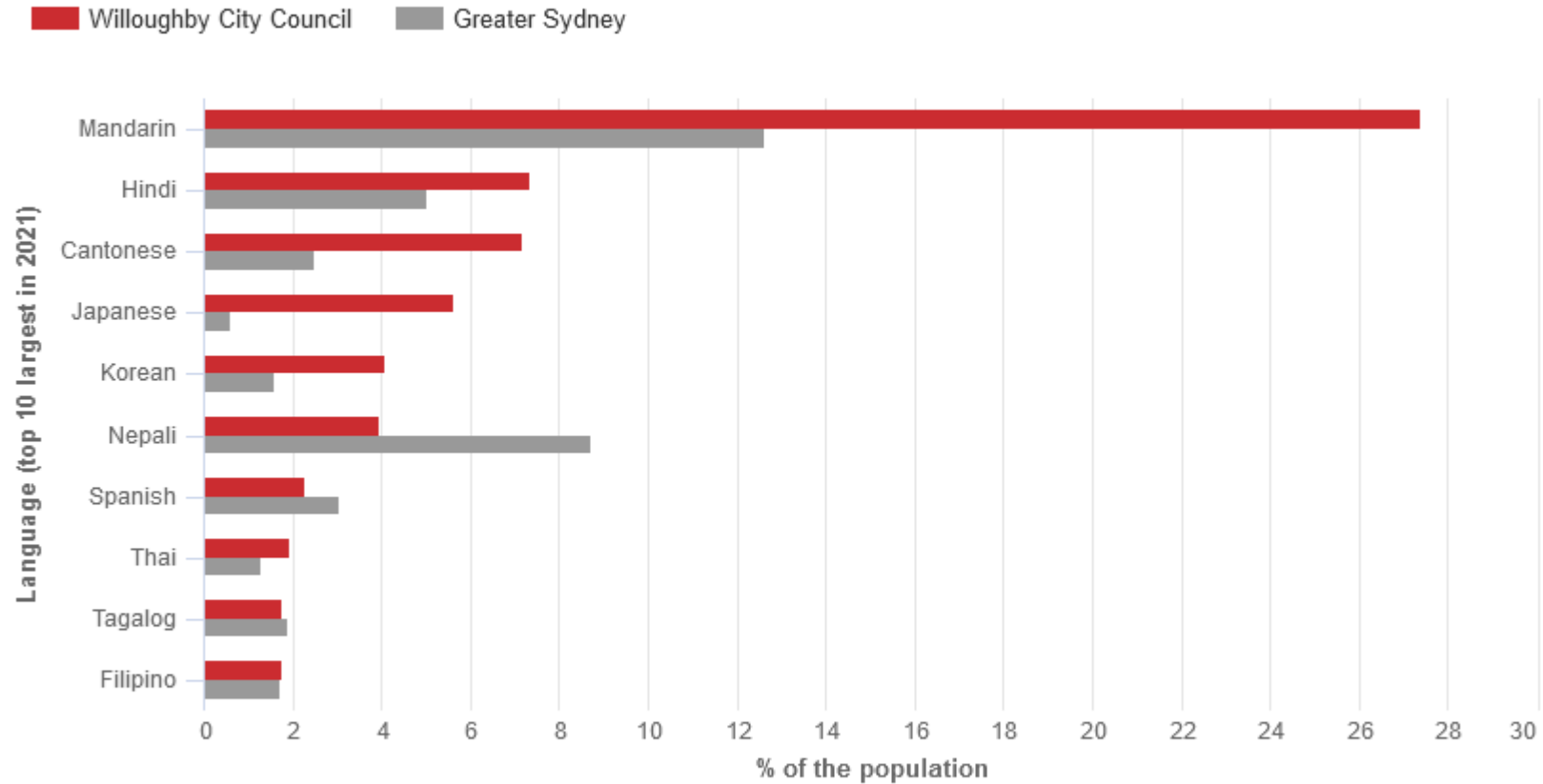
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Willoughby City Council, Language other than English, 2021, Usual residence, Persons

SA1
Suburbs
Willoughby City

0%
9.1% to 24.9%
25.0% to 37.4%
37.5% to 51.4%
51.5% to 66.1%
66.2% to 87.1%
Percentage of: Total Persons

.id informed decisions

Languages spoken by recent arrivals

Language spoken at home, 2021
Recent arrivals

■ Willoughby City Council   ■ Greater Sydney

Language (top 10 largest in 2021): Mandarin, Hindi, Cantonese, Japanese, Korean, Nepali, Spanish, Thai, Tagalog, Filipino

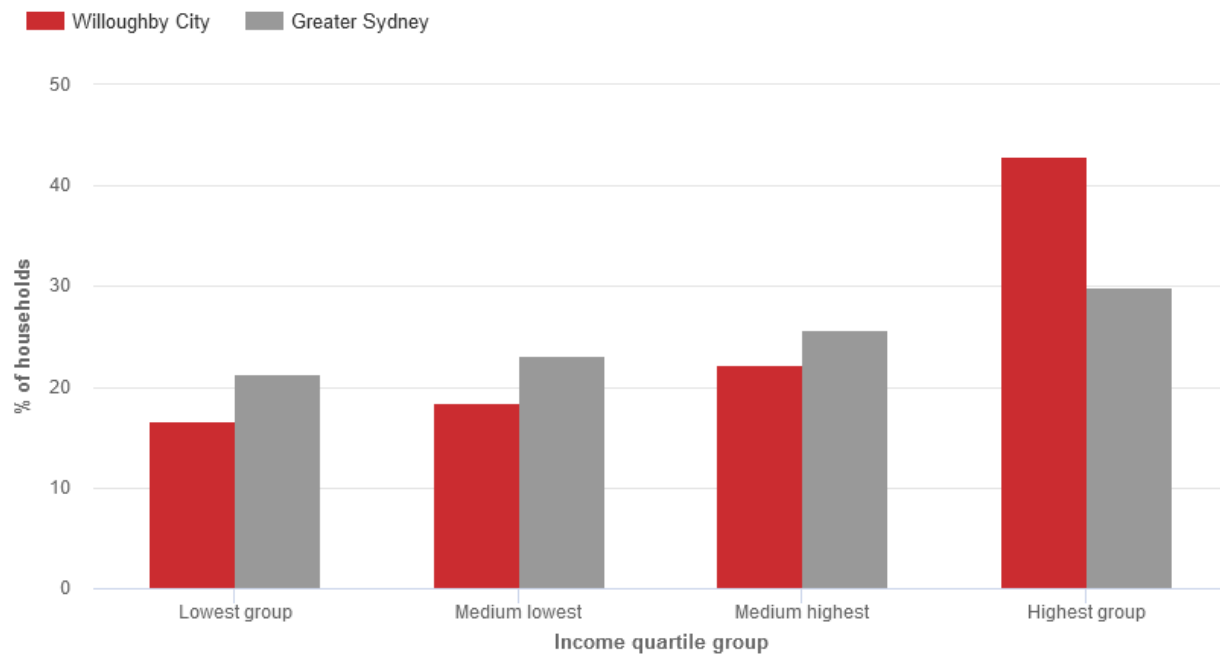% of the population

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).

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Socio-economic

TREND from 2016 to 2021	Willoughby City	New South Wales
Median weekly household income	$2,556 ▲ +13%	$1,829 ▲ +23%
Median weekly rental payment	$571, ▼ -4%	$420 ▲ +11%
Median weekly mortgage payment (pre-RBA interest rate increases)	$761 ▲ +17%	$500 ▲ +9%
SEIFA Index of Advantage/Disadvantage	1,142	Willoughby is the 8th most advantaged LGA in NSW. Only really one pocket of disadvantage, in Artarmon.

.id

Household income

Household income quartiles, 2021

■ Willoughby City　■ Greater Sydney

% of households

Income quartile group	
Lowest group	
Medium lowest	
Medium highest	
Highest group	

Change in household income quartile, 2016 to 2021

Willoughby City
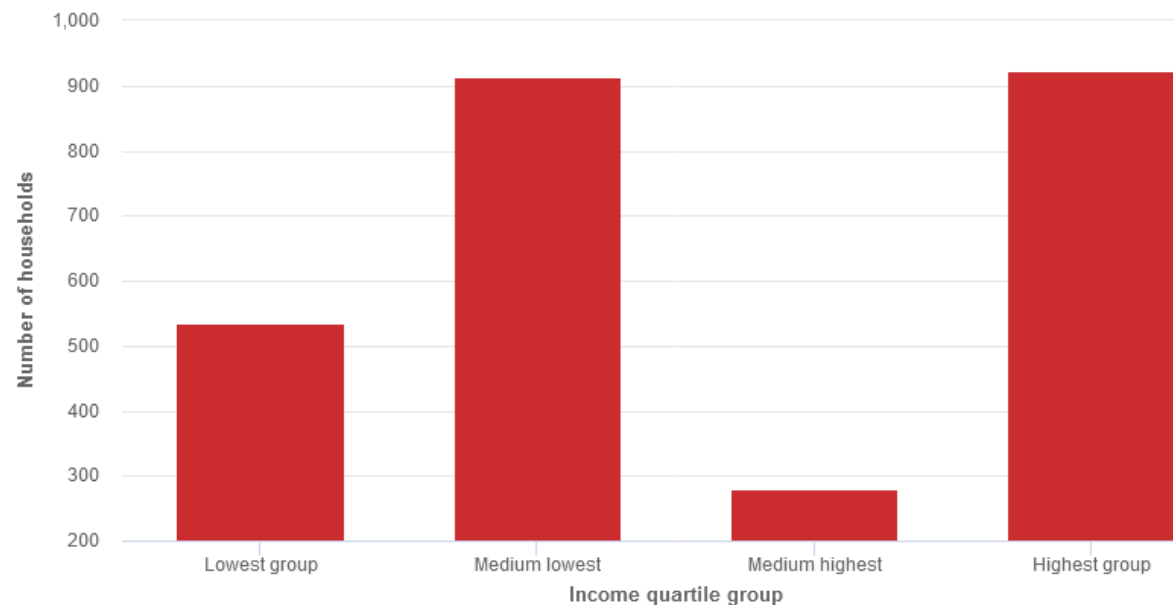
Number of households

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SEIFA Index of Advantage/Disadvantage

Willoughby City Council, Index of Relative Socio-economic Advantage and Disadvantage, 2021, Usual residence, Number
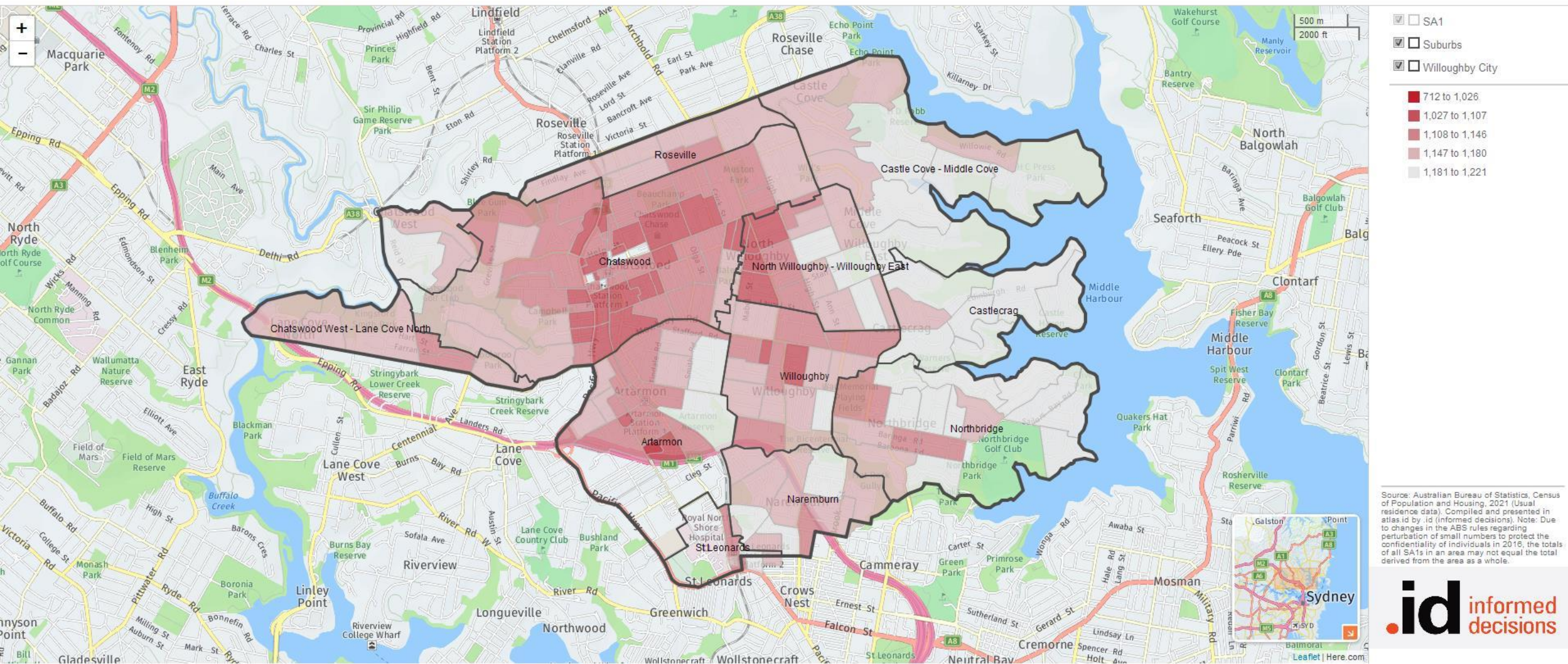
Long term health conditions

Long term health conditions, all persons, 2021
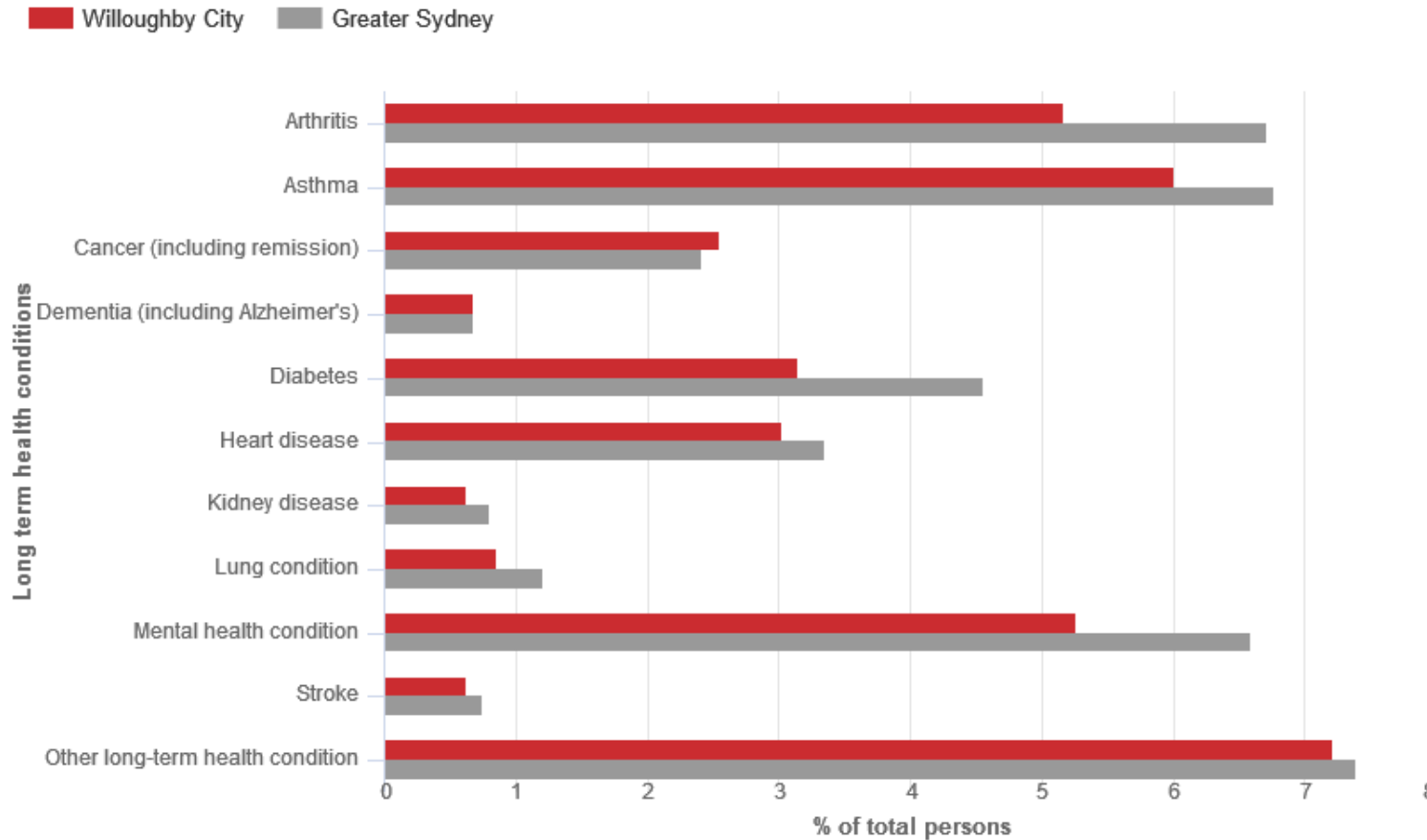
■ Willoughby City ■ Greater Sydney

Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).

The new Census topic sheds a light on the number of people living with a chronic health issue.

Willoughby has a relatively low rate of all health conditions, with 24.8% of the population reporting at least one condition. Lower than the state average of 30.9%.

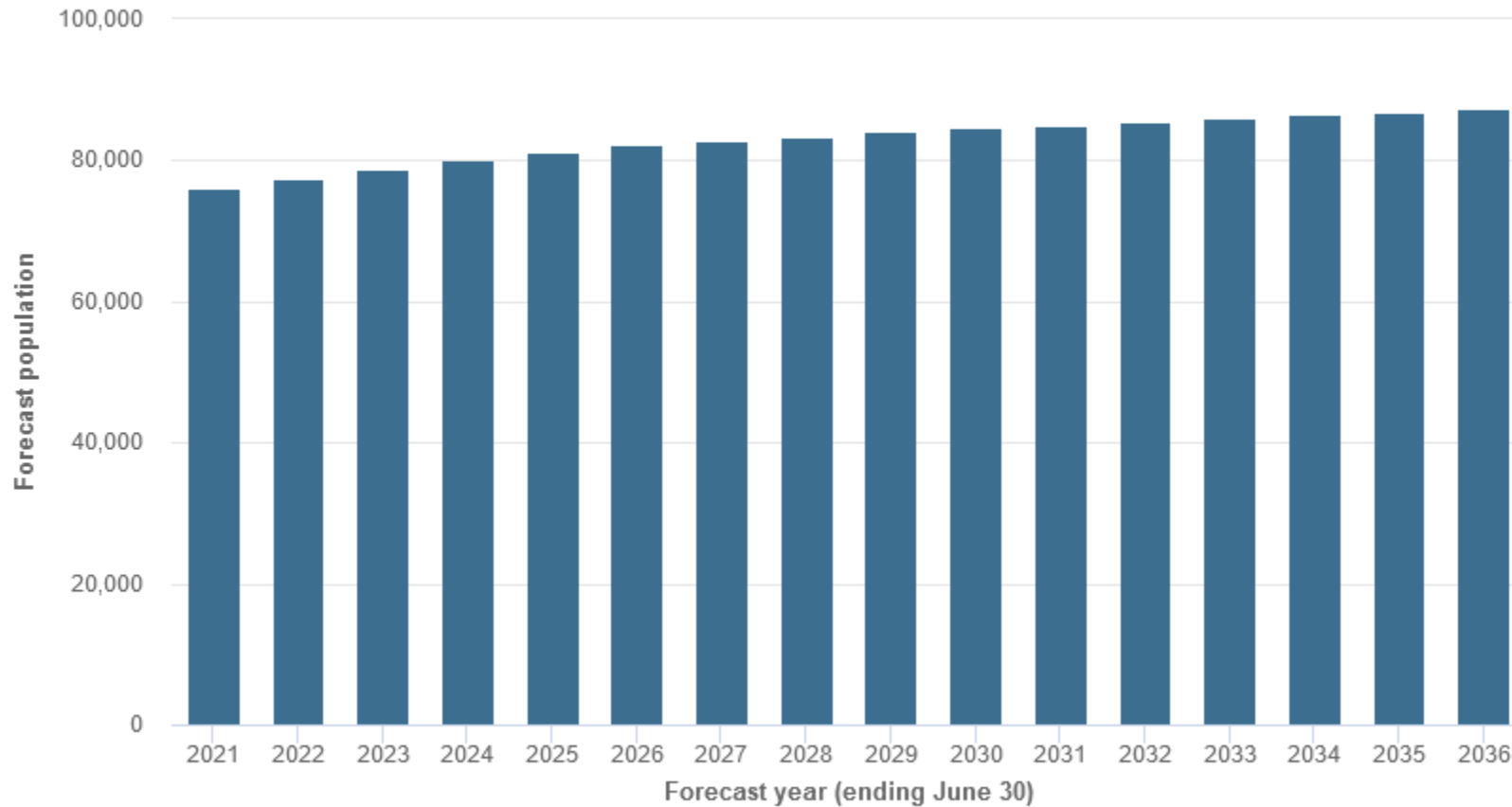The rate of cancer is a little higher.

forecast.id

- **Currently online for Willoughby City.**
- Online information tool, for council staff, and for the public.
- Population, household, dwellings, age structure and household type
- 2016 to 2036, in individual years.
- Broken into detailed suburbs and precincts to understand development patterns.
- Politically independent.
- Based on council input on land supply, current housing policy, and .id's assessment of ongoing demand.
- Incorporates both national and state trends, and local trends at the suburb level.
- Updated to match 2021 Census, further update of assumptions and extension to 2046 shortly.
- http://forecast.id.com.au/willoughby DEMONSTRATION

community profile

social atlas

population forecast

plan for the future based on a set of agreed assumptions

economic profile

housing monitor

community views

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Forecast population

Forecast population
Willoughby City Council

Source: Population and household forecasts, 2021 to 2036, prepared by .id (informed decisions), January 2023.

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Forecast population

Forecast age structure - 5 year age groups
Willoughby City Council - Total persons

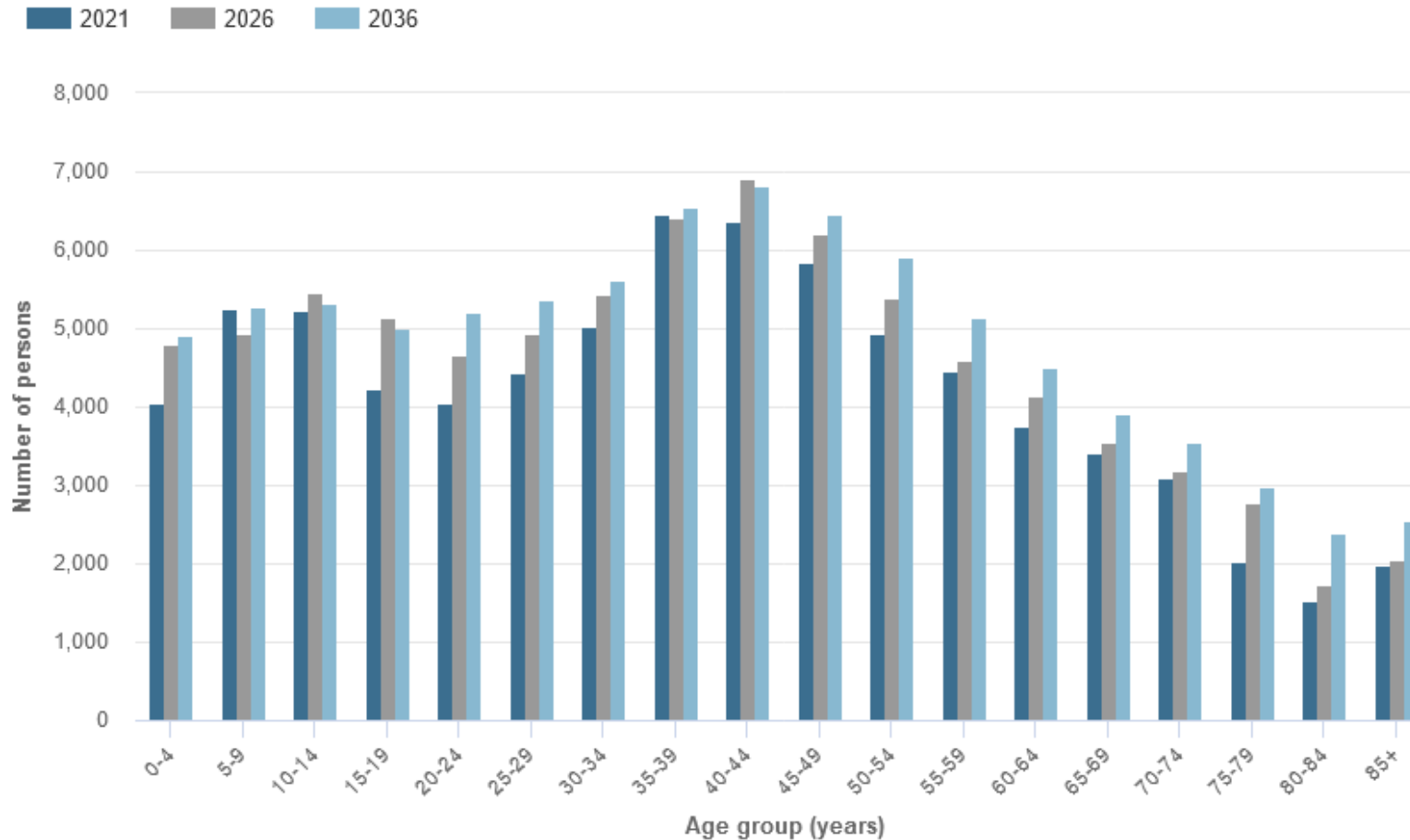Source: Population and household forecasts, 2021 to 2036, prepared by .id (informed decisions), January 2023.

Growth in most age groups, but more among the older groups than the younger expected by 2036.

Most of the growth is due to new higher densities in Chatswood CBD. This does not take into account recent population declines.
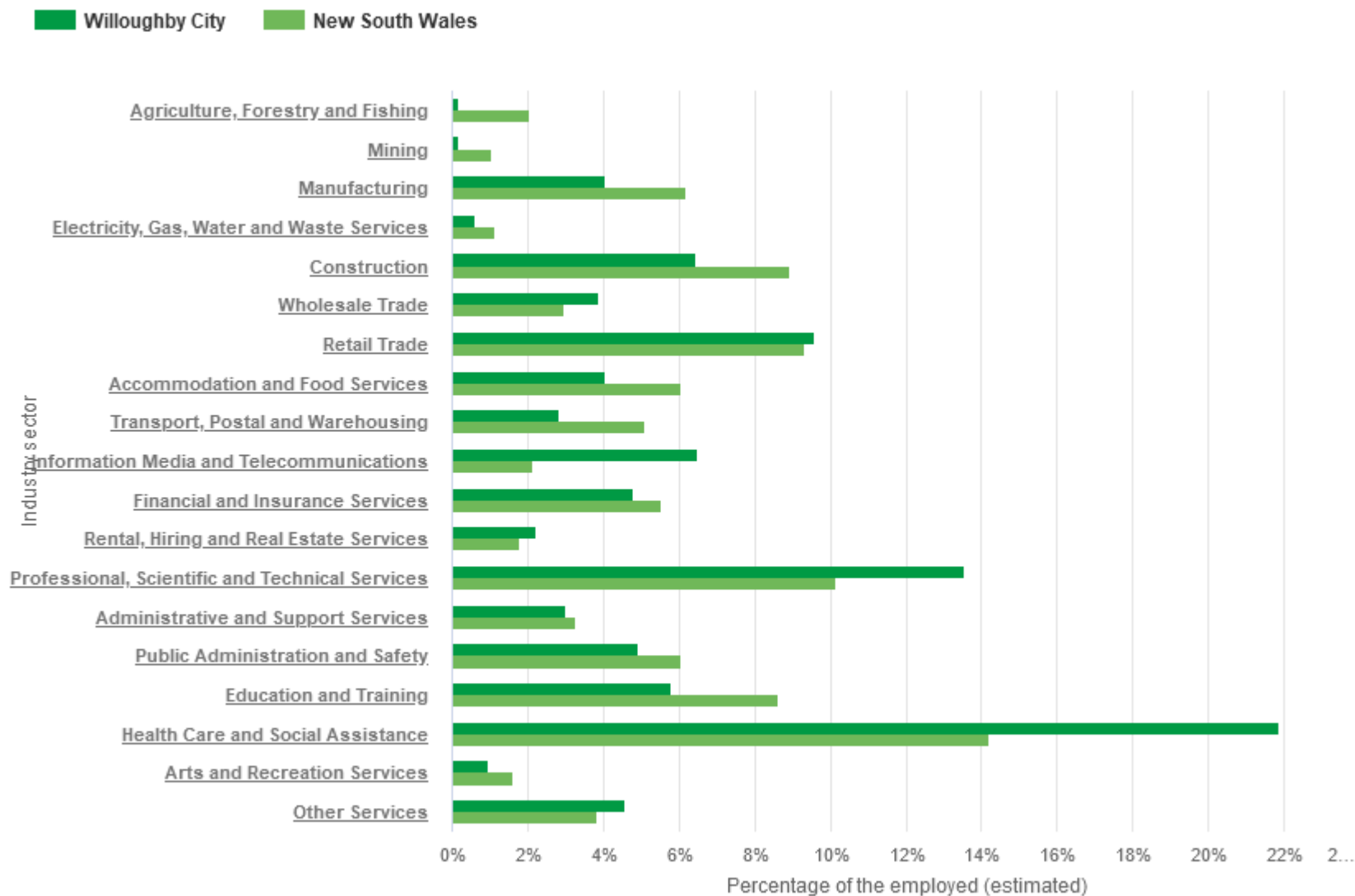
.id

economy.id

- Annually updated, modelled economic data including jobs every year.

- Size of the economy, value and employment in 87 industry sectors

- Detailed journey to work information by industry and occupation.

- Track individual industry change over 15 years.

- Detailed worker profiles and characteristics.

- Economic modelling tool – what if? Analysis

- Event impact calculator

- Tourism information

- http://economy.id.com.au/willoughby

- Census data in economy.id is now updated to 2021. Economic modelled data features 2021-22 financial year.

- DEMONSTRATION INCLUDING IMPACT TOOLS

community profile

community views

social atlas

housing monitor

population forecast

economic profile

analyse jobs, industry and model economic change

.id

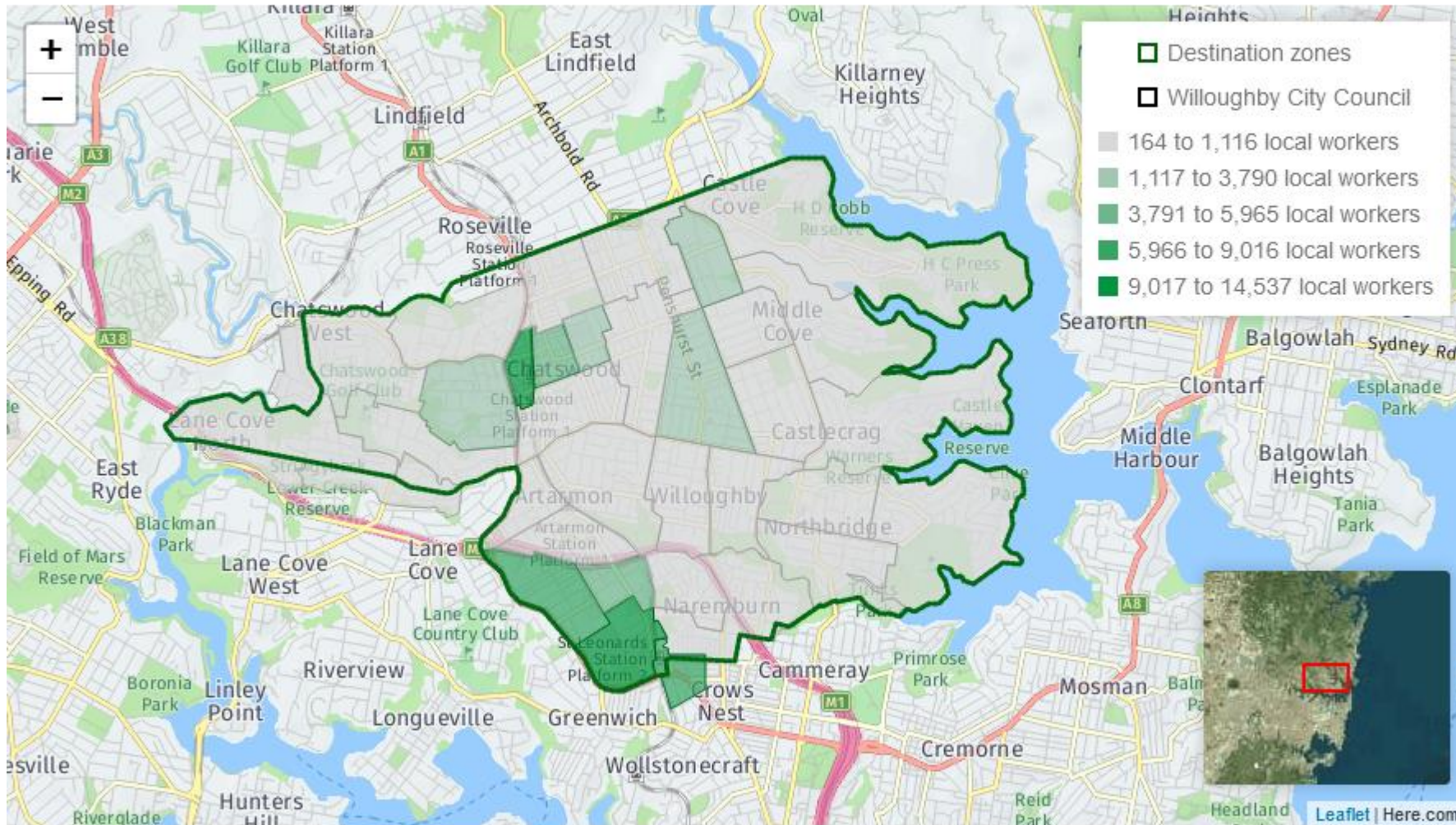# Willoughby's workforce

Employment (total) by industry 2021/22

Willoughby's $12.4 billion economy employs about 70,000 people, with the largest share in Health Care and Social Assistance, and Professional, Scientific and Technical services.

Information, Media and Telecommunications has the largest location quotient, indicating it's an unusual specialty industry in Willoughby.

Willoughby's workforce

All industries
Willoughby City Council - Employment locations - Number of local workers 2021

Legend:
- Destination zones
- Willoughby City Council
- 164 to 1,116 local workers
- 1,117 to 3,790 local workers
- 3,791 to 5,965 local workers
- 5,966 to 9,016 local workers
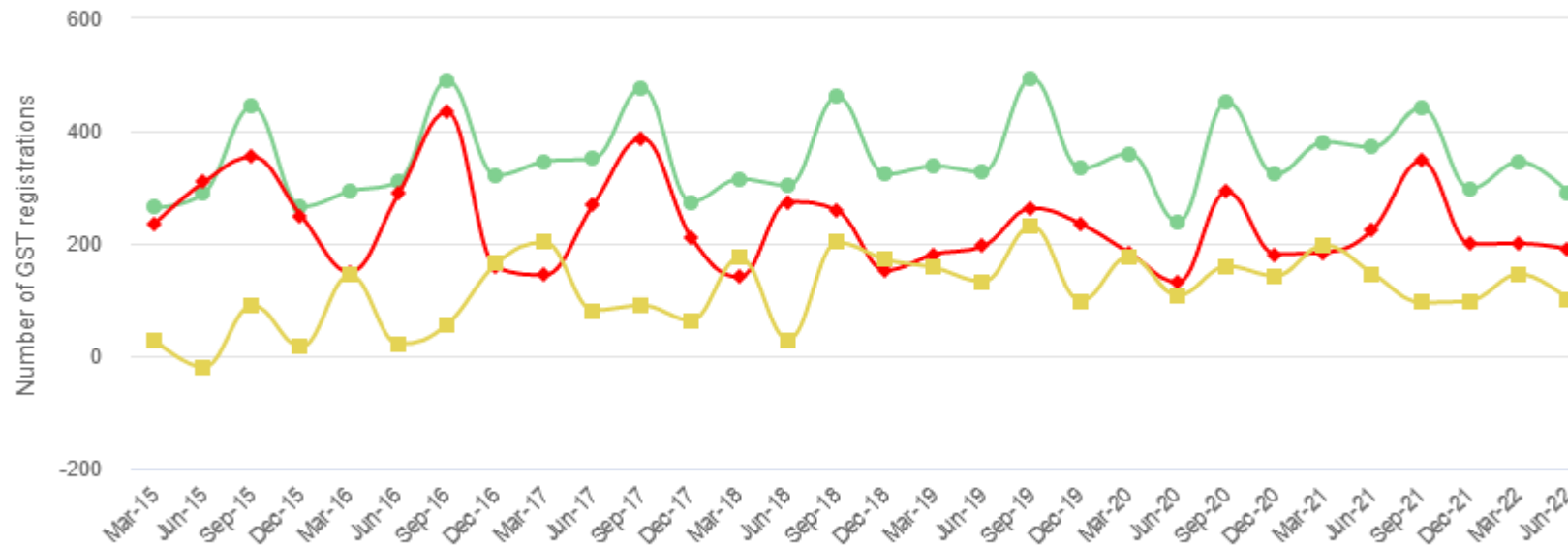- 9,017 to 14,537 local workers

Census shows most of the jobs are in two nodes – Chatswood CBD and St Leonards.

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Willoughby's workforce

Change in GST registered business
Willoughby City - All industries

— New GST registrations   — Cancelled GST registrations   — Net change

Source: Australian Business Register. ©2020 Compiled and presented in economy.id by .id (informed decisions).

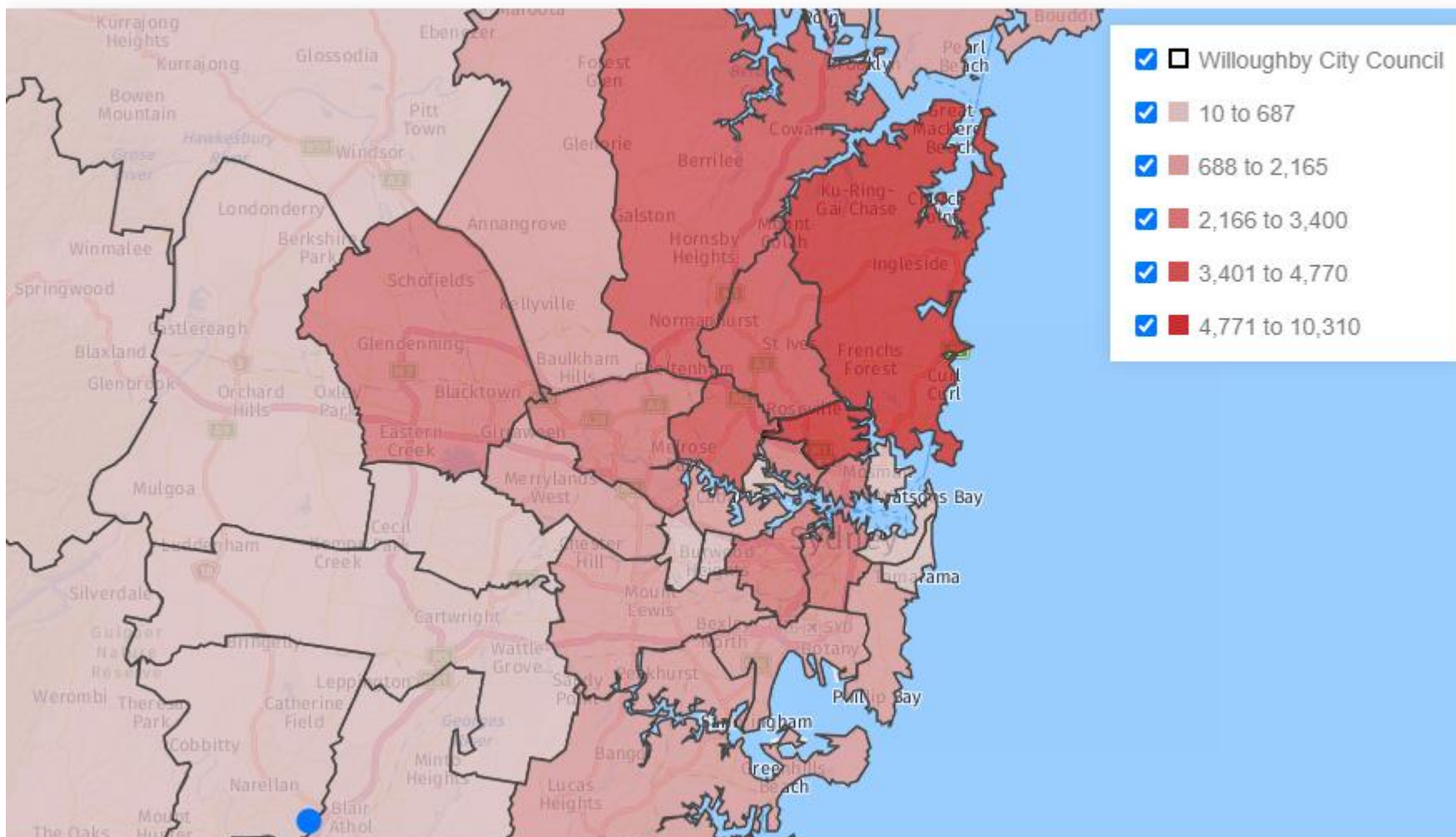Over 14,000 registered and active businesses with consistent growth every quarter in the registered numbers.

DEMONSTRATION: Economic Impact Model and Event Impact Calculator

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Worker origins

Residential locations of workers by LGA, 2021
Willoughby City Council

Legend:
- Willoughby City Council
- 10 to 687
- 688 to 2,165
- 2,166 to 3,400
- 3,401 to 4,770
- 4,771 to 10,310

The Census recorded almost 63,000 workers with jobs in Willoughby. This is an undercount, compared to the modelled estimates.

Only 16.4% live in Willoughby.

Many did not go to their workplace on Census day 2021

Source: Australian Bureau of Statistics, Census of Population and Housing 2021.
Compiled and presented in profile.id by .id (informed decisions).

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Resident destinations

Employment locations of residents by LGA, 2021
Willoughby City Council

Willoughby City Council
10 to 782
783 to 1,609
1,610 to 3,727
3,728 to 10,310
10,311 to 11,826

Source: Australian Bureau of Statistics, Census of Population and Housing 2021.
Compiled and presented in profile.id by .id (informed decisions).
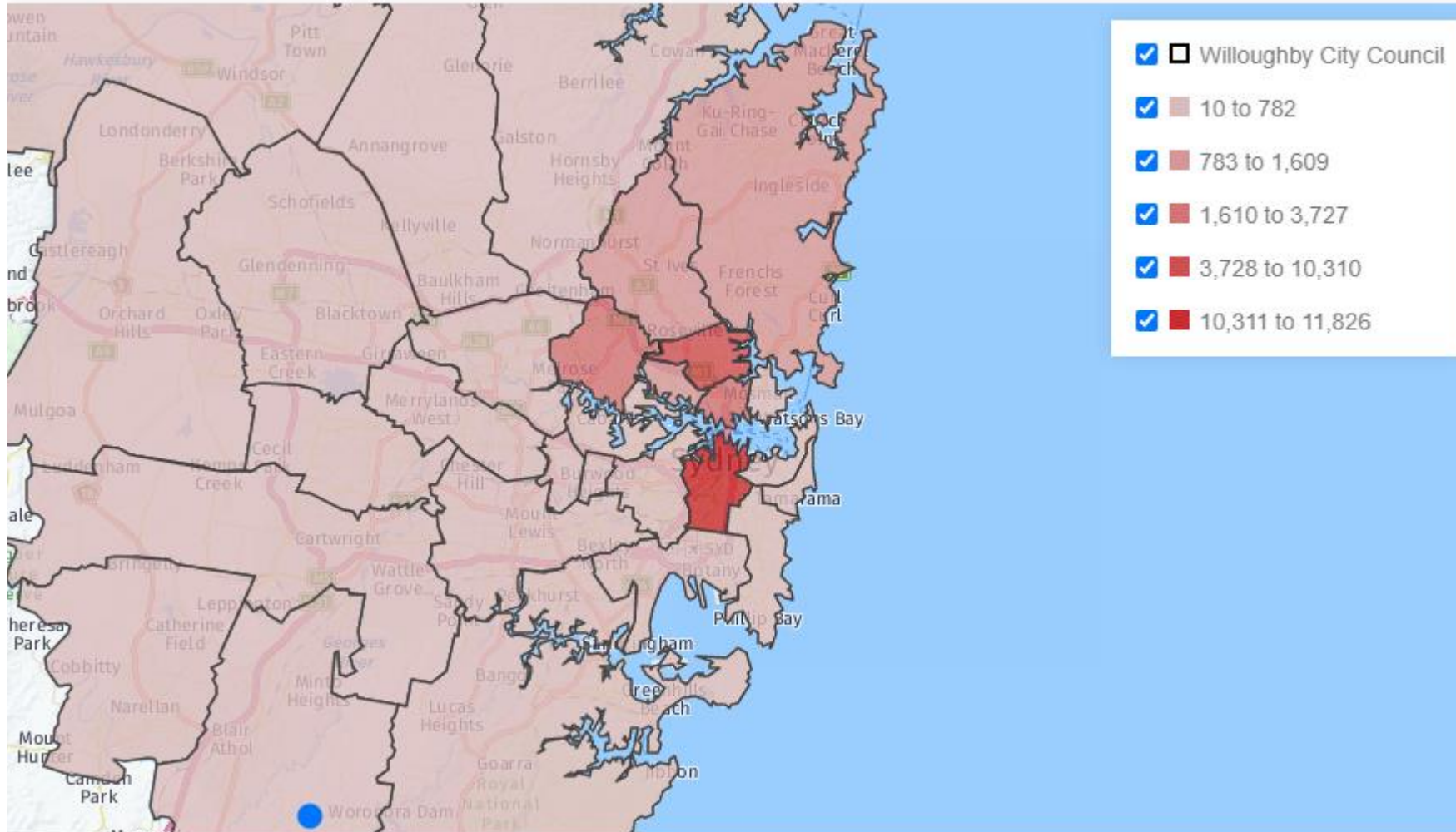
There were fewer employed residents, Census recorded just over 37,000 of those. Of those 28% had a job in the Willoughby LGA.
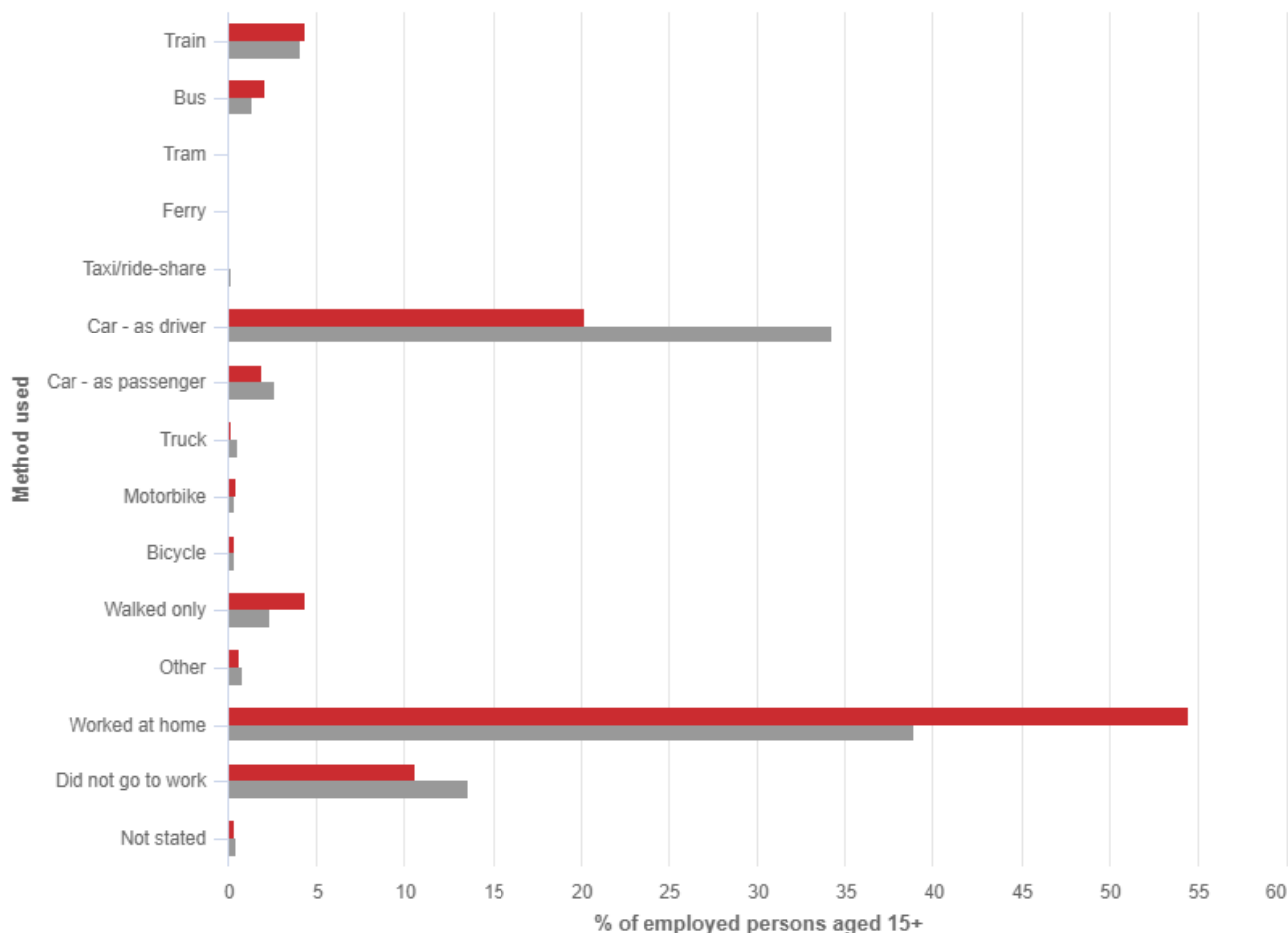
32% worked in the City of Sydney and another 10% in North Sydney.

Willoughby work from home

Method of travel to work, 2021
Total employed persons

■ Willoughby City ■ Greater Sydney

(Bar chart showing % of employed persons aged 15+ by method used: Train, Bus, Tram, Ferry, Taxi/ride-share, Car - as driver, Car - as passenger, Truck, Motorbike, Bicycle, Walked only, Other, Worked at home, Did not go to work, Not stated)

% of employed persons aged 15+

With Census conducted in Sydney's lockdown, Willoughby had one of the highest WFH rates in the nation. 54.5% of resident workers worked at home on Census day.

Among the jobs located in Willoughby this was also high, though a bit lower at 42.3%.

With a large number of residents in white-collar jobs, it's likely to still be high, but won't be as high as in lockdown.

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