



## **Ku-ring-gai Council**

### **Community Analysis – demographic characteristics of potential merger LGAs.**

**by .id (informed decisions)**

**March 2015**

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# 1 Introduction

In September 2014, The NSW government launched its “Fit for the Future” reform package in response to the recommendations of the Independent Local Government Review Panel and the Local Government Acts Taskforce. It aims to strengthen the local government system and includes a range of recommendations for legislative and structural change throughout the Local Government sector.

Local councils have been asked to demonstrate their sustainability as a standalone Local Government Area (LGA) or to consider merging with neighbouring councils, to form larger and potentially more sustainable councils in the long-term.

Ku-ring-gai Council has commissioned this report to analyse the demographic characteristics of the region. This will highlight some of the opportunities and challenges they face when considering the Fit for the Future recommendations and will inform their response to the State.

In some cases, shared demographic profiles can lead to a shared sense of community and a more logical fit for a merger. It is reasonable to merge areas which are demographically similar, as the residents and workers may require similar services, making it easier for a merged council to consolidate services.

Alternatively, it may be in a council’s interest to seek out areas that display different characteristics to their own in order to increase the diversity of their region, or to fill gaps in the local community or workforce.

It is also reasonable for councils to sustainably continue without merging. A better understanding of the population can inform policies that guide councils towards a prosperous future.

The report aims to interrogate these issues by providing a comparative analysis between Ku-ring-gai and neighbouring councils from a demographic perspective. While it makes no recommendations to either remain as a standalone LGA or to merge, it highlights the characteristics of geographic areas and communities of interest across the region that can present opportunities for shared services and diversification of the area.

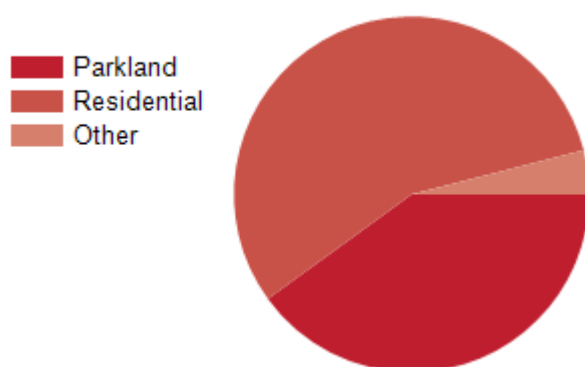
Councils are also required to consider other issues as part of 'Fit for the Future, including financial sustainability and asset maintenance. These are not considered within the scope of this report.

## 2 Ku-ring-gai Council Area

Ku-ring-gai Council sits in the northern suburbs of Sydney about 15 kilometres north of the Sydney CBD. It sits north of the Lane Cove River, and south of Ku-ring-gai Chase National Park, lying just east of the Sydney-Newcastle Freeway.

The LGA encompasses a total land area of 84 square kilometres and is predominantly residential. Relative to other LGAs in the metropolitan Sydney region there is very little commercial or industrial land use (only 5% of land), and a large proportion of the area is National Park, public open space, bushland or reserves.

### Land use



Ku-ring-gai Land Use, 2011

Major features include the Garigal, Ku-ring-gai Chase and Lane Cove National Parks, a University of Technology Sydney Campus, CSIRO Laboratories, St Ives Shopping Village and Showground, well attended public parks, and a number of private hospitals.

Most residential development dates from the 1890s, but increased, along with all northern Sydney suburbs, with the opening of the Sydney Harbour Bridge in 1932. Population remained semi-rural until the 1940s, but post-World-War II growth saw residential numbers double by the 1980s. The population has been relatively stable since then, but has experienced recent increases due to medium and high density housing around the railway line. However, low density housing continues to dominate the residential urban form.

The Ku-ring-gai Council area is served by the Pacific Highway, the Sydney-Newcastle Freeway and the North Shore railway line.

The area has a reputation for being affluent and this is supported by data. Ku-ring-gai has the second highest score in Australia on the Australian Bureau of Statistics (ABS) SEIFA index that measures an LGA' s relative level of disadvantage among local governments.



### 3 Regional Context

Ku-ring-gai Council is surrounded by a diverse group of communities and local government regions.

Ku-ring-gai may be regionally defined by its membership of the Northern Sydney Regional Organisations of Councils, otherwise known as NSROC, which is made up of 7 LGAs including Hornsby, Hunter' s Hill, Ku-ring-gai, Lane Cove, North Sydney, Ryde and Willoughby.

NSROC is characterised by higher density built form and greater concentrations of commercial activity to the south, in North Sydney and Willoughby, with more natural vegetation and low density residential land-use to the north, in Hornsby and Ku-ring-gai.

Lane Cove and Hunter' s Hill, relatively small LGAs in both land mass and population, are both primarily residential, each with high proportions of land on the foreshore of Sydney Harbour.

The eastern border of Ku-ring-gai is bounded by the Shore Regional Organisation of Councils (SHOROC) which includes Manly, Mosman, Pittwater and Warringah. This area, often referred to as the 'Northern Beaches' , is well known for its coastal outlook and also has a relatively low density built form.

These two Regional Organisations of Councils (ROCs) collectively represent Greater Sydney' s Northern Region, one of six subregions identified in the State' s planning policy *A Plan for Growing Sydney*.

North Sydney and Ryde areas are the principle sources of economic activity with approximately 39% of jobs in the Northern Region. NSROC' s dominant industry is Professional, Scientific and Technical services 17.7% employment, while SHOROC has a stronger emphasis on Retail and Health related industries which make up 24.3% of employment.

The Northern Region is the city' s second largest, after Central Sydney, with 878,000 residents. It was responsible for \$68.7 billion of Gross Regional Product (GRP) in 2013 with more than 100,000 active businesses registered in the area, and over 460,000 jobs.

The State Plan identifies a number of key priorities for the region; supply of affordable housing, protection of the natural environment, economic development through a range of transport projects and policy for specific activity centres.

## Headline Statistics – Northern Region

	<b>LGA</b>	<b>Pop (2013)</b>	<b>GRP (\$m)</b>	<b>Jobs</b>	<b>Businesses</b>
NSROC	Ku-ring-gai	119,027	5,140	34,369	13,173
	Hornsby	166,855	6,384	53,223	15,305
	Willoughby	73,155	9,023	63,210	11,289
	North Sydney	69,248	15,421	88,170	14,462
	Lane Cove	33,996	3,023	20,482	4,234
	Hunters Hill	14,491	731	4,808	1,814
	Ryde	112,545	13,933	89,856	10,392
	<b>Total</b>	<b>589,317</b>	<b>53,655</b>	<b>354,118</b>	<b>70,669</b>
SHROC	Warringah	152,636	7,890	59,891	16,319
	Pittwater	62,070	3,017	23,821	8,643
	Mosman	29,983	1,964	10,729	4,025
	Manly	44,232	2,181	14,867	5,242
	<b>Total</b>	<b>288,921</b>	<b>15,052</b>	<b>109,308</b>	<b>34,229</b>
<b>Northern Region</b>		<b>878,238</b>	<b>68,707</b>	<b>463,426</b>	<b>104,898</b>

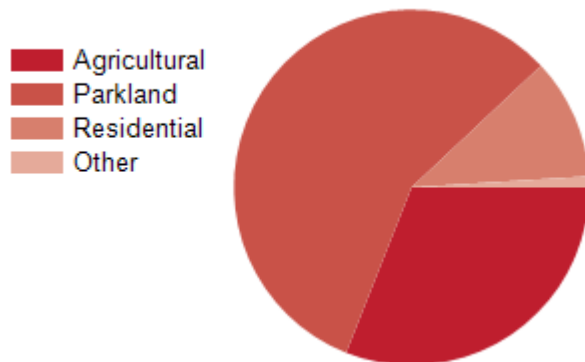


## 4 Hornsby Council Area

The Fit for the Future reforms request Ku-ring-gai to consider the impact of merging with Hornsby Council.

Hornsby, located on the west boundary and is a predominantly rural and residential area, with some limited commercial and industrial land use. Hornsby Shire encompasses a total land area of 510 square kilometres, of which two-thirds is National Park and reserves. Most of the land in the northern section is rural.

Land use



The Shire has three major centres, with Hornsby being the major centre and Epping and Pennant Hills being secondary centres. There are also many suburbs, villages, islands and river communities, with many houses having frontage on the Hawkesbury River.

Most residential areas are established suburbs, except for Castle Hill, Cherrybrook and Dural, which have developed in more recent decades. In the last ten years there has been considerable medium and high density development (apartments) in Waitara and the Hornsby CBD.

Based on land area, Hornsby is by far the largest LGA in the Northern Region, approximately 5 times larger than Ku-ring-gai.

## 5 Geographic Considerations

Throughout this report there are a number of areas used for benchmarking purposes.

These include:

- Ku-ring-gai
- Hornsby
- Pittwater
- Ryde
- Warringah
- Willoughby
- Greater Sydney

Not all LGAs in the Northern Region have been included, just those in close proximity to Ku-ring-gai. Greater Sydney is used to show a comparison with general trends across the metropolitan area.

As highlighted above. Hornsby, in particular is the focus of recommendations in the Fit for the Future reforms, and accordingly, this report.

Ku-ring-gai council has a close geographic proximity to Hornsby, sharing the suburbs of Wahroonga and North Wahroonga, and being along the same northern railway line. They also share parts of the Ku-ring-gai Chase National Park and the boundary between the two councils appears to be arbitrary in parts. It cuts along property boundaries in Wahroonga, splitting this community. Further north, the boundary is the F3 freeway, which is a more logical divider.

Willoughby also shares a boundary with Ku-ring-gai, which runs primarily along the aptly named Boundary St in Roseville, which is split between the two councils.

Willoughby is demographically different (see later in the report) to Ku-ring-gai, and the boundary between them seems to reflect this. Willoughby is closer to central Sydney and contains the major urban hub of Chatswood. Nevertheless, it is reasonable to consider a merger here.

Ryde also shares a boundary with Ku-ring-gai. In this case, however the boundary is the Lane Cove River, a significant barrier within the northern suburbs, so a merger across this boundary is less likely. From a geographic perspective, Hunters Hill Council, and possibly Lane Cove Council, may make a logical merger for the City of Ryde. This is not considered part of the scope of this report.

The two nearby SHOROC councils, Warringah and Pittwater, are considered in this report due their proximity and similar mix of land uses, though they are geographically fairly separate from Ku-ring-gai and Hornsby, with the boundary running through rugged bushland around Middle Harbour Creek and Cowan Creek. Only two roads (Warringah Rd and Mona Vale Rd) connect these areas to Ku-ring-gai, and Pittwater can only be accessed via Warringah (or a ferry from Gosford).

## 6 Population

The six LGAs of interest; Ku-ring-gai, Hornsby, Willoughby, Ryde, Warringah and Pittwater have significant variations between their populations.

The largest is Hornsby, with 166,855 people in 2013. The smallest is Pittwater, with 62,070. All areas have shown strong growth in the past 10 years.

A table showing 2013 populations and figures from 2003 to show growth is included below. Growth rates in the most recent few years are all around the 1-2% range. Ku-ring-gai actually has the highest growth of the six in the last year, with 2.1%.

LGA	2003 ERP	2013 ERP	2003-2013 growth	2003-13 avg %
Ku-ring-gai	106,559	119,027	12,468	1.2%
Hornsby	154,504	166,855	12,351	0.8%
Willoughby	63,389	73,155	9,766	1.5%
Ryde	112,545	98,929	13,616	1.4%
Pittwater	55,837	62,070	6,233	1.1%
Warringah	135,796	152,636	16,840	1.2%
<b>TOTAL 6 LGAS</b>	<b>615,014</b>	<b>686,288</b>	<b>71,274</b>	<b>1.2%</b>

*Source: ABS, 3218.0 – Regional Population Growth, Australia*



.id' s population forecasts show that all six areas are expected to grow by 2031.

<b>LGA</b>	<b>2011</b>	<b>2021</b>	<b>2031</b>	<b>Comparison Planning NSW</b>
Ku-ring-gai	114,564	132,242	145,775	147,700
Hornsby	163,906	180,218	192,058	201,100
Willoughby	71,652	79,075	85,691	91,700
Ryde	108,429	129,771	145,226	143,900
Pittwater	60,299	68,120	77,392	82,000
Warringah	147,679	163,463	174,137	173,500
<b>TOTAL 6 LGAS</b>	<b>666,530</b>	<b>752,888</b>	<b>820,279</b>	<b>839,900</b>

Source: .id – SAFi population forecasts, 2011-2036

The combined population of the six LGAs at 2031 would be well over 800,000. This is larger than any LGA in Australia except for the City of Brisbane.

A Ku-ring-gai and Hornsby merge would be expected to have a population of 337,000 by 2031, a little larger than the City of Blacktown is currently.

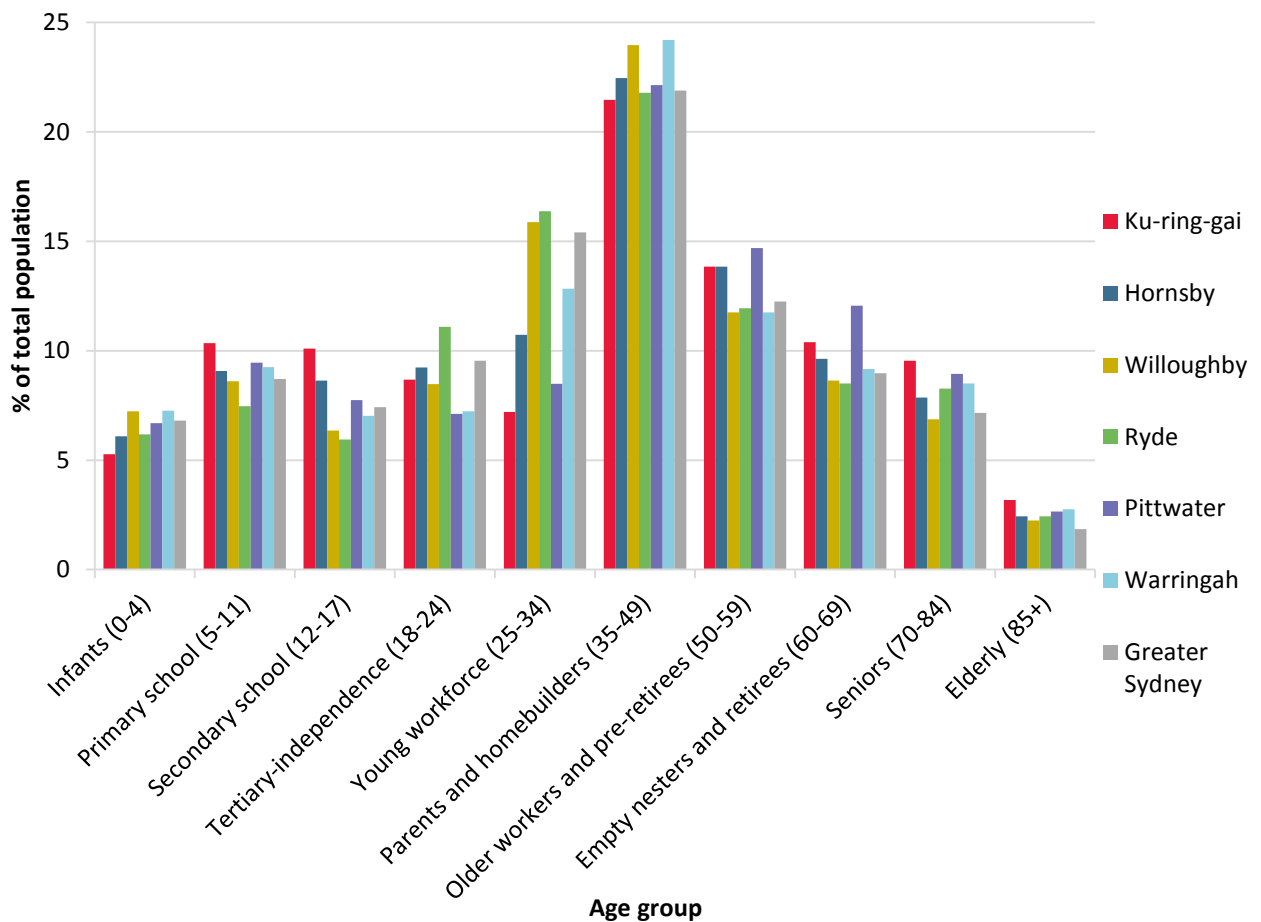
.id produces population forecasts using a more detailed “bottom-up” methodology than the NSW Department of Planning. .id' s forecasts are based on assessing the development potential and attraction of each suburb to new residents and include fine detail not available to the Department of Planning. They are not projections of a trend line and are therefore not comparable with Department of Planning forecasts. The equivalent Planning forecasts are included here for reference only.

## 7 Age Structure

Service age groups divide the population into age categories that reflect typical life-stages. They indicate the level of demand for services that target people at different stages in life and how that demand is changing. When using this approach, there appear to be many similarities between the age structures of each region.

The age structures of all six LGAs are broadly similar, but with some notable differences. Ku-ring-gai has a typical “mature family” age profile, with high proportions of teenagers and early 20-somethings, living at home with parents. Hornsby shares this profile, though not to quite the same extent. Pittwater is also somewhat similar, though with less adult children staying at home.

*Service age group structure of 6 LGAs, 2011 Census*



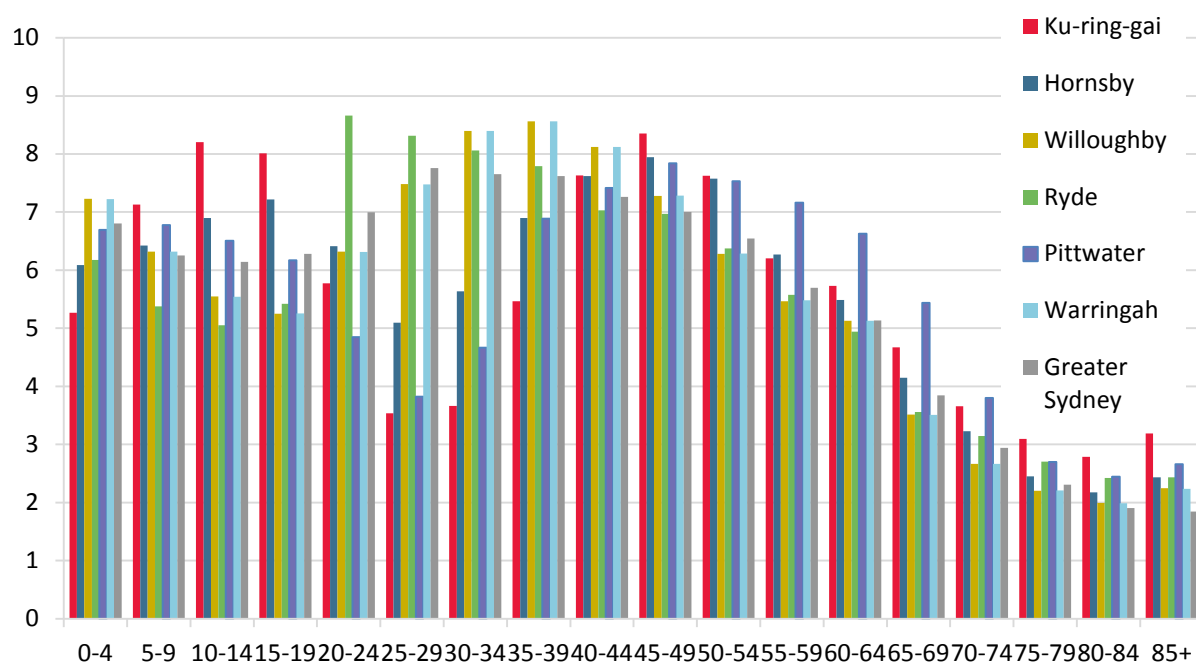
Among the young population there is a very clear difference between Ku-ring-gai and Hornsby and the remaining councils in the study. Ku-ring-gai in particular has very low populations of people in their late 20s, and Hornsby also relatively few. These are areas where young adults leave the local area when they exit the family home. The fact that it doesn't drop off seriously until the age of 25 shows that young adults are staying in the family home for longer in Ku-ring-gai. Pittwater shows a similar dip in this age group.

Ryde, in contrast, has a lot of early 20s population, due to Macquarie University, with Willoughby also having quite a few. Willoughby's peak of population is among those in their 30s, attracted to the Chatswood centre for work and commuting. Ryde's population is also relatively high in this age group.

While Pittwater has the highest proportion of baby boomers (aged 50-66 in 2011), Ku-ring-gai has the highest proportion of elderly in the region, particularly those aged 85+. In many age groups, Hornsby and Ku-ring-gai are similar, but Ku-ring-gai has more teenagers and also more elderly. Hornsby can also be termed a "mature family" area but less extreme.

Five year age groups present a classic age profile of the population. Each age group covers exactly five years, which enables direct comparison between each group. This approach gives an alternative perspective.

*5-year age group structure of 6 LGAs, 2011 Census*



So, overall, the age structure between the six LGAs shows marked differences.

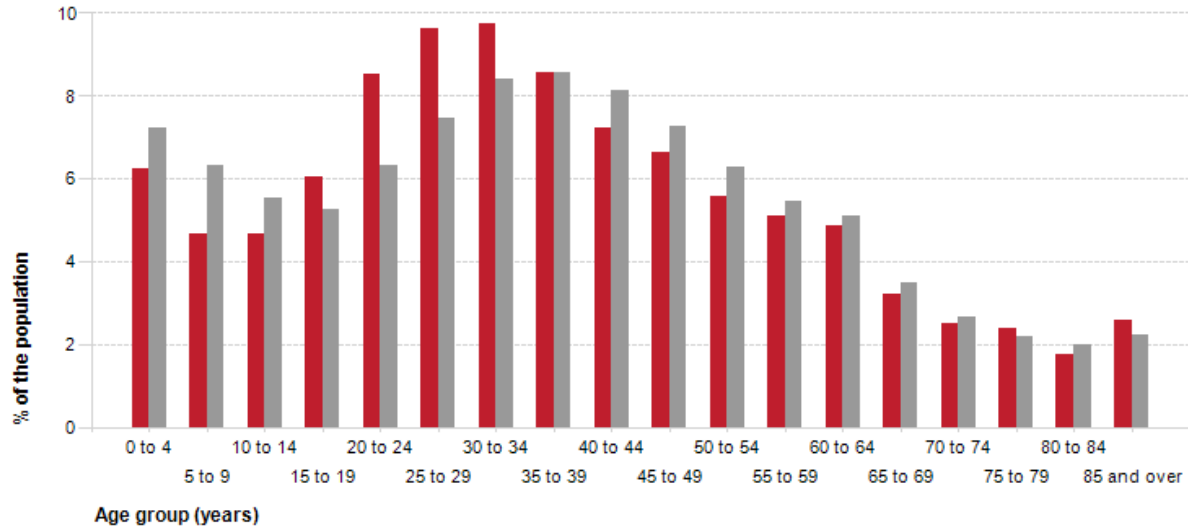
Ku-ring-gai is a little older than Hornsby are similar, though both have a mature family age structure. Ryde has a strong peak among student age groups, and quite a lot of young workforce, but generally less school-age children. Pittwater and Warringah also have mature families and Pittwater has a lot of baby boomers and some elderly. Willoughby stands out as quite different, having a peak of working-age adults in their 30s and quite a lot of young children, probably with parents in their 40s.

Individual suburbs within the areas will of course differ from these age profiles. For instance, Chatswood has a young, inner urban profile, but also quite a few young families.

## Age structure - five year age groups, 2011

Total persons

■ Chatswood ■ Willoughby City



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)  
Compiled and presented in profile.id by .id, the population experts.

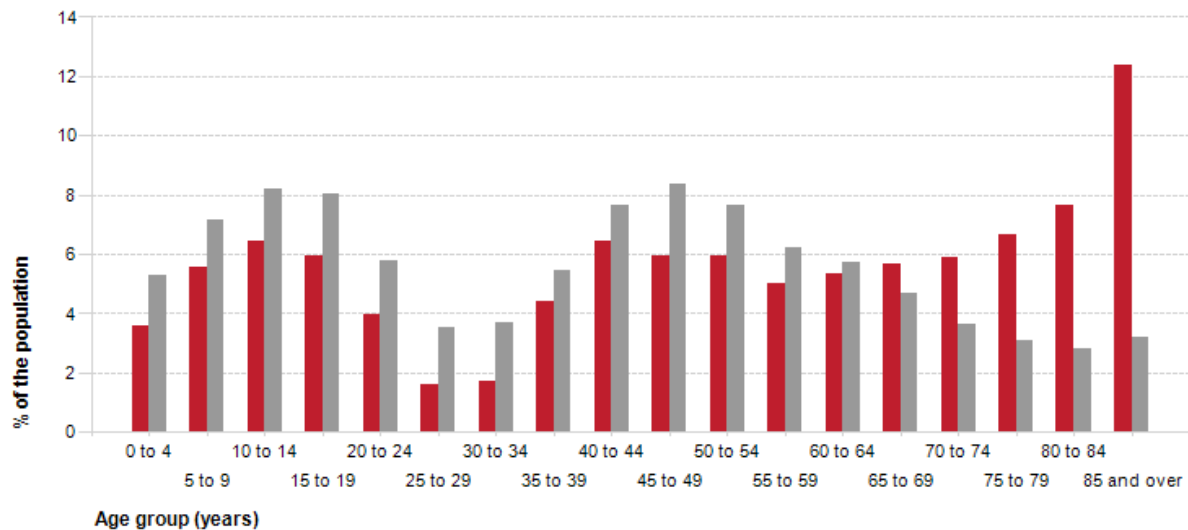
.id the population experts

Within Ku-ring-gai, most suburbs broadly show the same mature family profile, but some with a higher proportion of younger children, and others with larger numbers of older teenagers and 20-24 year olds. Only North Turramurra stands out as noticeably different, with a very elderly population due to a large retirement village.

## Age structure - five year age groups, 2011

Total persons

■ North Turramurra ■ Ku-ring-gai Council area



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)  
Compiled and presented in profile.id by .id, the population experts.

.id the population experts

## 8 Household Type

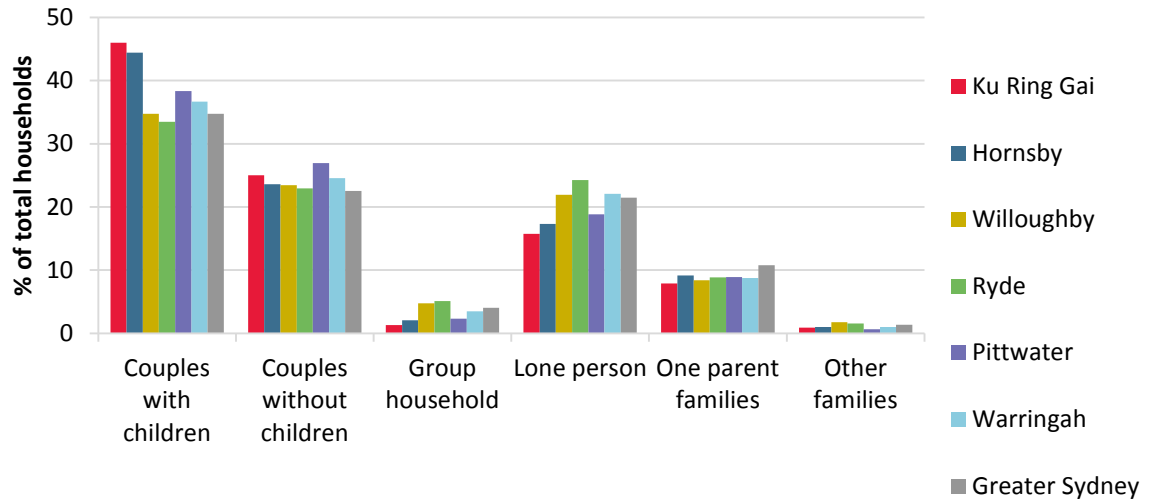
Household and family structure is one of the most important demographic indicators. It reveals the area's residential role and function, era of settlement and provides key insights into the level of demand for services and facilities as most are related to age and household types.

The household types across the six LGAs display considerable variation. Couples with children are at or above the Sydney average in percentage terms in all areas except Ryde.

Ku-ring-gai and Hornsby are the dominant family areas, with 46% and 44% of households respectively being couples with children. As previously stated, these are mature families with older children, potentially due to high housing costs in the area. Nevertheless for both these councils, the proportion of households with children was higher than the Sydney average.

Couples without children show a fairly uniform proportion throughout the area, though Pittwater is slightly higher, due to the baby boomer empty nesters there. Ryde has the highest proportion of group households (generally students) but even here this is only a little above the Sydney average. It also has the highest proportion of lone person households, which are mixture of younger and older households.

Most of Ku-ring-gai and Hornsby' s couples without children are in the older (65+) category. In contrast, Willoughby' s are mainly in the young category, again a more inner-urban profile.



**Household type**

Overall, based on the age and household type characteristics, Ku-ring-gai and Hornsby show strong similarities. However, of the six councils, Ryde is the only one which is noticeably different here.

An interesting trend between 2006 and 2011 was an increase in average household size across many areas of Sydney. Of the six LGAs in the study, only Ku-ring-gai had a decline in average household size, though it still had the largest households in the region, with 2.87 persons per dwelling. Hornsby had only a very small increase, now at 2.83 and very comparable to Ku-ring-gai. Willoughby and Ryde had significant increases in average household size.

Ku-ring-gai's fall in average household size is most likely due to older children leaving home, with an increase in empty nester parents. The increase in high density housing may also be having an effect, with some more young couples without children moving into these.

**Average Household Size, 4 LGAs, 2011 and 2006 Censuses**

Area	2011	2006	Change
Ku-ring-gai	2.87	2.90	-0.03
Hornsby	2.83	2.81	0.02
Willoughby	2.57	2.50	0.07
Ryde	2.58	2.51	0.07

Pittwater	2.67	2.65	0.02
Warringah	2.62	2.58	0.04
Greater Sydney	2.69	2.65	0.04



## 9 Dwelling Diversity

Dwellings are an important determinant of an area's residential role and function. A greater concentration of higher density dwellings is likely to attract more young adults and smaller households, often renting. Larger, detached or separate dwellings are more likely to attract families and prospective families. The residential built form often reflects market opportunities or planning policy, such as building denser forms of housing around public transport nodes or employment centres.

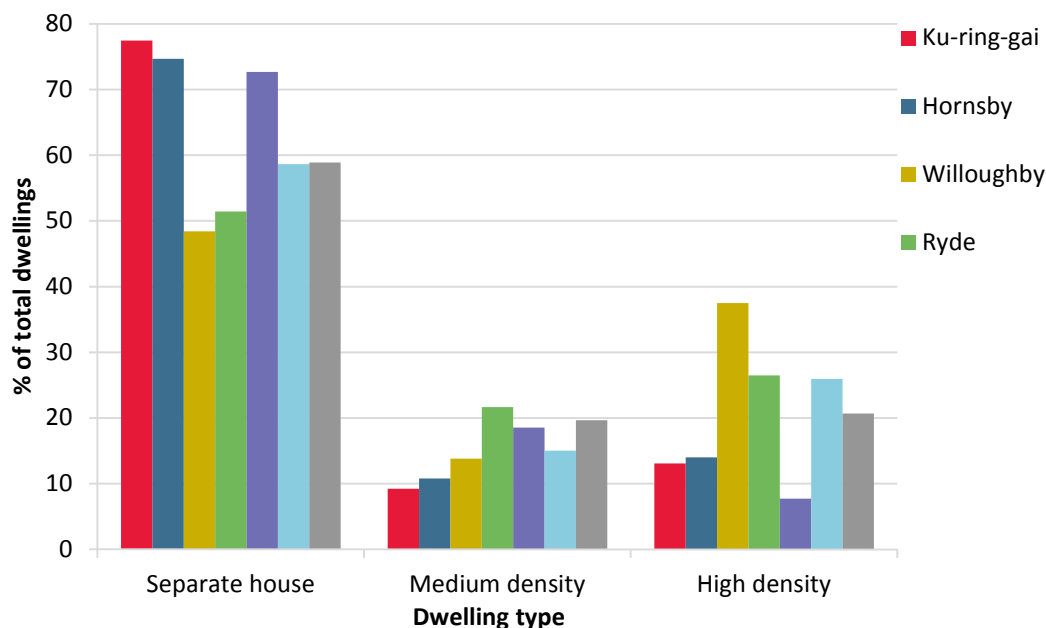
For the purposes of this report, dwelling diversity is defined as a mix of lower and higher density housing, in different formats. Medium density housing consists of townhouses and semi-detached houses, as well as flats in 1-2 storey blocks, while high density housing is in 3 or more storey blocks.

The dwelling diversity in the area differs considerably between the six councils. In some respects Ku-ring-gai and Hornsby are similar, having very high proportions of Separate Houses. In Ku-ring-gai's case this is 77.5%, almost 20% above the Sydney average. Hornsby is not far behind, and Pittwater is similarly low density.

However, Ku-ring-gai has the most homogenous dwelling stock, being urban dwellings of a significant size whereas Hornsby has a broad mix of stock – large urban detached dwellings, modest housing in more fringe urban areas, extensive areas of rural dwellings and rural and river villages.

Willoughby and Ryde stand out as having substantially more dwelling diversity. Willoughby has a mix of separate houses and a lot of high density, while Ryde has substantial medium density units. Nevertheless, separate houses are the largest category in all six LGAs.

*Dwelling structure, 6 LGAs, 2011 Census*



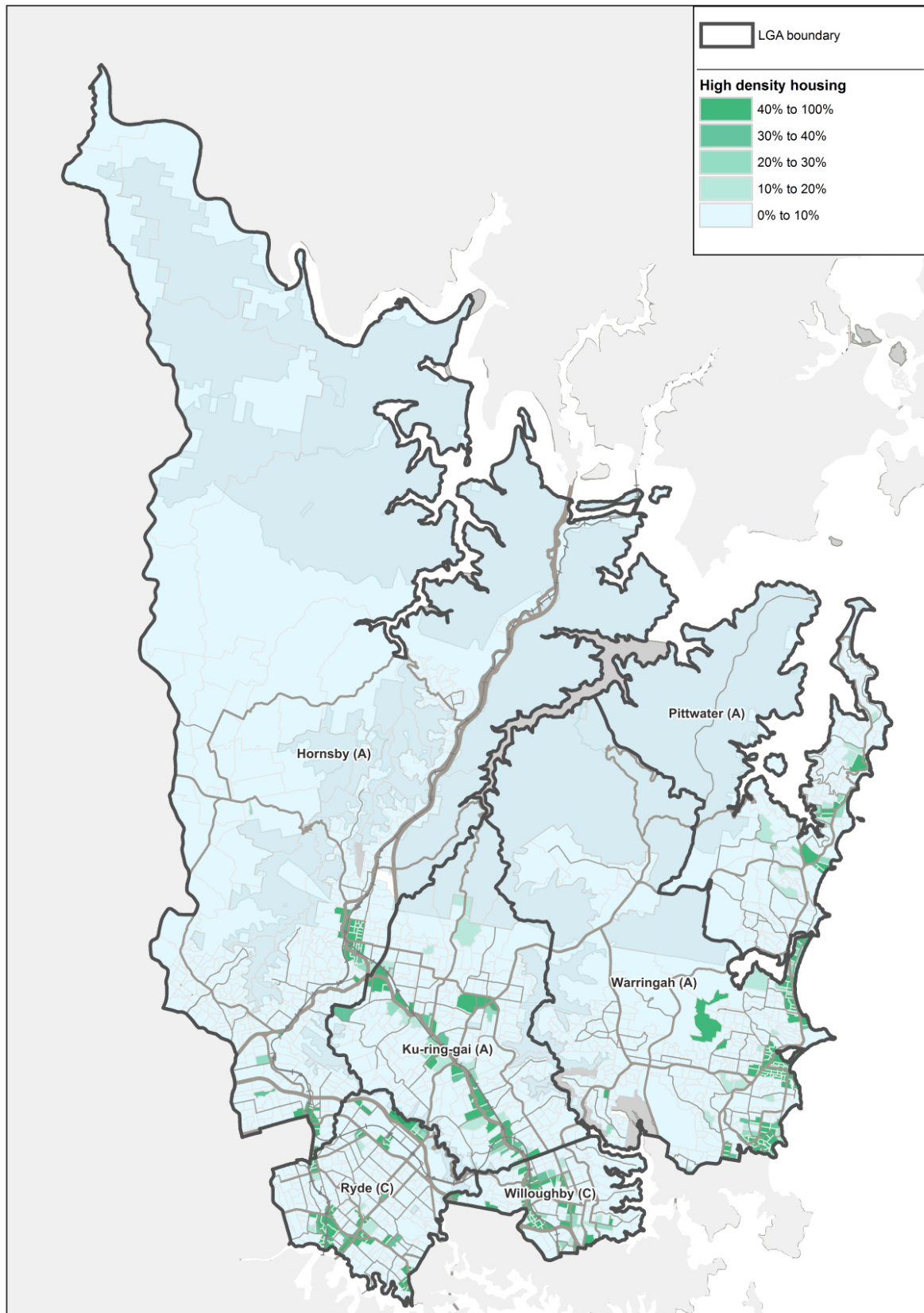
Ku-ring-gai has previously been even more a “low density” area. In 2006, 84% of dwellings were separate houses. It has seen a substantial increase in high density housing, along the railway line over the past 10 years, around Gordon, Killara and Lindfield, and the number of units has doubled in just 5 years. Hornsby hasn’t seen a similar increase, though the proportion of high density is still slightly higher than Ku-ring-gai, mainly due to large apartment blocks in central Hornsby and Waitara.

If the current trend continues, Ku-ring-gai can expect further high density development in the more accessible parts of the municipality. These will tend to attract younger adults who might otherwise have moved to Willoughby or North Sydney. It is also likely to continue to increase the cultural diversity of the area, towards a regional average more typified by Willoughby council.

Willoughby’s high density housing dominates Chatswood, while the Roseville area immediately adjoining Ku-ring-gai is largely low density.

The map below shows the ribbon of higher density housing following the northern railway line through Willoughby, Ku-ring-gai and finishing in Hornsby.

*Distribution of high density housing (flats -3 or more storey blocks) across 6 LGAs, 2011*

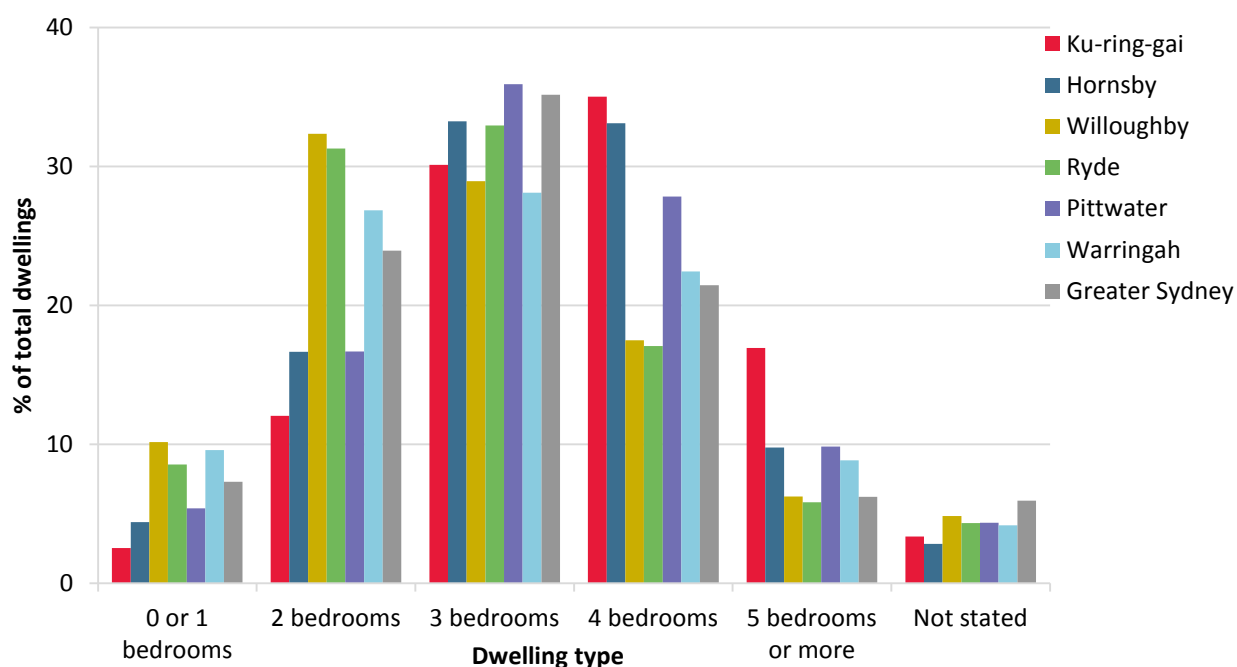


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Dwelling diversity also relates to the size of dwellings, which is measured in the Census by the number of bedrooms per dwelling. The Number of Bedrooms in a dwelling is an indicator of the size of dwellings, and when combined with Dwelling Type information, provides insight into the role Ku-ring-gai plays in the housing market.

This chart shows the distribution of smaller and larger dwellings by this measure across the 6 LGAs. Again, Ku-ring-gai - closely followed by Hornsby - shows the same pattern. Large dwellings dominate in these areas, particularly 4 bedrooms, and Ku-ring-gai also has a substantial proportion (17%) of very large, 5 or more bedroom dwellings as well. Smaller dwellings are more common in those areas housing young adults, particularly Willoughby and Ryde, where more than 40% of dwellings have 2 bedrooms or less. Warringah also has a significant level of 2 bedroom stock. Hornsby also has a significant level of 2 bedroom stock.

*Number of bedrooms in private dwellings, 6 LGAs, 2011 Census*

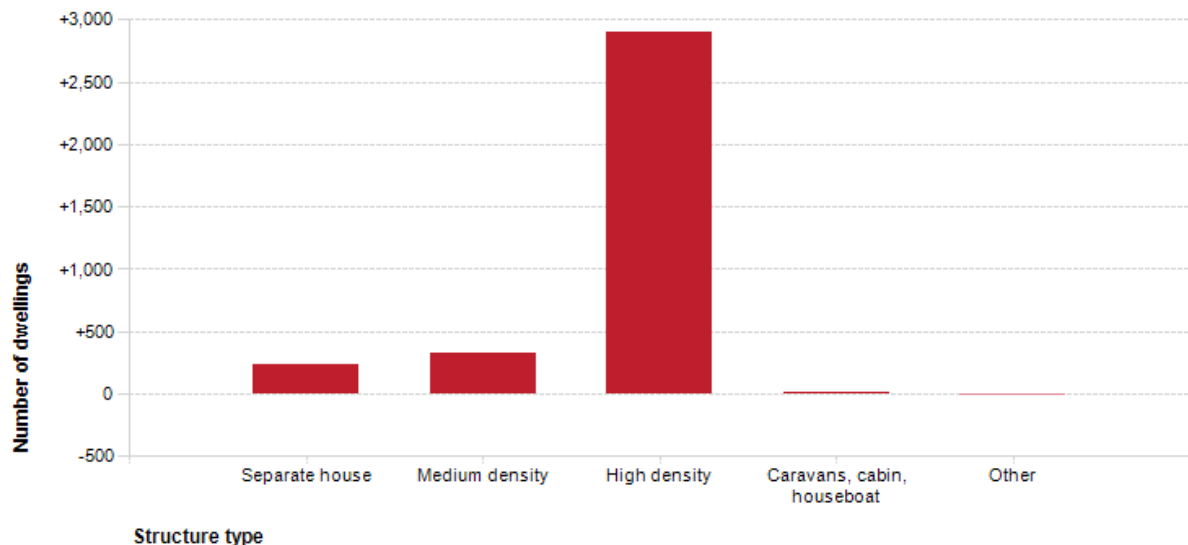


So in terms of built form, Hornsby and Ku-ring-gai are very similar, with just slightly larger houses in Ku-ring-gai, but also a large increase in smaller dwellings in a high density format. Similarities with other areas are less evident – the most similar outside these two would be Pittwater.

It is important to note that whilst dwelling size is measured here by number of bedrooms, this is not the only way dwelling size can be measured. The footprint size or scale of dwellings may also factor in the location decisions of residents. Number of bedrooms is used because as it is source via the Census and is consistent across LGAs in the region.

### Change in dwelling structure, 2006 to 2011

Ku-ring-gai Council area



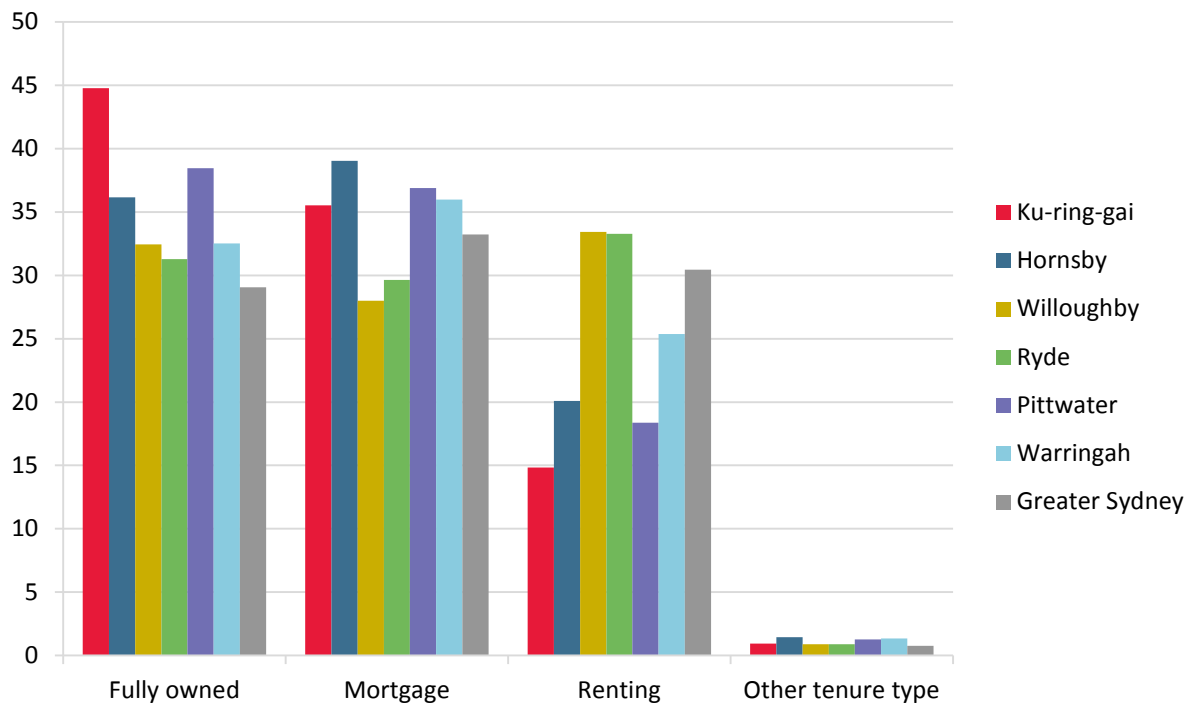
Source: Australian Bureau of Statistics, Census of Population and Housing, 2006 and 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.



Dwelling density and housing tenure are usually closely related, with higher density dwellings more likely to be rented, and families mostly being home owners in larger dwellings. This does differ from area to area, however. Ku-ring-gai has a very high rate of full home ownership, with 45% of all dwellings being owned without a mortgage. Another 36% have a mortgage, just above the Sydney average of 33%. Only 15% of dwellings are rented, around half the Sydney average. So Ku-ring-gai is a stable, long-term home ownership area. Though rental did increase in the last 5 years, probably associated with the increase in higher density housing as well.

Hornsby and Pittwater are similarly stable, home ownership areas. Willoughby and Ryde however have high proportions of renters. This is related to their younger age structure and closer proximity to the Sydney CBD.

*Tenure Type, 6 LGAs, 2011 Census*



## 10 Detailed Forecast

The following tables are based on .id' s SAFi population forecasting model that applies a 'bottom-up' approach to estimating future development of population growth. The addition of dwellings to the housing stock is intrinsically connected to population growth in an area, providing opportunities for households to relocate from other areas or new households to form locally.

### Ku-ring-gai

	2011	2016	2021	2026	2031	2036
Population	114564	124820	132242	139363	145775	151508
Change in Population (5yrs)		10256	7422	7121	6412	5733
Average Annual change %		1.73	1.16	1.05	0.9	0.77
Households	37895	40818	43216	45822	48301	50714
Average household size	2.97	3	3	2.99	2.96	2.92
Population in non-private dwellings	2099	2421	2421	2505	2974	3199
Dwellings	40077	43070	45575	48257	50857	53437
Dwelling occupancy rate	94.56	94.77	94.82	94.95	94.97	94.9

Source: .id – SAFi population forecasts, 2011-2036

### Hornsby

	2011	2016	2021	2026	2031	2036
Population	163906	171885	180218	186612	192058	196615
Change in Population (5yrs)		7979	8333	6394	5446	4557
Average Annual change %		0.96	0.95	0.7	0.58	0.47
Households	56207	58383	60933	63306	65644	67857
Average household size	2.87	2.89	2.9	2.89	2.87	2.85
Population in non-private dwellings	2867	3113	3341	3521	3541	3561
Dwellings	57781	59867	62438	64816	67188	69503
Dwelling occupancy rate	97.28	97.52	97.59	97.67	97.7	97.63

Source: .id – SAFi population forecasts, 2011-2036

## 11 Cultural Diversity

Language statistics show the proportion of the population who speak a language at home other than English. They indicate how culturally diverse a population is and the degree to which different ethnic groups and nationalities are retaining their language.

By this measure, cultural diversity is shown to vary across the six LGAs. Greater Sydney has an average of 32.5% of population speaking a language other than English at home. Ryde and Willoughby both exceed that, while the remaining LGAs have lower percentages. Warringah and Pittwater have very low levels of non-English speaking population. Ku-ring-gai and Hornsby sit in the middle, though this is increasing as a proportion of the population.

*Top 10 languages (other than English) in each of 6 LGAs and Greater Sydney, 2011*

Ku-ring-gai	Hornsby	Willoughby	Pittwater	Ryde	Warringah	Greater Sydney
Cantonese	Cantonese	Cantonese	German	Mandarin	Italian	Arabic
Mandarin	Mandarin	Mandarin	Italian	Cantonese	Mandarin	Mandarin
Korean	Korean	Korean	Serbian	Korean	Cantonese	Cantonese
Persian	Hindi	Japanese	Spanish	Italian	Armenian	Vietnamese
Japanese	Arabic	Armenian	Croatian	Armenian	German	Greek
German	Persian	Italian	French	Arabic	Portuguese	Italian
Hindi	Italian	Indonesian	Dutch	Greek	Spanish	Filipino/Tagalog
Italian	Spanish	Arabic	Portuguese	Hindi	French	Hindi
Spanish	Sinhalese	Hindi	Mandarin	Indonesian	Serbian	Spanish
Greek	Tamil	Greek	Cantonese	Spanish	Japanese	Korean

On this measure, Hornsby is more diverse than Ku-ring-gai, but both areas have had increasing diversity over time. Pittwater stands out, having by far the lowest percentage of non-English speakers among the six LGAs.

LGA	2011	2011%	2006	2006%
Ku-ring-gai	22,969	21.0	17,384	17.2



Hornsby	44,579	28.4	36,310	24.0
Ryde	43,295	42.0	35,173	36.3
Willoughby	23,641	35.1	19,797	31.1
Pittwater	4,295	7.5	3,617	6.7
Warringah	22,644	16.1	19,633	14.7
Greater Sydney	1,425,467	32.5	1,203,896	29.2

*Source: 2011 and 2006 Census of Population and Housing*

Country of Birth data identifies where people were born and is indicative of the level of cultural diversity in an area. The mix of Country of Birth groups is also indicative of historical settlement patterns, as source countries for Australia's immigration program have varied significantly over time.

Ku-ring-gai has a large population born in the UK, and also a relatively large South African-born population. The largest increase was in Chinese-born population which is already a significant community in neighbouring Hornsby.

Willoughby has a very large Chinese population, as does Ryde. However, Ryde also has some less commonly found groups like Iranian and Armenian populations. Armenians are also found in Warringah.

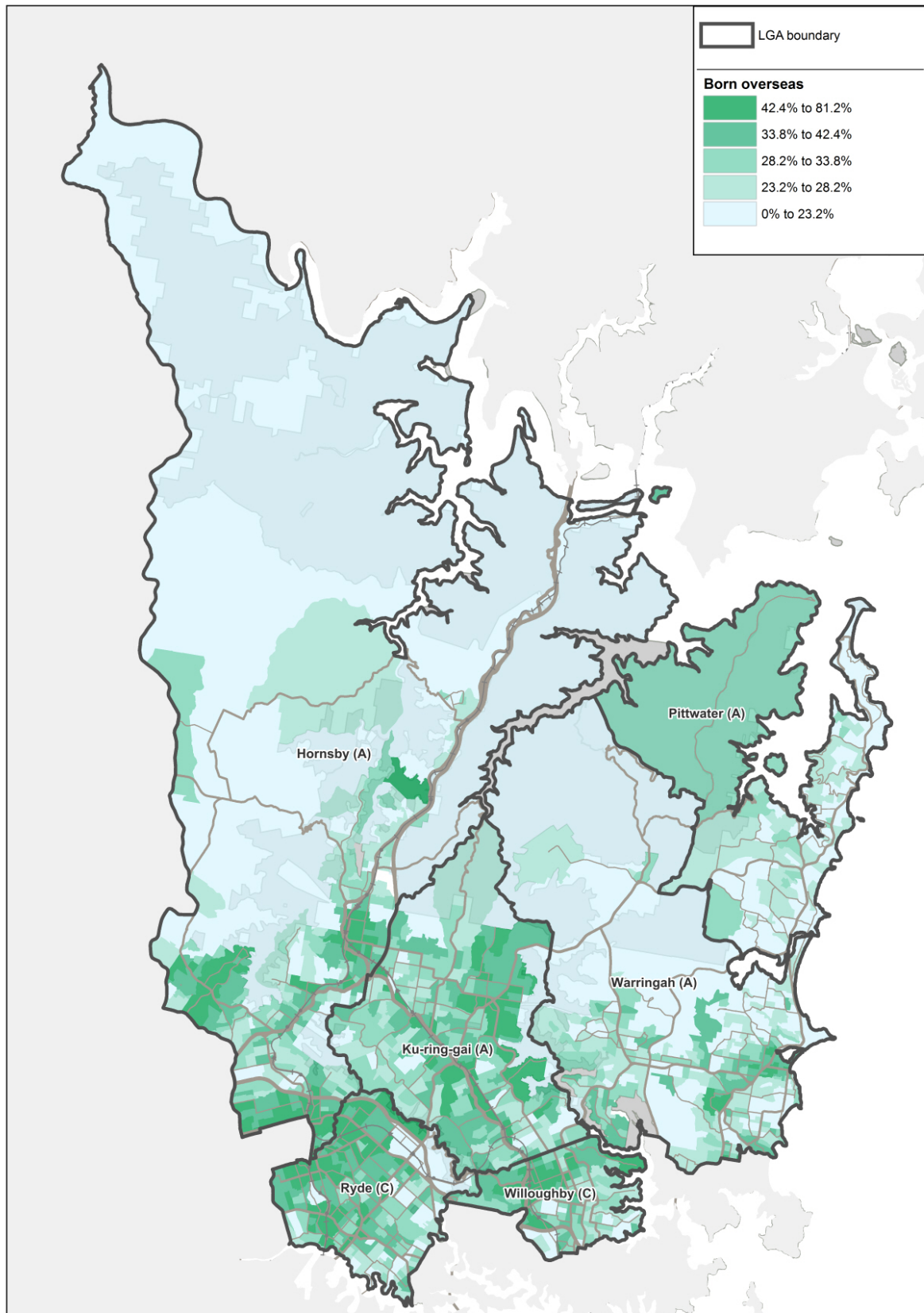
***Top 10 birthplaces (other than Australia), 6 LGAs, 2011 Census***

<b>Ku-ring-gai</b>	<b>Hornsby</b>	<b>Willoughby</b>	<b>Pittwater</b>	<b>Ryde</b>	<b>Warringah</b>	<b>Greater Sydney</b>
United Kingdom	China	China	United Kingdom	China	United Kingdom	United Kingdom
South Africa	United Kingdom	United Kingdom	New Zealand	South Korea	New Zealand	China
China	India	South Korea	South Africa	Hong Kong	China	India
Hong Kong	South Korea	Hong Kong	USA	India	Italy	New Zealand

New Zealand	Hong Kong	New Zealand	Germany	United Kingdom	South Africa	Vietnam
South Korea	New Zealand	Japan	Netherlands	Italy	Philippines	Philippines
India	South Africa	India	Italy	Philippines	India	Lebanon
Malaysia	Malaysia	Malaysia	Canada	New Zealand	Germany	Italy
USA	Sri Lanka	Taiwan	Croatia	Malaysia	USA	South Korea
Iran	Philippines	South Africa	Ireland	Iran	Brazil	Hong Kong

The map shows that within Ku-ring-gai, non-English speaking background (NESB) population is predominantly found in the higher density areas along the railway line, but also in East Killara. Like most areas in Sydney, the percentage of NESB population has increased significantly over the past 5 years, and based on current migration numbers that is likely to continue.

*Population born overseas, as a percentage of total population, 6 LGAs, 2011*



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Some small areas within the six LGAs have differing dominant birth places or more concentrated populations to the LGA average. St Ives and St Ives Chase in Ku-ring-gai, for example, have a higher proportion of people born in South Africa. This area is close to the boundary with Warringah, which also has a large South African population along this border. There are also significant numbers of Chinese speakers in Killara and East Killara.

The diversity in birthplace is mirrored by the level of language diversity in Ku-ring-gai and neighbouring areas. Most LGAs had Chinese languages at the top of the list, the only exceptions being Pittwater and Warringah, with fewer non-English speakers, and featuring German and Italian at the top of the list, reflecting an older wave of migration.

Overall, the six LGAs contain significant levels of cultural diversity though this is shown in varying degrees across the region.

Willoughby and Ryde are clearly highly diverse with high proportions of overseas population as well as more variety from the countries represented. The remaining LGAs are quite low. Ku-ring-gai is relatively (but not extremely) low, but with a growing Chinese population and established Jewish population. Generally the communities within Ku-ring-gai reflect business migrants, families and older established migrants able to afford the area, but that is changing with the growth of high density. Neighbouring Hornsby is a little more diverse overall, also with a large Chinese population, and growing Indian and Korean populations.

Nevertheless, from a similarity of cultural diversity perspective, Hornsby and Pittwater are the most similar to Ku-ring-gai.

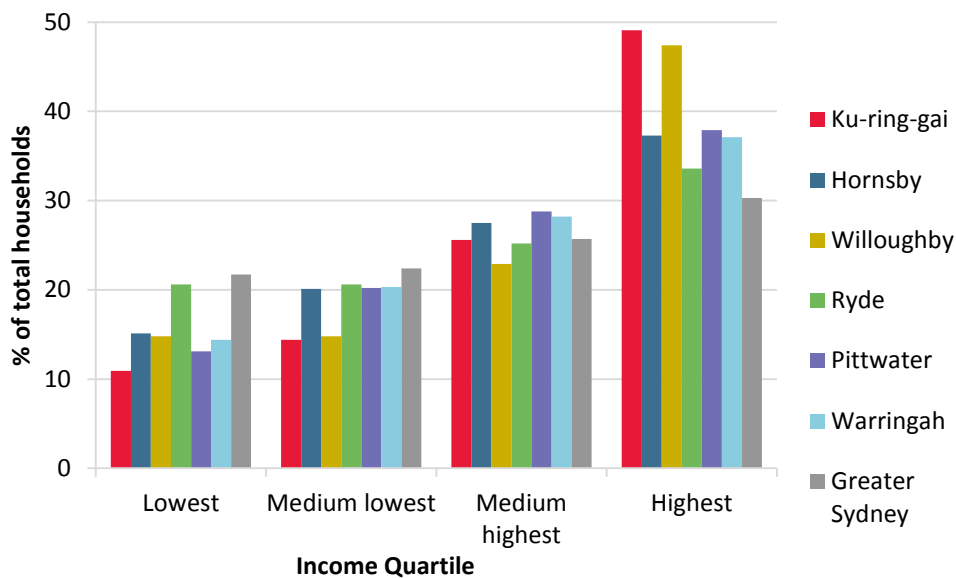
## 12 Household Incomes

Households form the common 'economic unit' in our society. The region's Household Income is one of the most important indicators of socio-economic status. With other data sources, such as Qualifications and Occupation, it helps to reveal economic opportunities and socio-economic status. It is important to note that income data is not necessarily a measure of wealth. For example, if an area has a large number of retirees this will produce a higher proportion of households with low income but the retirees may have large capital wealth.

The income levels for the six councils are all reasonably similar. They are all broadly high income areas, with each having a higher percentage of top quartile incomes and a lower percentage of bottom quartile incomes than the Greater Sydney average. Ryde however, has slightly lower incomes than the other LGAs, with a pocket of low income earners due to public housing, and of course low income students around the Macquarie University campus.

Please note that these incomes are equivalised – that is, adjusted for household size and composition to put larger households on an equal footing regarding disposable incomes with smaller ones.

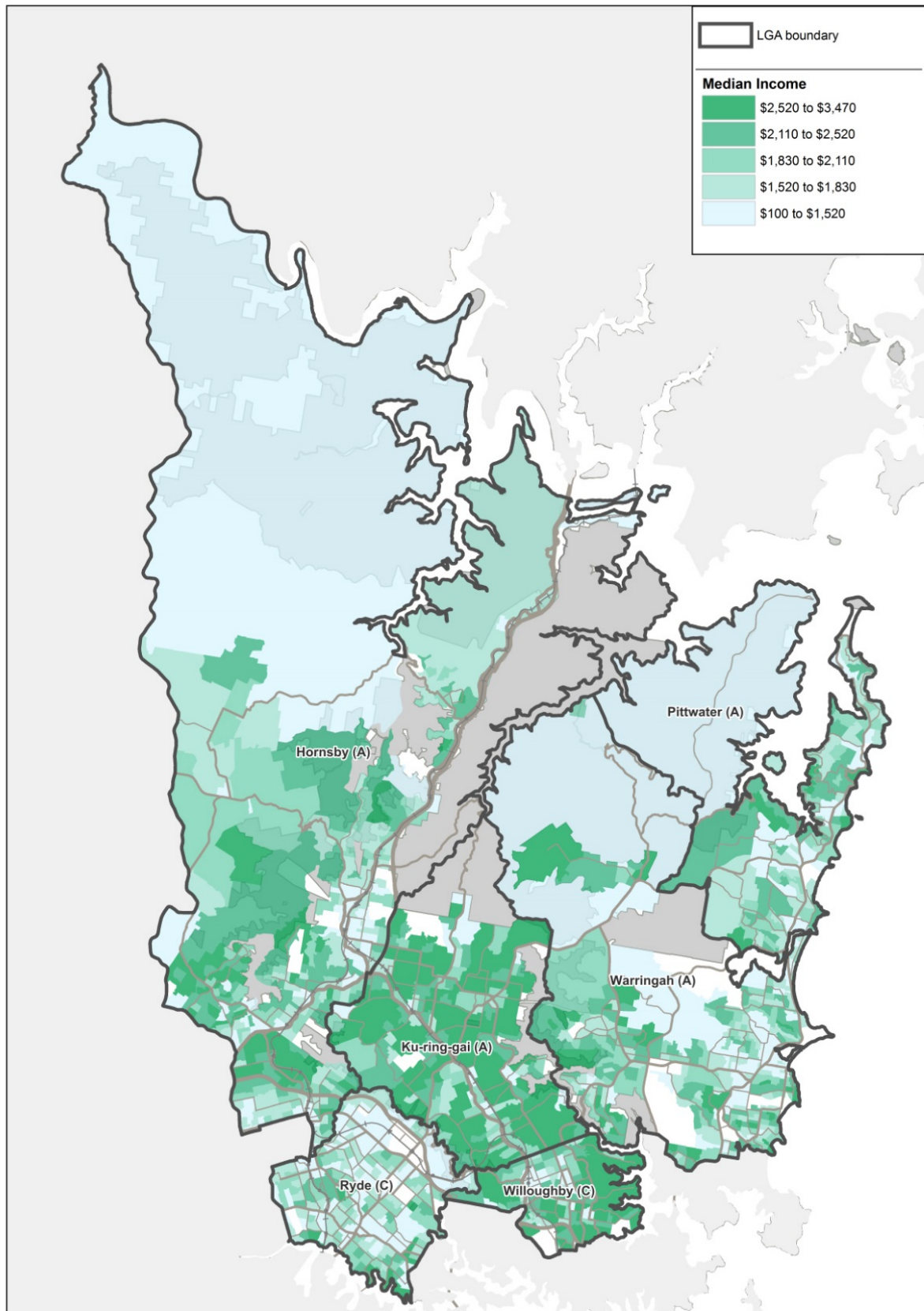
*Equivalised household incomes, 6 LGAs, 2011 – benchmarked to NSW quartiles (25% in each category across the state)*



Overall, Ku-ring-gai has the highest incomes of the six councils, with 49% of equivalised incomes falling into the top income quartile. This is already adjusted downwards for the larger household sizes in Ku-ring-gai. Unadjusted, there are 53% of incomes in the top quartile, and Ku-ring-gai has the highest median income of any LGA in New South Wales, at \$2,508 per week. The state average is less than half that, at \$1,237 per week.

Willoughby is similar to Ku-ring-gai in terms of incomes, with only slightly less in the top quartile, while the other LGAs in the study are high but not to the same extreme.

*Median weekly household income distribution across 6 LGAs, 2011 Census*



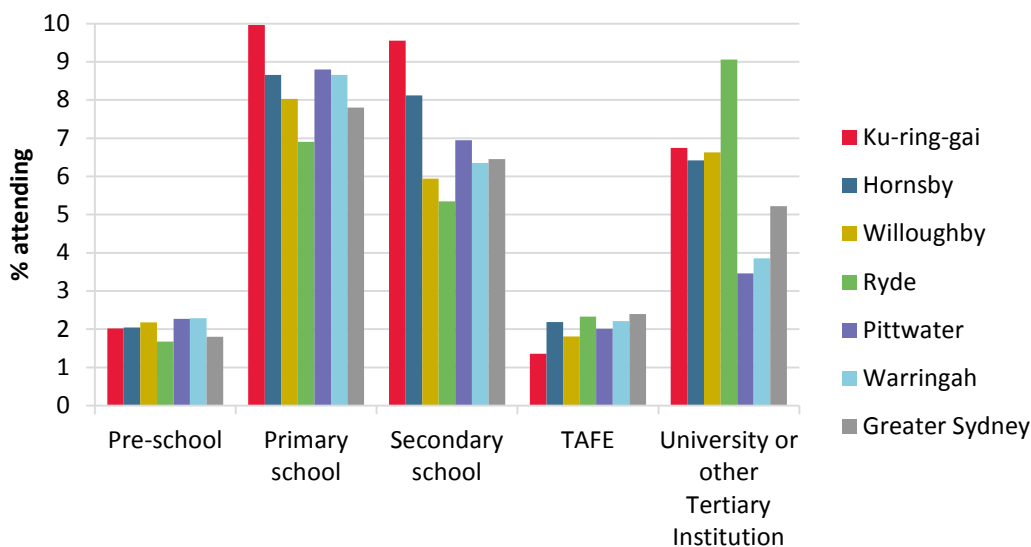
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## 13 Education

Population attending educational institutions reflects the age structure of the population, as it is influenced by the number of children attending school; proximity to tertiary education, which can mean young adults leaving home to be nearer to educational facilities and; the degree to which people are seeking out educational opportunities in adulthood, especially in their late teens and early twenties.

Ku-ring-gai, with a high proportion of older teenagers, has high secondary school attendance, and a moderately high level of university attendance. With Macquarie University in the City of Ryde, it's not surprising that university attendance is highest there. Hornsby is very similar to Ku-ring-gai again, but with slightly less school attendance, while Pittwater and Warringah are similar for school attendance but very low for University.

*Educational attendance, 4 LGAs, 2011 Census*





Also of note is the very high level of independent school attendance in Ku-ring-gai. 5.1% of the population attend private secondary schools (not Government or Catholic), which is more than four times the rate across Greater Sydney (1.2%). All the other areas, though also affluent, were only a little above the Sydney average on this measure. Ku-ring-gai is an area dominated by high quality private schools and many families move to the area to be close to these schools. 47% of all 12-17 year olds were attending private secondary schools in 2011 (14.4% for Greater Sydney).

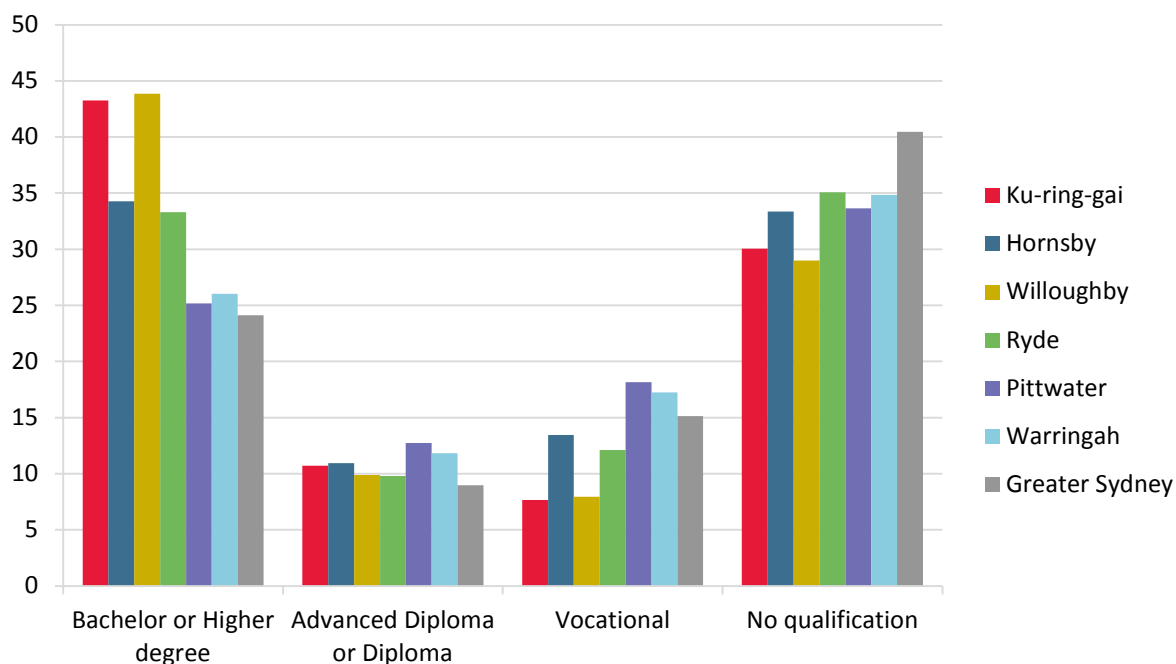
Ku-ring-gai has a higher proportion of residents attending primary school than Greater Sydney. This includes attendance at Government, Independent and Catholic schools with both Government and Independent being at a higher rate than Greater Sydney.

Educational Qualifications relate to education outside of primary and secondary school. With other data sources, such as Employment Status, Income and Occupation, Educational Qualifications help to evaluate the economic opportunities and socio-economic status of the area and identify skill and gaps in the labour market.

Educational attainment differs slightly between the six LGAs, but all have higher education levels than the Greater Sydney average. Pittwater and Warringah have lower levels of university education, but higher levels of diploma and vocational qualifications, often associated with tradespeople. The slightly lower educational attainment in Ryde can be explained by the fact that many students are there, working towards attaining one of these qualifications.

Ku-ring-gai and Willoughby have the highest level of post school qualifications, the majority of which are at degree level. Hornsby is also quite high but a little lower than Ku-ring-gai. This goes some way in explaining the high incomes earned by residents in the area.

*Post-school educational attainment, 6 LGAs, 2011 Census*



Though education levels are very high in these areas, they don't quite match the extremely high incomes, with areas closer to Sydney such as Lane Cove, Woollahra and Leichhardt having slightly more university qualifications than Ku-ring-gai. North Sydney actually has the highest level in the state, at 49%. University qualifications are closely correlated with high incomes, but also are higher in inner urban areas.

## 14 Employment Status

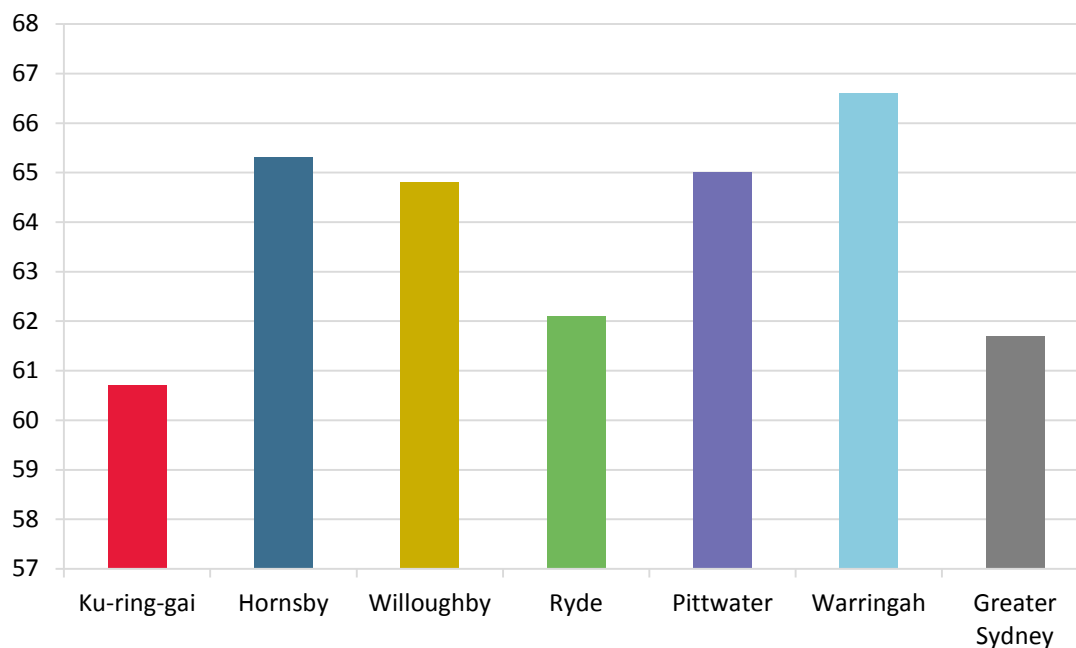
Labour force participation is defined as the proportion of the population who are either employed or looking for work. Unemployment is defined as the proportion of the labour force who are looking for work and available to start.

The levels of full or part-time employment, unemployment and labour force participation indicate the strength of the local economy and social characteristics of the population. Employment status is linked to a number of factors including Age Structure, which influences the number of people in the workforce; the economic base and employment opportunities available in the area and; the education and skill base of the population.

Most of the six LGAs have relatively high levels of labour force participation, over 60%, when compared to Greater Sydney. However, Ku-ring-gai has the lowest level, lower than the Greater Sydney average. This is most likely due to the area's slightly older age structure.

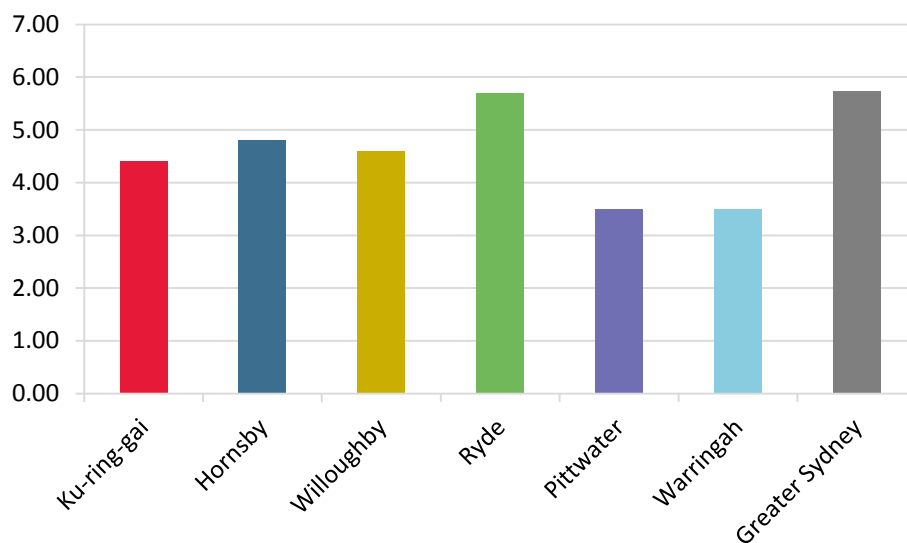
Ryde also has a slightly lower participation rate. The remaining Councils all have very high participation rates, with large proportions of people of working age.

*Labour force participation rate, 4 LGAs, 2011*



Unemployment rates are relatively low across all the councils in the study area, except for Ryde which is close to the Sydney average. Pittwater and Warringah have the lowest rates.

*Unemployment rate, 4 LGAs and Greater Sydney, 2011 Census*



The unemployment rate does differ between the small areas of the six LGAs. As expected, unemployment in Ryde is highest in the public housing areas of Macquarie Park. There is also slightly higher unemployment around Hornsby railway station in Hornsby.

## 15 Index of Disadvantage

The SEIFA index of disadvantage is an aggregate measure that takes into account aspects of disadvantage such as high unemployment, low skilled occupations, low education levels and incomes, to score each area on a continuum from very disadvantaged to highly advantaged. It is entirely derived from the 2011 Census and is used to compare areas.

The average for Australia is approximately 1,000, with lower numbers indicating more disadvantage and higher numbers less disadvantage.

### *SEIFA index of disadvantage and spread within 6 LGAs, 2011 Census*

LGA	Most advantaged suburb		Most disadvantaged suburb		
	Score	Name	Score	Name	
Ku-ring-gai	1,120.7	North	1,135.6	Gordon	
		Wahroonga			
Hornsby	1,085.2	Westleigh	1,130.7	Waitara	1,025.1
Willoughby	1,083.5	Castlecrag	1,138.4	Chatswood CBD	998.2
Ryde	1,050.4	East Ryde	1,113.9	Macquarie Park	940.9
Pittwater	1,094.4	Bilgola	1,119.7	Mona Vale	1,080.5
Warringah	1,077.3	Killarney	1,122.0	Narraweena	994.8
		Heights			

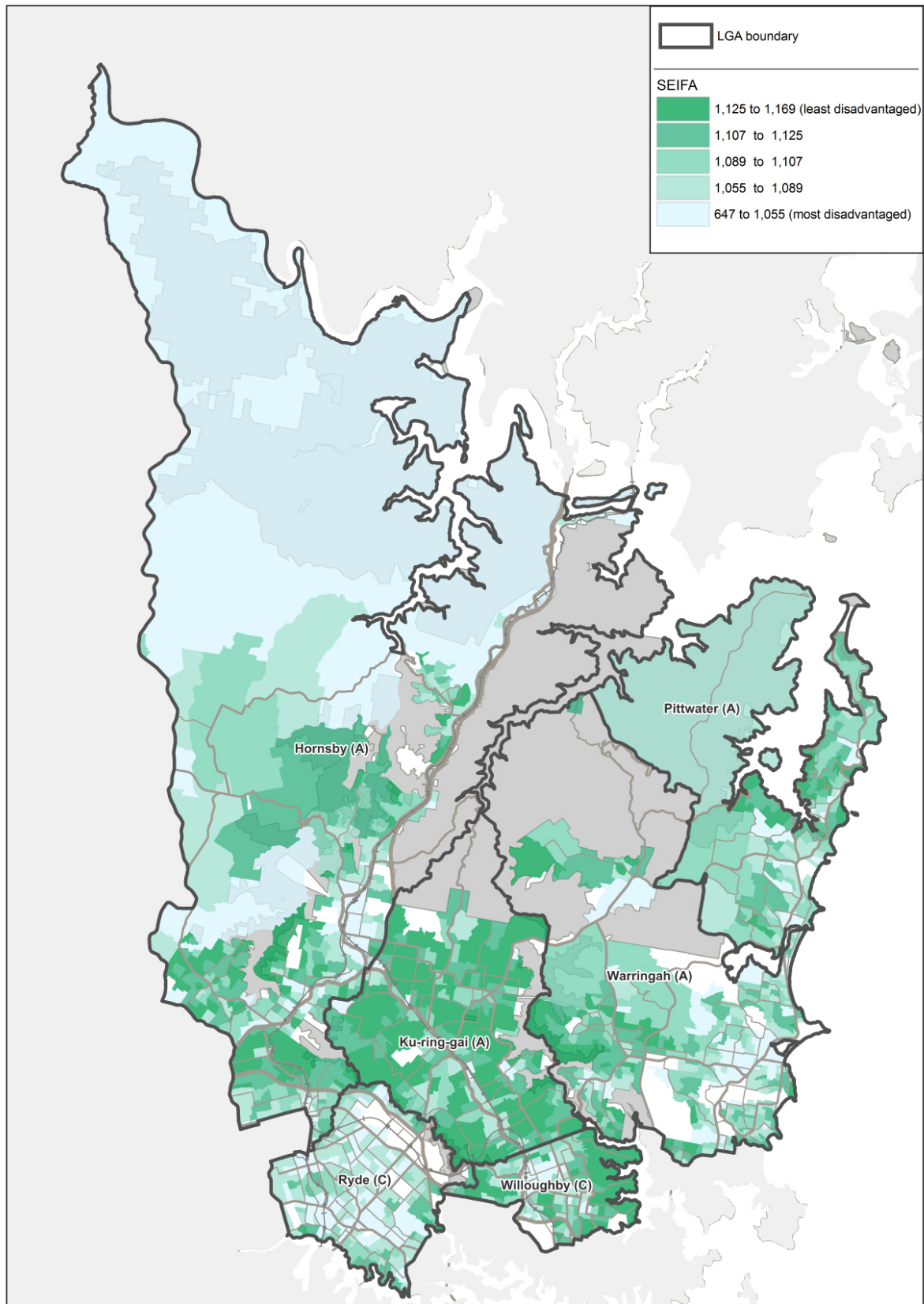
*Source: ABS, Socio-economic indexes for areas, 2011*

This table shows the SEIFA Index of Disadvantage for each of the current LGAs, and the highest and lowest suburb within each. It reinforces information from the income and education sections – all these areas are very well off, and all have a most advantaged suburb well over the 1,100 mark, putting it in the top 2% of Australia. Only Ryde has any suburbs significantly below the Australian average, with the public housing area of Macquarie Park having a SEIFA score of 940.9. Nevertheless Ryde overall is still a relatively high socio-economic area.

Ku-ring-gai is in fact the most highly advantaged (least disadvantaged) LGA in New South Wales, and was in the whole country until the 2011 Census when Peppermint Grove in Perth took over that label. Hornsby is a little lower on the SEIFA rankings, but still contains no suburb which is more disadvantaged than the national average.

The map below shows the distribution of SEIFA at the detailed (SA1) level within the six councils. It shows that most of Ku-ring-gai falls into the top range, with very little social disadvantage present at all. Large parts of Hornsby, Willoughby and the western part of Warringah also fall into this top range, as well as the coastal sections of Pittwater. Pockets of relative disadvantage (and we stress that this is relative to the six LGAs in total) are mainly confined to Ryde, the eastern part of Warringah and central Hornsby.

*Socio-economic index of relative disadvantage, 4 LGAs, 2011*



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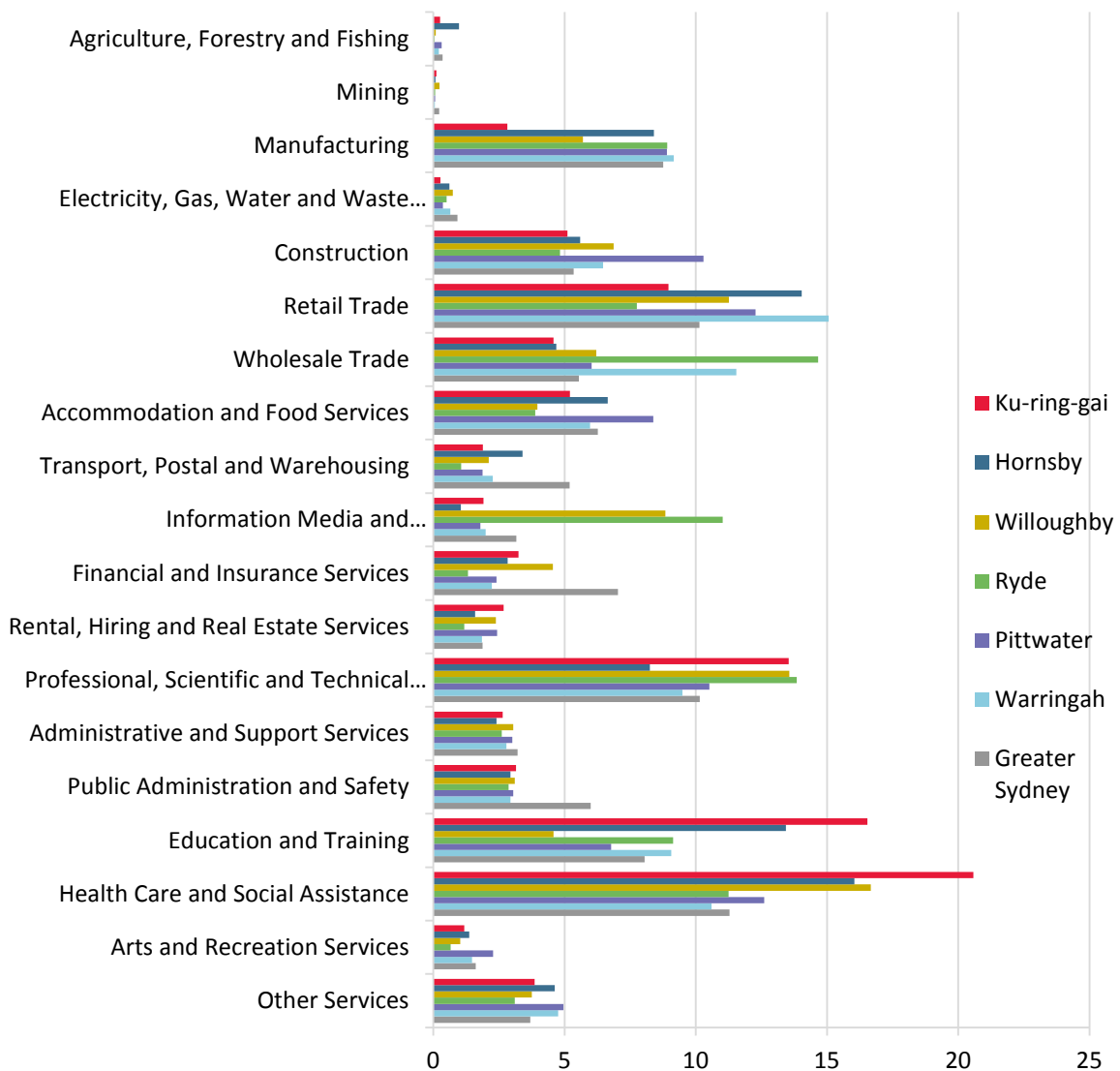


## 16 Industries

Census employment data presents the number of persons employed in each industry sector regardless of where they live. By comparing the number of jobs in each industry sector by region, insights into the local economic structure can be identified. It can also reveal potential opportunities or challenges for attracting new populations or age groups.

The following data charts industry by employment for each of the six LGAs, showing the industries operating in the area.

*Industry of employment by LGA of work destination, 6 LGAs, 2011 Census*



This is one of the few areas where the LGAs are quite different from each other. The industries located in each area are dependent on the specific location of particular employers. Many of the LGAs share common industries such as *Education and Training, Retail Trade* and *Health Care*. These are considered essential industries for any community.

There are however some standout industries in some of the LGAs. Ryde and Willoughby have a high proportion of people working in the *Information Media and Telecommunications* industry. This is due to the location of the Foxtel Australia head office in North Ryde, and Optus and other companies in Macquarie Park.

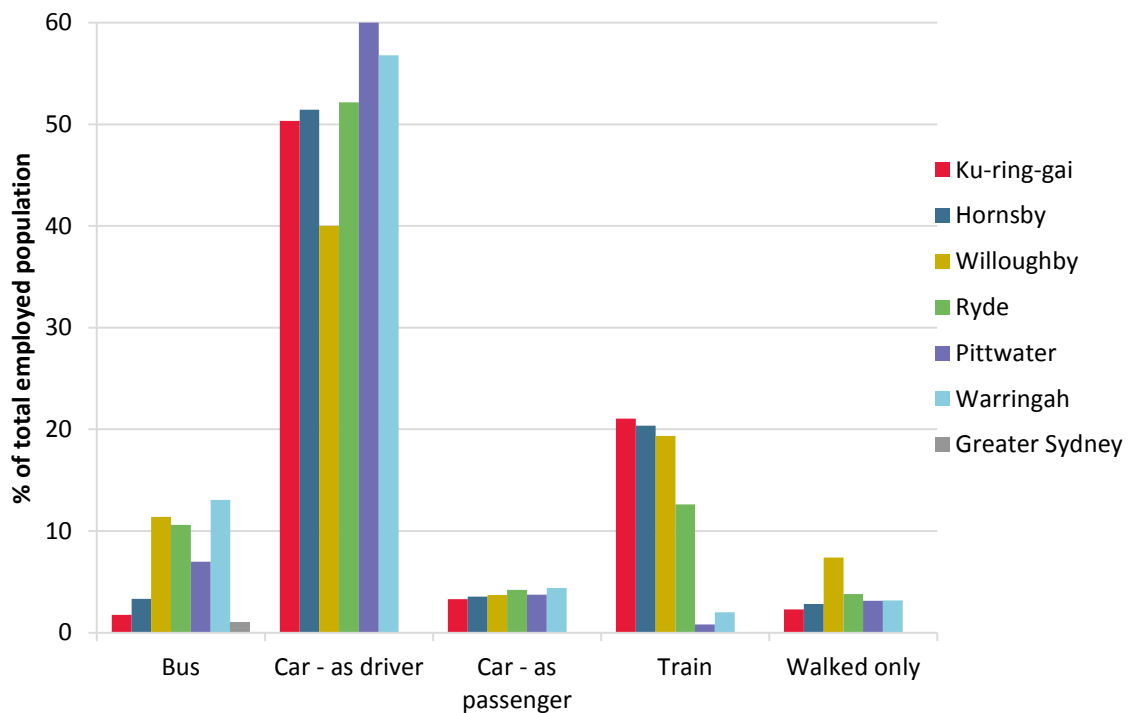
Ku-ring-gai has a large *Health Care and Social Assistance* workforce, with the location of two hospitals (Sydney Adventist Hospital and Lady Davidson Private) in the area. Both Ku-ring-gai and Hornsby also have a high level of employment in *Education and Training*, reflecting the large number of private schools in the area.

The Ku-ring-gai, Hornsby and Warringah LGAs also have a high proportion in *Professional, Scientific and Technical Services*, which indicates an affluent workforce with many home-based consultancy businesses.

## 17 Travel to Work

Across the region, most people travel to work by car. But this does vary from area to area. Travel by public transport is often associated with percentage of people working in central Sydney, the main transport hub, so it's no surprise that train use is high in Ku-ring-gai, Hornsby and Willoughby, which are along a railway line and have a high proportion of city workers living in their areas. Bus use was also high in Willoughby, as was "walked only", probably workers in Chatswood who live locally. Pittwater and Warringah have the highest proportions travelling by car, but it's important to note that this is the largest category for all the six LGAs.

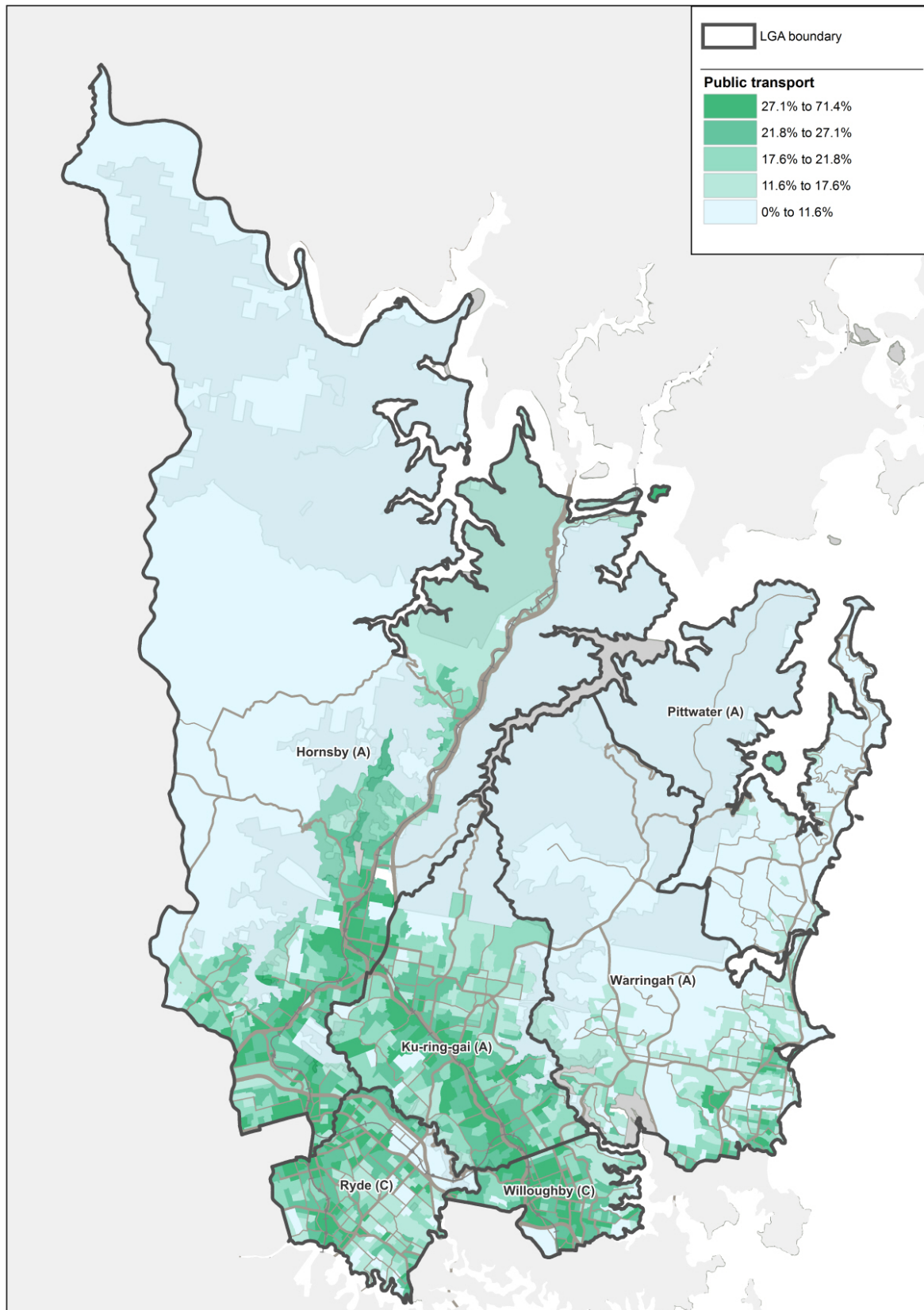
*Major methods of travel to work, 4 LGAs (residents), 2011 Census*



The region overall also has a high proportion of home-based businesses. In 2011, 8.0% of Ku-ring-gai residents worked at home. Only Pittwater was higher than this (9.1%), but all LGAs in the study area had percentages of home based work higher than the Greater Sydney average. Note that home-based work does not necessarily imply a home-based business, but Ku-ring-gai was also high for this measure as well. When just looking at those working at home who were also business owners, this proportion was 5.0%, double the Sydney average of 2.5%. The figure for Hornsby was 3.3%, and Pittwater 6.2%.

The map below shows the areas where the use of public transport is the highest. In the six LGAs these are areas along the railway line, and also areas of high density dwellings. The map is also similar to that showing the proportion of residents working in central Sydney.

*Proportion of residents travelling to work by public transport, 4 LGAs, 2011 Census*



So in terms of method of travel to work, Pittwater/Warringah is considerably car dependent, but also with a lot of home based workers. Generally home-based workers increase with increasing affluence, so accordingly, the Ku-ring-gai and Pittwater have among the highest levels in the state.

Public transport use is clustered around the northern railway line, and is relatively high in Hornsby, Ku-ring-gai and Willoughby, while in Willoughby, a substantial proportion of the workforce walked to work.

## 18 Work Destinations

The connection between place of residence and place of work is an important one in defining a community. While in our major cities, many people work at the major employment hubs, particularly CBD areas, there are actually a greater number working in the suburbs, when totalled. In most areas, the largest single work destination is the local area. LGAs with large numbers of people working in neighbouring areas (which are not CBD areas) can indicate a community connection to the area.

### *18.1 Residential origins of workers*

Of the LGAs under consideration, Ku-ring-gai, Hornsby, Warringah and Pittwater all have more employed residents than workers, while Ryde and Willoughby are significant work destinations, with more workers than residents.

The region, including six LGAs had a working population of 252,852 in Census, about 13.5% of Greater Sydney's workers. The number of employed residents is higher, at 313,777 so overall the region is a net exporter of workers (importer of jobs).

Note that these are Census-based counts – economic modelling shows significantly more workers, approximately 324,000 all up. No further detail is available on this figure in the LITE version of economy.id, however. Of these councils, only Warringah and Pittwater and Ryde have the full version of economy.id.

Focussing on Ku-ring-gai, the modelled data shows 34,369 workers in 2012-13, with the Census two years earlier recording 27,512 workers. An important measure of a demographic community is a labour force catchment so the table below shows where these workers come from.

Source of Ku-ring-gai workers	Number	% of workers
<b>Study region</b>		
Ku-ring-gai (A)	12,315	44.8%
Hornsby (A)	4,227	15.4%
Willoughby (C)	757	2.8%

Ryde (C)	873	3.2%
Warringah (A)	1,108	4.0%
Pittwater (A)	595	2.2%
<b>Other significant sources</b>		
The Hills Shire (A)	972	3.5%
Gosford (C)	894	3.2%
All other areas combined	5,771	21.0%
<b>Total</b>	<b>27,512</b>	<b>100.0%</b>

*Source: 2011 Census of Population and Housing, unpublished journey to work data*

Ku-ring-gai itself houses nearly half of all workers in Ku-ring-gai. This is a relatively high level of self-sufficiency for an affluent area.. Hornsby is by far the next most important origin of workers, accounting for 15%. Beyond that, the next largest contributors are 4% from Warringah, 3.5% from The Hills and 3.2% from Ryde and Gosford. Even though it is a direct neighbour, only 2.8% of Ku-ring-gai workers come from Willoughby, probably because it' s a major work destination itself, so there are far more jobs locally and towards the city for Willoughby residents.

Elsewhere in the study area, Warringah gets a large share of its workers from Pittwater, and some go the other way. These two LGAs are closely connected.

Both Ryde and Willoughby have very large labour force catchments, drawing workers from all over northern Sydney, and in Ryde' s case, western Sydney as well. Ku-ring-gai is the most important contributor to Willoughby' s workforce (apart from Willoughby itself), while Ryde gets more workers from The Hills and Parramatta.

Hornsby is fairly self-sufficient for workers, with just on 50% of workers living within Hornsby. Only about 6% come from Ku-ring-gai, but there is a strong relationship with The Hills Shire, where about 11% of workers come from that area. Also about 6% come from Gosford and 5% from Blacktown.



Looking at the origin of workers the only clear connections between the LGAs in the study area appear to be Ku-ring-gai to Hornsby and Willoughby, and Warringah exchanging workers with Pittwater. Hornsby is also closely associated with The Hills Shire, outside the study area.

### ***18.2 Work destinations of residents***

This table looks at the residents of the six LGA communities profiled, by selected work destinations, within and outside the area.

Of the six LGAs, Pittwater is the one with the highest proportion of residents working within the study area, mainly due to being surrounded by Warringah. Warringah and Pittwater itself account for almost 60% of employed residents here.

Interestingly, the level of self-containment for the six LGAs considered as a whole is very close to the overall level of self-containment in Ku-ring-gai itself, a much smaller area. This is unusual as it is generally expected that self-containment would increase as the size of the geography being considered increases.

Hornsby residents are quite likely to work in The Hills and Parramatta, but the other LGAs don't show a strong connection in that direction.

Naturally the Sydney CBD is a major employer of residents, and across the region, 18% of all residents work in the City of Sydney (note that this isn't just the CBD – it includes the inner suburbs - but the majority of workers are in the CBD). Of the six LGAs, Willoughby and Ku-ring-gai have the strongest connection to the City of Sydney, probably due to proximity and good train links.

LGA of work	LGA of residence						Total
	Ku-ring-gai (A)	Hornsby (A)	Pittwater (A)	Ryde (C)	Warringah (A)	Willoughby (C)	
Ku-ring-gai (A)	12,314	4,226	595	873	1,107	755	19,870
Hornsby (A)	2,326	20,524	280	1,045	550	320	25,045
Willoughby (C)	4,247	3,634	875	2,490	3,742	8,583	23,571
Ryde (C)	3,144	6,151	738	13,643	1,974	1,751	27,401
Pittwater (A)	378	314	11,225	150	4,066	137	16,270
Warringah (A)	1,472	1,336	4,784	647	27,813	752	36,804
<i>% working in region</i>	<i>47.5%</i>	<i>46.1%</i>	<i>64.5%</i>	<i>37.5%</i>	<i>54.3%</i>	<i>36.5%</i>	<i>47.5%</i>
Sydney (C)	11,241	11,983	2,800	9,616	10,854	9,752	56,246
<i>% working in City of Sydney</i>	<i>22.3%</i>	<i>15.3%</i>	<i>9.8%</i>	<i>19.1%</i>	<i>15.0%</i>	<i>29.0%</i>	<i>17.9%</i>
North Sydney (A)	3,542	3,378	998	2,195	3,909	3,821	17,843
<i>% working in North Sydney</i>	<i>7.0%</i>	<i>4.3%</i>	<i>3.5%</i>	<i>4.4%</i>	<i>5.4%</i>	<i>11.4%</i>	<i>5.7%</i>
Parramatta (C)	957	3,594	215	2,432	577	439	8,214
The Hills Shire (A)	659	4,297	158	868	333	232	6,547
Other destination	6,283	11,215	2,825	11,133	9,899	4,443	45,798
Unknown destination	3,734	7,905	3,191	5,214	7,453	2,671	30,168

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Total employed residents	50,297	78,557	28,684	50,306	72,277	33,656	313,777
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*Source: 2011 Census of Population and Housing, unpublished journey to work data.*

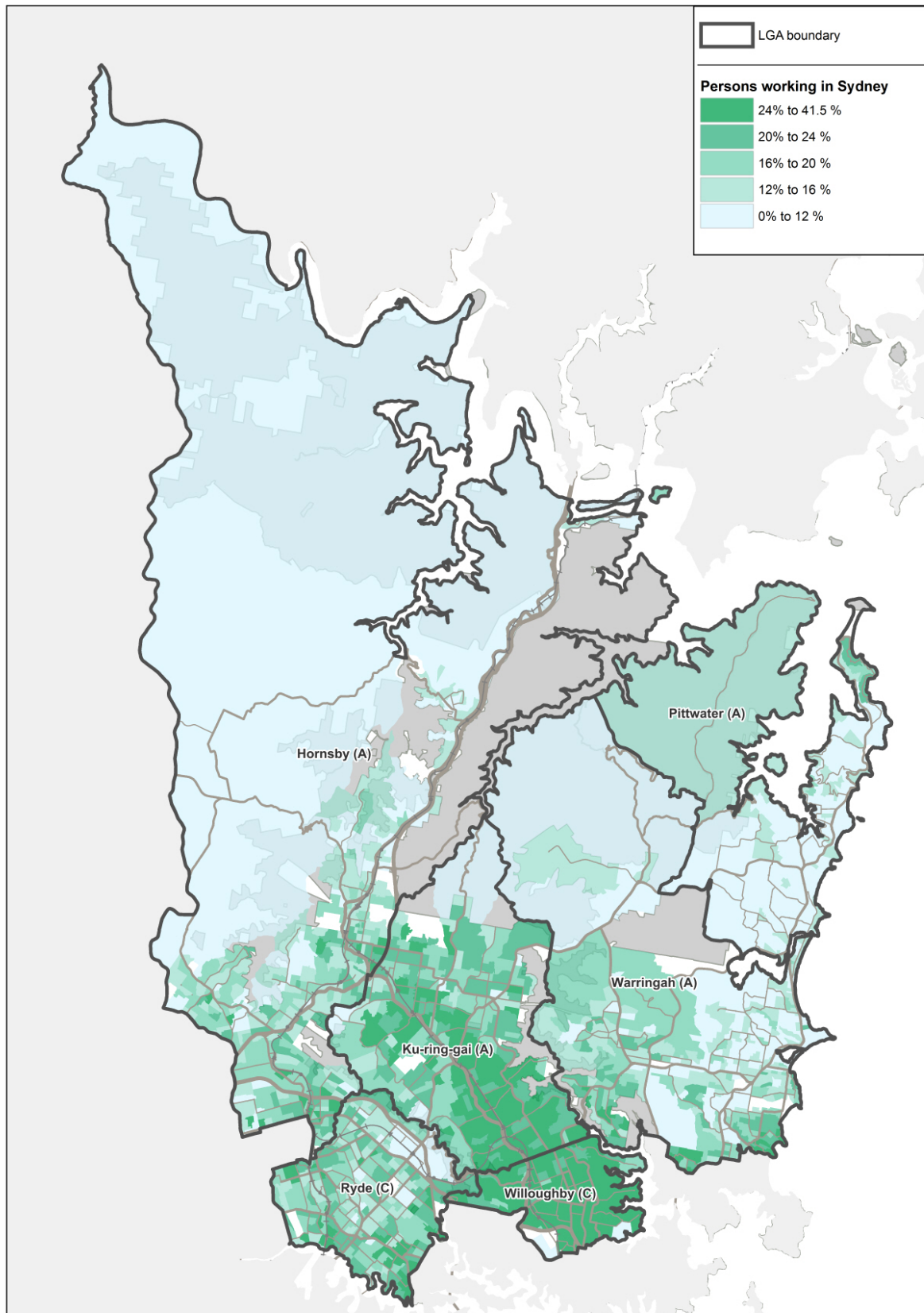
Interestingly, North Sydney is only a significant destination for workers from Willoughby and somewhat from Ku-ring-gai, despite having a large workforce.

There is a significant exchange of workers between Hornsby and Ku-ring-gai, and between Ku-ring-gai and Willoughby, though the latter is mainly one way, towards Chatswood.

Ryde doesn't have a major exchange of workers with any of the other LGAs in the study.

Workers in the CBD play an important role in indicating whether an area functions as a discrete economy or a dormitory area for commuters – the map below shows from where people commute to the City of Sydney. Commuting to the city is strongest along the railway line due to easy access, and all through Willoughby due to relatively close proximity.

*Percentage of employed residents working in the City of Sydney, 6 LGAs, 2011*



Overall, there appears to be a clear workforce connection between Hornsby, Ku-ring-gai, and Willoughby but no more so than the workforce connection between Hornsby and The Hills Shire. Ku-ring-gai residents work either locally, in Willoughby, or in the City of Sydney. There is some crossover to Ryde but little to Warringah or Pittwater. A connection between Warringah and Pittwater is also evident.

## 19 Snapshot of Potential Mergers

This section looks at the two most likely combinations of mergers for Ku-ring-gai council, with Hornsby or with Willoughby, and how they would affect some of the key demographics, when the area is considered as a whole.

### *19.1 Ku-ring-gai and Hornsby*

Ku-ring-gai and Hornsby are very similar demographically in many ways. They have similar age structures and household types, similar income levels (though Ku-ring-gai is a bit higher) and similar levels of cultural diversity (though there are some different groups). Geographically, Hornsby is a much larger council, extending well to the north of Ku-ring-gai, but they do share a boundary in the urban area.

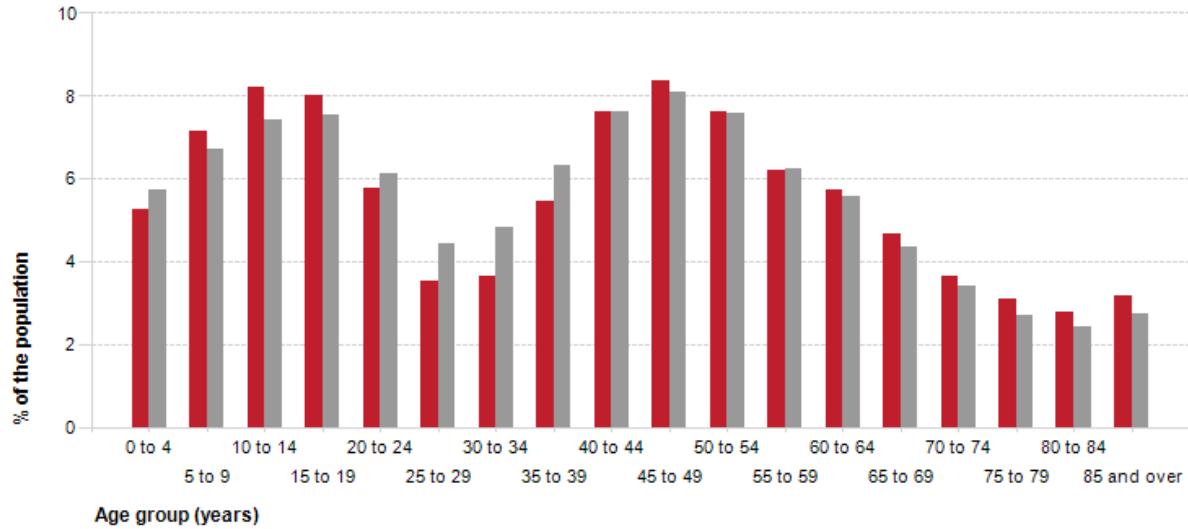
A merger of Ku-ring-gai and Hornsby alone would have a population of approximately 286,000 and growing. This is larger than all but one LGA in NSW based on current boundaries (Blacktown).

The age structure of the combined Ku-ring-gai-Hornsby area would look quite similar to the current Ku-ring-gai area, with a dominance of mature families, but slightly more young adults and families with young children than at present.

## Age structure - five year age groups, 2011

Total persons

■ Ku-ring-gai Council area ■ Ku-ring-gai (A) and Hornsby (A) combined



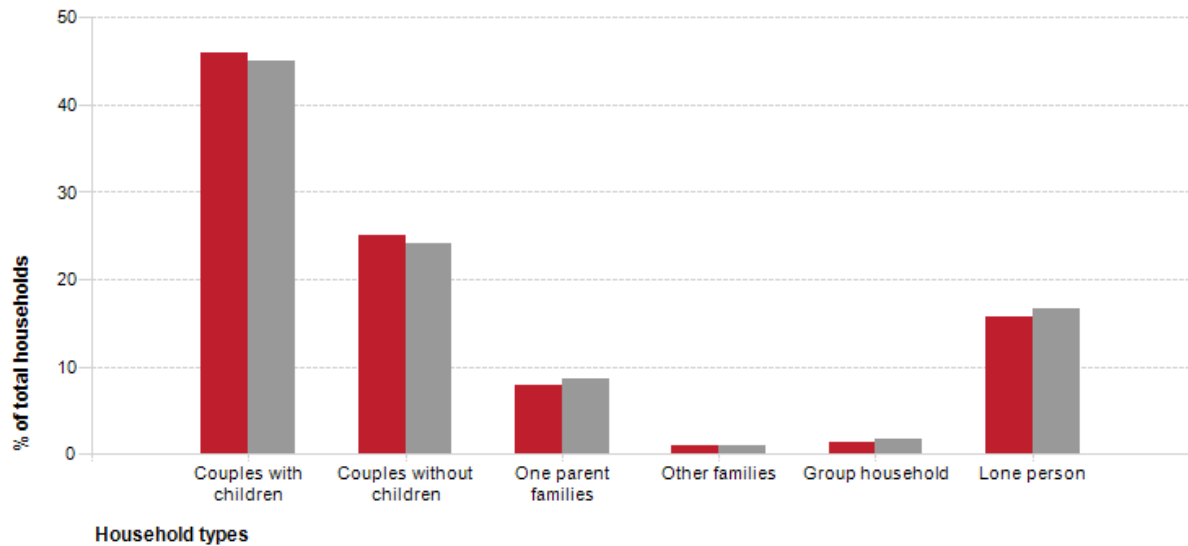
Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)  
Compiled and presented in profile.id by .id, the population experts.



Household type charts look very similar – the overall distribution wouldn't change very much. Average household size would move only slightly, from 2.88 down to 2.85.

## Household type, 2011

■ Ku-ring-gai Council area ■ Ku-ring-gai (A) and Hornsby (A) combined



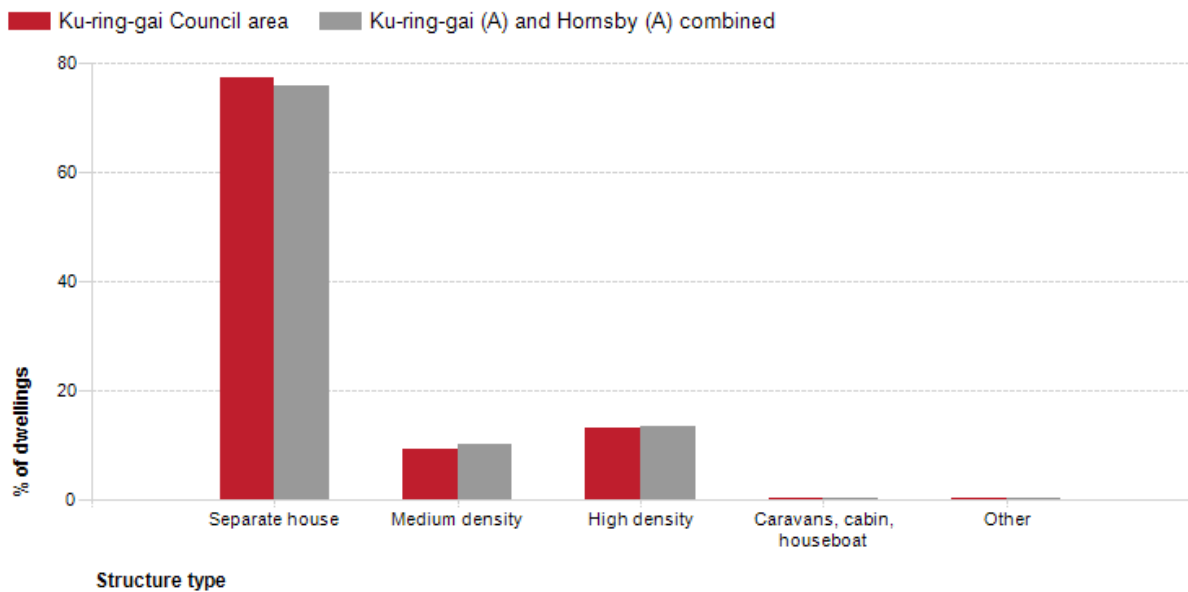
Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.





Dwelling diversity will change very little if the areas are combined. The resultant LGA would have just slightly more medium and high density.

### Dwelling structure, 2011



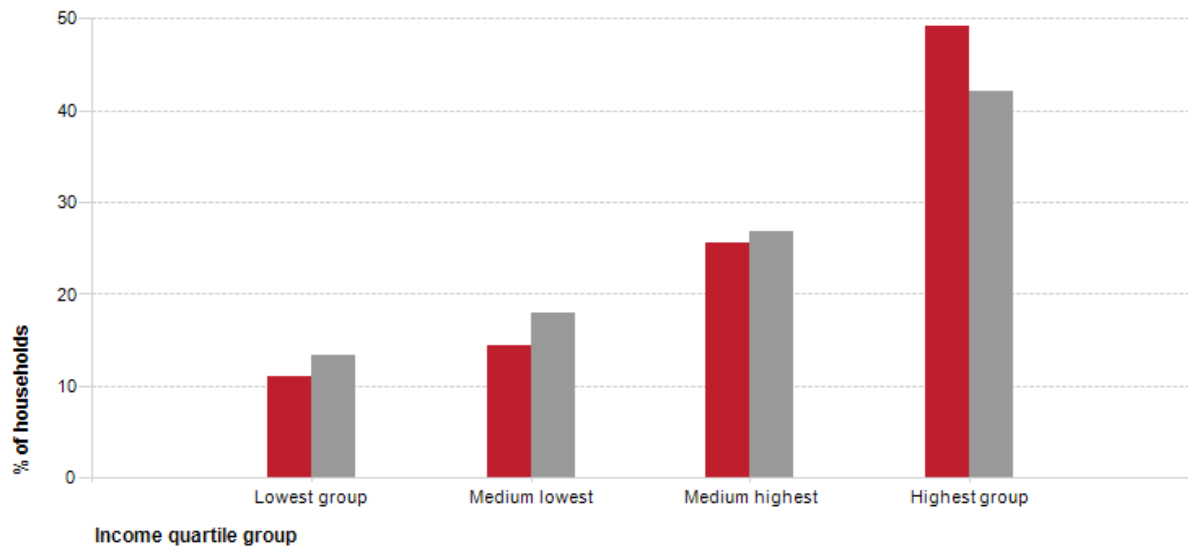
Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.



Overall incomes would be a little lower – as Ku-ring-gai is currently the highest income LGA in NSW, a merge with any other council would lower average incomes. Nevertheless the resultant area would still have 42% of incomes in the top 25% of the state. Similarly, the proportion of highly qualified individuals with university qualifications would be lower for the combined area.

## Equivalised household income quartiles, 2011

■ Ku-ring-gai Council area   ■ Ku-ring-gai (A) and Hornsby (A) combined



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.



The unemployment rate would remain quite low, at 4.6%, for the merged area, but the work destinations of residents would look somewhat different. Hornsby residents are much more likely to work in Western Sydney, particularly Parramatta and The Hills Shire, so there would be a general shift to the west of the work destinations, with only approximately 17% of workers in the combined area commuting to the City of Sydney

Overall, a merger with Hornsby would make little difference to the socio-economic characteristics when the combined area is considered relative to the current boundary. The main changes would be a greater proportion of the workforce traveling west to work, and a slightly lower income and education profile. The resultant LGA would remain a predominantly residential, affluent, family area.

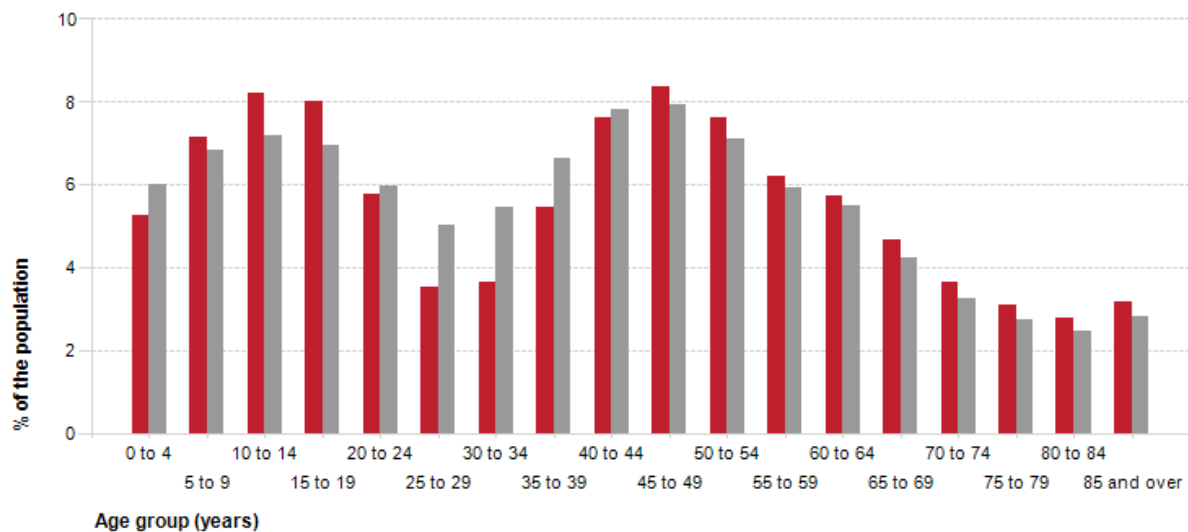
## 19.2 Ku-ring-gai and Willoughby

Ku-ring-gai and Willoughby are near neighbours geographically, with Willoughby just a bit closer to Sydney along the northern railway line. Demographically there are a few similarities – both are relatively high socio-economic areas, for instance. But in most cases Willoughby has a population mix more representative of a high density area of young adults, rather than mature families which dominate in Ku-ring-gai. In this way, if they were to merge, the combined area would move closer to the Sydney average in many respects. Willoughby is also a major work destination within Greater Sydney, having the employment hub of Chatswood, while Ku-ring-gai is more residential. If a major centre and destination is desired to be part of the merged area, this could be a good option.

### Age structure - five year age groups, 2011

Total persons

■ Ku-ring-gai Council area ■ Ku-ring-gai (A) and Willoughby (C) combined



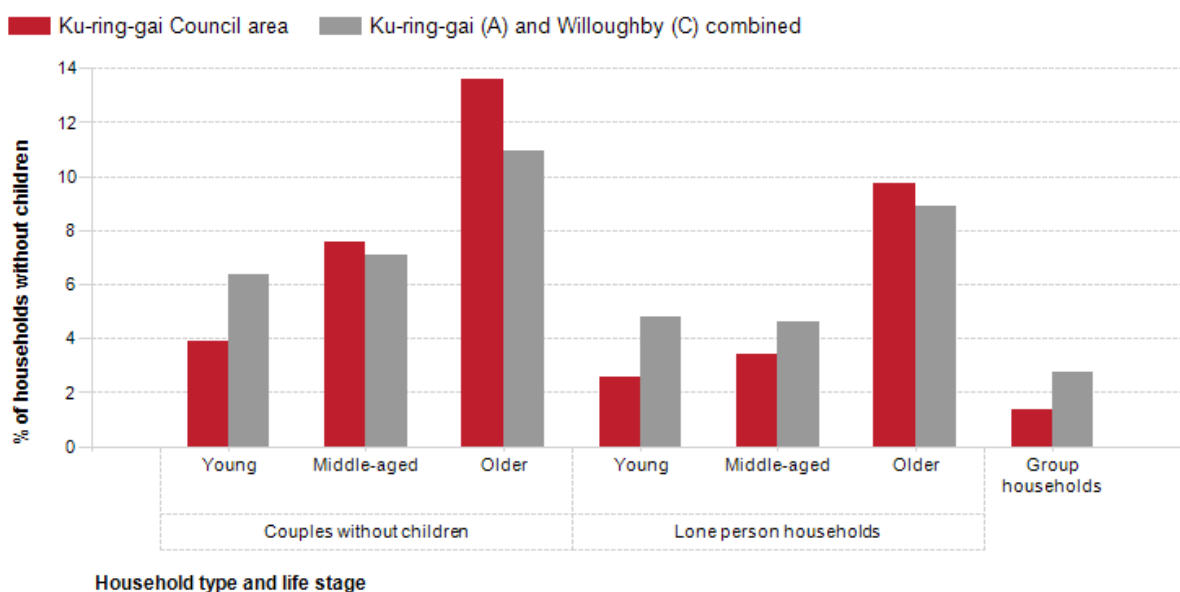
Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)  
Compiled and presented in profile.id by .id, the population experts.

.id  
the population experts

The age structure of the combined Ku-ring-gai and Willoughby area would be closer to the Sydney average than Ku-ring-gai alone. There would be a greater proportion of adults in their 20s and 30s, more young children and less older children than currently. Despite this, the proportion of young adults would still be below the Sydney average.

This merger would move the household composition of the area away from couples with children, and towards couples without children and lone person households, particularly adding in young lone person and couple households who are largely absent from Ku-ring-gai at the moment. The chart below shows the move from almost entirely older couples and lone persons to a more diverse mix of life stages for households without children.

### Households without children, 2011

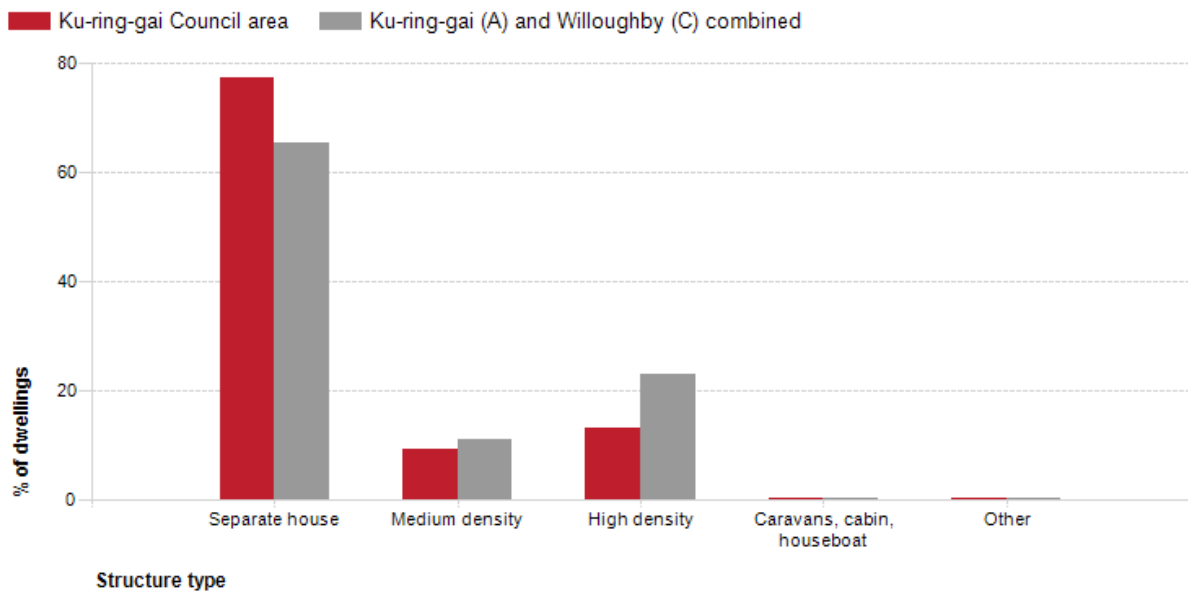


Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.



With Willoughby having a large amount of high density housing in Chatswood, a merger between Ku-ring-gai and Willoughby would significantly increase the level of high-density housing in the area overall, and create a more diverse housing mix when the area is considered in total. There is relatively little medium density in either place, however, with most dwellings being separate houses (65.4%) or high density (23.2%). The proportion of high density in both places has increased significantly since 2006.

## Dwelling structure, 2011

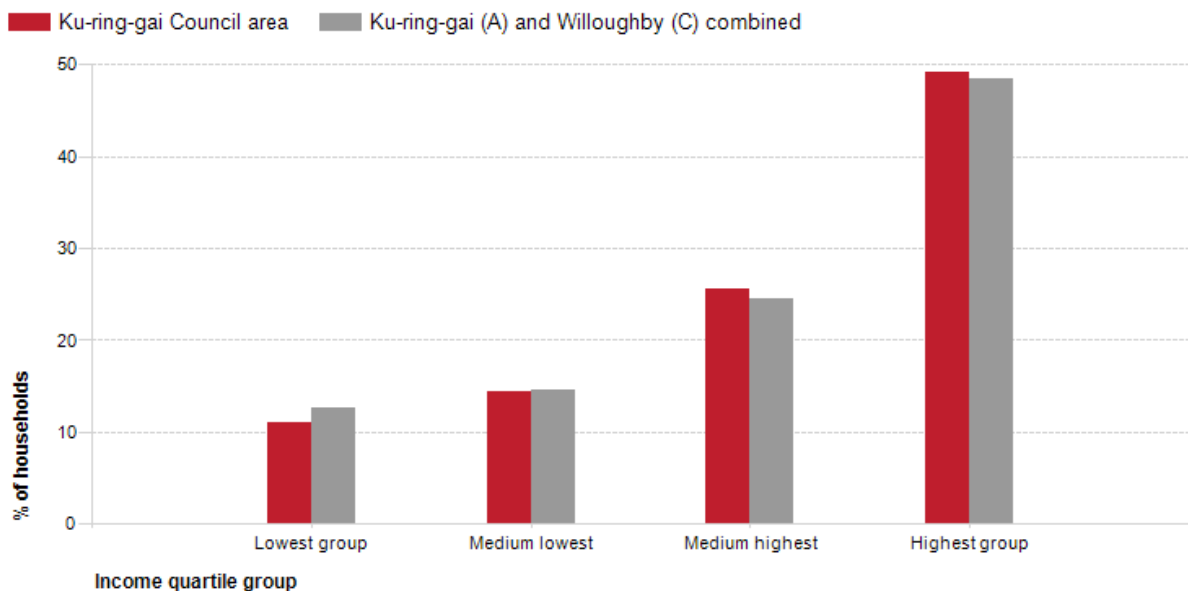


Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.



Merging with Willoughby has very little effect on the incomes of the area. Both Willoughby and Ku-ring-gai are very high income areas, and the resulting income distribution changes only marginally when they are combined. The combined area has 48.4% of equivalised incomes in the top quartile of the state.

## Equivalised household income quartiles, 2011



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Enumerated data)  
Compiled and presented in profile.id by .id, the population experts.



There would be little change to the breakdown of industry, occupation, or unemployment in the area, as Willoughby and Ku-ring-gai are similar in these respects.

Willoughby has a significantly greater proportion of public transport use, so the combined area would have a higher proportion of people taking public transport to work, particularly buses. There would also be slightly less working from home and double the rate of walking to work, due to the presence of the major centre of Chatswood in the area.

From Willoughby, 29% of workers commute to the City of Sydney, and another 11% to North Sydney – so it is very focused on working locally or commuting towards the city. This would increase the proportions in the combined area working in either of those places. Ku-ring-gai and Willoughby are more focussed towards the inner city as a work destination when compared to Hornsby.

The combined area would have approximately 97,000 jobs, almost triple the number in Ku-ring-gai now. It would also have about 95,000 employed residents, making it almost a 1:1 ratio of jobs to residents. This is more even than the distribution currently, which is skewed towards residents in Ku-ring-gai and jobs in Willoughby, so the enlarged area includes a major employment destination and large residential areas.

Overall, Ku-ring-gai and Willoughby are somewhat less similar demographically than Hornsby. A combined area with the two councils would change the demographics of the council when considered as a whole. This would add in some groups largely absent in Ku-ring-gai at the moment such as adults in their 20s, young couples and lone persons. It would also create an area with a large regional hub and a significant working population. This would be quite different to a merger with demographically more similar Hornsby.

## 20 Conclusion

Overall, there are a few trends which are apparent when comparing the demographics of these six areas for a potential merger.

- The six councils combined would make an enormous area, larger in population than any current LGA in Australia excluding Brisbane.
- Ku-ring-gai and Hornsby are very similar in many respects – both are mature family areas, with moderate levels of cultural diversity, relatively high socio-economic status, and predominantly low-density separate houses.
- Nevertheless there are differences. Ku-ring-gai stands alone as having a huge proportion of students attending private schools, for instance, and a significantly higher income than Hornsby.
- Ku-ring-gai and Hornsby also share a boundary which in part splits the community of Wahroonga along an arbitrary back-fence boundary. Merging these two councils would eliminate this and have one continuous community.
- Of the other LGAs considered, Pittwater is the most similar to Ku-ring-gai. However it is geographically much separated and could only be merged if Warringah was also included.
- Ryde is the most different, demographically, from all the others, with a large university population, very high cultural diversity and specific unique groups such as the Armenian community. From a workforce perspective it is a major destination for people from Western Sydney, which the other areas are not.
- Willoughby fits well geographically with Ku-ring-gai. However it is different demographically, with far more high density housing, a much younger adult population, and also more young children. It is dominated by the major centre of Chatswood, while Ku-ring-gai doesn't currently have a major centre. Nevertheless, there is a workforce connection, with many Ku-ring-gai residents working in Willoughby. If a merger which moved the resultant council closer to Greater Sydney averages is desired, Willoughby would be a good choice.

- Workforce information doesn't identify a clear community. Around 47% of workers across the six LGAs work within the six LGAs. There is a clear link between Pittwater and Warringah, and some link between Ku-ring-gai and Hornsby (many Hornsby residents work in Ku-ring-gai, but less go the other way), but there is just as much of a link between Hornsby and The Hills Shire. Willoughby and Ryde are the major work destinations within the region and draw workers from a wide area.
- In general this data seems to support a strong connection between Ku-ring-gai and Hornsby demographically, and Willoughby geographically and via workforce destination.
- A high correlation exists between the data for Pittwater and Warringah. They are very similar areas and form a logical community of interest, both demographically and geographically. Pittwater was originally part of Warringah.
- Ku-ring-gai has some features which make it unique, and consideration should also be given to not merging but remaining as a single council. The possibility of minor boundary adjustments with Hornsby or Willoughby to align to suburb boundaries could also be considered (see below).

### *20.1 Boundary issues*

The choice of boundaries for a local government area can also have an effect on the demographics. Boundaries should be logical, encapsulate communities of interest and ideally represent visible physical barriers that don't divide suburbs internally.

As already mentioned, the boundary between Ku-ring-gai and Hornsby cuts through the community of Wahroonga using boundaries which are not visible features. A boundary change between these two councils would eliminate this.



In addition, the suburb of Roseville is split between Ku-ring-gai and Willoughby. The part in Willoughby is a predominantly low-density family area, and is socio-economically advantaged. It would be a good fit to move into Ku-ring-gai, so it is recommended that if a merger occurs, demographically this could be included with Ku-ring-gai, with the remainder of Willoughby merging with North Sydney if that is a desired outcome.

Another possibility worth investigating would be the inclusion of the western parts of Warringah in the merged area – these areas, such as Frenchs Forest and Forestville are similar to Ku-ring-gai demographically. This possibility is not shown on the map below.

*.id suggested boundary for a merger of Ku-ring-gai and Hornsby with a small part of Willoughby.*



Naturally these conclusions only consider demographic aspects of a potential merger. The final decision on whether such a merged council would be fit for the future lies with the individual councils involved, and they would include financial, asset and other community considerations.

These points should be considered suggestions only, arising from the demographic analysis of the area as a whole.

*20.2 .id' s recommendations:*

**21 .id makes no comment on whether individual councils are sustainable for the future. Merging is not necessarily required to ensure service level outcomes, and is not mandated by anything contained in this report. The report looks at the demographic facts and does not consider whether merging with a similar or more different council is desirable. Data Considerations**

Data in this report are sourced primarily from the 2011 and earlier Censuses of Population and Housing, presented in profile.id (<http://profile.id.com.au/Ku-ring-gai>).

Economic data is derived using modelled data from National Economics' micro-simulation techniques (more information can be found at [nieir.com.au](http://nieir.com.au))

While most of the data in the report is shown at the local government level there may be small area focused material that can provide extra insights, especially if the council is considering highly detailed boundary shifts. This more detailed analysis can be made available to Ku-ring-gai Council.

The definition for housing density used in this report is sourced from the ABS and is applied here as a means of ensuring areas are measured with compatible data.

There is significant differences in the geographic size and scale of LGAs in this report (notably Hornsby). However, it is primarily concerned with people and population traits, not land and land-use, though some related issues are discussed. Percentages are used to show the relative proportions of characteristics in each region each for meaningful comparative analysis.

Further supporting data are available upon request.

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## 22 More information

Most of the information in this document is sourced from Ku-ring-gai's online information tools, profile.id and atlas.id, plus the same tools for Ryde, Hornsby, Willoughby, Warringah and Pittwater, some of whom also subscribe to our additional forecast.id and economy.id information tools.

All these sites can be accessed via the NSROC and SHOROC profile.id sites, located here:

- <http://profile.id.com.au/nsroc>
- <http://profile.id.com.au/shoroc>

or via the individual councils' landing pages:

- <http://www.id.com.au/Ku-ring-gai>
- <http://www.id.com.au/hornsby>
- <http://www.id.com.au/warringah>
- <http://www.id.com.au/pittwater>
- <http://www.id.com.au/willoughby>
- <http://www.id.com.au/ryde>

Data consolidated from these sites, and further data extracted from the ABS Tablebuilder service, is included with the accompanying spreadsheets to this document.

For more information about any of the information contained in this report, please contact:

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