



Hawkesbury City Council

Attachment 1
to
item 095

Hawkesbury Demographics Study

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SGS
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HAWKESBURY DEMOGRAPHICS STUDY

FINAL
14.05.2020

Prepared for
Hawkesbury City Council

Independent
insight.



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1. INTRODUCTION

SGS Economics and Planning has undertaken a study of the demographics, social profile, future growth and associated opportunities for Hawkesbury City Council as part of the LSPS preparation process.

SGS Economics and Planning (SGS) has been commissioned by Hawkesbury City Council to undertake a demographic study for Hawkesbury Local Government Area (LGA). The demographic study is useful to support a variety of strategies - covering both residential and workers' demographic profiles.

Council has recently exhibited the Draft Hawkesbury Local Strategic Planning Statement (LSPS) 2040 in response to the strategic directions identified in the Greater Sydney Region Plan and the Western City District Plan prepared by the Greater Sydney Commission. These documents and strategies will guide land use in the Local Government Area (LGA), with the LSPS setting out a 20-year vision, the special character and values to be preserved and how change will be managed into the future.

Priorities identified in the LSPS (Draft) include the:

- need for housing diversity (responsive to the housing needs of a changing population)
- coordination of infrastructure provision (to support growth), and
- protection of character and environment.

This work provides further support and analysis that considers the changing demographics and resulting housing needs and infrastructure provision.

All the data, used in this study, is from publicly available sources, including ABS Census data, NSW Government Transport Performance and Analytics (TPA) projection data and Torrens University's Public Health Information Development Unit (PHIDU). SGS's Rental Affordability Index (RAI) was used to provide additional information for understanding housing affordability.

The report has been structured to reflect the requirements of the brief. Each chapter will focus on the following:

Chapter 2 – Key Insights and SWOT: identifies Hawkesbury's strengths, weaknesses, opportunities and threats relative to the rest of the Western City District.

Chapter 3 – Policy and Planning Context: review of the relevant plans, policies and documents that are shaping the growth of the Hawkesbury LGA and the Western City District.

Chapter 4 – People: analysis of demographics information for the Hawkesbury LGA and the Western City District.

Chapter 5 – Households and Dwellings: analysis of households and dwellings information for the Hawkesbury LGA and the Western City District.

Chapter 6 – Employment (residents and workers): analysis of employment information (residents and workers) for the Hawkesbury LGA and the Western City District.

Chapter 7 – Conclusions: key insights and implications for Council.

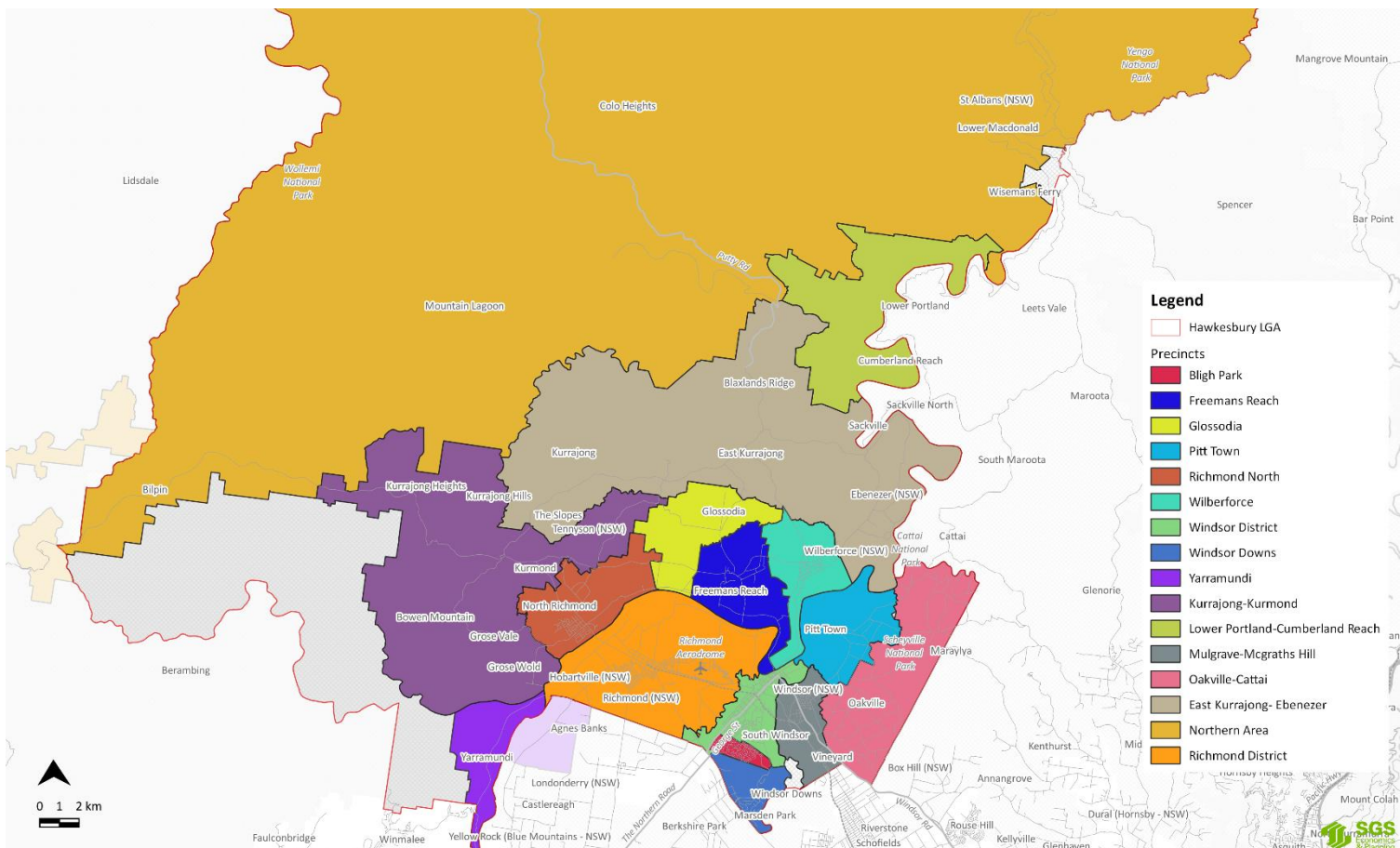
Study Area

Hawkesbury LGA is positioned in the North-West section of Greater Sydney, within the Western City District. For the purpose of statistical reporting, the study area (LGA) has been divided into 16 sub-LGA areas.

- Kurrajong-Kurmond
- Richmond North
- Glossodia
- Freemans Reach
- Wilberforce
- Pitt Town
- Oakville-Cattai
- Yarramundi
- Richmond District
- Windsor District
- Mulgrave-Mcgraths Hill
- Bligh Park
- Windsor Downs
- Northern Area
- Lower Portland- Cumberland Reach
- East Kurrajong- Ebenezer

These precincts were assembled out of SA1s - in such a way, to best capture historical and forecasted data from different geographies (SA1, DZN, TZ) and character of the different townships throughout. The Study Area itself is representative of the LGA, in total.

FIGURE 1: STUDY AREA - PRECINCTS¹



Source: SGS Economics and Planning 2020

¹ See the interactive dashboard for the associated demographic data for each of the precinct. The 16 Precincts cover the whole of Hawkesbury LGA.

2. KEY INSIGHTS & SWOT

This section outlines a broad discussion of strengths, weaknesses, opportunities and threats (SWOT) for the Hawkesbury LGA.

2.1 Purpose of SWOT

The purpose of the SWOT analysis (strengths, weaknesses, opportunities and threats) is to identify in a qualitative way Hawkesbury's comparative strengths and weaknesses in relation to Greater Sydney and the Western City District, and the potential opportunities and threats that may impact growth in the LGA.

The SWOT analysis below has been derived from the findings of the policy review and demographic analysis, feedback from Council staff and a general understanding of the Hawkesbury LGA and the broader Sydney context.

2.2 SWOT Overview

TABLE 1: SWOT OVERVIEW

Strengths	Weaknesses
Proximity to natural assets, open space and rural areas	High car dependency
High rates of home ownership	Low rates of public transport use
Defence and educational infrastructure	Limited diversity in housing types
Relatively more affordable for renters with incomes as compared to other parts of Greater Sydney	Low levels of educational attainment in resident population
Opportunities	Threats
Employment opportunities through proximity to WSA and Badgerys Creek Aerotropolis, Aerospace Institute at North Bringelly and opportunities related to the RAAF Richmond Base and UWS campus	Impact of the Western Sydney Airport (WSA) and large city shaping infrastructure projects located in the south-west of the District – and decisions on connectivity to the WSA and aerotropolis employment growth areas from NW
North-South Rail Link, and connectivity across the Sydney metropolitan area	Ageing of the population
Continued development of the North West Growth Area	Reliance on low-density development and urban form
Western Sydney City Deal, including funding for liveability improvement projects in Hawkesbury	Metropolitan rural areas have high environmental and agricultural values; however, they also limit urban development

Source: SGS Economics and Planning 2019

2.3 Strengths

Proximity to natural assets and open space

One of Hawkesbury's key strengths is its natural and lifestyle offerings within close proximity of Sydney. The LGA has retained significant amounts of rural land, lending itself to a scenic character distinct from most of Greater Sydney. Hawkesbury residents are also located within

close proximity of National Parks and bushland areas. These contribute to resident's wellbeing and quality of life.

Emphasis should be placed on conservation of the values of rural land and bushland areas, protecting them from encroachment from residential development. This will allow residents of the area to share the benefits of these local attributes into the future.

High rates of home ownership

Hawkesbury has higher rates of homeownership than both Greater Sydney and the Western City District, with 43% of households owning their home with a mortgage and 32% owning their properties outright. Furthermore, Hawkesbury's proportion of low-income households living in mortgage stress is lower than the rest of Sydney. This ensures security of tenure for the majority of households in the LGA.

Defence / educational infrastructure

According to the Western City District Plan, a new aerospace and defence industries precinct will be developed to the north of the Aerotropolis, led by the NSW Government. This will position key defence and education facilities within the Hawkesbury LGA, notably the RAAF Base and WSU Hawkesbury campus, to support economic development in the region. Therefore, these key defence and educational facilities are a key strength of the LGA.

Relatively more affordable for renters with incomes as compared to other parts of Greater Sydney

Hawkesbury LGA is affordable for renters with income (very affordable for dual income couple with children and affordable for single working parent). Compared to the rest of Greater Sydney, Hawkesbury LGA is relatively more affordable for renters with minimum wage or on a pension. Some parts of Hawkesbury (the southern part) are more socio economically disadvantaged than other parts, and approximately 30 per cent of renters within Hawkesbury LGA are experiencing rental stress. There are opportunities to provide more social and affordable dwellings for this segment of the community.

2.4 Weaknesses

High car dependency

Compared to both Greater Sydney and the Western City District, a higher proportion of people travel to work via car (85%). Trends also show an increase in private vehicle use since 2006, contrary to a decline throughout the rest of Sydney in the same period. This is associated with many negative impacts, ranging from concerns of public health to worsened urban design outcomes and urban amenity of the public realm.

Low rates of public transport use

High car reliance corresponds with lower rates of public transport use throughout the LGA. This may indicate shortfalls in transport provision throughout Hawkesbury (e.g. insufficient frequency of train services, or poor connections from surrounding suburbs to existing stations). Improving frequency and reliability of public transport options between key locations throughout the LGA should be a priority.

Limited diversity in housing types

The majority of private dwellings in the Hawkesbury LGA are separate dwellings (86%). Most of these separate dwellings have two or more spare rooms, perpetuated by an increased share of Couples Only households and Lone Person households. These trends in household composition are likely to continue due to the LGA's ageing population. This indicates that the typology of residential development in the LGA has not responded to demands for smaller dwellings.

Low levels of educational attainment

Hawkesbury residents are less likely to have obtained a university education than residents throughout the rest of Sydney, with lower growth rates for people in tertiary education. There is also a higher share of residents not completing secondary education. This is likely a contributor to Hawkesbury's reliance on population-serving employment and the decrease in knowledge intensive jobs which has been experienced in the LGA. This continued lack of higher-order employment may be a challenge for Hawkesbury in future, as the wider economy continues to restructure.

2.5 Opportunities

Employment opportunities through proximity to Badgerys Creek Aerotropolis, Aerospace Institute at North Bringelly and UWS Richmond campus

Hawkesbury is positioned well relative to new education and employment opportunities at the new Aerotropolis, which will be well serviced by both road and rail links. As part of the Western Sydney City Deal, there is a target for the Aerotropolis to accommodate 200,000 jobs in trade, freight, logistics, advanced manufacturing, health, education and science. This will be the centre of the Western Parkland City, of which Hawkesbury is a part, increasing the accessibility of higher order jobs and tertiary education to Hawkesbury residents.

Part of the Aerotropolis will be an aerospace institute at North Bringelly. This will link with existing aerospace infrastructure at Richmond and educational institutions in the Hawkesbury area. Therefore, an opportunity exists for Hawkesbury to leverage its existing assets to take advantage of significant investment in the Western City District.

North-South Rail Link

The new North South Rail Link will provide railway connections from the existing railway network to the new Aerotropolis and Western Sydney Airport, indirectly connecting Hawkesbury. This will allow residents of the LGA to access employment generated by the aerotropolis via rail. Future connections from St Marys to Marsden Park in the NW by rail will be an important extension to improve access for Hawkesbury residents, although integration with the existing rail may be weak. Other City Deal initiatives are also an opportunity for Hawkesbury.

Continued development of the North West Growth Area

The North West Growth Area will also result in significant population growth in areas adjacent to Hawkesbury LGA, potentially leading to additional population-serving employment opportunities. Growth of employment opportunities in areas such as Nor-West business park, Rouse Hill town centre, Marsden Park and regional centres such as Penrith will also benefit Hawkesbury residents.

2.6 Threats

Impact of the Western Sydney Airport and large infrastructure projects

A large share of Hawkesbury's opportunities for employment growth and diversification are dependent on strategic initiatives (such as the Aerotropolis or NW Growth Area) which are ultimately out of Hawkesbury's control. These are also located in the SW of the District and may provide regional growth but may shape the Western City to be focus on these areas instead of the Hawkesbury. Additionally, due to comparatively low levels of population growth in the LGA, Hawkesbury could be more likely overlooked in decisions made concerning these city-shaping investments. Hawkesbury must capitalise on its strategically important assets, such as the Richmond RAAF Base and Western Sydney University Campus, to ensure that it plays a role in the development of the Western Parkland City.

Ageing population

Hawkesbury has a higher proportion of older people than the rest of Sydney, with a declining younger cohort. This trend is worsened by comparatively low levels of migration from overseas, interstate and within NSW. This will likely result in a contracting labour force and will require strategies which provide services and employment opportunities for older residents. There are questions whether adequate community facilities exist in the LGA to cope with this developing demographic trend.

Continual reliance on low-density development

Greater Sydney and the Western City District are experiencing a decrease in the share of detached dwellings, while Hawkesbury continues to increase its share. This fails to address issues of limited dwelling diversity and urban sprawl and lends itself to continued car-dependence throughout the local area. This threatens the LGA's affordability, amenity and accessibility.

Metropolitan rural areas have high environmental and agricultural values; however, they also limit urban development

Hawkesbury has large areas of land that are defined as Metropolitan Rural Areas. The strategic direction imposed by the NSW Government for these lands is to protect and enhance their environmental, social and economic values. Developments on these areas are to be restricted. This would mean that Hawkesbury would need to limit developments to its existing centres.

3. POLICY AND PLANNING CONTEXT

This section of the report reviews a set of strategically important planning documents from different levels of government and agencies.

3.1 Greater Sydney Region Plan

The Greater Sydney Region Plan was released by the Greater Sydney Commission (GSC) in 2018. The Region Plan is a metropolitan strategy that seeks to align the provision of infrastructure investment and services with growth trends. It envisions Sydney as a Metropolis of Three Cities: The Western Parkland, Central River and Eastern Harbour City. Under this vision, Sydney would be a 30-minute city, with everyone able to access jobs, services and major centres.

The Plan seeks to deliver this vision through ten directions with associated objectives, priorities and actions to make Sydney more liveable, productive and sustainable. Given that Hawkesbury Local Government Area (LGA) is located in the Western Sydney District, the drivers of growth and change in the District are relevant to Hawkesbury's future planning strategies. The Western Parkland City is an emerging new city with a Metropolitan Cluster located at the Western Sydney Airport (i.e. Badgerys Creek Aerotropolis). The Aerotropolis is expected to become a major contributor to the productivity of Greater Sydney.

Hawkesbury LGA is located in Greater Sydney's North-West. It covers a wide area, with its only Strategic Centre located at Richmond-Windsor. The Strategic Centre is connected to several other Centres by train (i.e. Blacktown Health and Education Precinct, Greater Parramatta etc) and has planned mass-transit links to the Western Sydney Airport.

FIGURE 2: RICHMOND-WINDSOR STRATEGIC CENTRE



Source: Greater Sydney Commission, 2018

Planned infrastructure and growth areas

There are several planned infrastructure and growth areas that could influence the growth of Hawkesbury, including:

- North West Growth Area – adjacent to Hawkesbury LGA, will provide new homes and jobs
- Greater Penrith to Eastern Creek Growth Area Investigation – adjacent to Hawkesbury LGA and the North West Growth Area
- North South Rail Link – will indirectly connect Hawkesbury to Western Sydney Airport via St Marys, and
- Western Economic Corridor – including the new airport and the Aerotropolis, will provide employment opportunities for people working in trade, freight, logistics, advanced manufacturing, health, education and science.

3.2 Western City District Plan

The Western City District Plan sits under the Greater Sydney Region Plan and acts as a link between local and state planning. Hawkesbury LGA is within the Western City District. The District Plan sets housing and jobs targets for the area, as well as actions.

Hawkesbury LGA has a 0-5 years (2016-2021) housing supply target of 1,150 dwellings, less than all other LGAs in the Western City District except for Blue Mountains. Existing zonings, including Vineyard Stage 1, is set to create 2,300 new homes - enough to meet the supply target.

The Western Sydney Airport and the Badgerys Creek Aerotropolis, are set to become the major employment hub of the Western City District. Leveraging the industry opportunities enabled by the new airport and city, the NSW Government (in partnership with the Australian Government) is leading the development of a world-class aerospace and defence industries precinct.

The precinct is expected to create 7,500 jobs. It will build on existing aerospace and defence activities at RAAF Base Richmond, which provides logistics support to the Australian Defence Force. The RAAF Base, Western Sydney University - Hawkesbury campus, TAFE NSW Richmond, and Hurlstone Agriculture College together will support the business activities around the Badgerys Creek Aerotropolis. Over 450 aerospace workers currently work in the Clarendon precinct.

Hawkesbury LGA also plays an important role in the visitor economy. The Richmond-Windsor Strategic Centre has a 2036 baseline jobs target of 12,000 jobs or an additional 1,700 jobs compared to 2016. The higher jobs target is 16,500 jobs or an additional 6,200 jobs. The District Plan delegates Hawkesbury City Council and other planning authorities (including State agencies) the task to strengthen Richmond-Windsor through the following actions:

- Support complementary land uses around the agglomeration of education and defence uses in Richmond
- Support master planning processes that encourage new lifestyle/entertainment uses, employment opportunities, activate streets and places, grow the tourism economy and respect/enhance heritage value and assets
- Facilitate the attraction of office/commercial floor space and provide opportunities to allow commercial and retail activities to innovate

Metropolitan Rural Areas

One of the metropolitan planning priorities is to better manage rural areas. The Western City District's rural areas are productive and includes 'poultry, egg production, dairy activities, irrigated horticulture, and nurseries for cut flowers and turf',² together they cover 28 per cent of the District.

Nearly all of Hawkesbury LGA, including the Richmond-Windsor Strategic Centres, has been identified as within the broader Metropolitan Rural Area, see Figure 3. The objective for the

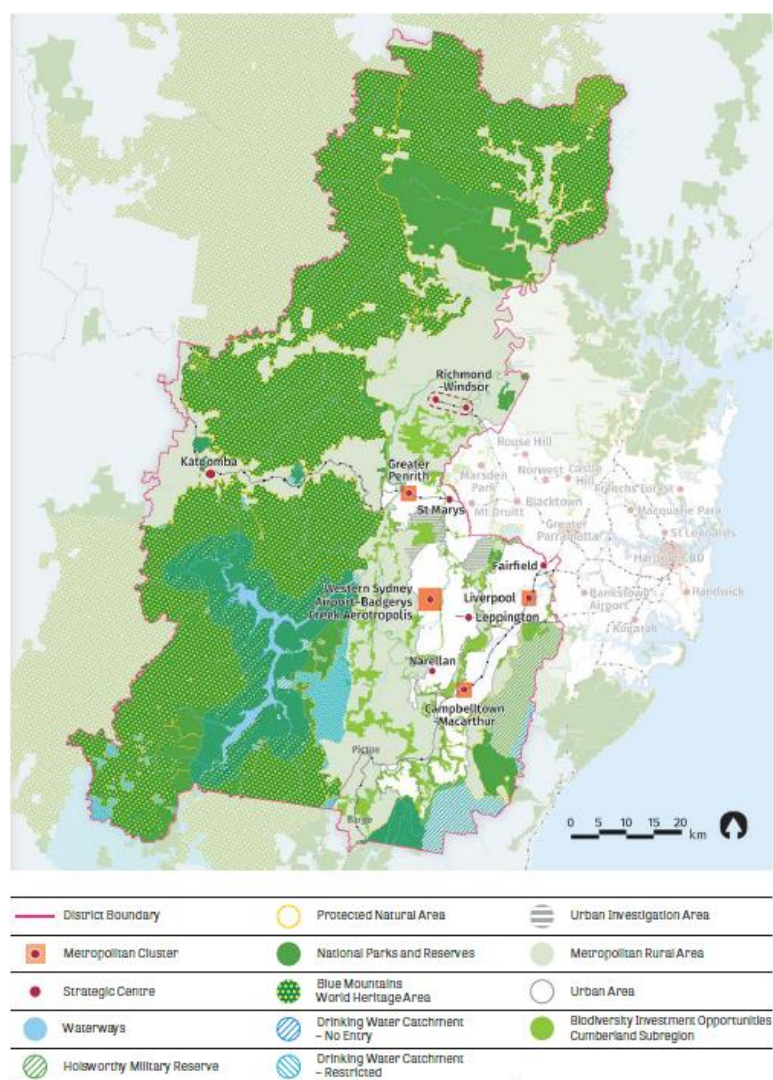
² Greater Sydney Commission 2019, Western City District Plan

Metropolitan Rural Areas is to maintain and enhance their environmental, social and economic values. The recommended actions are:

- Maintain or enhance the values of the Metropolitan Rural Area using place-based planning, and
- Limit urban development to Urban Areas except for investigation areas.

The implication for the Hawkesbury LGA is that Hawkesbury's economic activity will be able to continue to be part of the MRA in the west of Sydney that includes rural and agricultural land, however its urban development opportunities there will be limited.

FIGURE 3: WESTERN CITY DISTRICT PROTECTED NATURAL AREAS AND METROPOLITAN RURAL AREAS



Source: Greater Sydney Commission, 2019

Western Sydney City Deal

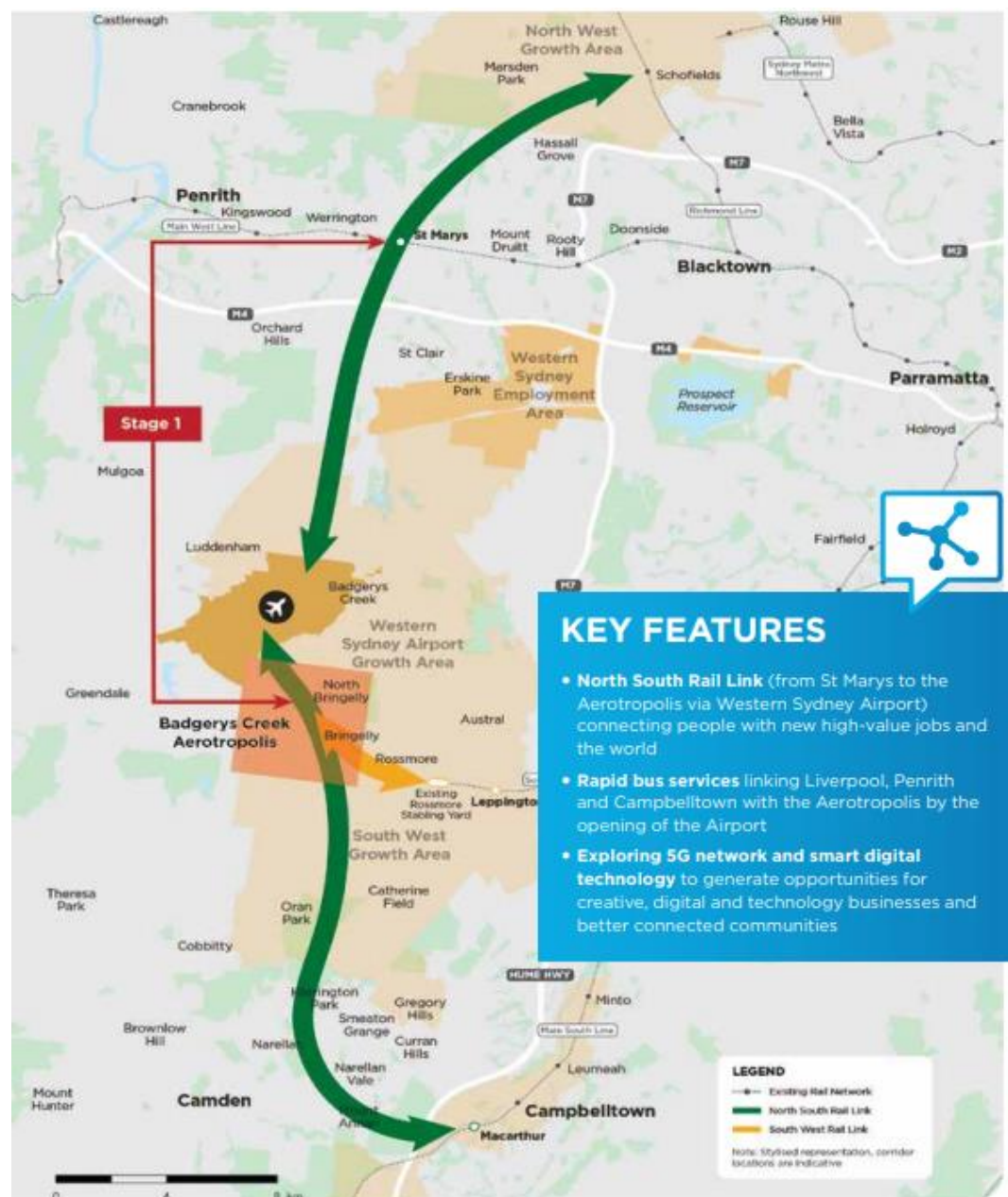
The Western Sydney City Deal is a partnership between the three tiers of governments (Australian Government, NSW Government and local councils) to deliver the vision for Western Sydney. As part of the City Deal, the Western Sydney Planning Partnership was established.

Hawkesbury City Council, along the local councils of Blacktown, Blue Mountains, Camden, Campbelltown, Fairfield, Liverpool, Penrith and Wollondilly are part of the Western Sydney Planning Partnership. The Partnership was established as part of the Western Sydney City

Deal to ensure council-led collaboration with NSW Government for the planning of Western Sydney including the Aerotropolis.

The City Deal includes commitments to connectivity, jobs, skills and education, liveability and environment, planning and house and implementation and governance. The North South Rail Link from St Marys to Badgerys Creek Aerotropolis, if delivered will greatly enhance job accessibility of Western Sydney, including Hawkesbury. Longer term rail connections through Marsden Park to Schofields would further enhance this accessibility.

FIGURE 4: PLANNED NORTH SOUTH RAIL LINK



Source: Western Sydney City Deal, 2019

The Western Sydney Aerotropolis Plan and Precinct Plans are expected to be finalised in mid-late 2020. Councils will then undertake statutory planning for the Minister for Planning and Public Places. The Hawkesbury Education, Research and Employment Precinct which includes the RAAF Base and Western Sydney University will play an important role in supporting and leveraging from the Aerotropolis.

Hawkesbury Community Strategic Plan 2017-2036

The Community Strategic Plan (CSP) focuses on achieving the long term social, environmental and economic aspirations of the community. The Plan was adopted by Hawkesbury City Council in 2016. The vision is to “see the Hawkesbury as a vibrant and collaborative community living in harmony with our history and environment, whilst valuing our diversity, striving for innovation, a strong economy and retaining our lifestyle and identity”.

The LGA covers 2,776 square kilometres of land and is physically divided by the Hawkesbury River, with 47 per cent of people live west of the Hawkesbury River and 53 per cent live east of the Hawkesbury River. The CSP provides a snapshot of Hawkesbury, which includes data about people, households, economy, cultural and journey to work.

Note: The data requires updates as it is based on the 2006 and 2011 Census. This demographic study will provide an updated snapshot of the Hawkesbury LGA.

3.3 Draft Hawkesbury Local Strategic Planning Statement 2040

The draft Hawkesbury Local Strategic Planning Statement (LSPS) was released by Hawkesbury City Council in 2019. The LSPS outlines a 20-year vision for land-use planning in the LGA and reflects the vision of the CSP 2017-2036. It also implements the directions and actions outlined in the Western City District Plan at a local level.

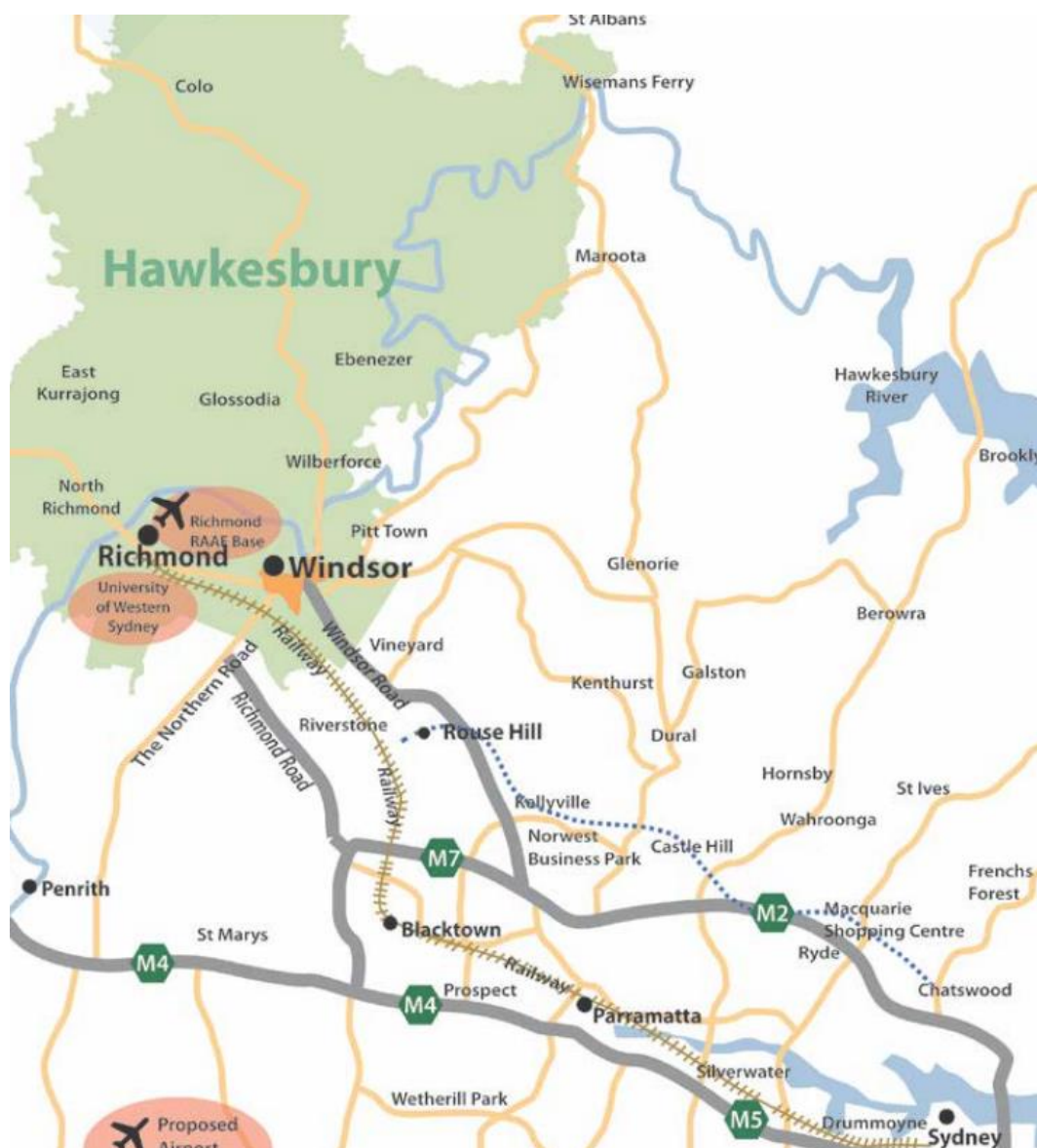
The LSPS outlines four themes. Those relevant to the demographics study are Hawkesbury’s Community and Hawkesbury’s Economy and Productivity. These two themes focus on the residential and worker populations.

As of 2017, Hawkesbury LGA has 66,623 people, projected to grow to 85,050 in 2036. People usually move to the LGA to seek alternative lifestyle to inner city living. It is expected that there will be a shift away from ‘couples with children’ to other household types, in particular to ‘lone person’ households. Furthermore, Hawkesbury LGA is trending towards a higher share of ageing population. These demographic trends require housing provision responses. One of the planning priorities for Hawkesbury LGA is to provide a diversity of housing types that meet the needs of the changing demography. The LSPS has identified the need to accommodate the growing population while retain the LGA’s distinct local character, heritage and rural views.

Hawkesbury LGA has a jobs target of 16,500 by 2036 as set by the Western City District Plan. The new agglomerated precinct at Clarendon and the RAAF Base at Richmond will play crucial roles in contributing to meeting this jobs target. Figure 5 shows Hawkesbury in its’ regional context. Hawkesbury’s agriculture, equine and tourism industries are major contributors to Hawkesbury’s economy and their growths need to be facilitated and enabled.

The Aboriginal community is an important part of Hawkesbury’s demography. There is ongoing effort from Council to ensure that Indigenous communities are able to meet their social, cultural and economic needs.

FIGURE 5: REGIONAL CONTEXT MAP



Source: Hawkesbury Council, 2019

Implications for the Demographic Study

The demographic profile of Hawkesbury LGA is changing, resulting in a need for a policy and monitoring response. The following measures, mentioned in the reviewed policy and planning strategies, will inform the Demographic Study:

- Provide adequate (diverse) housing and services for the changing demography
- Provide affordable and social housing to households that cannot access market housing, those with low household incomes, and those in rental stress
- Address social disadvantage
- Grow the agricultural and tourism industries, and
- Increase the number of Aboriginal people participating in economic activities.

4. PEOPLE

This section of the report analyses population-based measures and indicators, pointing to historical and forecasted trends, insights and future directions for LSPS studies

4.1 Interpreting this analysis

When reviewing this analysis, several methodological and data matters are identified. These are outlined within this section.

When comparing growth rates between multiple time periods, a Compound Annual Growth Rate (%) has been used. The Compound Annual Growth Rate (CAGR %) is a useful measure of growth over multiple time periods. It can be thought of as the growth rate that gets you from the initial value to the ending value.

As Census data (2006-2016) has exclusively been used for reporting historical data/trends in this study, this can be imagined as a Compounded *Census* Growth Rate, representing growth rates at five-year increments. The same can be applied for future projections (TPA data), representing a forecasted growth rate each five years.

For more information, please reference: <https://www.investopedia.com/terms/c/cagr.asp>

Percentage Point (PP%) – represents the difference between two percentages. Percentage point is used to show the changes in an indicator with respect to its previous standings (e.g. between growth rates in 2016 and 2011).

Due to differences in methodology and the way data is captured, direct comparisons between absolute ABS historical data values (2006-2016) and TPA forecasts (2021-2036) is strongly discouraged. It is recommended to use general trends and proportions when observing future trends and providing comparison. There is also limited comparability for some indicators over Census periods due to changes in how ABS capture data.

Place of Usual Residence (PUR) - some undercounting inevitably occurs for various reasons during Census count. Although adjustments are available for certain indicators in the form of Estimated Resident Population (ERP) these haven't been used in this report, in order to achieve consistency across all indicators.

Place of Work (POW) - ABS has introduced a new imputation method in 2016 for assigning workplace destination (Destination Zones) to persons that provided partial or no information about their place of work. The imputed data was excluded from this report, in order to achieve compatibility across previous Census years and 2016. As different imputations are applied to different geographies as well, LGA totals will not match sums of lower level geographies (e.g. SA2).

Broad Industry Category (BIC) - represents Greater Sydney Commission (GSC) broad categorisation of 1-digit ANZSIC industries.

Some discrepancies might be present in the Suburb level data, due to changes in ABS geographies between 2011 and 2016.

Totals derived from summing up suburb level data are slightly different to LGA totals due to ABS perturbations applied to protect the confidentiality of individuals:

- Greater Sydney will be referred to as GS, and
- Western City District will be referred to as District.

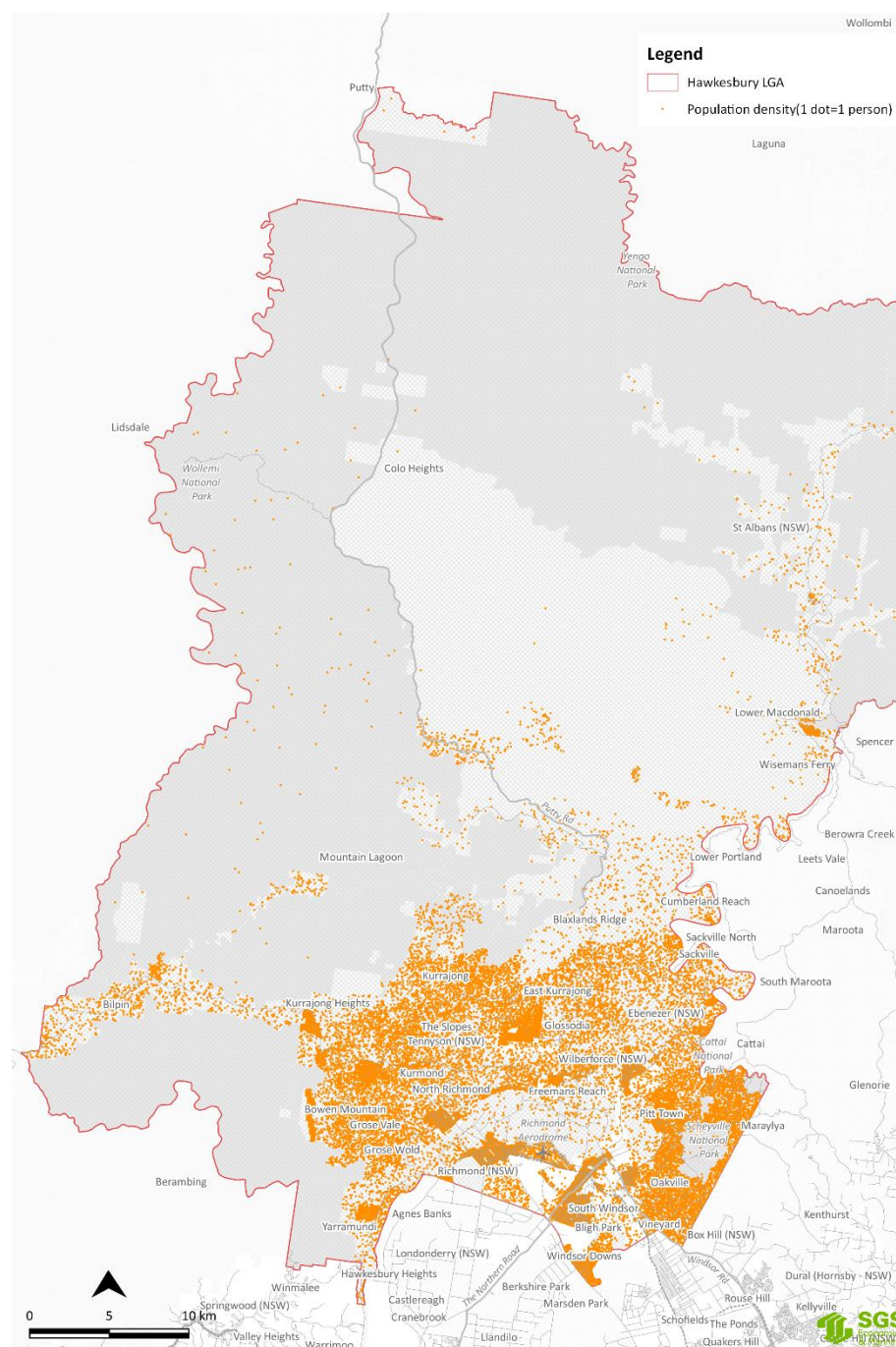
4.2 Population

Where are we now?

There are 67,083 people (ERP) living in the Hawkesbury LGA, amounting for 6 per cent of the Western City District population.³

Hawkesbury LGA covers 2,775 square kilometres of land, with 72 per cent of it zoned as E1 National Parks and Nature Reserves. The buildable area is limited, resulting in Hawkesbury's population concentrating in a few town centres in the southern part of the LGA, see Figure 6 for the distribution of Hawkesbury LGA's residential population.

FIGURE 6: POPULATION DISTRIBUTION BY MESH BLOCKS (MB) 2016



Source: ABS Census, 2016

³ ABS Census 2019, 3218.0 - Regional Population Growth, Australia

Some areas of Hawkesbury have had higher population growth than other parts. In particular, the new release area Pitt Town has had the highest structural increase of residents, 68 per cent. Established areas such as Glossodia, Wilberforce, Bligh Park, Freemans Reach and Windsor Downs have experienced a decline.

TABLE 2: POPULATION GROWTH - PRECINCT LEVEL 2011-2016

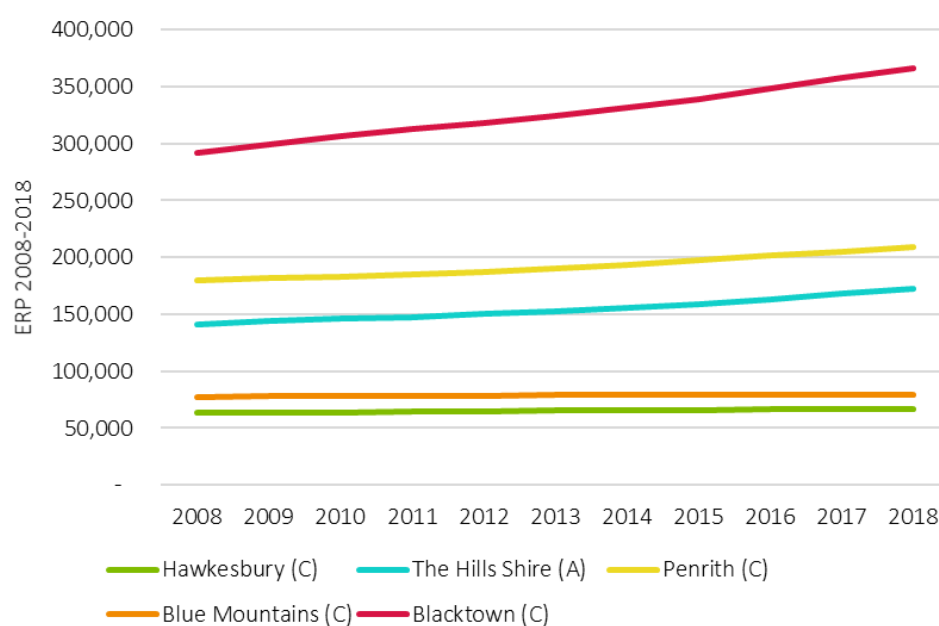
Precincts	2011	2016	Changes 2011-16	Growth rate
Richmond North	4,018	4,407	389	9.7%
Windsor District	7,663	7,770	107	1.4%
Richmond District	8,840	8,860	20	0.2%
Bligh Park	6,482	6,360	(122)	-1.9%
Kurrajong-Kurmond	8,137	8,419	282	3.5%
Freemans Reach	1,860	1,785	(75)	-4.0%
Wilberforce	2,236	2,233	(3)	-0.1%
Glossodia	3,119	3,068	(51)	-1.6%
Yarramundi	1,322	1,342	20	1.5%
Windsor Downs	1,290	1,184	(106)	-8.2%
Mulgrave-Mcgraths Hill	3,106	3,163	57	1.8%
Pitt Town	1,957	3,289	1,332	68.1%
Oakville-Cattai	3,595	3,684	89	2.5%
Northern Area	2,158	2,190	32	1.5%
Lower Portland- Cumberland Reach	476	506	30	6.3%
East Kurrajong- Ebenezer	6,093	6,426	333	5.5%

Source: ABS Census 2011 and 2016

How are we different?

The Hawkesbury residential community is growing, although at a relatively slower rate than the nearby LGAs, except for Blue Mountains which also has significant environmental constraints. From 2008 to 2018, the estimated residential population has increased by an additional 4,017 people. Figure 7 illustrates the population trends of Hawkesbury and nearby LGAs from 2008 to 2018.

FIGURE 7: COMPARATIVE ESTIMATED RESIDENTIAL POPULATION (ERP) 2008-2018 BY LGA



Source: ABS Census 2019, 3218.0 - Regional Population Growth, Australia

Compared to Western City District and Greater Sydney, Hawkesbury LGA has experienced a relatively slower compound five years growth rate, see Table 3.

TABLE 3: TOTAL POPULATION AND GROWTH RATES (PUR), 2006-2016

Geography	2006	2011	2016	Changes 2006-2016	CGR (5yr%)
Greater Sydney	3,821,233	4,079,432	4,496,184	674,951	8.47%
Western City District	884,319	930,615	1,024,450	140,131	7.63%
Hawkesbury	60,557	62,353	64,591	4,034	3.28%

Source: ABS Census 2006, 2011 and 2016, SGS Economic and Planning

Population density

Compared to the surrounding LGAs, Hawkesbury LGA has a relatively low residential density at 1,141 persons per square kilometres. Overall, Greater Sydney has a higher density compared to both the Western City District and Hawkesbury, see Table 4.

TABLE 4: COMPARATIVE POPULATION DENSITY - PEOPLE PER SQM, 2016

Geography	2011	2016	Growth Rates
Greater Sydney	2,560	2,623	2.49%
Western City District	1,490	1,397	-6.28%
Hawkesbury	1,272	1,141	-10.27%

Source: ABS Census 2019, 3218.0 - Regional Population Growth, Australia

4.3 Internal and Overseas Migration

Compared to Greater Sydney and the Western City District, Hawkesbury LGA has a lower compound five years growth rates in internal, overseas and local migrations.⁴

TABLE 5: INTERNAL AND OVERSEAS MIGRATION FIVE YEARS GROWTH RATES (PUR), 2011-2016

Place of Usual Residence (PUR) 5yr ago	Internal	Overseas	Local	Unknown
Greater Sydney	6.75%	13.94%	3.78%	5.08%
Western City District	13.35%	14.99%	2.94%	7.24%
Hawkesbury	5.69%	0.36%	0.38%	4.49%

Source: ABS Census 2011 and 2016, SGS Economic and Planning

Moving to Hawkesbury LGA

Most people who moved to Hawkesbury LGA, five years ago, are from Blacktown LGA (26 per cent of the internal and overseas migration population), followed by the Hills Shire and Penrith LGAs. See the table below for the top ten places where people have lived five years ago (from 2016).

TABLE 6: TOP TEN PLACE OF RESIDENCE FIVE YEARS AGO (PUR), 2016

Place of Usual Residence (PUR) 5yr ago	Number of Persons	Share of Total Migration Population
Blacktown (C)	2,943	25.77%
The Hills Shire (A)	1,735	15.19%
Penrith (C)	1,407	12.32%
Overseas	701	6.14%
Blue Mountains (C)	297	2.60%
Hornsby (A)	296	2.59%
Parramatta (C)	282	2.47%
Central Coast (C) (NSW)	193	1.69%
Cumberland (A)	193	1.69%
Northern Beaches (A)	108	0.95%

Source: ABS Census 2016

⁴ Internal refers to people who moved within Australia, overseas refers to people who moved from overseas, local refers to people who moved within the same geographical area as where they were five years ago.

Moving out of Hawkesbury LGA

Most people who moved out of the Hawkesbury LGA, in the last five years, relocated to the Penrith LGA. See the table below for the top ten places where people migrated to from Hawkesbury LGA.

TABLE 7: TOP TEN PLACE OF USUAL RESIDENCE IN 2016 (PUR)

Place of Usual Residence in 2016	Number of persons	Share of total migration population
Penrith (C)	1,477	13.87%
Blacktown (C)	1,156	10.86%
The Hills Shire (A)	770	7.23%
Central Coast (C) (NSW)	537	5.04%
Blue Mountains (C)	311	2.92%
Parramatta (C)	240	2.25%
Port Stephens (A)	239	2.24%
Mid-Coast (A)	200	1.88%
Shoalhaven (C)	182	1.71%
Gold Coast (C)	166	1.56%

Source: ABS Census 2016

Where are we going?

Looking at NSW Government (TfNSW) travel zone level (TZ) projections, Hawkesbury LGA is forecasted to have lower growth rates compared to both Greater Sydney and the Western City District. There is an increase in the compound five years growth rate from historical trends, by 2.2 percentage points. Hawkesbury LGA is projected to grow an additional 16,326 people during the 2016-2036 period, reaching 80,917 people, see Table 8. It should be noted that these are the current NSW Government TZ level projections, however, revised projection are envisaged to be released later this year, and an update at that stage to determine and differences in population projections should be considered at that time.

TABLE 8: ABS HISTORICAL AND TFNSW FORECASTED COMPARATIVE POPULATION TOTALS AND GROWTH RATES (2016-2036)

Geography	2016 (PUR)	2021	2026	2031	2036	Changes 2016-2036	CGR (5yr%)
Greater Sydney	4,496,184	4,976,423	5,397,508	5,810,257	6,257,861	1,761,677	8.62%
Western City District	1,024,450	1,139,443	1,264,923	1,378,141	1,510,137	485,687	10.19%
Hawkesbury	64,591	68,958	72,873	76,842	80,917	16,326	5.80%

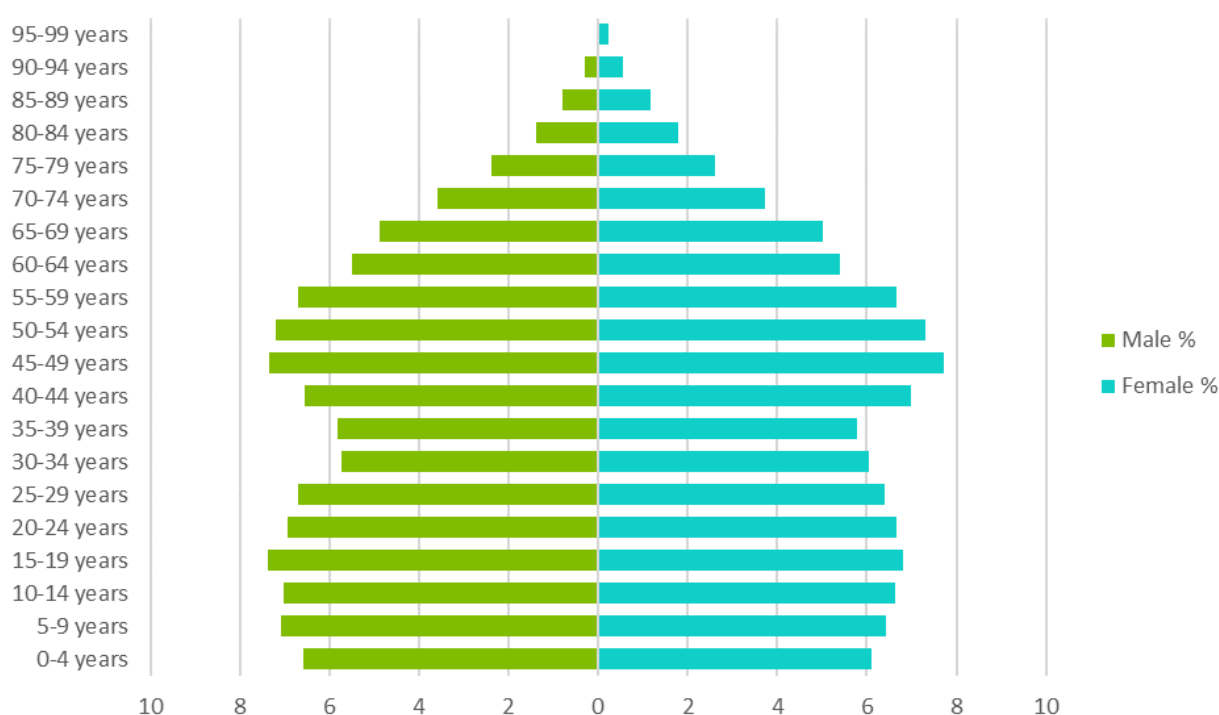
Source: ABS Census 2016 and TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

4.4 Age Profile

Where are we now?

The population pyramid below illustrates that Hawkesbury LGA has a large proportion of residents in the Mature Adult group (45 to 64 years). The shape of the population pyramid shows that Hawkesbury has an ageing population with smaller proportion of residents in the younger age cohorts. This type of population pyramid is called constrictive population pyramid and is typical in areas with higher levels of social-economic status, where the general population can live to a relatively old age.

FIGURE 8: POPULATION PYRAMID BY FIVE YEARS AGE GROUP AND SEX, 2016

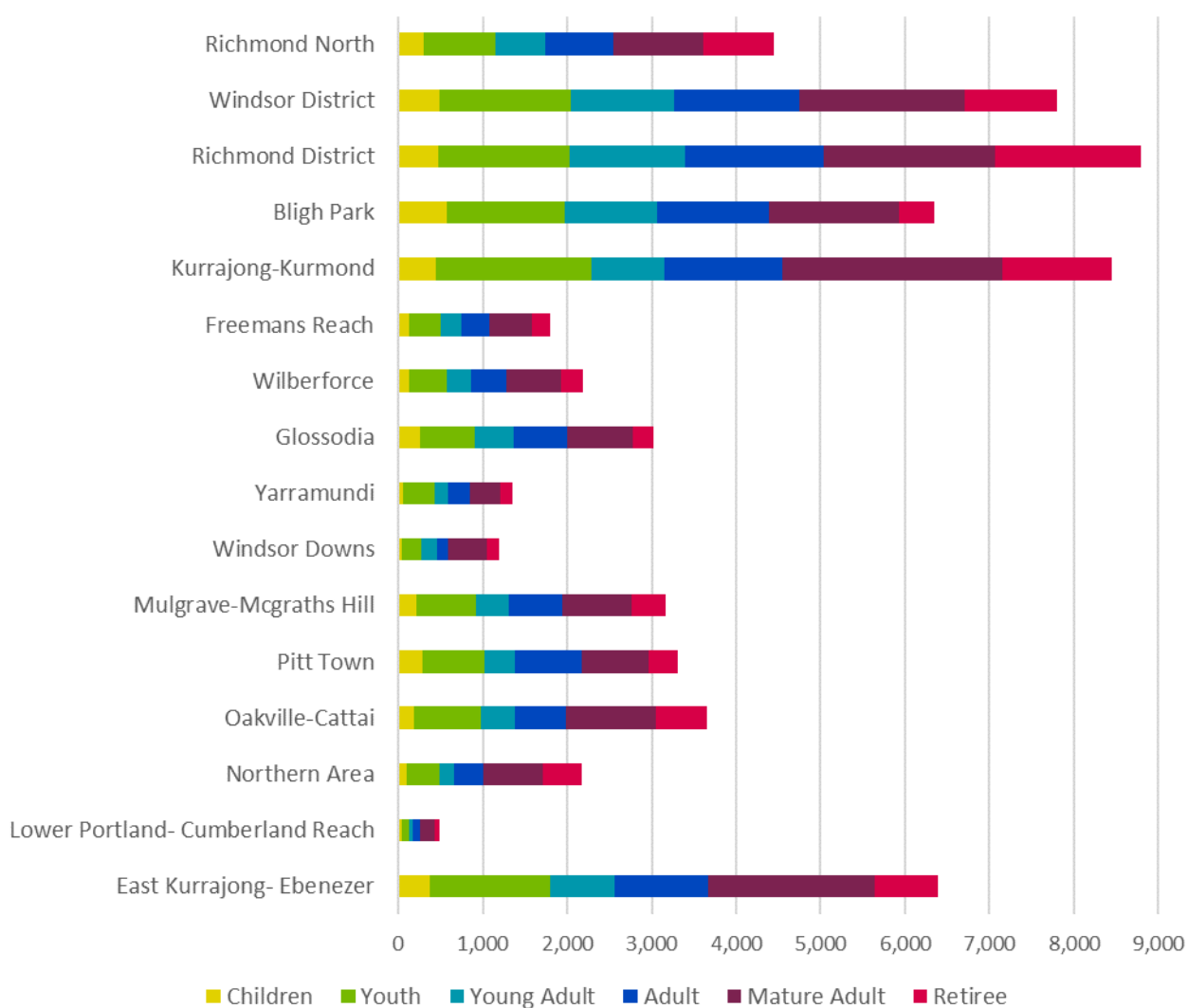


Source: ABS Census 2016

The majority of the precincts have a larger proportion of mature adults⁵ than any other age groups, as is consistent with the ageing population trend observed in Hawkesbury LGA. The only exception is Yarramundi, where the largest age group is youth (27 per cent). The Richmond District, Richmond North and the Northern Area have higher numbers of retirees (19.5, 18.8 and 20.7 per cent respectively) and Bligh Park, Glossodia and Pitt Town have higher numbers of children (9.2, 8.3 and 8.6 per cent respectively) than other precincts.

⁵ Age profile definition: Children 0-5; Youth 5-20; Young Adult 20-30; Adult 30-45; Mature Adults 45-65; Retirees 65+

FIGURE 9: AGE PROFILE - PRECINCT LEVEL 2016

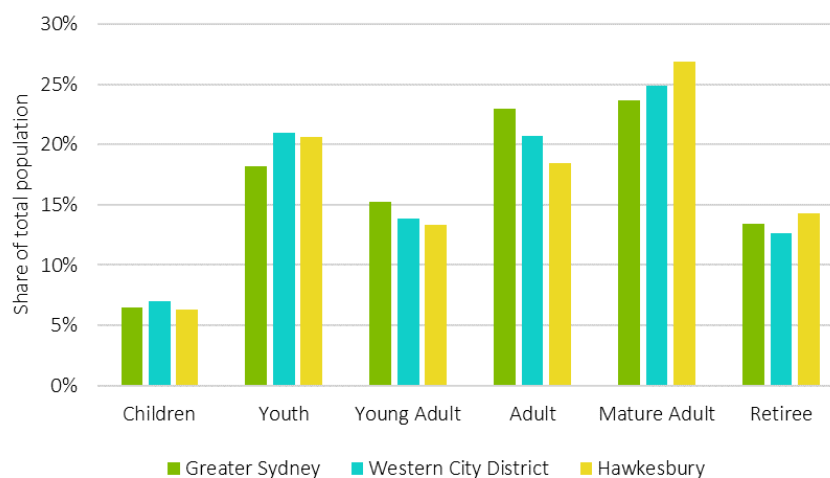


Source: ABS Census 2016

How are we different?

As compared to Greater Sydney and the Western City District, Hawkesbury LGA has a higher proportion of older population (Mature Adult and Retirees) (see Figure 10).

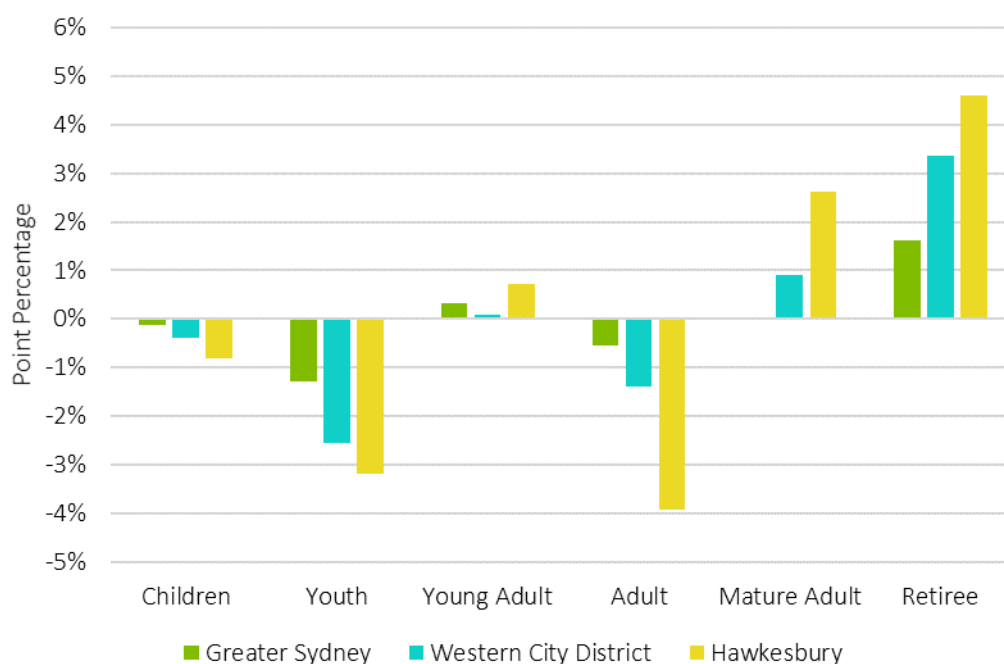
FIGURE 10: COMPARATIVE PROPORTION OF AGE GROUPS 2016



Source: ABS Census 2016

Hawkesbury LGA has experienced similar structural change to the Western City District and Greater Sydney, with a declining younger cohort and a growing older cohort (see Figure 11).

FIGURE 11: COMPARATIVE STRUCTURAL CHANGE OF AGE GROUPS 2006 TO 2016



Source: ABS Census 2006, 2001 and 2016

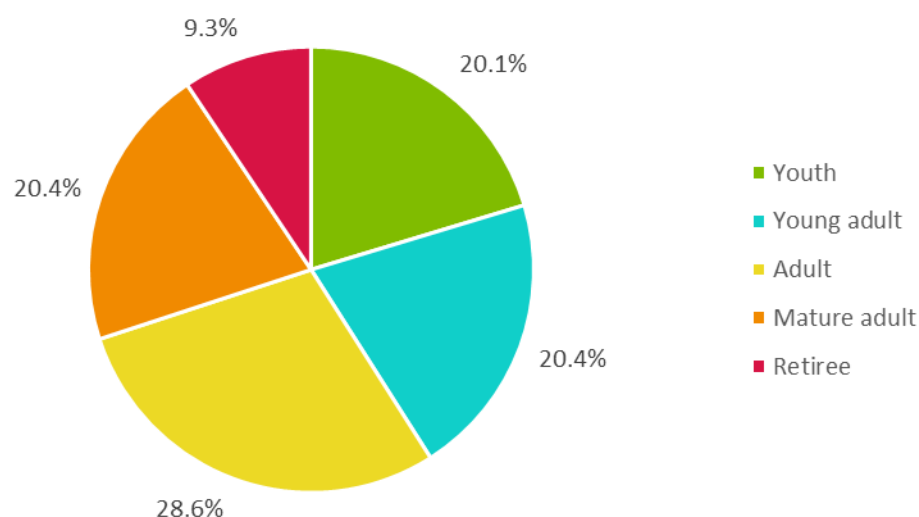
Where are we going?

Hawkesbury LGA's age group growth is in line with the wider ageing population trend. This trend is more dominant in Hawkesbury LGA than some other parts of Greater Sydney, as Hawkesbury LGA has a higher five years growth rate of retirees (25 per cent) than Greater Sydney (16 per cent).

The ageing population trend is expected to continue as people live longer. Most people who moved to the Hawkesbury LGA five years ago are adults (see Figure 12).

There is a need for Council to consider this trend and plan for appropriate housing and work with others to provide appropriate services. Policies that aim at attracting or retaining younger adults should also be considered.

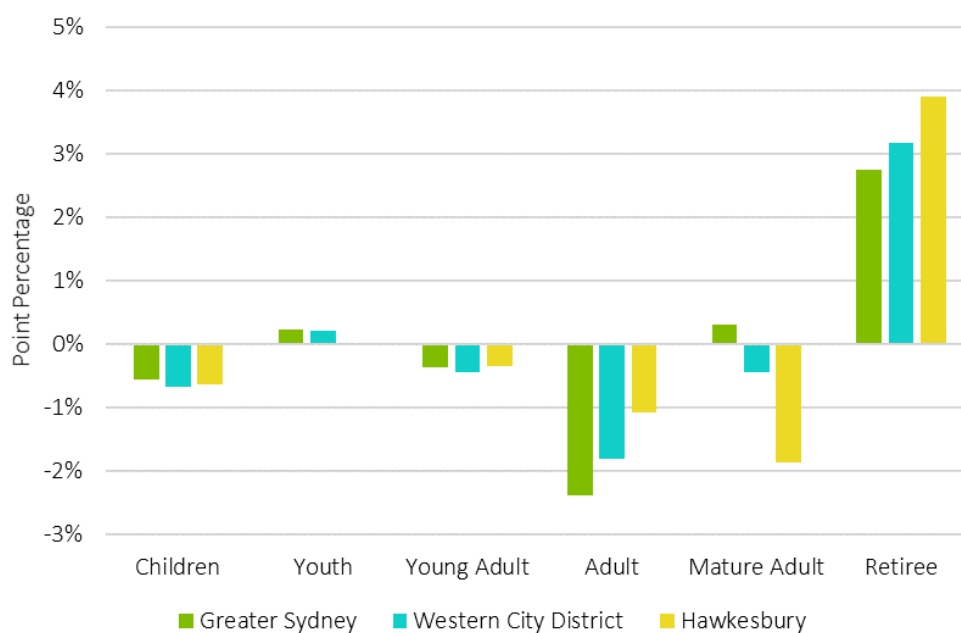
FIGURE 12: CROSS TABULATION OF PEOPLE WHO MOVED TO HAWKESBURY FIVE YEARS AGO AND AGE GROUPS, 2016



Source: ABS Census, 2016

Population projections reflect the ageing population trend as well. Compared to Greater Sydney and the Western City District, Hawkesbury LGA is projected to experience a greater structural shift towards an older population (see Figure 13).

FIGURE 13: COMPARATIVE FORECASTED CHANGE IN POPULATION AGE STRUCTURE (2021-2036)



Source: TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

4.5 Cultural and Language Diversity

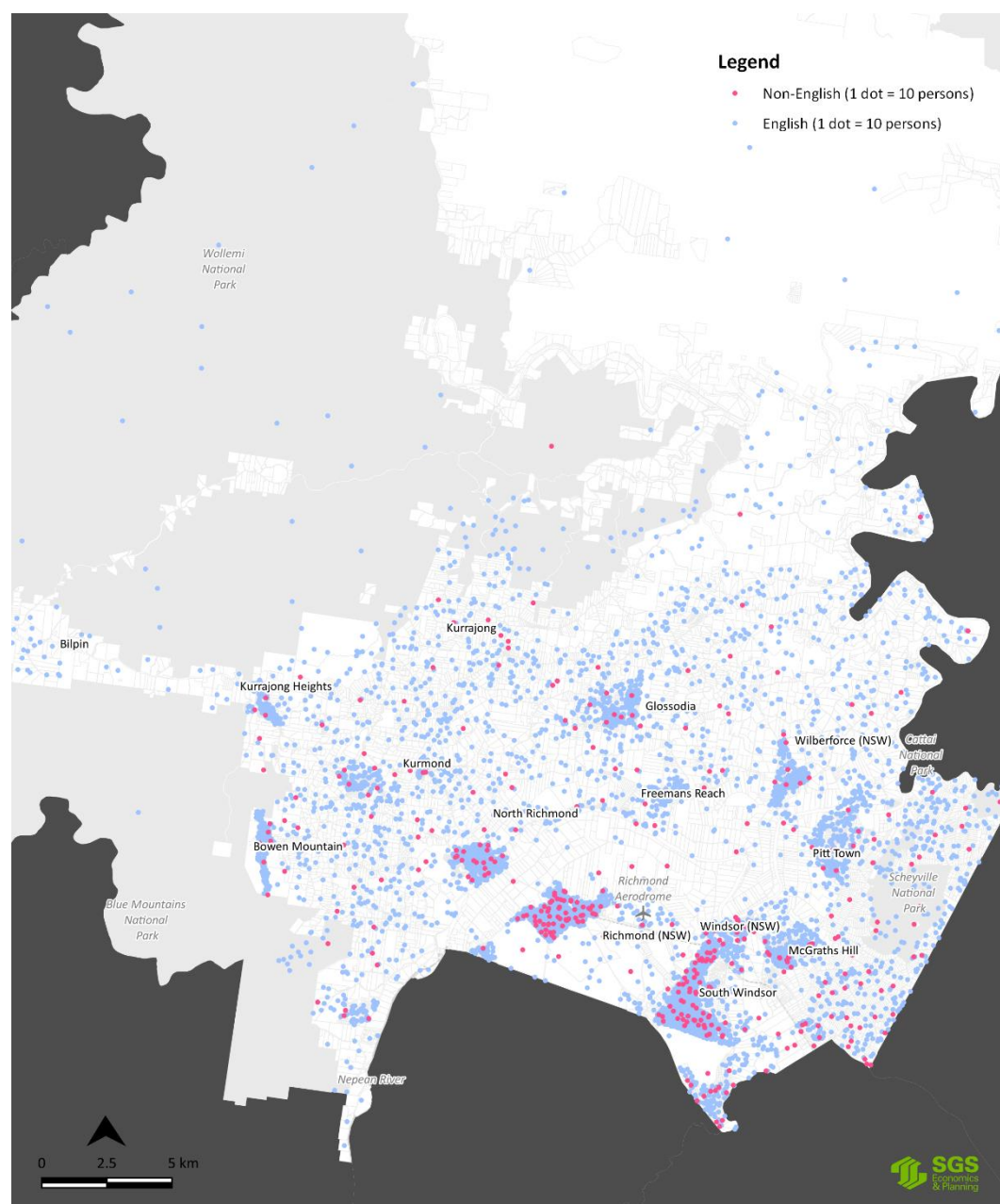
Where are we now?

Ancestry and Language Spoken at Home

Hawkesbury LGA has a high proportion of people who speak English at home (94 per cent), while other languages are Maltese, Chinese, South Slavic and Italian, none of which accounts for over one per cent of the population.

People who identified as having a British or Australian ancestry make up 73 per cent of the total population. As a result, the Hawkesbury LGA is less culturally diverse as compared to some other parts of Greater Sydney.

FIGURE 14: LANGUAGE SPOKEN AT HOME, 2016

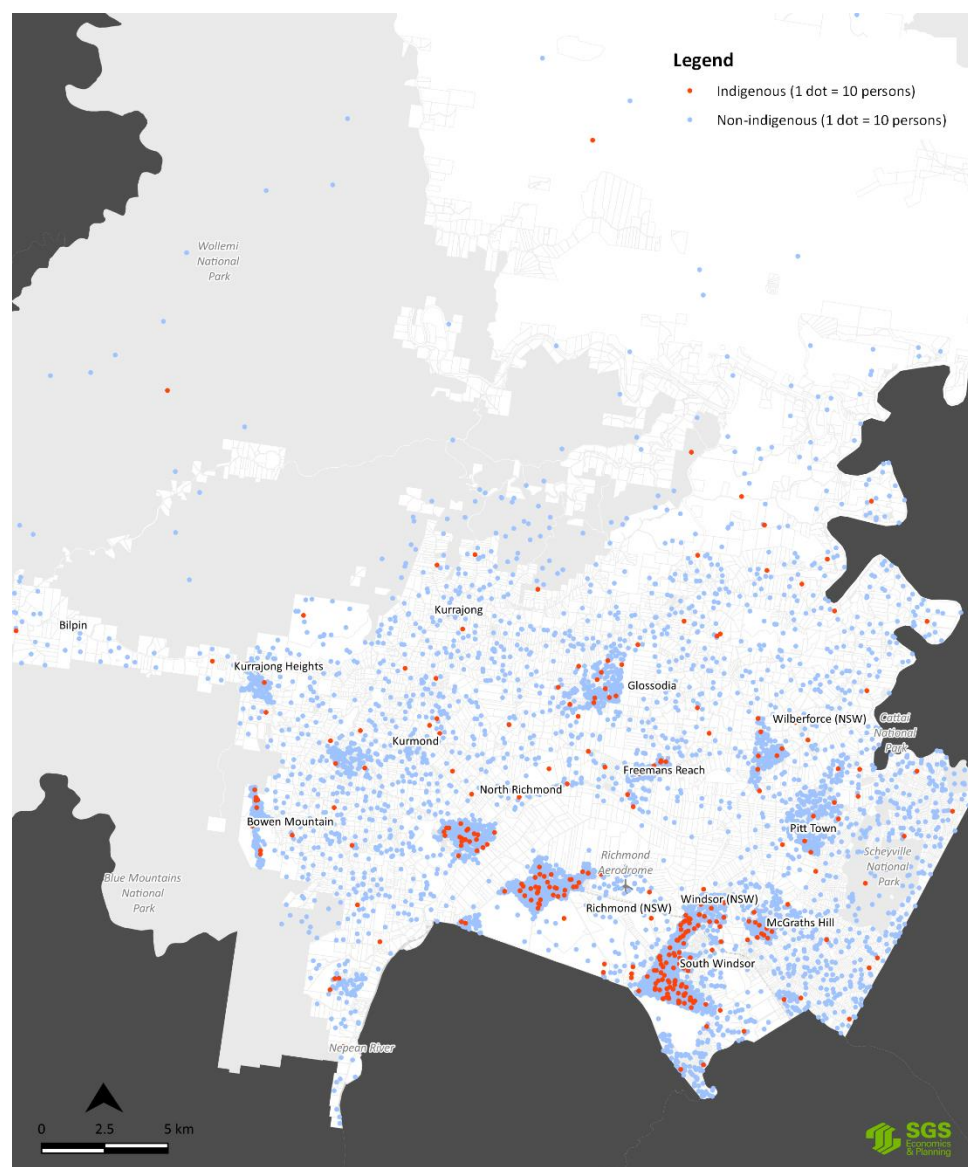


Source: ABS Census, 2016

Indigenous Status

In 2016, 4 per cent of people in Hawkesbury identified as Indigenous (2,395 persons). Hawkesbury has a 2 per cent compound five years growth in the area's Indigenous population.

FIGURE 15: INDIGENOUS POPULATION DENSITY



Source: ABS Census, 2016

How are we different?

Ancestry and Language Spoken at Home

Compared to Greater Sydney and the Western City District, Hawkesbury LGA has a lower proportion of people speaking languages other than English at home. See Table 9 for a comparison of the proportion of residents who speak Hawkesbury LGA's top five languages at home.

TABLE 9: TOP FIVE LANGUAGES THAT RESIDENTS IN HAWKESBURY SPEAK AT HOME, 2016

Rank	Language Spoken at Home	Hawkesbury	Western City District	Greater Sydney
1	English	93.82%	64.00%	59.84%

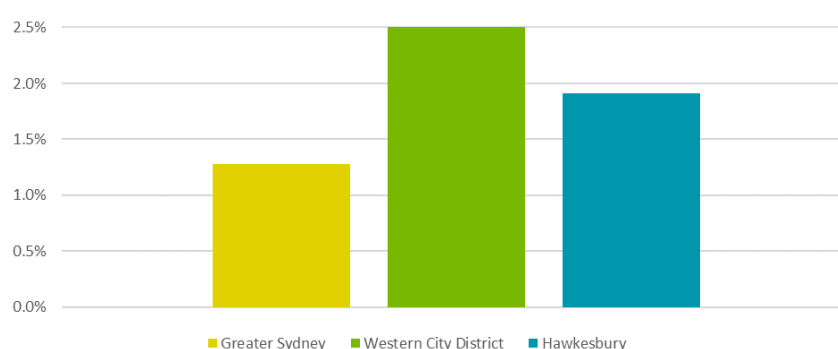
2	Maltese	0.98%	0.45%	0.25%
3	Chinese	0.69%	3.10%	9.06%
4	South Slavic	0.58%	2.41%	1.48%
5	Italian	0.48%	1.42%	1.46%
	Other	3.44%	28.63%	27.91%

Source: ABS Census 2016

Indigenous Status

Compared to Greater Sydney and the Western City District, Hawkesbury has greater growth rate at 44 per cent as compared to 25 per cent for Greater Sydney and 33 per cent for Western City District. Hawkesbury also has higher share of people with indigenous status, see figure below.

FIGURE 16: COMPARATIVE INDIGENOUS STATUS 2016



Source: ABS Census, 2016

4.6 Education Attainment

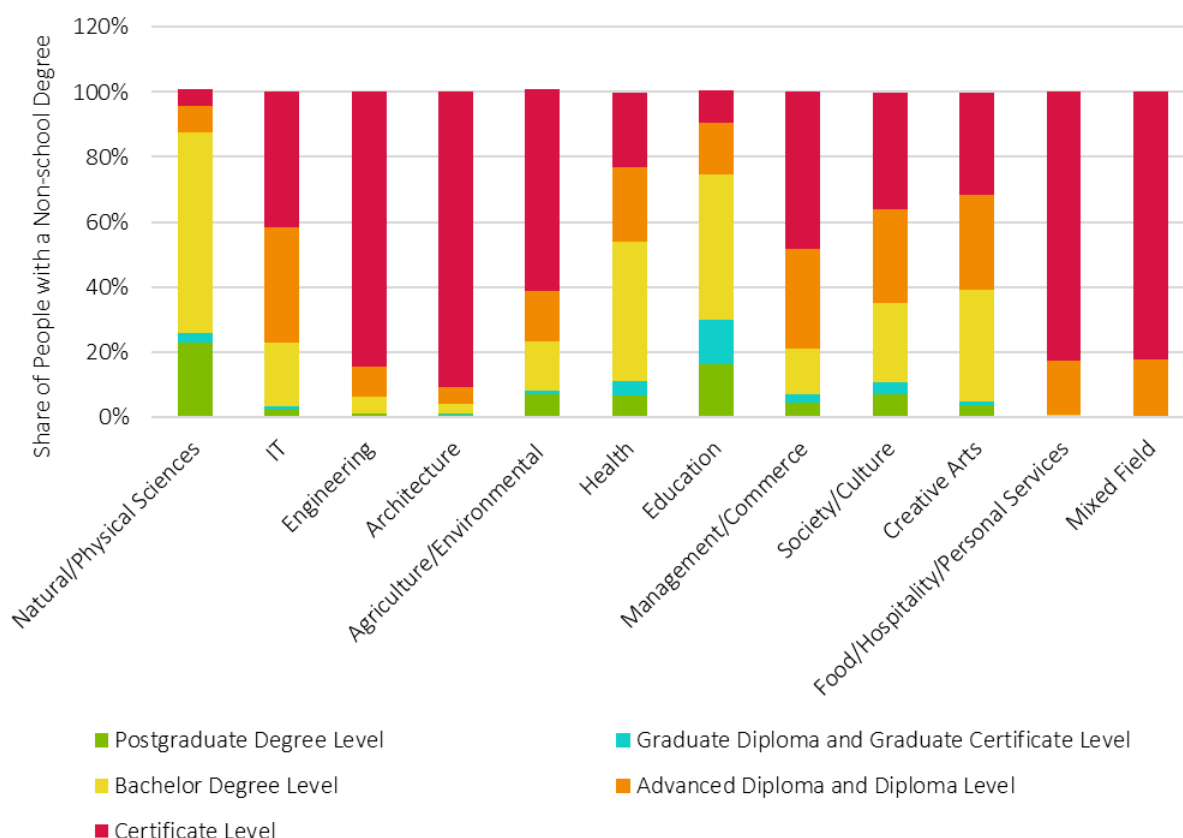
Note: Due to the way ABS has captured data, historical comparison between *Secondary Education* and other educational attainments is not possible. Hence *Secondary Education* has been excluded from the time series analysis.

Where are we now?

Most people in Hawkesbury LGA have attained a secondary education, accounting for 46 per cent of people who provided an adequate response to the Census question, followed by a VET qualification (40 per cent), and then Undergraduate (10 per cent), and Postgraduate (4 per cent).

For non-school qualifications including VET, Undergraduate and Postgraduate degrees, most people studied Engineering and Related Technologies (23 per cent), followed by Management and Commerce (22 per cent) and Society and Culture (18 per cent). Most people studied Engineering at the Certificate Level (see Table 10).

TABLE 10: FIELD OF STUDY BY DEGREE LEVEL HAWKESBURY LGA, 2016



Source: ABS Census 2016

Within the Engineering field, Electrical and Electronic Engineering study is the more popular choice, followed by Mechanical and Automotive Engineering studies. The high percentage of people who studied Engineering indicates a skilled local workforce that could leverage local industrial businesses.

TABLE 11: ENGINEERING STUDIES, 2016

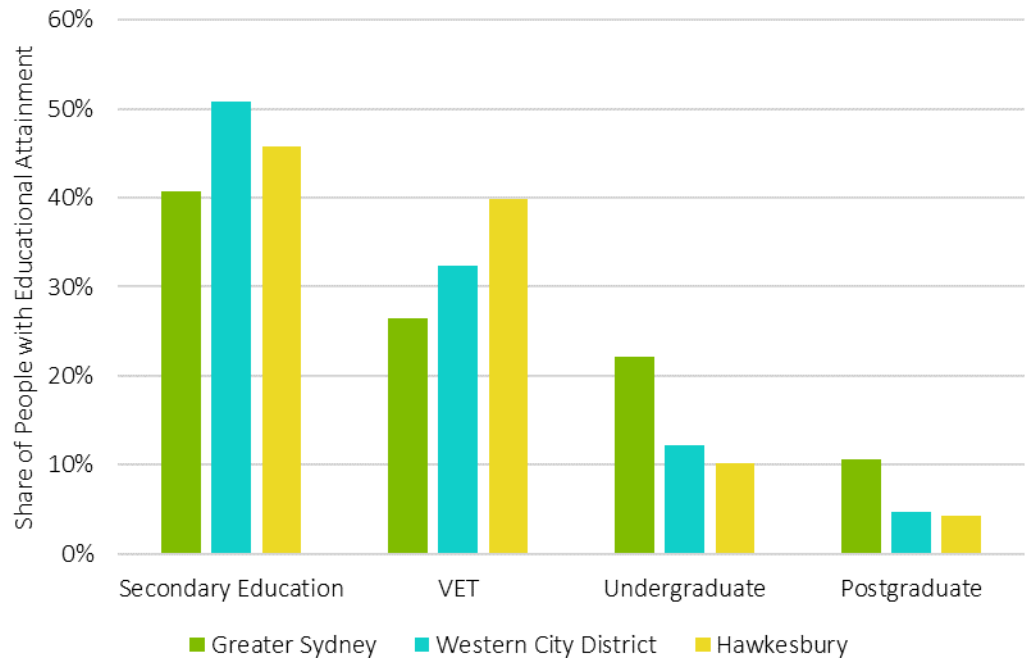
Engineering studies	2016
Electrical and Electronic Engineering and Technology	22.53%
Mechanical and Industrial Engineering and Technology	21.67%
Automotive Engineering and Technology	18.45%
Engineering and Related Technologies, nfd	16.33%
Manufacturing Engineering and Technology	8.46%
Aerospace Engineering and Technology	5.42%
Process and Resources Engineering	2.18%
Civil Engineering	1.54%
Other Engineering and Related Technologies	1.30%
Maritime Engineering and Technology	1.23%
Geomatic Engineering	1.04%

Source: ABS Census 2016

How are we different?

Compared to Greater Sydney and the Western City District, people in Hawkesbury LGA are less likely to obtain an Undergraduate or higher degree and more likely to acquire a VET degree. This suggest that Hawkesbury LGA has more people with manual than cognitive skills.

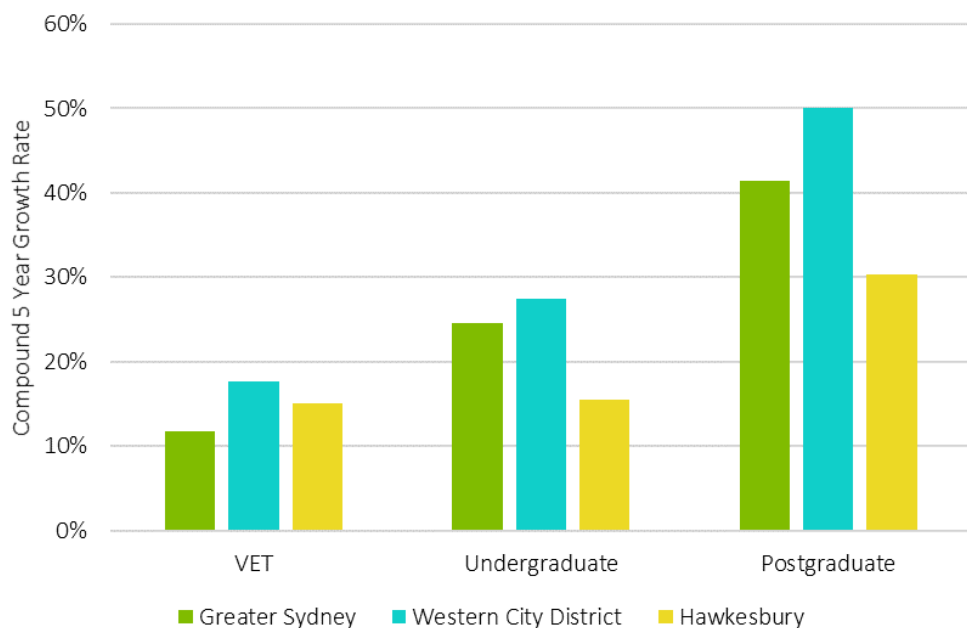
FIGURE 17: COMPARATIVE LEVEL OF HIGHEST EDUCATIONAL ATTAINMENT, 2016



Source: ABS Census 2016

Historical trends show that Hawkesbury has a lower compound five-year growth rate for undergraduate and higher degrees as compared to Greater Sydney and the Western City District. Higher growth rates are observed for VET degrees.

FIGURE 18: COMPARATIVE COMPOUND 5 YEAR GROWTH RATES (2006-2016)



Source: ABS Census 2006, 2011 and 2016

4.7 Socio-Economic Status

Socio-Economic Indexes (SEIFA)

Most parts of Hawkesbury LGA are doing relatively well socio-economically, with a few exceptions. The table below shows the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) by suburbs, it includes all the suburbs within Hawkesbury LGA that have a usual population larger than 1,000 people. The deciles range from 2 to 10, representing some of the most disadvantaged (2) and relatively advantaged (10) suburbs in NSW.

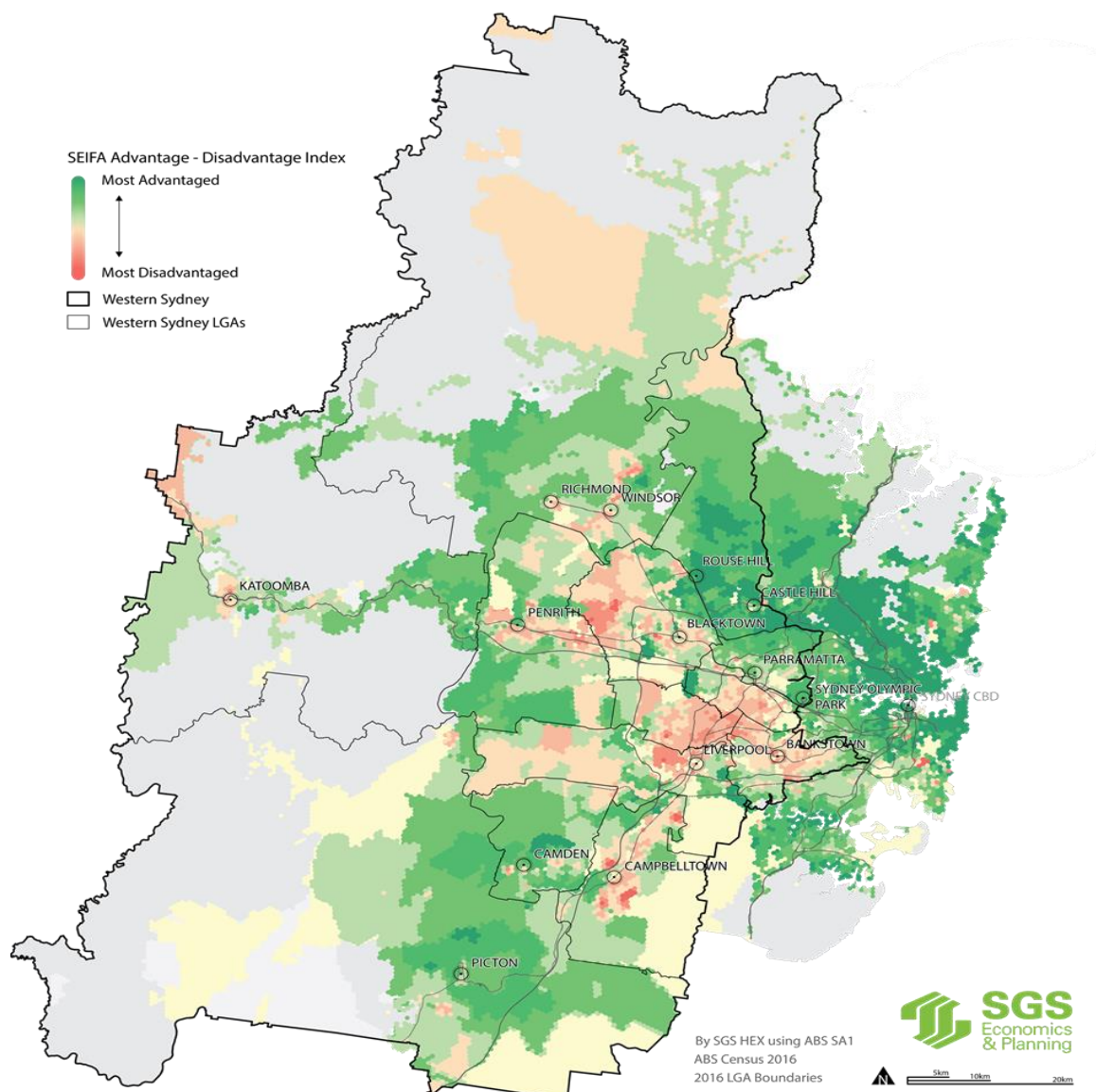
TABLE 12: IRSAD BY SUBURBS OF MORE THAN 1,000 USUAL RESIDENTS

Suburbs	Usual Residents 2016	IRSAD Decile
South Windsor	5,892	2
Richmond (NSW)	5,482	3
Hobartville (NSW)	2,744	4
Vineyard	1,166	4
Windsor (NSW)	1,891	4
Bligh Park	6,366	5
North Richmond	4,977	5
Riverstone	7,247	5
Glossodia	2,828	6
Freemans Reach	1,973	7
McGraths Hill	2,552	7
Wilberforce (NSW)	3,007	7
Bowen Mountain	1,571	8
Oakville	1,964	8
East Kurrajong	2,195	9
Grose Vale	1,265	9
Kurrajong	3,062	9
Kurrajong Heights	1,342	9
Maraylya	1,244	9
Pitt Town	3,033	10
Windsor Downs	1,179	10

Source: ABS Census, 2016

Figure 19 shows that Hawkesbury LGA is diverse in its socio-economic performance. It is relatively socio-economically advantaged, especially in the northern areas, with some pockets of disadvantage. South Windsor is among the lowest 20 per cent of all suburbs in NSW under the index which identifies disadvantage, whereas Pitt Town and Windsor Downs are among the highest 10 per cent of all suburbs in NSW.

FIGURE 19: INDEX OF RELATIVE SOCIO-ECONOMIC ADVANTAGE AND DISADVANTAGE (IRSAD) SCORES



Source: SGS Economics and Planning, 2019; ABS Census, 2016

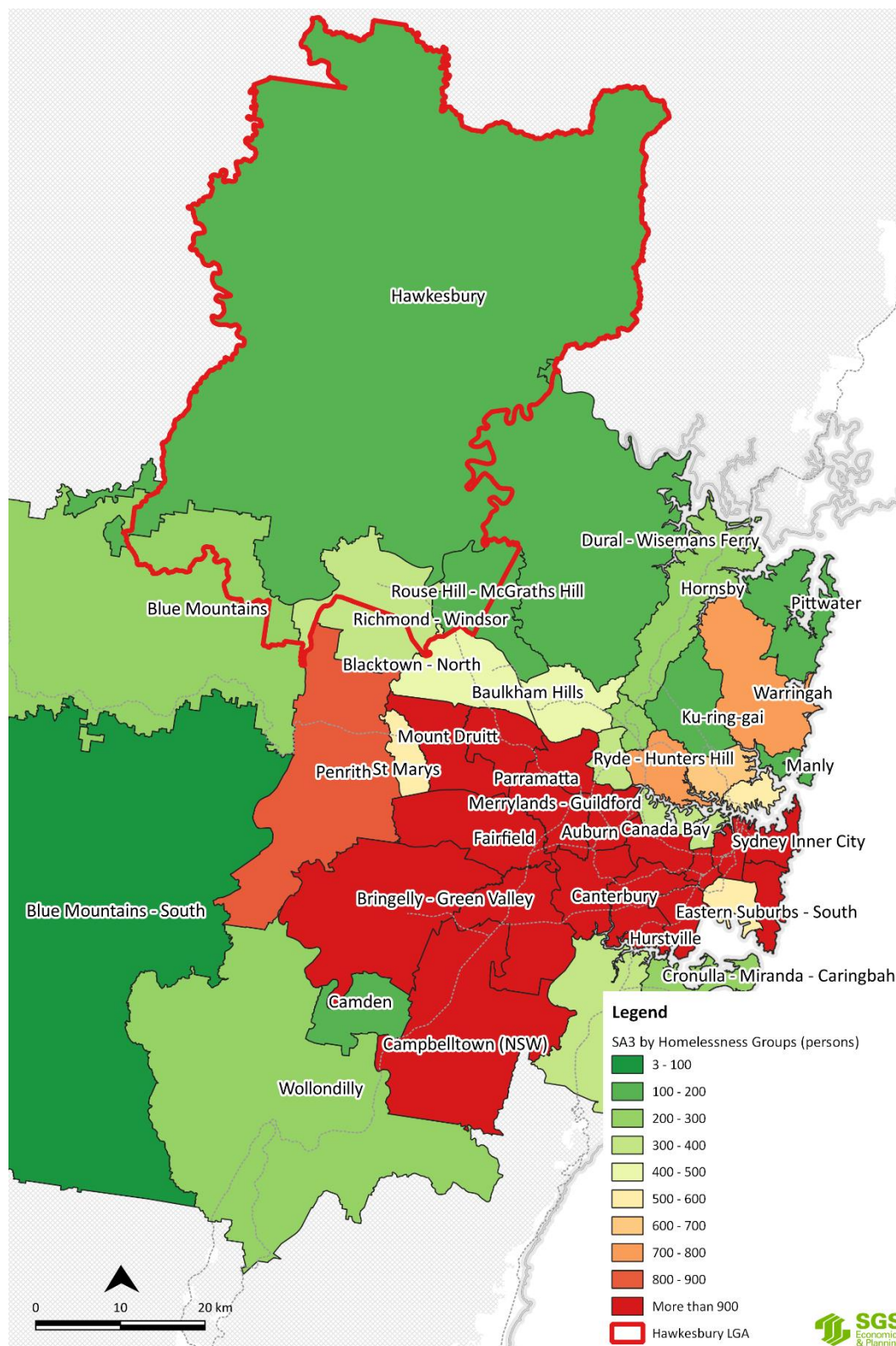
Homelessness estimation (ABS)

Hawkesbury LGA as compared to other parts of Greater Sydney has a relatively small number of people who were likely to have been homeless on Census night.⁶ See Figure 20.

ABS Census estimated that 182 persons were likely to have been homeless in 2016 in Hawkesbury (SA3), and 322 persons were likely to have been homeless in Richmond-Windsor (SA3).

⁶ ABS Census provides an estimation of how many people who were likely to have been homeless on Census night, the following groups were included: persons living in improvised dwellings, tents or sleeping out; persons in supported accommodation for the homeless; persons staying temporarily with other households; persons living in boarding houses; Persons in other temporary lodgings; and persons living in 'severely' crowded dwellings.

FIGURE 20: HOMELESSNESS BY SA3, 2016



Source: SGS Economics and Planning, 2019; ABS Census, 2016

Income

Low Income Households Hawkesbury has a slightly higher proportion of welfare dependent families with children than Greater Sydney, but it is less than the Western City District.

TABLE 13: LOW INCOME FAMILIES WITH CHILDREN, 2017

Geography	Low income, welfare-dependent families (with children)	Total families	% low income, welfare-dependent families (with children)
Greater Sydney	85,910	1,159,179	7.41%
Western City District	33,239	269,347	12.34%
Hawkesbury	1,318	17,137	7.69%

Source: PHIDU, 2020

Unemployment beneficiaries Similar to the low-income household data above, Hawkesbury has a slightly higher proportion of people aged 16 to 64 years that are receiving an unemployment benefit compared to Greater Sydney, however it is less than the Western City District.

TABLE 14: UNEMPLOYMENT BENEFICIARIES, 2017

Geography	People receiving an unemployment benefit	Persons aged 16 to 64 years	Proportion of people receiving an unemployment benefit
Greater Sydney	103,183	3,214,419	3.21%
Western City District	38,526	701,540	5.49%
Hawkesbury	1,543	43,013	3.59%

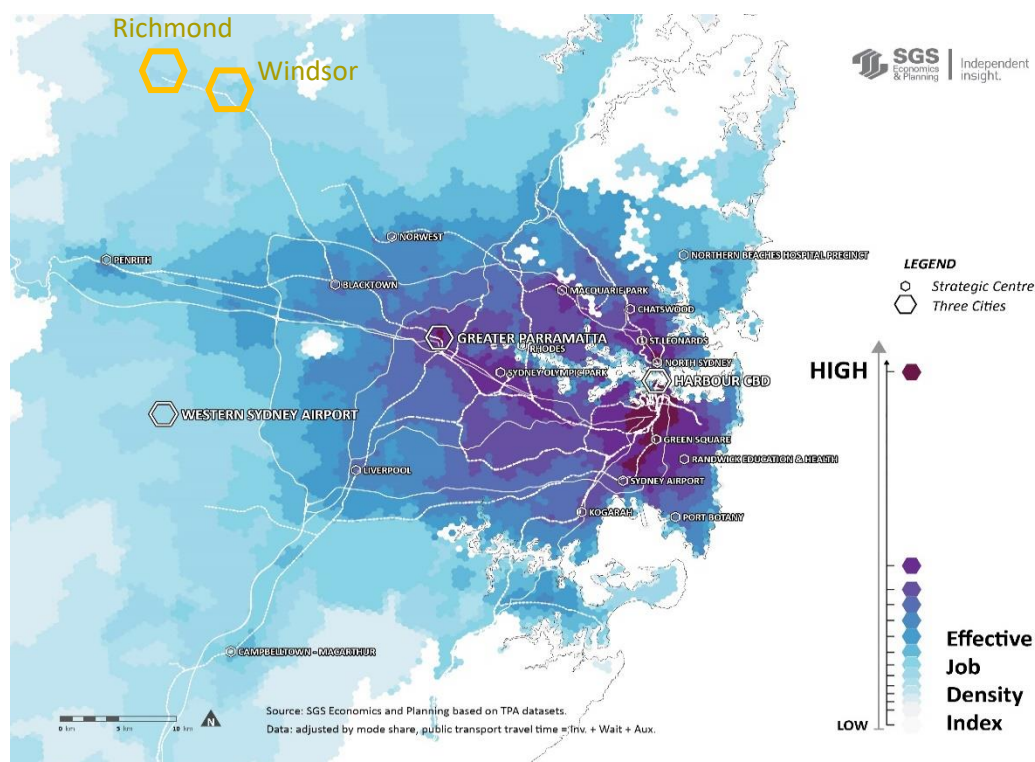
Source: PHIDU, 2020

Effective Job Density

The Effective Job Density (EJD)⁷ map below shows that Hawkesbury residents have relatively low job accessibility, largely due to lack of public transport connection, and the distance from major employment concentrations (Parramatta and Sydney).

⁷ EJD is a measure of the relative concentration of employment, derived from the density and accessibility of all jobs across a region.

FIGURE 21: GREATER SYDNEY EFFECTIVE JOB DENSITY



Source: SGS Economics and Planning 2019

Health and Education

Barriers to Accessing Healthcare

Compared to both Greater Sydney and Western City District averages, Hawkesbury LGA has a smaller rate of people aged 18 years and over who experienced a barrier to accessing healthcare when needed, with main reason being cost of service.

TABLE 15: ESTIMATED NUMBER OF PEOPLE AGED 18 YEARS AND OVER WHO EXPERIENCED A BARRIER TO ACCESSING HEALTHCARE WHEN NEEDED IT IN THE LAST 12 MONTHS, WITH MAIN REASON BEING COST OF SERVICE, 2014

Geography	Number of people	Rate per 100 (ASR)
Greater Sydney	87,618	2.4
Western City District	21,296	2.5
Hawkesbury	1,150	2.3

Source: PHIDU, 2020

Early School Leavers

Hawkesbury LGA has a higher rate of early school leavers (people who left school at Year 10 or earlier or did not go to school) than both the Greater Sydney and Western City District averages.

TABLE 16: PEOPLE WHO LEFT SCHOOL AT YEAR 10 OR BELOW, OR DID NOT GO TO SCHOOL, 2016

Geography	Number of people	Rate per 100 (ASR)
Greater Sydney	953,786	26.7
Western City District	314,035	40.4
Hawkesbury	23,718	45.4

Source: PHIDU, 2020

School Leavers Participation in Higher Education

Hawkesbury LGA has a smaller share of the population aged 17 years (school leavers) who are enrolled in higher education than both Greater Sydney and Western City District. Together with the early school leavers data above, these indicate that Hawkesbury compared to Greater Sydney and Western City District has less share of people in higher education and more share of people with lower education attainments (left school at Year 10 and earlier or did not go to school).

TABLE 17: SCHOOL LEAVER PARTICIPATION IN HIGHER EDUCATION, 2018

Geography	Number of people	Persons aged 17 years, ERP 2017	Share in higher education
Greater Sydney	20,605	54,721	37.7%
Western City District	4,326	14,494	29.8%
Hawkesbury	137	929	14.8%

Source: PHIDU, 2020

Residential Aged Care Places

Hawkesbury LGA has more residential care places per 1,000 people aged 70 years and over than the Western City District, but less than Greater Sydney. As the population ages, more residential care places are needed.

TABLE 18: RESIDENTIAL CARE PLACES, 2016

Geography	Residential aged care places	Population aged 70 years and over	Residential care places per 1,000 population aged 70 years and over
Greater Sydney	34,324	332,546	103.2
Western City District	6,168	80,455	76.7
Hawkesbury (C)	452	5,709	79.2

Source: PHIDU, 2020

Disability

The prevalence of profound or severe disability⁸ in Hawkesbury LGA is lower than the prevalence of profound or severe disability in Western City District. Greater Sydney has comparable prevalence to Hawkesbury LGA, see Table 19.

⁸ Indicator based on ABS Census' Core Activity Need for Assistance (ASSNP) variable which measures the number of people with a profound or severe disability that need assistance in daily lives with any or all of the core activities including self-care, mobility or communication.

TABLE 19: PEOPLE WITH A PROFOUND OR SEVERE DISABILITY, 2016

Geography	Persons with a profound or severe disability	Total population	Share of persons with a profound or severe disability
Greater Sydney	214,826	4,293,124	5.0%
Western City District	61,769	977,508	6.3%
Hawkesbury (C)	3,060	61,227	5.0%

Source: PHIDU, 2020

The prevalence of profound or severe disability among people aged 65 and over in Hawkesbury LGA (16.8 per cent) is relatively low as compared to Greater Sydney and Western City District. The prevalence of profound or severe disability among people aged 0 to 64 years in Hawkesbury LGA (3.1 per cent) is slightly higher than Greater Sydney's prevalence and lower than Western City District's.

FIGURE 22: COMPARATIVE DISABILITY PREVALENCE BY AGE GROUP



Source: PHIDU, 2020

Transport Accessibility Issues

Difficulty or cannot get to places needed with transport, including housebound

Hawkesbury LGA has a smaller rate of people aged 18 years and over who have a difficulty or cannot get to places needed with transport.

TABLE 20: ESTIMATED NUMBER OF PEOPLE AGED 18 YEARS AND OVER WHO OFTEN HAVE A DIFFICULTY OR CANNOT GET TO PLACES NEEDED WITH TRANSPORT, INCLUDING HOUSEBOUND, 2014

Geography	Number of people	Average age-standardised rate per 100 (ASR)
Greater Sydney	148,556	4.3
Western City District	35,505	4.5
Hawkesbury	1,846	3.9

Source: PHIDU, 2020

5. HOUSEHOLDS AND DWELLINGS

This section of the report analyses household and dwellings-based measures and indicators, pointing to historical and forecasted trends, insights and future directions for the LSPS studies

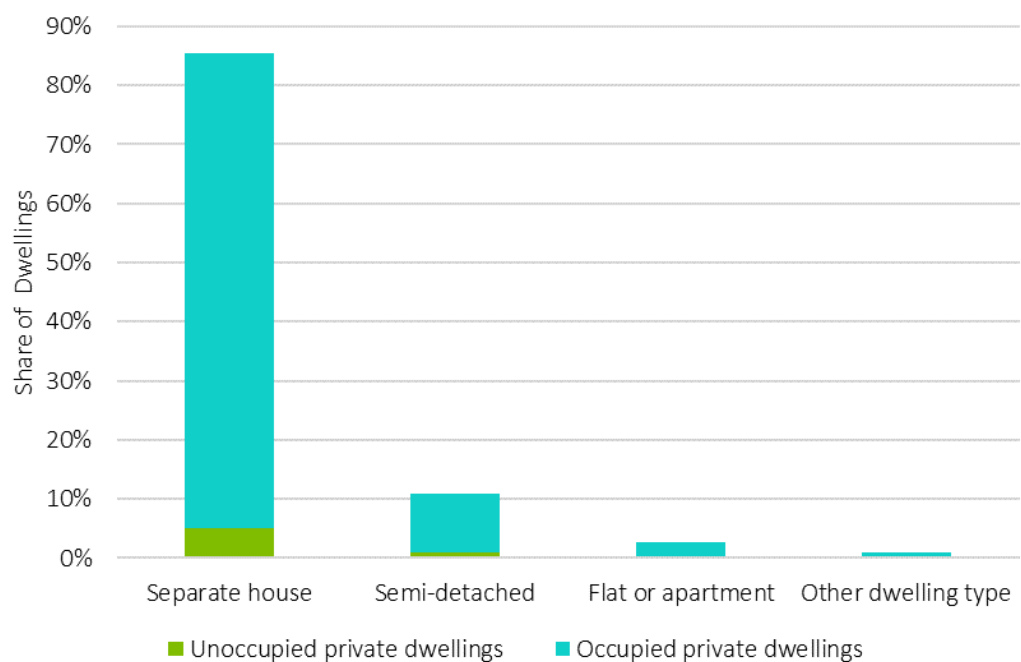
5.1 Dwelling Rates and Structure

Where are we now?

There are 24,059 private dwellings in Hawkesbury LGA, 94 per cent of them are occupied while 6 per cent are unoccupied.

The majority of the private dwellings are Separate Houses, accounting for 86 per cent of all private dwellings, a small percentage (5 per cent) of them are unoccupied. Unoccupied private dwellings are mostly Separate Houses, with small amount of Semi-Detached, Flat or Apartment and Other Dwellings. Together, they amount for six per cent of all private dwellings.

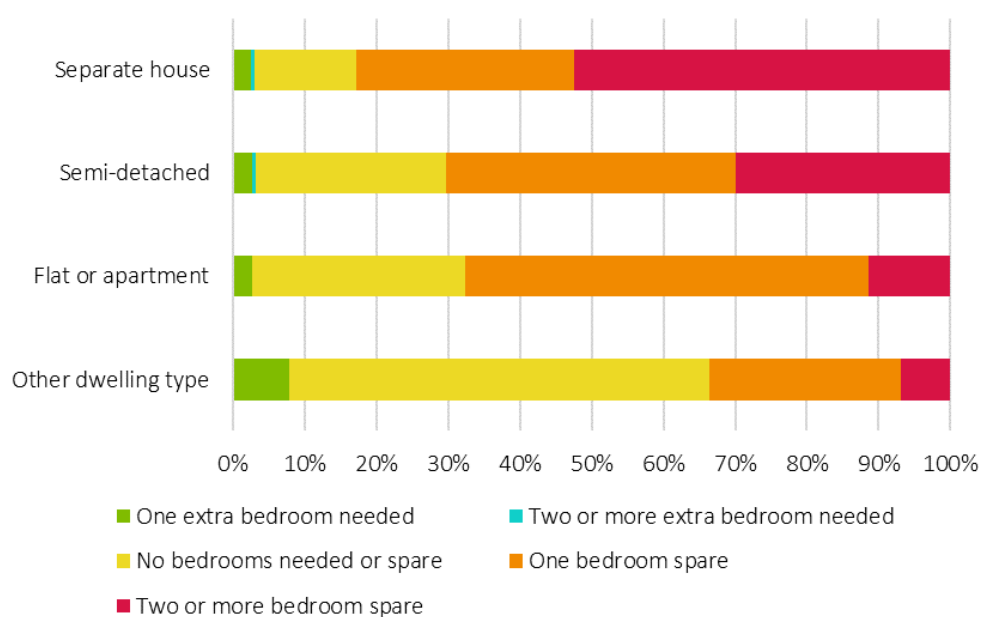
FIGURE 23: DWELLING STRUCTURE BY DWELLING TYPES, 2016



Source: ABS Census 2016

Most Separate Houses in Hawkesbury have two or more spare rooms, while most Semi-Detached and Flat or Apartments have one spare room. As the ageing population trend is likely to continue, there is a need to provide dwelling structures suitable for people who want to down-size.

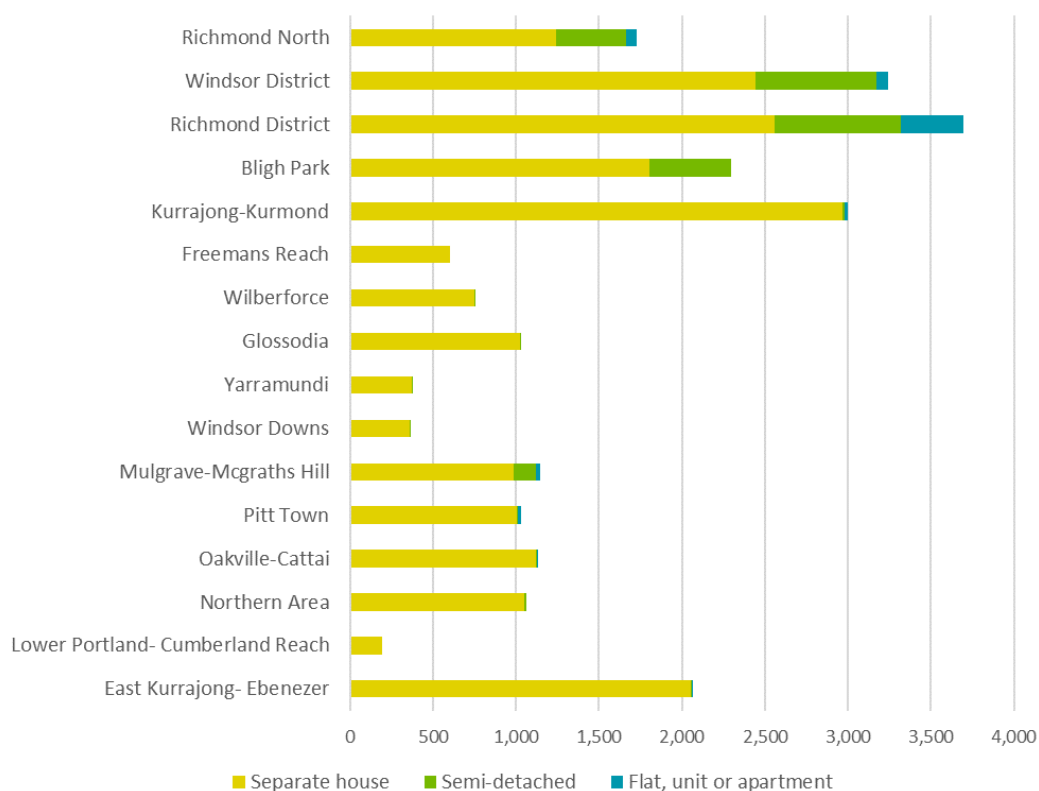
FIGURE 24: DWELLING STRUCTURE BY HOUSING SUITABILITY, 2016



Source: ABS Census 2016

Separate house is the dominant dwelling type across all precincts. A few precincts including Richmond North, Windsor District, Richmond District, Bligh Park, and Mulgrave-Mcgraths have more higher density dwellings than other precincts, with Richmond District having the greatest number of semi-detached dwellings and flat, unit or apartments.

FIGURE 25: DWELLING TYPE - PRECINCT LEVEL 2016



Source: ABS Census 2016

Overall, Pitt Town has had the highest growth in dwelling numbers (60.8 per cent growth) from 2011 to 2016, while Freemans Reach has had the largest decline (3.5 per cent decline although only 22 persons), see Table 21.

TABLE 21: 2011-2016 DWELLING NUMBERS BY PRECINCTS

Precincts	2011	2016	Changes 2011-16	Growth rate
Richmond North	1,623	1,756	133	8.2%
Windsor District	3,184	3,228	44	1.4%
Richmond District	3,705	3,701	(4)	-0.1%
Bligh Park	2,278	2,305	27	1.2%
Kurrajong-Kurmond	2,978	3,042	64	2.1%
Freemans Reach	624	602	(22)	-3.5%
Wilberforce	817	810	(7)	-0.9%
Glossodia	1,060	1,042	(18)	-1.7%
Yarramundi	380	385	5	1.3%
Windsor Downs	365	368	3	0.8%
Mulgrave-Mcgraths Hill	1,172	1,166	(6)	-0.5%
Pitt Town	669	1,076	407	60.8%
Oakville-Cattai	1,214	1,237	23	1.9%
Northern Area	1,119	1,113	(6)	-0.5%
Lower Portland- Cumberland Reach	183	195	12	6.6%
East Kurrajong- Ebenezer	2,042	2,085	43	2.1%

Source: ABS Census 2011 and 2016

How are we different?

Hawkesbury LGA has relatively slow growth in dwellings compared to Greater Sydney and Western City District, see table below.

TABLE 22: COMPARATIVE HISTORICAL TREND OF PRIVATE DWELLINGS, 2006-2016

Geography	2006	2011	2016	Changes 2006-16	CGR (5yr%)
Greater Sydney	1,509,459	1,581,024	1,711,288	201,829	6.48%
Western City District	313,078	326,471	356,138	43,060	6.66%
Hawkesbury	22,903	23,365	24,059	1,156	2.49%

Source: ABS Census 2006, 2011 and 2016

Hawkesbury LGA has a less diverse dwelling structure compared to Greater Sydney and the Western City District, with similar proportions of Semi-Detached dwellings to the Western City District, but much less Flats, Units or Apartments.

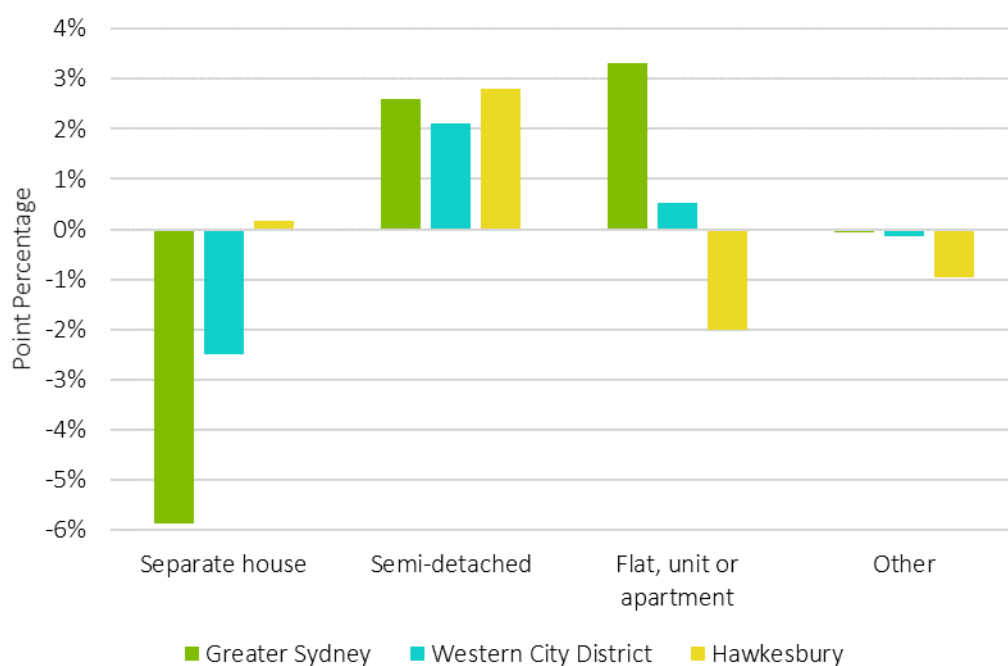
FIGURE 26: COMPARATIVE HOUSING STRUCTURES, 2016



Source: ABS Census 2016

The structural change of dwellings in Hawkesbury is not consistent with that of Greater Sydney and Western City District. Both Greater Sydney and Western City District have a point percentage decline in Separate Houses while Hawkesbury LGA has a small increase. The share of Flat, Unit or Apartments has decreased in Hawkesbury while Greater Sydney and Western City District have experienced an increase. Hawkesbury LGA has similar demographic trends to that of Greater Sydney and Western City District; however, its private housing provision does not reflect the changing demographics.

FIGURE 27: COMPARATIVE STRUCTURAL CHANGE, (2006 -2016)



Source: ABS Census 2006, 2011 and 2016

How are we different?

Population forecasted growth rates for Greater Sydney, Western City District and Hawkesbury LGA are greater than the rates derived from historical trends. Hawkesbury is projected to have an additional 8,951 private dwellings from 2016 to 2036. Compared to Greater Sydney and the District, Hawkesbury has substantially lower projected growth rates.

TABLE 23: ABS HISTORICAL AND TfNSW FORECASTED COMPARATIVE DWELLING TOTALS AND GROWTH RATES (2016-2036)

Geography	2016	2021	2026	2031	2036	Changes 2016-36	CGR (5yr%)
Greater Sydney	1,711,288	1,952,909	2,151,081	2,356,444	2,583,639	872,351	10.85%
Western City District	356,138	408,377	461,581	512,606	572,688	216,550	12.61%
Hawkesbury	24,059	26,760	28,794	30,893	33,010	8,951	8.23%

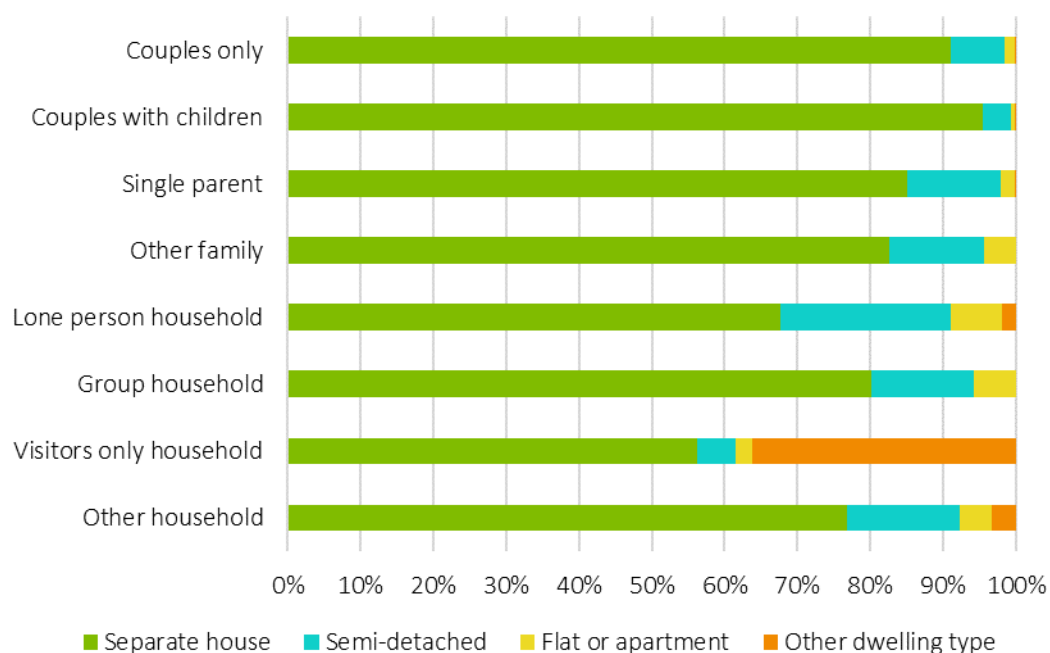
Source: ABS Census 2016 and TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

5.2 Family Household Composition

Where are we now?

Separate Houses are the most popular dwelling structure for any household type. This dwelling structure is most popular with Couples with Children households, with 95 per cent of these families living in Separate Houses. Apart from Visitor Only Households, Separate Houses are the least popular with Lone Person Households, with only 68 per cent of this household profile living in Separate Houses. Semi-detached dwellings are most popular with Lone person households, with a rate at 24 per cent.

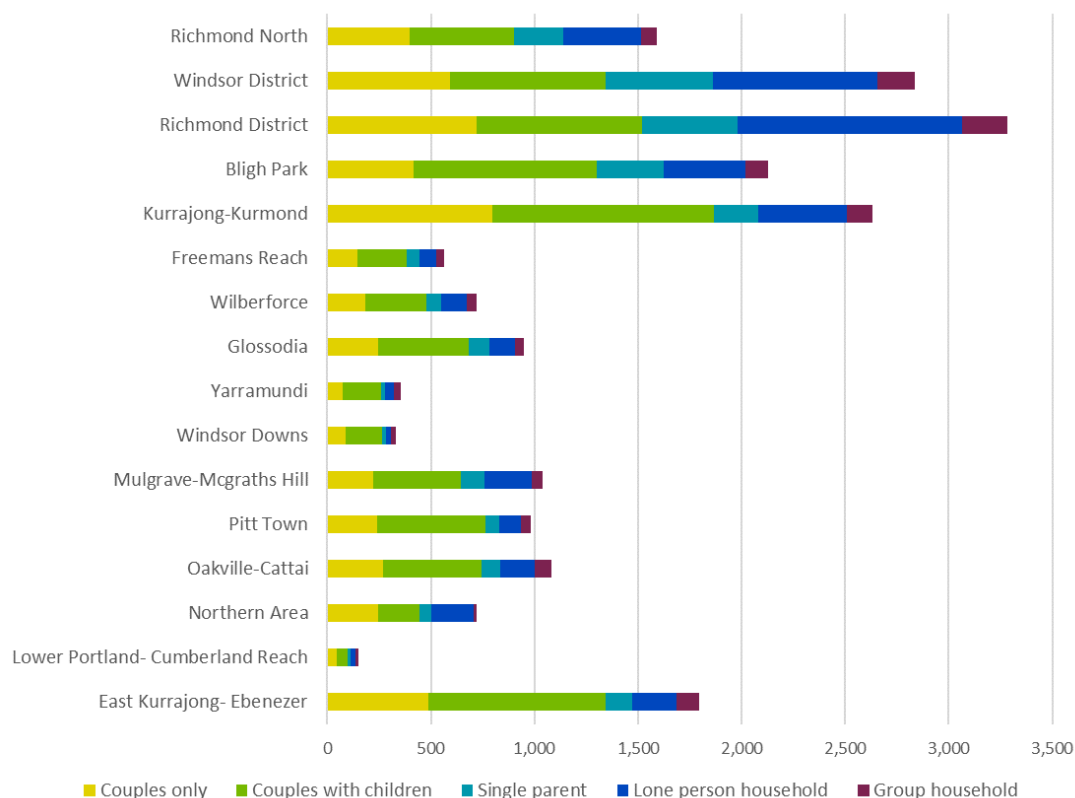
FIGURE 28: FAMILY HOUSEHOLD COMPOSITION (DWELLING) BY DWELLING STRUCTURE, 2016



Source: ABS Census 2016

Across all the precincts, the most common household composition is couples with children households, followed by couples only households. Windsor District and Richmond District have higher amount of lone person households, see Figure 29.

FIGURE 29: FAMILY HOUSEHOLDS - PRECINCT LEVEL 2016

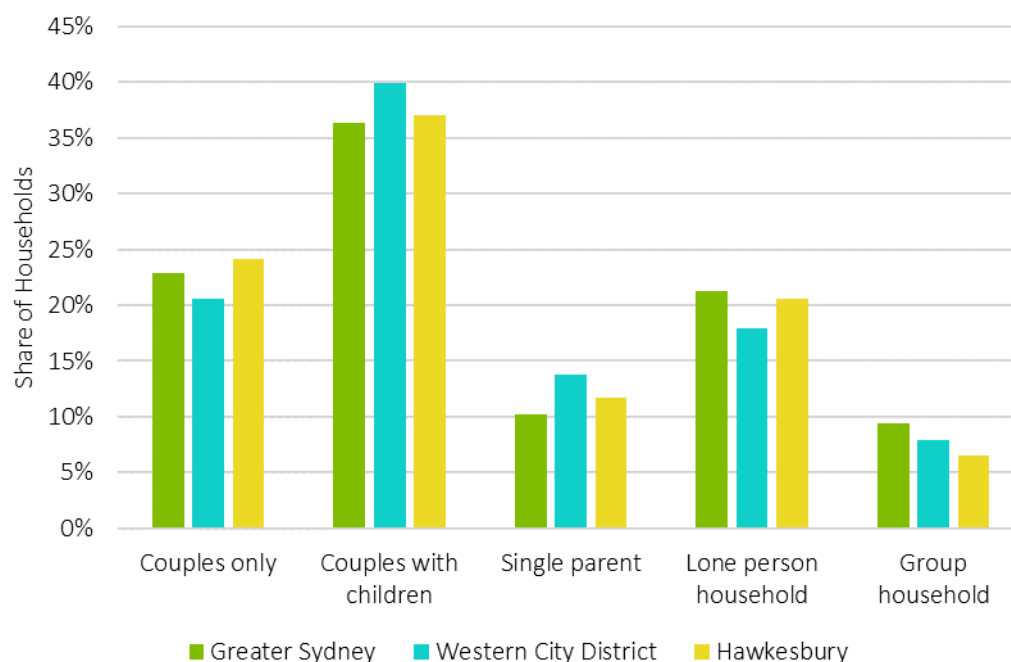


Source: ABS Census 2016

How are we different?

Hawkesbury LGA has a similar family composition to that of Greater Sydney, and smaller proportion of Couples with Children households than Western City District.

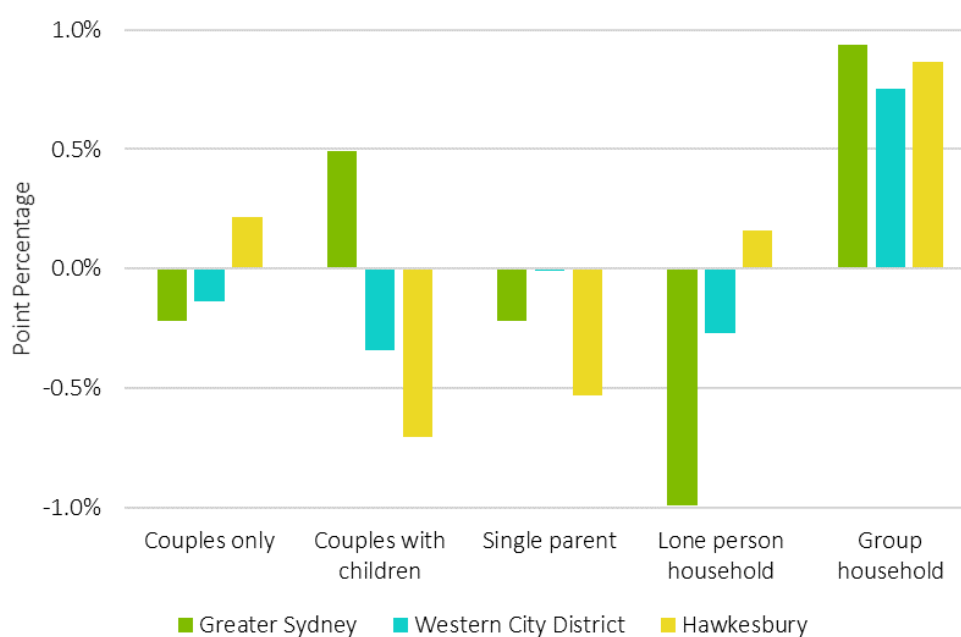
FIGURE 30: COMPARATIVE FAMILY COMPOSITIONS, 2016



Source: ABS Census 2016

There is limited structural change of the family household composition in Hawkesbury LGA. There has been a 0.22 per cent increase in Couples Only households and 0.16 per cent increase in Lone Person Households. Both these two household types have decreased in percentage points in Greater Sydney and Western City District.

FIGURE 31: COMPARATIVE STRUCTURAL CHANGE IN FAMILY HOUSEHOLD COMPOSITIONS, 2011-2016



Source: ABS Census 2011 and 2016

5.3 Tenure Type, Income, Mortgage Repayments and Rents

Where are we now?

Tenure Type

In Hawkesbury LGA, most people live in an Owned property with a Mortgage (43 per cent), followed by Owned Outright properties (32 per cent), and Rented (24 per cent). Separate House is the most popular dwelling structure regardless of tenure types. Semi-detached houses are more popular among people who are renting, see Figure 32. Flat or apartments are also more popular among people who are renting, only a small share of apartments are bought.

FIGURE 32: TENURE TYPE BY DWELLING STRUCTURE, 2016



Source: ABS Census 2016

Mortgage Repayments

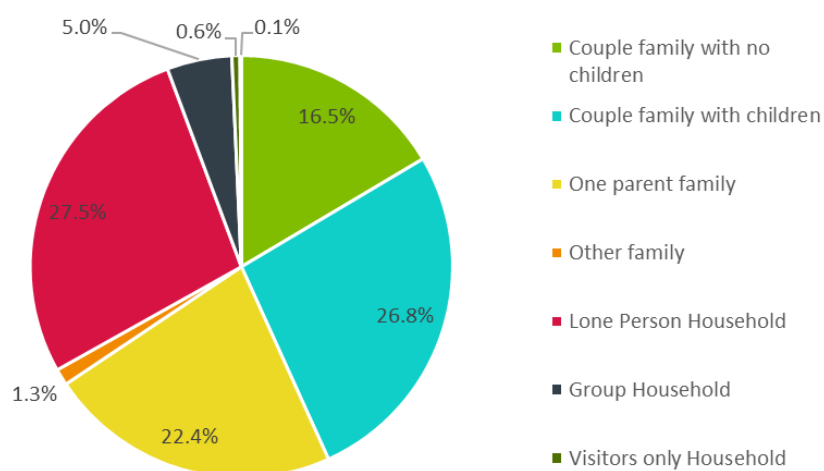
People's monthly mortgage repayment range varies, with most people (13 per cent) paying \$3,000-\$4,000, followed by \$2,000-\$2,200 and \$2,600-\$3,000, with 13 per cent and 10 per cent respectively. Of those who are paying \$3,000-\$4,000 mortgage per month, most of them have a total weekly household income of \$2,000-\$2,499 or an annual income of \$104,000-\$129,999. According to the definition of mortgage stress (paying more than 30 per cent of income to cover mortgage repayments), these people are under mortgage stress.

Rents

Of those who rent, most people pay \$450-\$549 per week (15 per cent), followed by \$400-\$424 (12 per cent), and \$350-\$374 (9 per cent).

Most people who are renting live in a lone person household, followed by couple with children households, see Figure 33.

FIGURE 33: FAMILY HOUSEHOLD COMPOSITION OF RENTERS, 2016



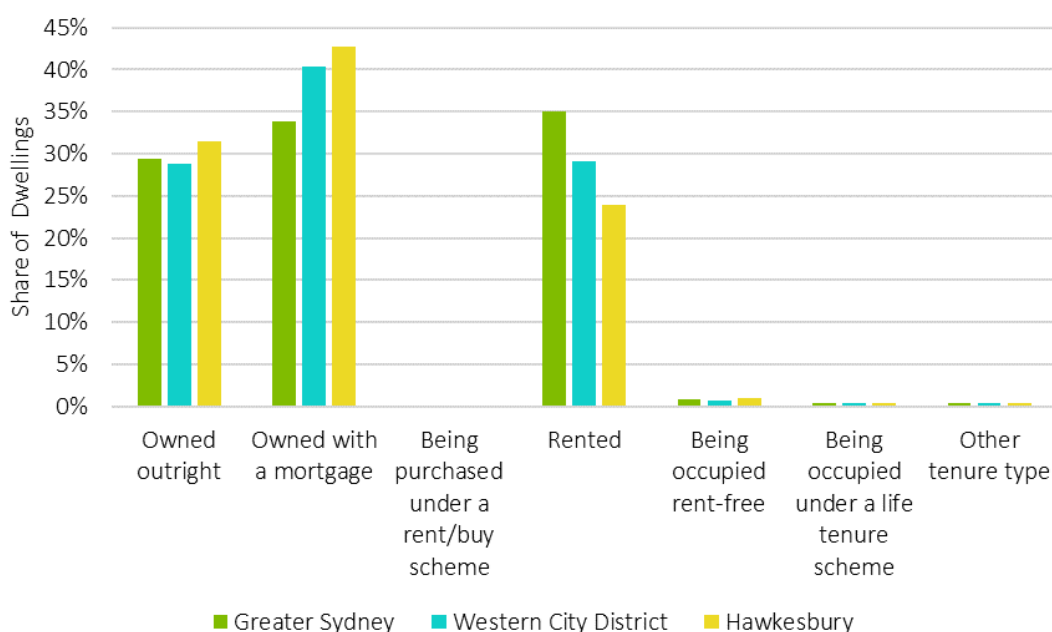
Source: ABS Census 2016

How are we different?

Tenure Type

Hawkesbury has a higher share of dwellings that are owned with a mortgage or owned outright than both Greater Sydney and Western City District, with lesser proportion of dwellings rented.

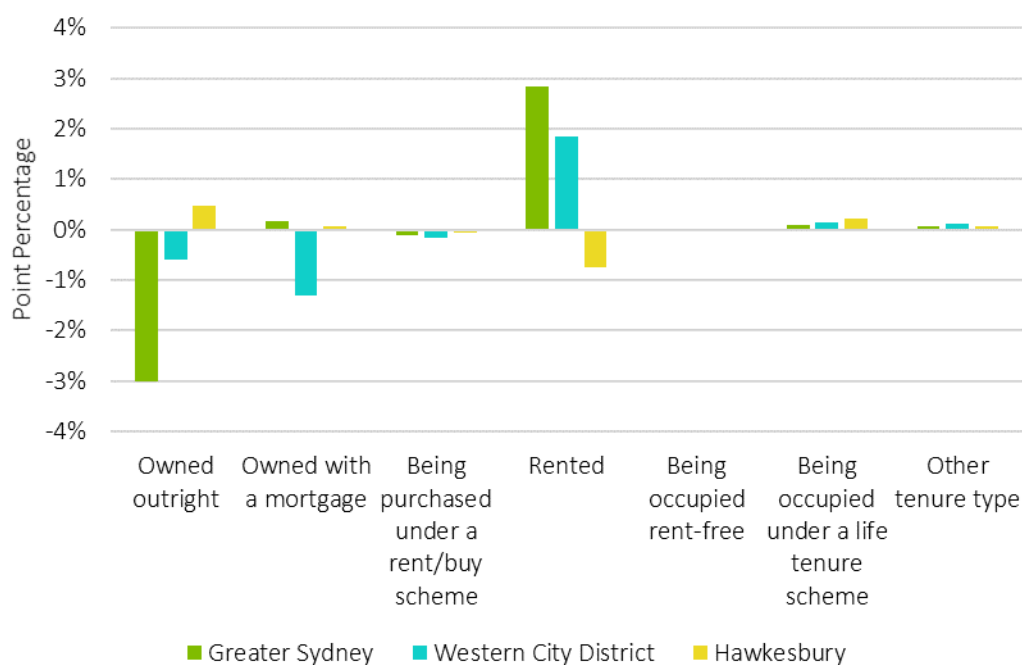
FIGURE 34: COMPARATIVE TENURE TYPES, 2016



Source: ABS Census 2016

Compared to Greater Sydney and Western City District, Hawkesbury has experienced different changes, with a percentage increase in dwellings owned outright and owned with a mortgage, and a decrease in rented properties.

FIGURE 35: COMPARATIVE STRUCTURAL CHANGE IN TENUR TYPES, 2006-2016

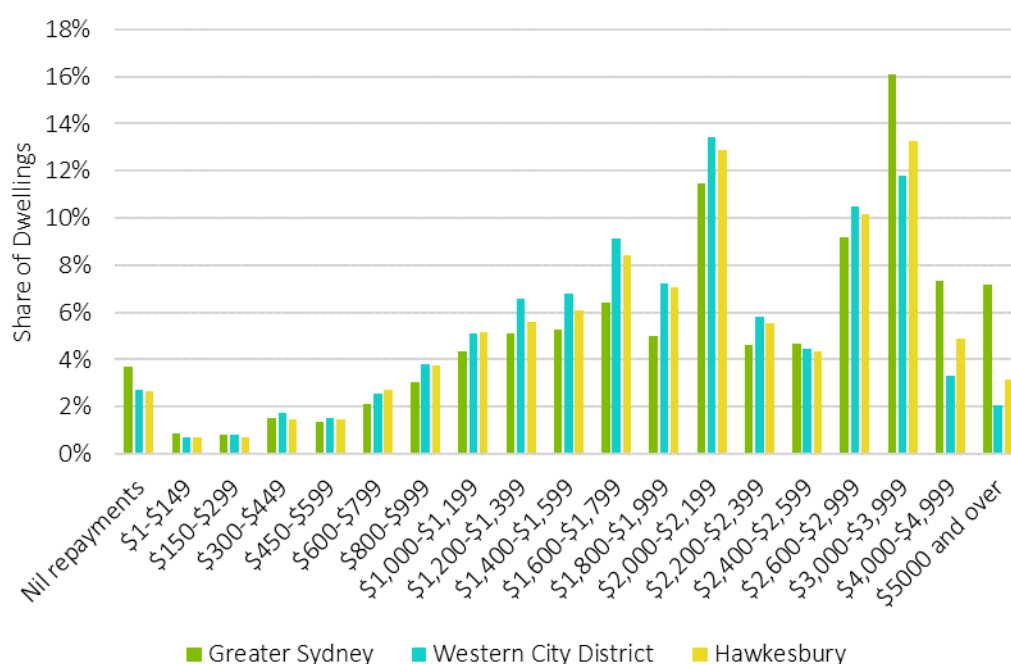


Source: ABS Census 2006, 2011 and 2016

Mortgage Repayments

Hawkesbury's mortgage repayment pattern is similar to Greater Sydney and is more skewed towards the more expensive end than the Western City District.

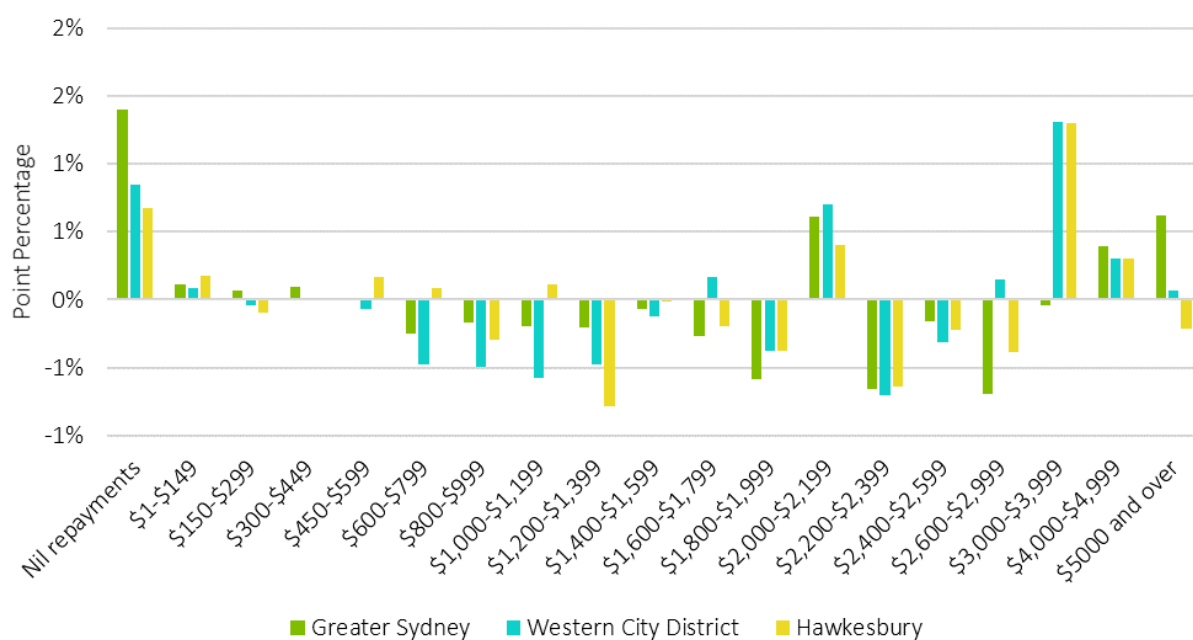
FIGURE 36: COMPARATIVE MORTGAGE REPAYMENTS, 2016



Source: ABS Census 2016

Hawkesbury's mortgage repayment trend is similar to the Western City District with a percentage point increase in the \$3,000 to \$4,000 range.

FIGURE 37: COMPARATIVE STRUCTURAL CHANGE OF MORTGAGE REPAYMENT, 2006-2016

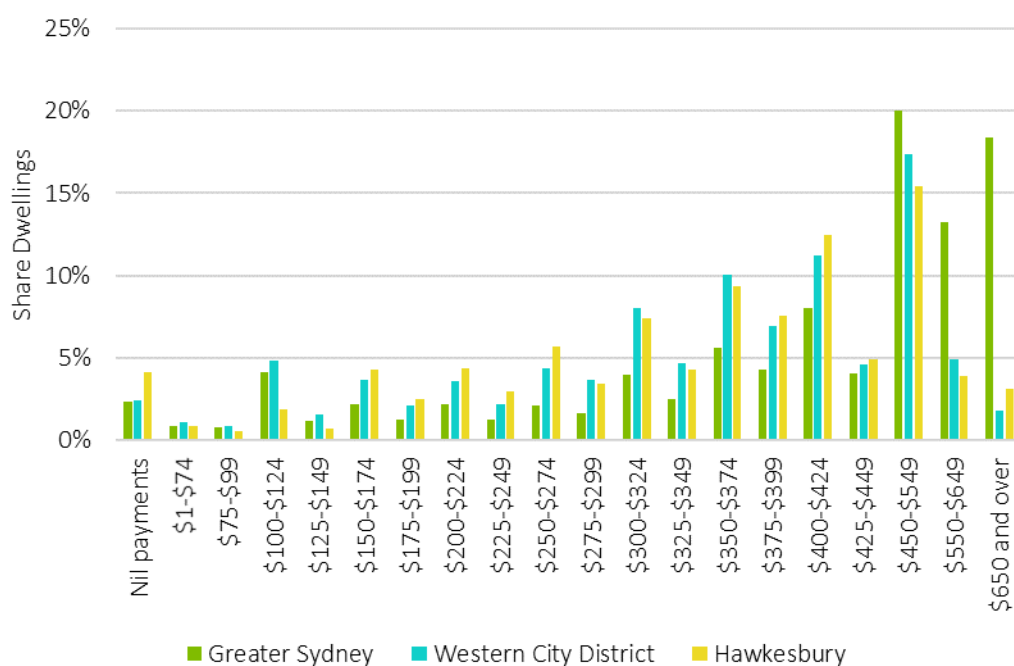


Source: ABS Census 2006, 2011 and 2016

Rents

Hawkesbury has a similar pattern in rents to that of the Western City District. Compared to Greater Sydney, Hawkesbury has a lower share of dwellings with a rent above \$450 per week.

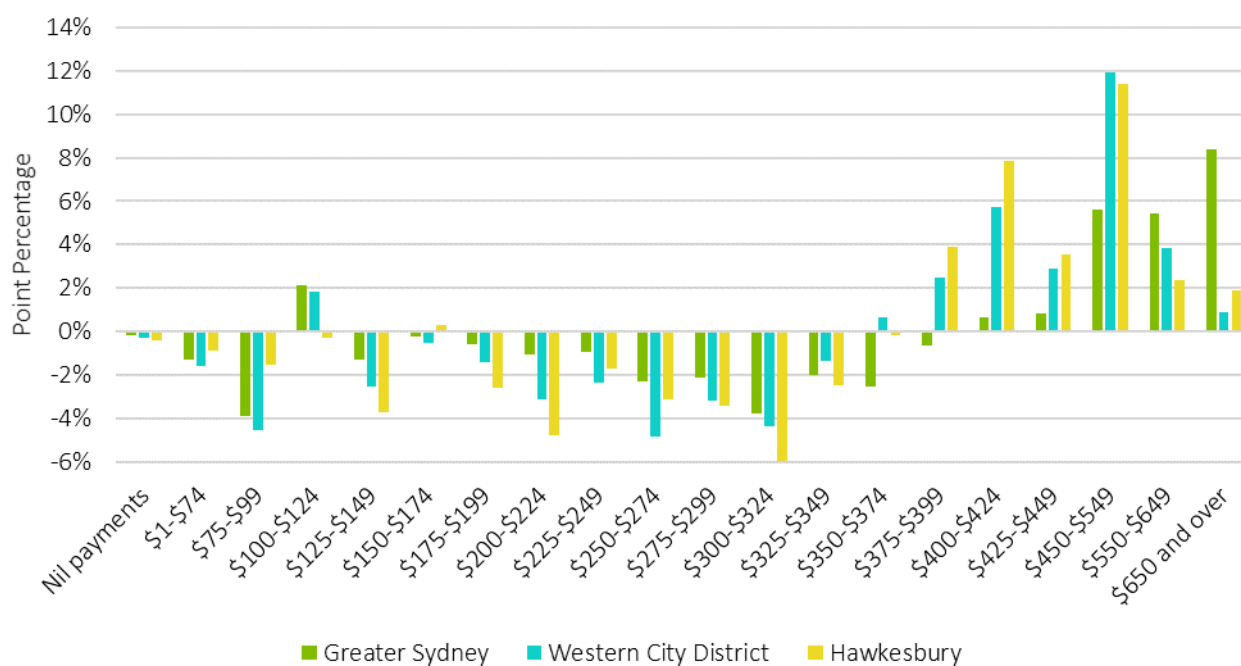
FIGURE 38: COMPARATIVE RENTS, 2016



Source: ABS Census 2016

Hawkesbury shows a similar structural change in rents as compared to Western City District. There is a decrease in point percentage for the lower ranges and an increase for the higher ranges.

FIGURE 39: COMPARATIVE STRUCTURAL CHANGE OF RENTS, 2006-2016



Source: ABS Census 2006, 2011 and 2016

5.4 Housing Affordability

Housing (Mortgage) Stress

In 2016, 736 low income households were in mortgage stress in Hawkesbury, amounting for about 8 per cent of the total mortgaged private dwellings.⁹ Compared to the Western City District, Hawkesbury's proportion of low-income households that are in mortgage stress is considerably lower, as well as being marginally lower than the level for Greater Sydney.

TABLE 24: COMPARATIVE MORTGAGE STRESS

Geography	Low income households (households in bottom 40% of income distribution) with mortgage stress	Mortgaged private dwellings	Proportion of mortgage stress
Greater Sydney	49,680	500,929	9.92%
Western City District	15,164	126,193	12.02%
Hawkesbury	736	8,928	8.24%

Source: PHIDU, 2020

Housing (Rental) Stress

In 2016, there were 1,475 low income households experiencing rental stress in Hawkesbury, amounting for about 30 per cent of the total rented private dwellings. Compared to Greater Sydney, Hawkesbury has a higher proportion of low-income households in rental stress while being marginally lower levels that experienced in the Western City District.

TABLE 25: COMPARATIVE RENTAL STRESS

Geography	Low income households (households in bottom 40% of income distribution) with rental stress	Rented private dwellings	Proportion of rental stress
Greater Sydney	129,691	515,535	25.16%
Western City District	30,775	90,712	33.93%
Hawkesbury	1,475	4,997	29.52%

Source: PHIDU, 2020

Social Housing

In 2016, there were 1,829 persons living in social housing in Hawkesbury, amounting for about 3 per cent of total persons in private dwellings. Compared to Greater Sydney and Western City District, Hawkesbury has a lower proportion of people living in social housing.

⁹ PHIDU, 2020, *Social Health Atlases of Australia: Local Government Areas*

TABLE 26: COMPARATIVE SOCIAL HOUSING STATUS

Geography	Persons living in social housing	Total persons in private dwellings	Proportion of persons living in social housing
Greater Sydney	154,742	4,214,054	3.67%
Western City District	47,005	966,111	4.87%
Hawkesbury	1,829	59,992	3.05%

Source: PHIDU, 2020

Hawkesbury also has a lesser proportion of social housing provisions than Greater Sydney and Western City District.

TABLE 27: COMPARATIVE SOCIAL HOUSING PROVISIONS

Geography	Social housing (rented) dwellings	Total private dwellings	Proportion of social housing (rented dwellings)
Greater Sydney	73,885	1,502,815	4.92%
Western City District	19,387	318,737	6.08%
Hawkesbury	808	21,311	3.79%

Source: 2020

Crowded Housing

Hawkesbury has a lesser proportion of people in crowded dwellings than Greater Sydney and Western City District.

TABLE 28: COMPARATIVE CROWDED HOUSING STATUS

Geography	Persons living in crowded dwellings	Total persons	Proportion of persons living in crowded dwellings
Greater Sydney	277,052	2,740,614	10.11%
Western City District	26,602	429,836	6.19%
Hawkesbury	51	2,466	2.07%

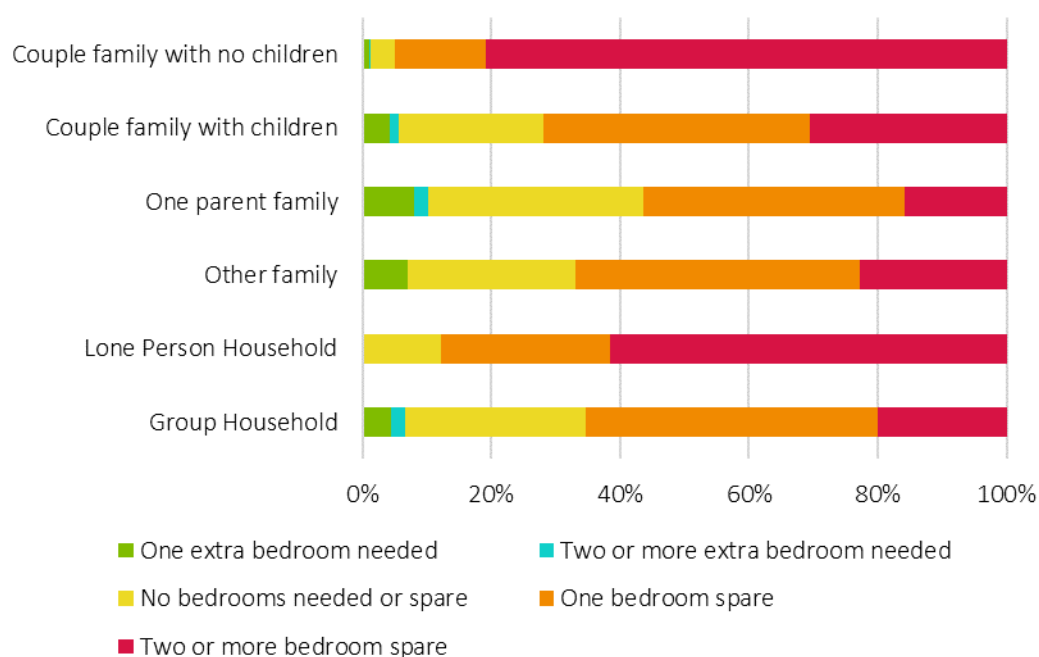
Source: PHIDU, 2020

Household profile

Most households in Hawkesbury have two or more spare bedrooms. Of the dwellings that need one extra bedroom, 52 per cent are Couple family with children. Of the dwellings that need two or more bedrooms, 55 per cent are couple family with children. Couple family with no children have the most share of dwellings that have two or more spare bedrooms.

The total amount of dwellings with two or more spare bedrooms (10,368 dwellings) are much greater than the total amount of dwellings that need two or more extra bedroom (216 dwellings). The total amount of dwellings with one spare bedroom (6,934 dwellings) is greater than the number of dwellings that need one extra bedroom (693 dwellings), indicating that the gap can be filled internally through downsizing and upsizing.

FIGURE 40: FAMILY HOUSEHOLD COMPOSITION (DWELLING) BY HOUSING SUITABILITY HAWKESBURY, 2016



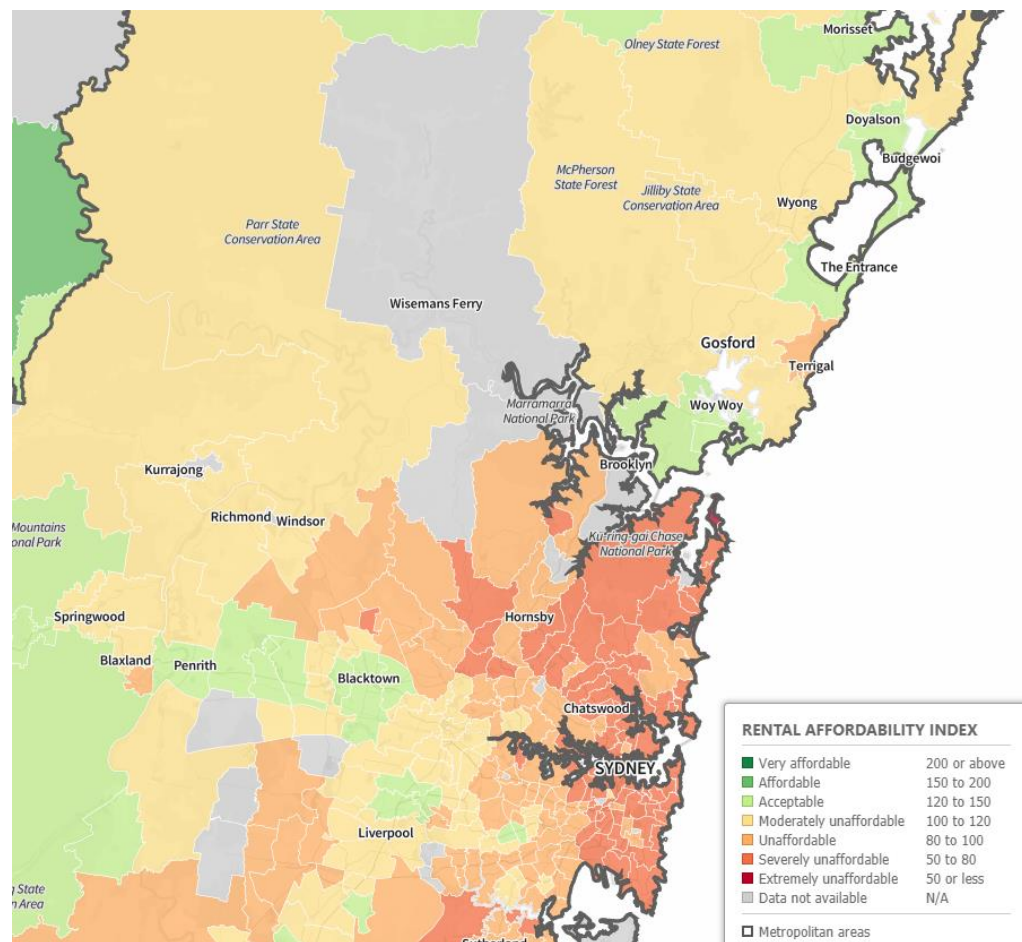
Source: ABS Census, 2016

The annual rental affordability index (RAI)

The annual rental affordability index shows that Hawkesbury is moderately unaffordable¹⁰ with a household income of \$85,000. Compared to some other parts of Greater Sydney, Hawkesbury is less affordable than Blacktown and Penrith, but is similar to Liverpool, and more affordable than Hornsby, see Figure 41.

¹⁰ The share of 25 to 30 per cent of income spent on rent is considered a moderately unaffordable rent.

FIGURE 41: AVERAGE AUSTRALIAN RENTAL HOUSEHOLD (\$85,000 HOUSEHOLD INCOME, ALL DWELLINGS)
RAI 2019 RELEASE



Source: SGS Economics and Planning, 2019

Hawkesbury is affordable for renters with an income, even with a minimum wage, see figures below.

FIGURE 42: DUAL INCOME COUPLE WITH CHILDREN (\$185,000 HOUSEHOLD INCOME, 3 BEDROOM) RAI 2019 RELEASE

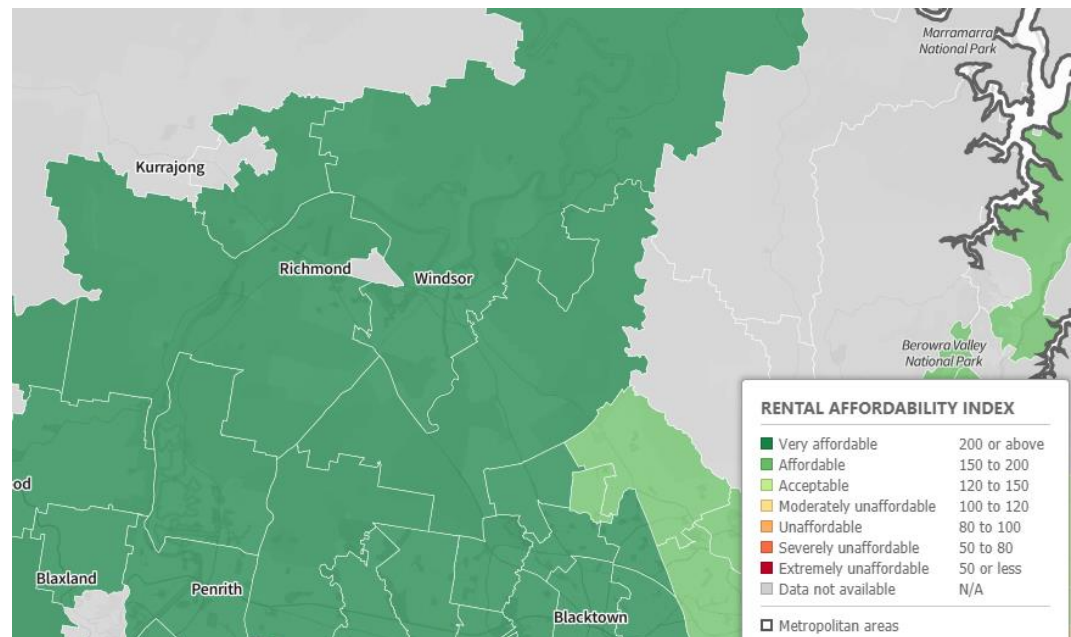


FIGURE 43: SINGLE WORKING PARENT HOUSEHOLD (\$90,000 HOUSEHOLD INCOME, 2 BEDROOM) RAI 2019 RELEASE

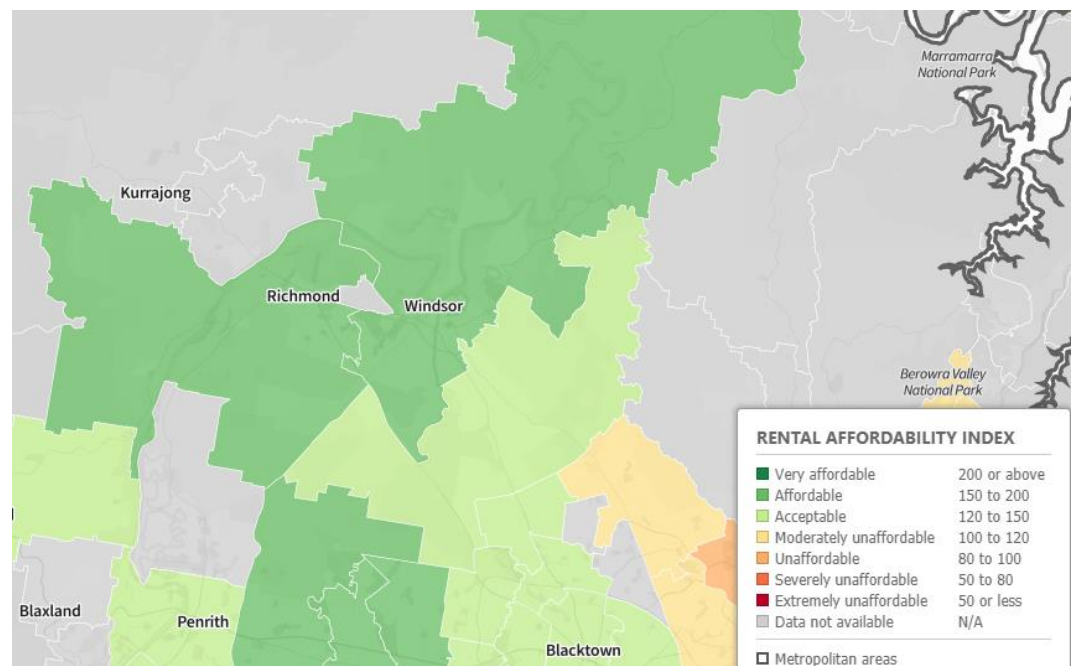


FIGURE 44: MINIMUM WAGE COUPLE (\$75,000 HOUSEHOLD INCOME, 2 BEDROOM) RAI 2019 RELEASE

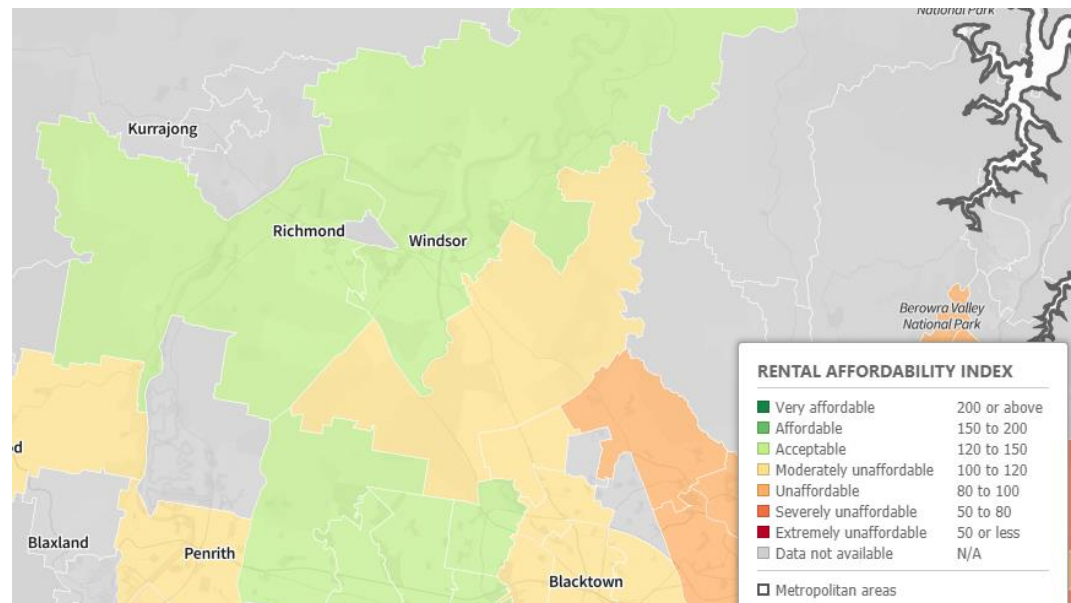
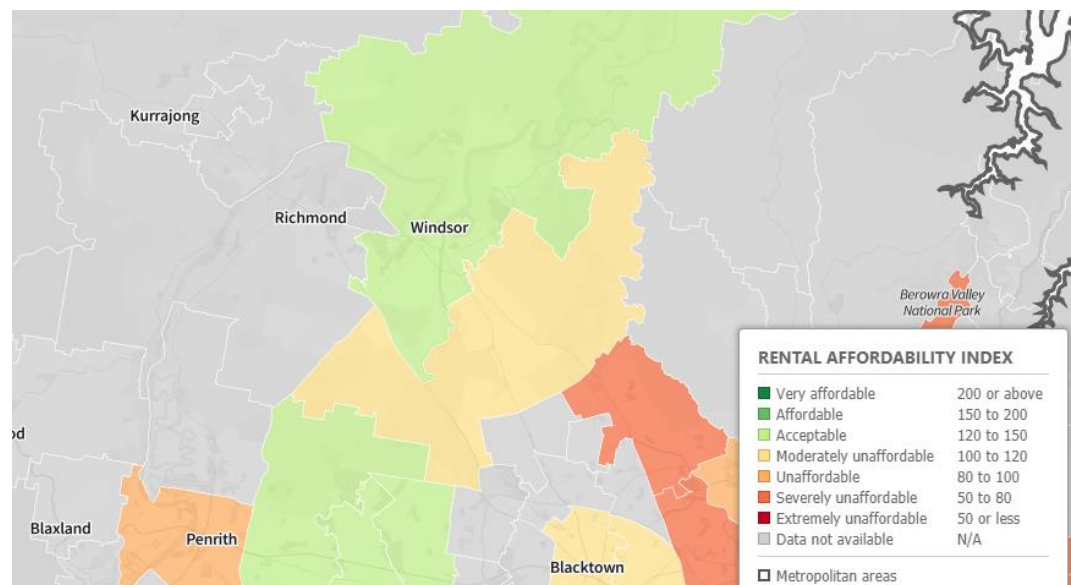


FIGURE 45: HOSPITALITY WORKER (\$55,000 HOUSEHOLD INCOME, 1 BEDROOM) RAI 2019 RELEASE



For people on benefits or on pension, Hawkesbury is not affordable, however still more affordable than other parts of Greater Sydney, such as Penrith and Blacktown.

FIGURE 46: PENSIONER COUPLE HOUSEHOLD (\$50,000 HOUSEHOLD INCOME, 2 BEDROOM) RAI 2019 RELEASE

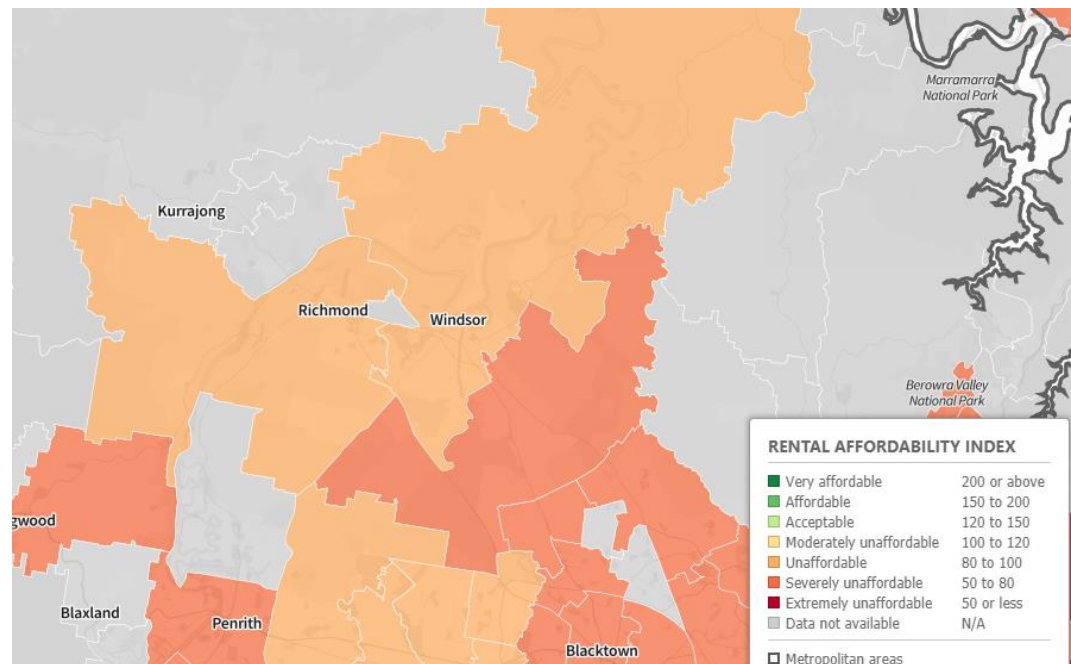


FIGURE 47: SINGLE PART-TIME WORKER PARENT ON BENEFITS HOUSEHOLD (\$40,000 HOUSEHOLD INCOME, 2 BEDROOM) RAI 2019 RELEASE

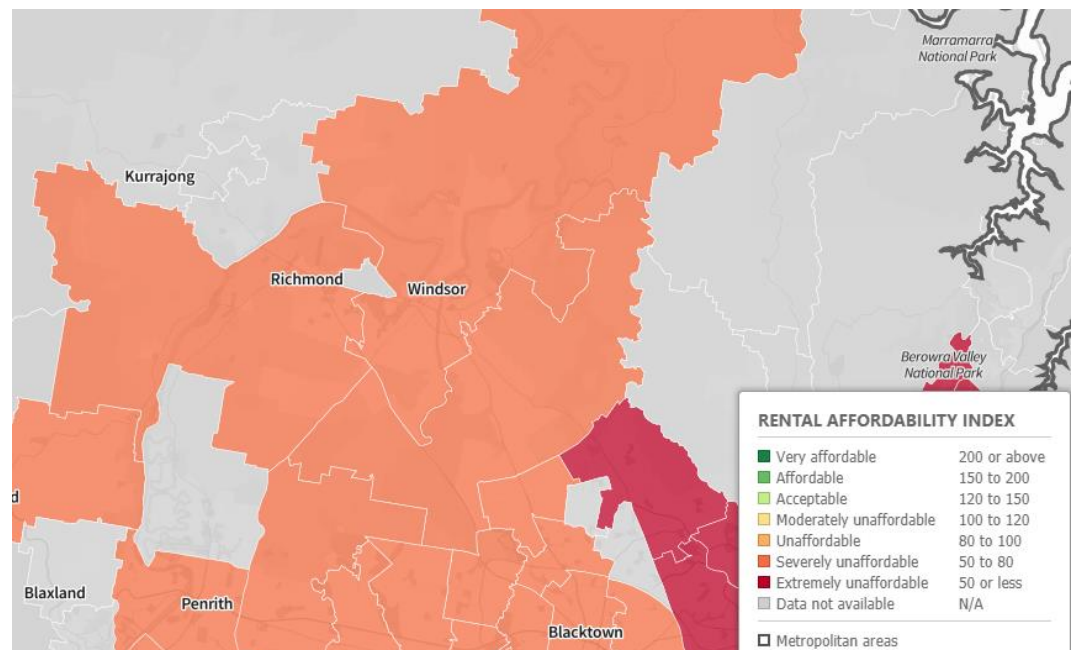
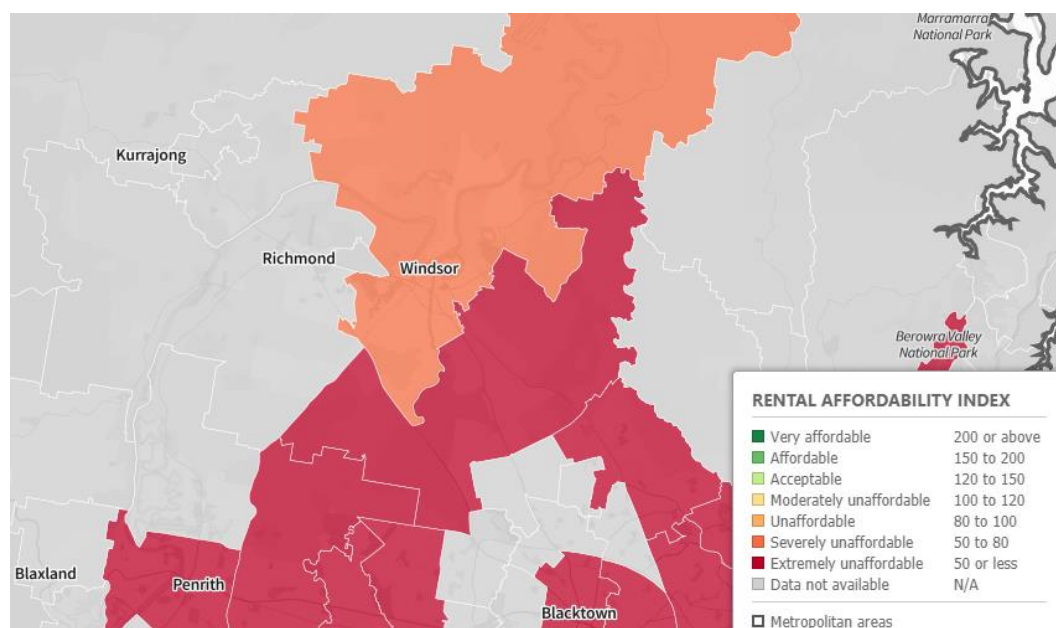


FIGURE 48: NEWSTART (\$20,000 HOUSEHOLD INCOME, 1 BEDROOM) RAI 2019 RELEASE



5.5 Future Demand for boarding houses

Hawkesbury LGA is relatively affordable for household with incomes, however rental dwellings are not affordable for people on benefits for on pensions. As 30 per cent of people in rented private dwellings in Hawkesbury are experiencing rental stress, and to address this there is a need to investigate alternative housing provisions. Boarding house is one of the alternative options that could provide more affordable accommodations for renters.

This section describes the method and outputs from the assessment of the potential future demand for boarding houses, staff quarters, and residential colleges respectively.

Methodology

The estimated resident population, including forecasts to 2036, is sourced from the NSW Department of Planning and Environment. This is used alongside the 'Counting Persons, Place of Enumeration' dataset from the Australian Bureau of Statistics.

The base data for boarding houses are sourced from NPDD Type of Non-Private Dwelling, filtered by the categories 'boarding house, private hotel', 'staff quarters', and 'residential college, hall of residence'.

The future demand is estimated by calculating the ratio of people in each type of housing in 2016 and applying the same ratio to the 2036 population. There are no people living in boarding houses in Hawkesbury in 2016, thus data from surrounding local government areas (Blue Mountains, Blacktown, Penrith, and The Hills Shire) were included. Still, the sample size is too small to derive any meaningful data. Therefore, the Greater Sydney ratio in 2016 was applied to the projected estimated resident population in 2036 for boarding houses and staff quarters. The ratio derived from Hawkesbury and its surrounding LGAs was applied to residential colleges as there are already a significant number of people living in residential colleges.

Boarding Houses & Private Hotels

Overview

Using the above methodology, if experiencing a demand similar to the Greater Sydney area, there is the potential that there will be a significant demand to 2036 for boarding houses in Hawkesbury, forecast to be an average annual growth rate of 12.29%. It is projected that in

2036, there could be 1438 people needing to be accommodated in boarding houses. Given the average number of rooms of boarding houses is approximately 25, that demand would require 58 boarding houses to satisfy. No assessment of current boarding house supply is provided in this analysis.

TABLE 29 PROJECTED GROWTH FOR PEOPLE LIVING IN BOARDING HOUSES – HAWKESBURY & SURROUNDS

2016	2036	2016-2036 Change	Propensity to Population
157	1,595	1,438	0.75%

Staff Quarters

Overview

Staff quarters¹¹ will see a significant growth in demand to 2036, forecast to be an average annual growth rate of 6.57%. It is projected that in 2036, there will be 1188 more people needing to be accommodated in staff quarters.

TABLE 30 PROJECTED GROWTH FOR PEOPLE LIVING IN STAFF QUARTERS – HAWKESBURY & SURROUNDS

2016	2036	2016-2036 Change	Propensity to Population
462	1,650	1,188	0.62%

Residential Colleges

Overview

Residential colleges will see a steady growth in demand to 2036, forecast to be an average annual growth rate of 1.04%. It is projected that in 2036, there will be 183 more people needing to be accommodated in residential colleges.

TABLE 31 PROJECTED GROWTH FOR PEOPLE LIVING IN RESIDENTIAL COLLEGES – HAWKESBURY & SURROUNDS

2016	2036	2016-2036 Change	Propensity to Population
797	980	183	0.10%

Implications

Boarding houses, staff quarters, and residential colleges provide rental accommodations for workers, students and people needing less expensive rental options. Boarding houses are generally leased at a lower rate than a tenanted accommodation as boarding house residents do not have exclusive use of the premises as tenants do.

Boarding House Survey conducted by the University of New South Wales (UNSW)¹² has shown that boarding houses are occupied mostly by people who are employed or in tertiary studies. New generation boarding houses are similar in form to studio or one-bedroom apartments in which residents have their own private bathrooms and kitchens. If planned properly, boarding houses could be an alternative housing option for workers and students who need accommodations close to work or university.

¹¹ Staff quarters are accommodations provided by organisations for their rent paying staff, this could include mining camps.

¹² UNSW 2019, Occupant Survey of Recent Boarding House Developments in Central and Southern Sydney

6. EMPLOYMENT (RESIDENTS AND WORKERS)

This section of the report analyses local employment measures and indicators, pointing to historical and forecasted trends, insights and future directions for the LSPS studies.

6.1 Jobs and Skills (Residents)

Where are we now?

Labour Force Status

Most people in Hawkesbury are employed with a full-time job, accounting for 43 per cent of the labour force. A small amount of people in the labour force are unemployed but are looking for work, accounting for 3 per cent. See table below for the detailed breakdown of labour force status.

TABLE 32: LABOUR FORCE STATUS (PUR), 2016

Labour Force Status	Number of residents aged 15 and over	Share of Total Labour Force
Employed, worked full-time	21,095	43.4%
Employed, worked part-time	9,649	19.9%
Employed, away from work	1,586	3.3%
Unemployed, looking for full-time work	810	1.7%
Unemployed, looking for part-time work	632	1.3%
Not in the labour force	14,816	30.5%

Source: ABS Census 2016

Method of Travel to Work from Place of Usual Residence

Most people get to work by car amounting for 85 per cent of the people who work, followed by public transport (6 per cent), and people who work at home (5.9 per cent).

TABLE 33: METHOD OF TRAVEL TO WORK (PUR), 2016

Method of Travel to Work	Number of residents	Share of the working residential population
Public transport	1,752	6.0%
Vehicle	24,971	85.2%
Active transport	726	2.5%
Other Mode	142	0.5%
Worked at home	1,731	5.9%

Industry of Employment

Both Knowledge Intensive industries and Industrial industries have experienced a decline, whereas Health and Education industries and Population Serving industries have grown steadily. The overall compound five years growth rate is at 2.75 per cent which is not substantial.

TABLE 34: BROAD INDUSTRIES OF EMPLOYMENT (PUR), 2016

Broad Industries of Employment	2006	2011	2016	Changes 2006-2016	CGR (5 yrs)
Knowledge Intensive	6,502	6,538	6,432	-70	-0.54%
Health and Education	4,887	5,426	5,951	1,064	10.35%
Population Serving	9,905	10,769	11,802	1,897	9.16%
Industrial	7,674	7,712	6,396	-1,278	-8.71%
Total	28,968	30,445	30,581	1,613	2.75%

Source: ABS Census 2006, 2011 and 2016

More detailed industry categories show that the largest decline came from Manufacturing, Wholesale Trade, and Public Administration and Safety, see table below.

TABLE 35: INDUSTRIES OR EMPLOYMENT (PUR), 2016

Industries of Employment	2006	2011	2016	Changes 2006- 2016	CGR (5 yrs)
Agriculture, Forestry and Fishing	940	849	931	-9	-0.48%
Mining	69	85	113	44	27.97%
Manufacturing	3,352	3,368	2,403	-949	-15.33%
Electricity, Gas, Water and Waste Services	312	377	419	107	15.89%
Construction	3,444	3,926	4,910	1,466	19.40%
Wholesale Trade	1,485	1,524	1,034	-451	-16.56%
Retail Trade	3,109	3,254	3,080	-29	-0.47%
Accommodation and Food Services	1,555	1,599	1,715	160	5.02%
Transport, Postal and Warehousing	1,516	1,509	1,496	-20	-0.66%
Information Media and Telecommunications	540	506	474	-66	-6.31%
Financial and Insurance Services	725	732	735	10	0.69%
Rental, Hiring and Real Estate Services	474	464	503	29	3.01%
Professional, Scientific and Technical Services	1,408	1,406	1,474	66	2.32%
Administrative and Support Services	739	813	945	206	13.08%
Public Administration and Safety	2,616	2,617	2,301	-315	-6.21%
Education and Training	2,303	2,546	2,762	459	9.51%
Health Care and Social Assistance	2,584	2,880	3,189	605	11.09%
Arts and Recreation Services	419	482	566	147	16.23%
Other Services	1,378	1,508	1,531	153	5.41%
Total	28,968	30,445	30,581	1,613	2.75%

Source: ABS Census 2006, 2011 and 2016

Occupation

Most employed residents in Hawkesbury are technicians and trade workers, reflecting the education attainment data, which shows that most people studied Engineering and Related Technologies at the Certificate level (see table below).

TABLE 36: OCCUPATION (PUR), 2016

Occupations	Number of working residents	Share of working residents
Managers	4,154	13.1%
Professionals	4,781	15.1%
Technicians and Trades Workers	6,015	18.9%
Community and Personal Service Workers	3,261	10.3%
Clerical and Administrative Workers	4,895	15.4%
Sales Workers	2,834	8.9%
Machinery Operators and Drivers	2,696	8.5%
Labourers	3,120	9.8%

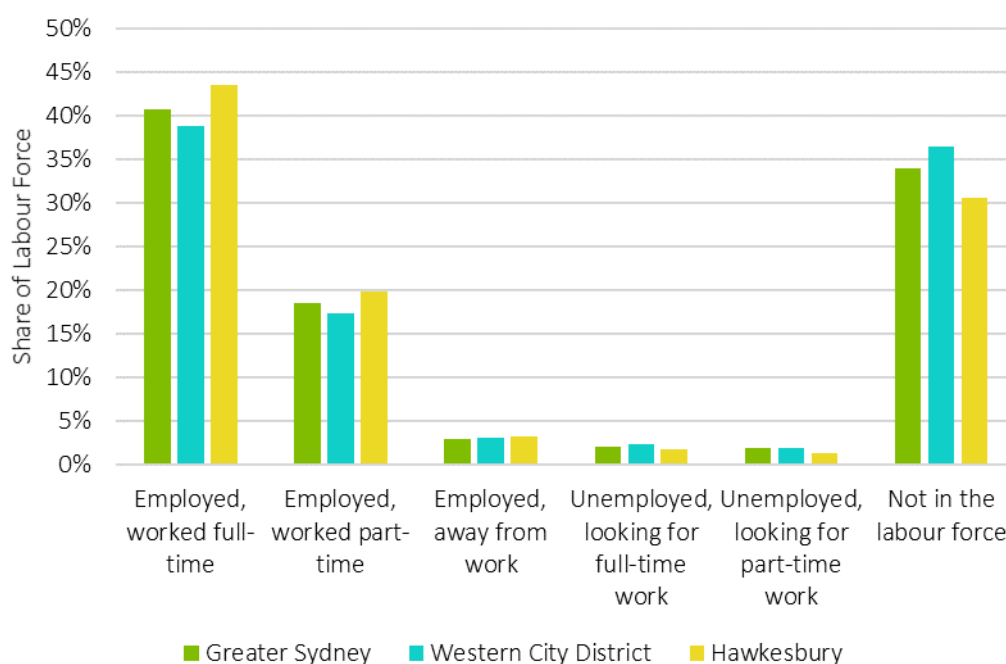
Source: ABS Census 2016

How are we different?

Labour Force Status

Hawkesbury has similar share of employed people and unemployed people as compared to Greater Sydney and the Western City District.

FIGURE 49: COMPARATIVE LABOUR FORCE STATUS, 2016



Source: ABS Census 2016

Structural change in Hawkesbury's labour force is broadly similar to that of Greater Sydney and the Western City District. However, Hawkesbury has a smaller percentage decline in employed full time residents than Greater Sydney and Western City District. It has a smaller percentage increase in employed part-time residents than Western City District and Greater Sydney. Changes in the unemployed workforce is not negligible.

FIGURE 50: COMPARATIVE STRUCTURAL CHANGE OF LABOUR FORCE STATUS, 2006-2016

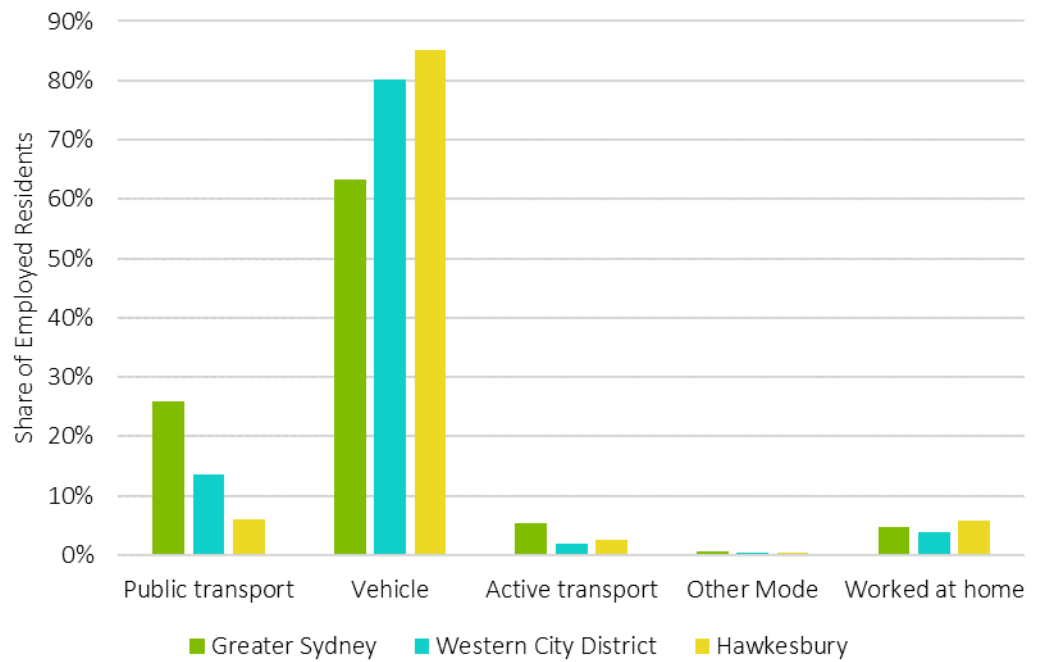


Source: ABS Census 2006, 2001 and 2016

Method of Travel to Work

A higher proportion of people in Hawkesbury go to work by car, compared to the Western City District and Greater Sydney. The use of public transport as a method of travel to work is relatively low in Hawkesbury compared to Western City District and Greater Sydney. This may suggest that Hawkesbury has comparatively poorer public transport connection to jobs.

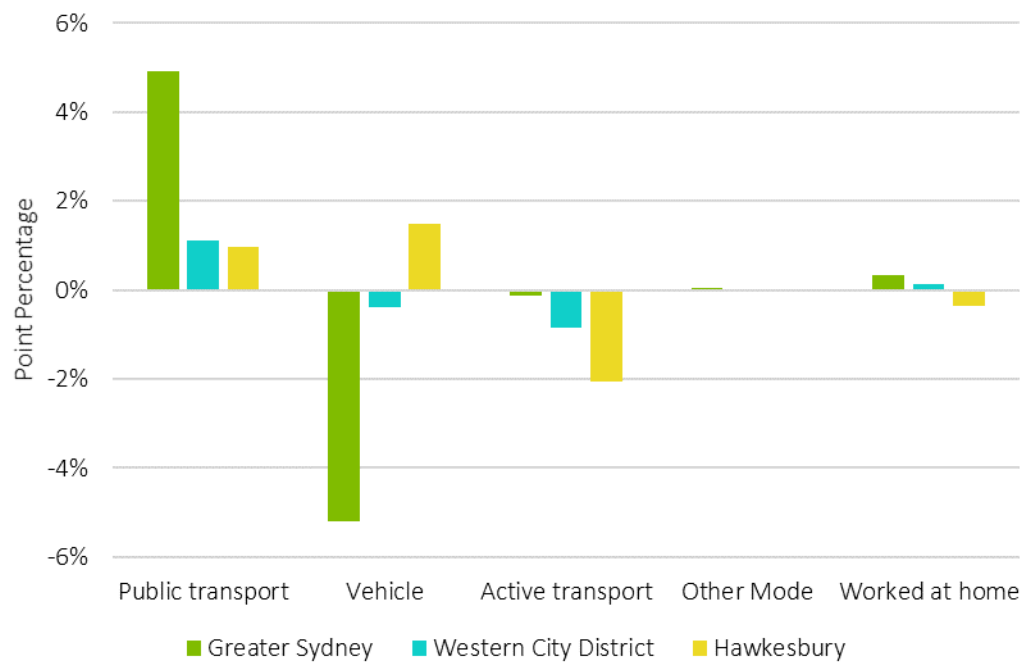
FIGURE 51: COMPARATIVE METHOD OF TRAVEL TO WORK, 2016



Source: ABS Census 2016

Historical trends show that Hawkesbury's vehicle usage has grown by 1.47 per cent, whereas Greater Sydney and Western City District have a decline. Hawkesbury has the smallest point percentage growth in public transport usage as compared to Greater Sydney and the Western City District.

FIGURE 52: COMPARATIVE STRUCTURAL CHANGE IN METHOD OF TRAVEL TO WORK, 2006-2016

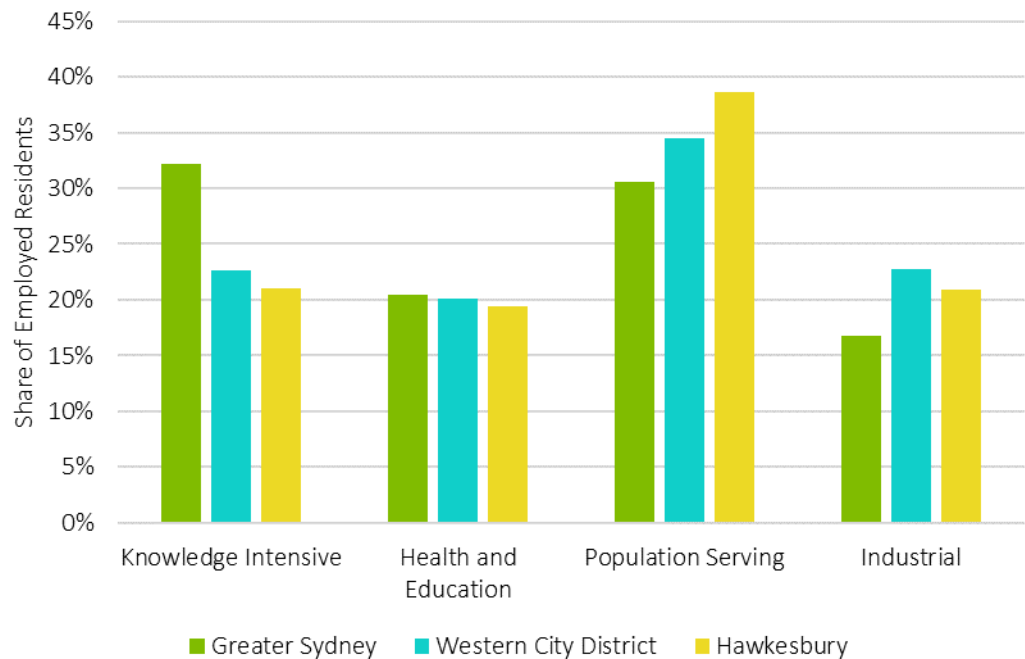


Source: ABS Census 2006, 2001 and 2016

Industry of Employment

Compared to Greater Sydney and the Western City District, Hawkesbury has a greater proportion of residents in the Population Serving industries and less residents in the Knowledge Intensive and Health and Education industries. Hawkesbury also has a greater proportion of residents in Industrial industries than Greater Sydney, but less than Western City district.

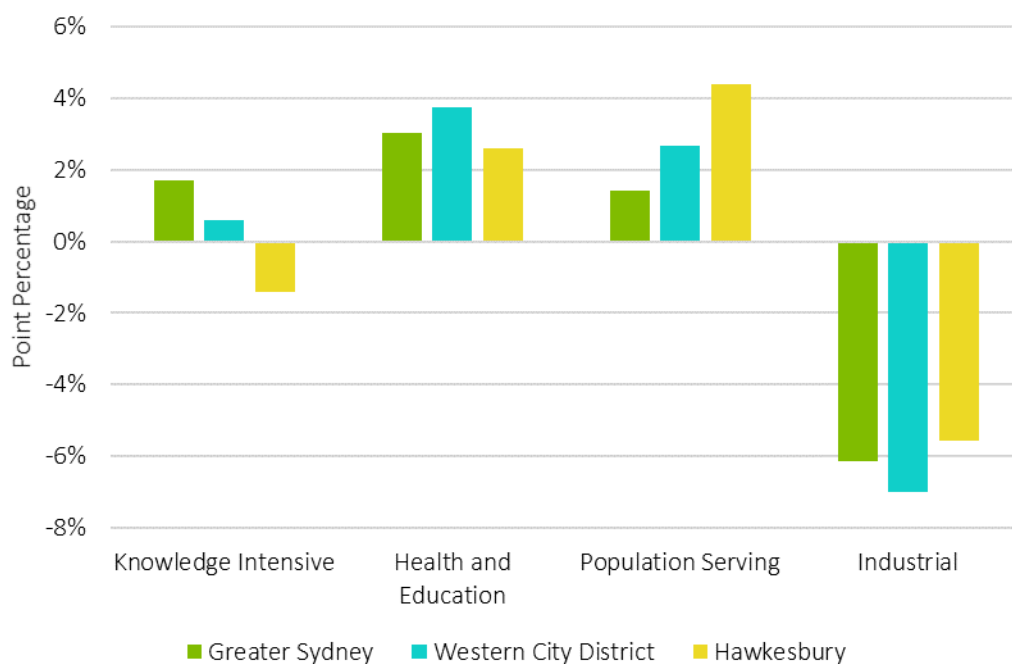
FIGURE 53: COMPARATIVE INDUSTRIES OF EMPLOYMENT (PUR), 2016



Source: ABS Census 2016

Both Greater Sydney and Western City District have a percentage increase in residents employed in the Knowledge Intensive industries, whereas Hawkesbury has experienced a decline. Hawkesbury displays similar trend to that of Western City District and Greater Sydney in the other industries, including Health and Education, Population Serving and Industrial.

FIGURE 54: COMPARATIVE CHANGES IN PERCENTAGE POINTS OF THE INDUSTRIES OF EMPLOYMENT (PUR),2006-2016

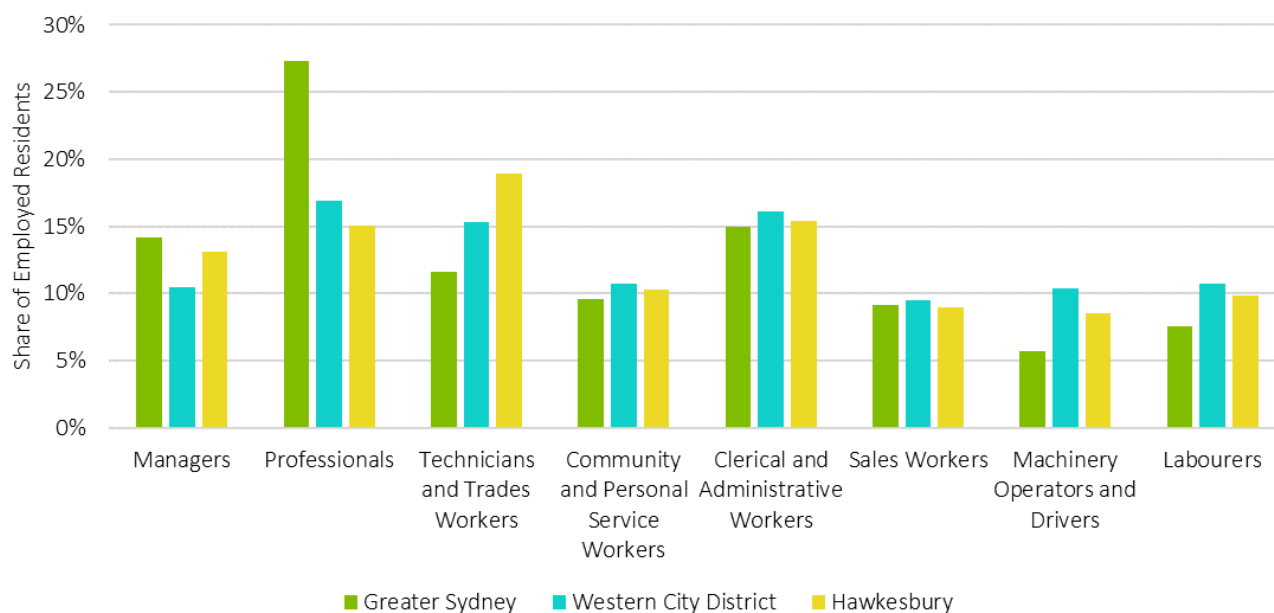


Source: ABS Census 2006, 2001 and 2016

Occupation

Hawkesbury has a noticeably larger proportion of technicians and trades workers and a smaller proportion of professionals than both Greater Sydney and Western City District.

FIGURE 55: COMPARATIVE OCCUPATIONS,2016



Source: ABS Census 2016

Where are we going?

Forecasting shows that Hawkesbury's workforce population will grow in all categories, including employed and unemployed. Employed full-time residents is forecast to grow by an additional 8,181 people by 2036, which represents a compound growth rate of 8.16 per cent.

TABLE 37: WORKFORCE STATUS FORECAST, 2016-2036

Workforce Status	2016 (PUR)	2021	2026	2031	2036	Changes 2016-2036	CGR (5yr)
Employed, worked full-time	22,183	26,853	27,765	28,864	30,364	8,181	8.16%
Employed, worked part-time	10,147	9,740	10,623	11,593	12,623	2,477	5.61%
Unemployed	1,442	1,435	1,469	1,552	1,655	213	3.51%
Not in the labour force	14,816	16,531	17,749	19,001	20,008	5,192	7.80%
Total	48,588	54,559	57,607	61,010	64,651	16,063	7.40%

Source: ABS Census 2016 and TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

Hawkesbury is forecast to have similar structural change to that of Western City.

TABLE 38: COMPARATIVE STRUCTURAL CHANGE OF WORKFORCE STATUS (2016-2036)



Source: ABS Census 2016 and TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

6.2 Jobs and Skills (Workers)

Where are we now?

Industry of Employment (POW)

There are 21,351 jobs in Hawkesbury in 2016, indicating a compound growth rate of 1.42 per cent from 2006. Health and Education industries have experienced the greatest growth in both absolute numbers and compound growth rate.

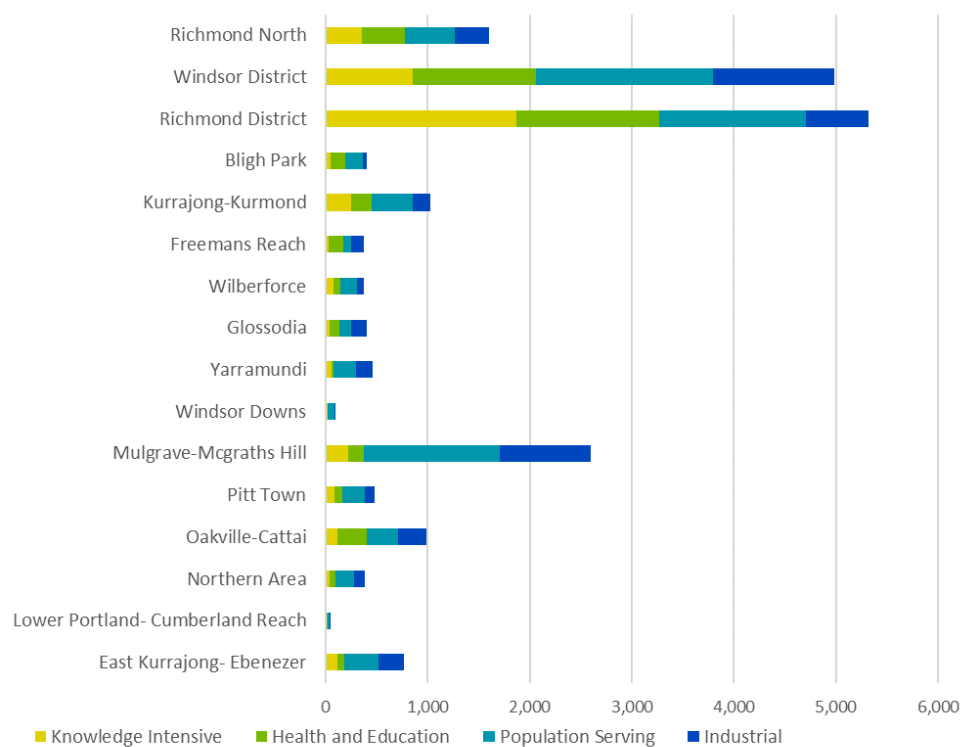
TABLE 39: INDUSTRY OF EMPLOYMENT (POW), 2016

Broad Industries of Employment	2006	2011	2016	Changes 2006-2016	CGR (5 yrs)
Knowledge Intensive	4,893	4,749	4,404	-489	-5.13%
Health and Education	3,759	4,163	4,684	925	11.63%
Population Serving	6,863	7,089	7,729	866	6.12%
Industrial	5,243	5,259	4,534	-709	-7.01%
Total	20,758	21,260	21,351	593	1.42%

Source: ABS Census 2006, 2011 and 2016

Most precincts have a higher proportion of population serving jobs than other types, except for Richmond District, Glossodia and Freemans Reach. Richmond District has a high proportion of knowledge intensive jobs (35.1 per cent), whereas Glossodia has a high proportion of industrial jobs (37.6 per cent). Freemans Reach has a high proportion of Health and Education jobs (40.1 per cent), see Figure 56.

FIGURE 56: BROAD INDUSTRIES AT PRECINCT LEVEL 2016



Source: ABS Census 2016

Some precincts have had a decline in employment numbers, including Richmond District, Windsor Downs and the Northern Area, see Table 40.

TABLE 40: EMPLOYMENT GROWTH - PRECINCT LEVEL 2011-2016

Precincts	2011	2016	Changes 2011-2016	Growth Rates
Richmond North	1,578	1,636	58	3.7%
Windsor District	4906	5,191	285	5.8%
Richmond District	5902	5,403	(499)	-8.5%
Bligh Park	288	392	104	36.1%
Kurrajong-Kurmond	1043	1069	26	2.5%
Freemans Reach	326	388	62	19.0%
Wilberforce	350	402	52	14.9%
Glossodia	380	419	39	10.3%
Yarramundi	377	488	111	29.4%
Windsor Downs	129	111	(18)	-14.0%
Mulgrave-Mcgraths Hill	2072	2768	696	33.6%
Pitt Town	392	506	114	29.1%
Oakville-Cattai	946	1017	71	7.5%
Northern Area	432	412	(20)	-4.6%
Lower Portland-Cumberland Reach	58	60	2	3.4%
East Kurrajong- Ebenezer	824	850	26	3.2%

Source: ABS Census 2011 and 2016

A more detailed study of industries of employment shows similar result to employment data based on place of residents, with Manufacturing jobs suffering the greatest decline in numbers, followed by Public Administration and Safety, and Retail Trade.

TABLE 41: INDUSTRIES OF EMPLOYMENT (POW), 2016

Industries of Employment	2006	2011	2016	Changes 2006-2016	CGR (5 yrs)
Agriculture, Forestry and Fishing	1,042	1,010	1,088	46	2.18%
Mining	12	15	29	17	55.46%
Manufacturing	2,656	2,674	1,967	-689	-13.94%
Electricity, Gas, Water and Waste Services	115	142	286	171	57.70%
Construction	1,669	1,759	2,419	750	20.39%
Wholesale Trade	709	733	438	-271	-21.40%
Retail Trade	2,475	2,413	2,191	-284	-5.91%
Accommodation and Food Services	1,454	1,581	1,724	270	8.89%

Transport, Postal and Warehousing	709	685	726	17	1.19%
Information Media and Telecommunications	374	372	338	-36	-4.93%
Financial and Insurance Services	292	253	244	-48	-8.59%
Rental, Hiring and Real Estate Services	347	304	319	-28	-4.12%
Professional, Scientific and Technical Services	906	843	863	-43	-2.40%
Administrative and Support Services	390	410	550	160	18.75%
Public Administration and Safety	2,584	2,567	2,090	-494	-10.07%
Education and Training	1,858	1,958	2,246	388	9.95%
Health Care and Social Assistance	1,901	2,205	2,438	537	13.25%
Arts and Recreation Services	323	324	409	86	12.53%
Other Services	942	1,012	986	44	2.31%
Total	20,758	21,260	21,351	593	1.42%

Source: ABS Census 2006,2011 and 2016

Distance to Work (POW)

The distance to work data reveals that 41 per cent of workers travel less than ten kilometres to go to work in Hawkesbury, indicating a level of self-containment. A small proportion of workers (15 per cent) travel more than 30 kilometres to go to work. Most workers travel to work by car (86 per cent). A small proportion of workers access employment in Hawkesbury by public transport or active transport, at 2 per cent and 4 per cent respectively.

Occupation (POW)

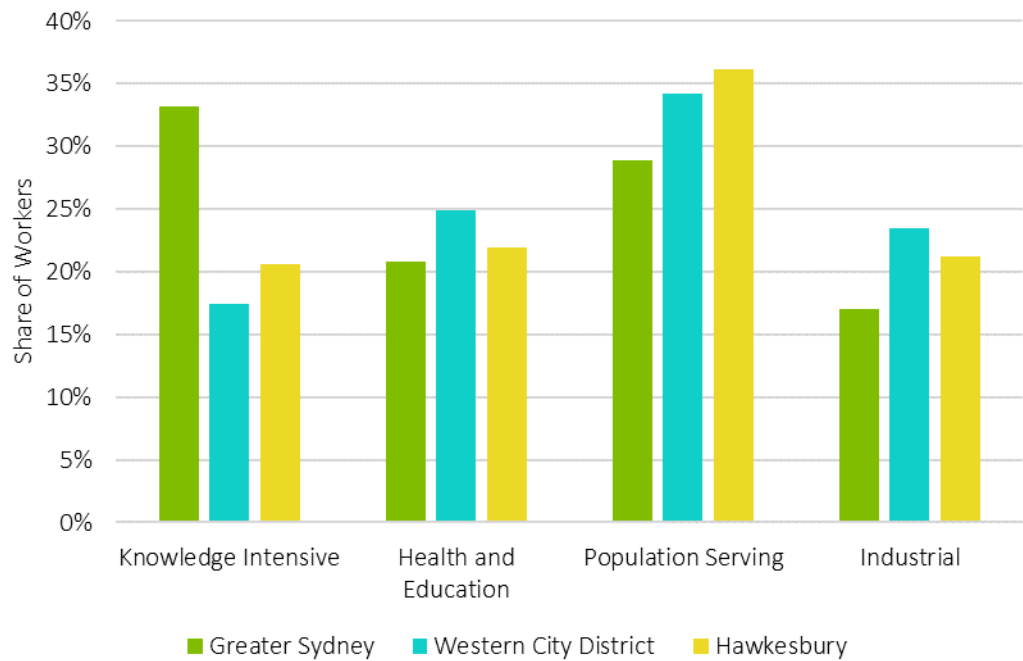
Similar to the Place of Usual Residence data, the highest proportion of workers in Hawkesbury are Technicians and Trades Workers (18 per cent), followed by Professionals (16 per cent), and Clerical and Administrative Workers (13 per cent).

How are we different?

Industry of Employment (POW)

Compared to Greater Sydney, Hawkesbury has a lower proportion of jobs in the Knowledge Intensive industries. However, the proportion is higher than in the Western City District. Hawkesbury has a higher proportion of jobs in the Population Servicing industries than both Greater Sydney and Western City District.

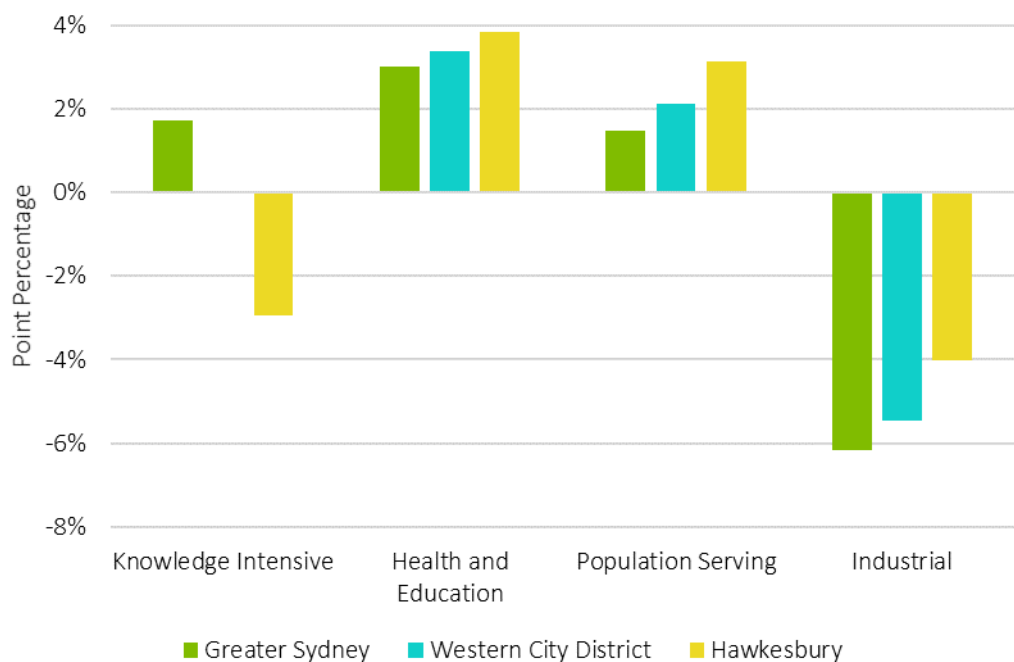
TABLE 42: COMPARATIVE SHARE OF WORKERS IN BROAD INDUSTRIES (POW), 2016



Source: ABS Census 2016

Compared to Greater Sydney and Western City District, Hawkesbury shows a greater decline in Knowledge Intensive jobs, and a greater increase in Health and Education and Population Serving jobs.

FIGURE 57: COMPARATIVE STRUCTURAL CHANGE OF INDUSTRY OF EMPLOYMENT, 2006-2016

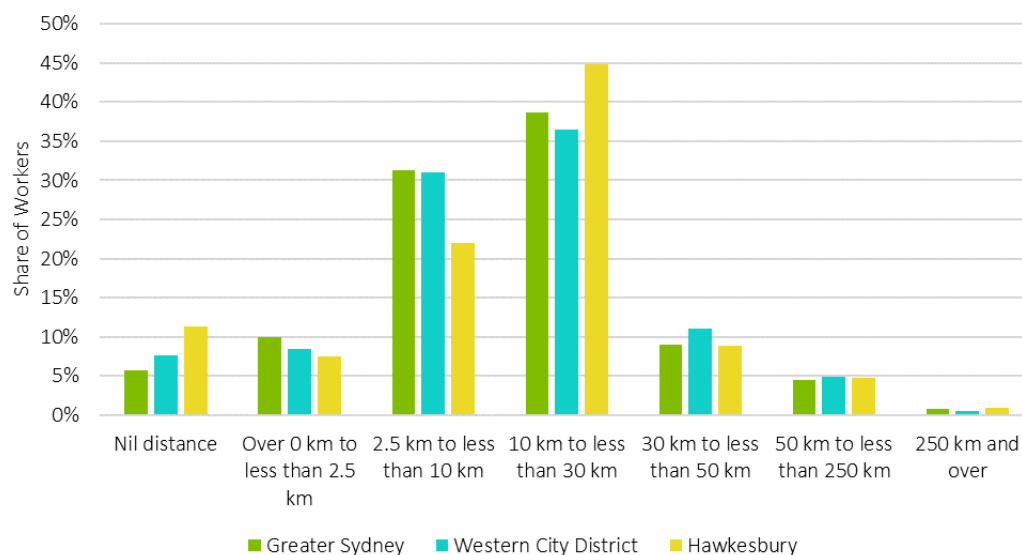


Source: ABS Census 2006, 2011 and 2016

Distance to Work (POW)

Compared to Greater Sydney and the Western City District, Hawkesbury has greater proportion of workers who travel 10 to 30 kilometres to work.

FIGURE 58: COMPARATIVE DISTANCE TO WORK (POW), 2016

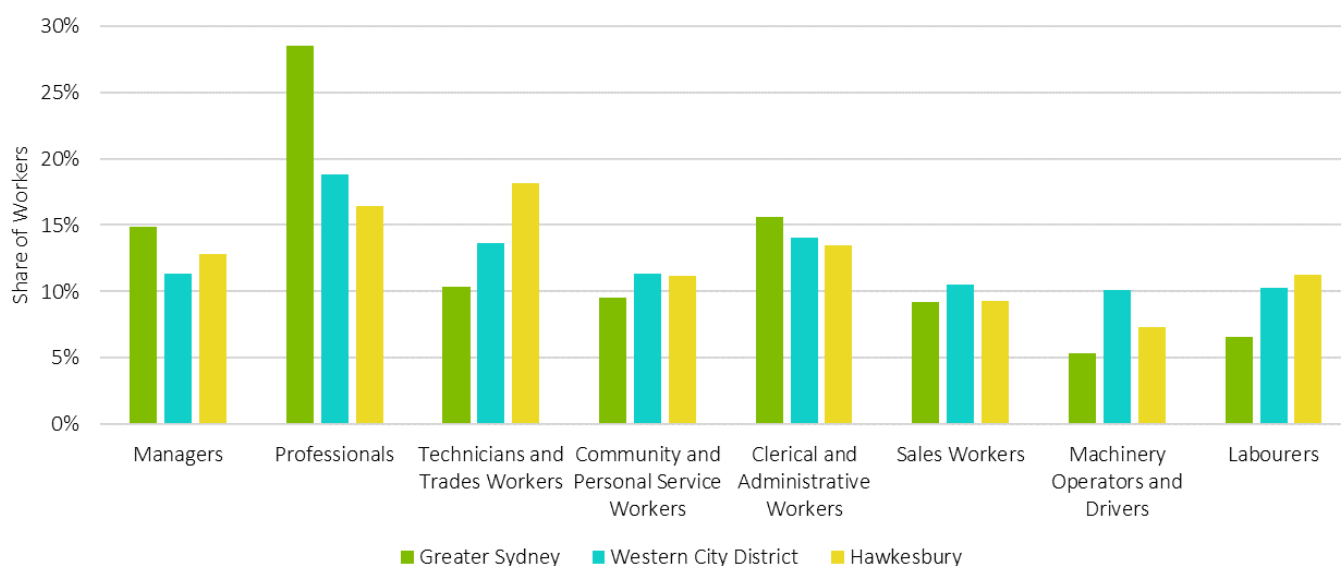


Source: ABS Census 2016

Occupation (POW)

Hawkesbury has a noticeably higher proportion of workers who are Technicians and Trade Workers, as compared to Greater Sydney and the Western City District. Greater Sydney has a higher proportion of workers who are Professionals than both Western City District and Hawkesbury.

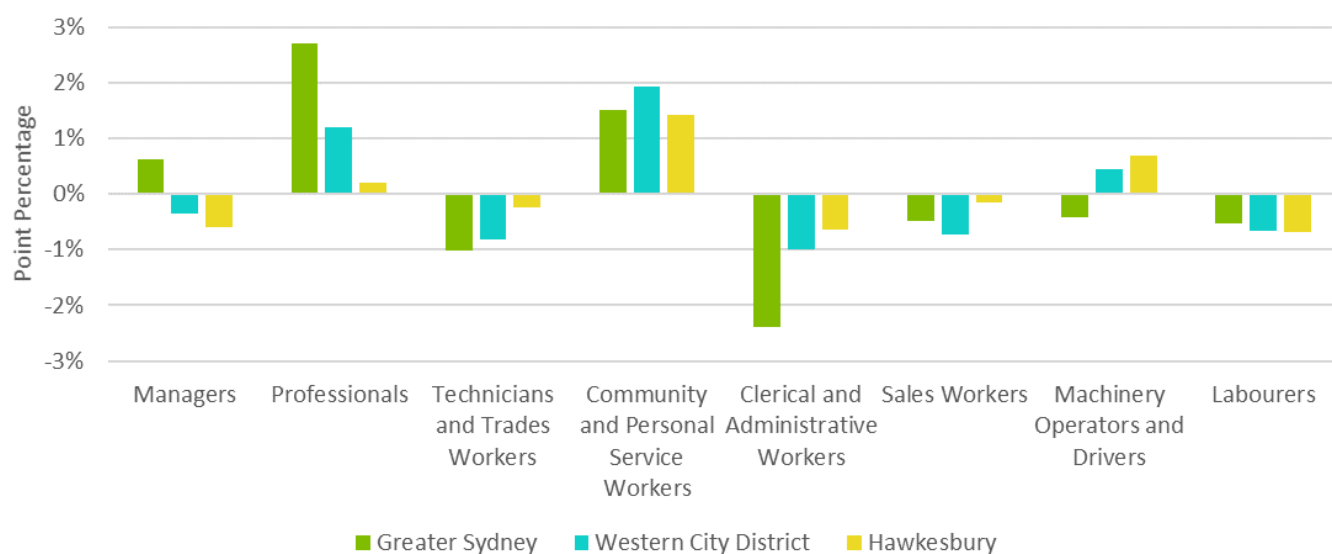
FIGURE 59: COMPARATIVE OCCUPATIONS (POW), 2016



Source: ABS Census 2016

Hawkesbury's occupation trends largely follow that of the Western City District, with a relatively small percentage increase in Professionals, and more in Machinery Operators and Drivers.

FIGURE 60: COMPARATIVE STRUCTURAL CHANGE OF OCCUPATIONS, 2006-2016 (POW)



Source: ABS Census 2006, 2011 and 2016

Where are we going?

Industry of Employment (POW)

All industries of employment are forecast to grow, with Population Serving jobs expected to have the highest growth by absolute number and Knowledge Intensive jobs to have the highest compound growth rate. This indicates a shift towards more Knowledge Intensive jobs as historical trend has indicated a decrease in Knowledge Intensive jobs.

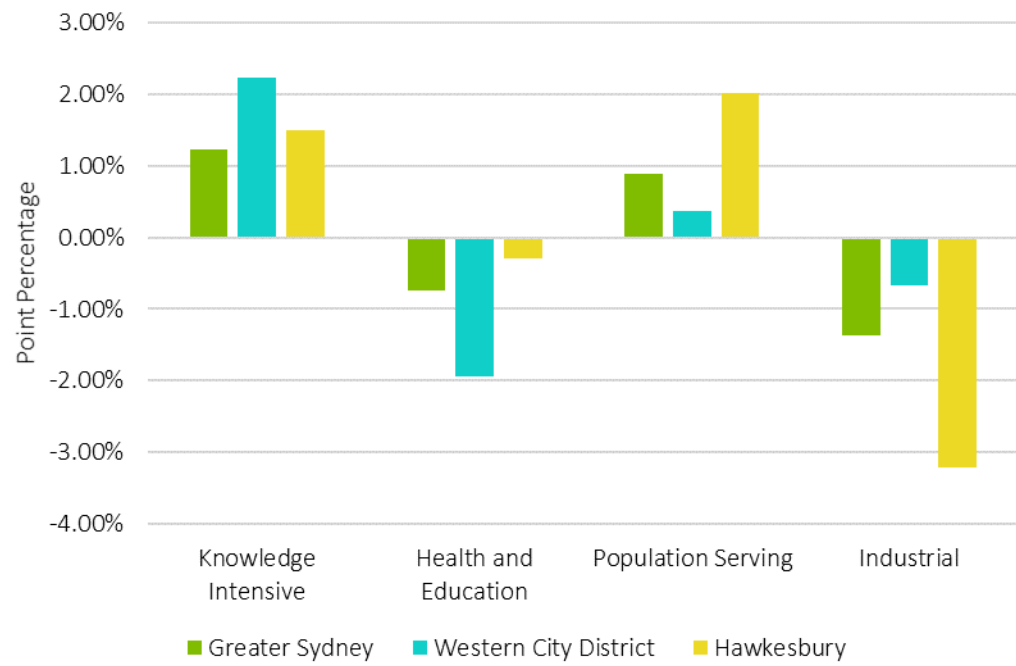
TABLE 43: INDUSTRY OF EMPLOYMENT FORECAST, 2016-2036 (POW)

Industry of Employment (POW)	2016 (POW)	2021	2026	2031	2036	Changes 2016-2036	CGR (5yr)
Knowledge Intensive	4,149	6,374	7,034	7,773	8,617	4,468	20.05%
Health and Education	4,345	6,231	6,964	7,551	8,308	3,963	17.59%
Population Serving	7,047	11,644	12,412	13,345	14,430	7,383	19.62%
Industrial	4,303	6,679	6,585	6,885	7,102	2,799	13.34%

Source: ABS Census 2016 and TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

Compared to Greater Sydney and the Western City District, Hawkesbury is forecast to have a greater drop in Industrial jobs and greater increase in Population Serving jobs between 2016 and 2036.

FIGURE 61: COMPARATIVE STRUCTURAL CHANGE PROJECTED, 2016-2036



Source: ABS Census 2016 and TfNSW – Travel Zone Projections 2016 (TZP16 v1.5)

7. CONCLUSIONS

This section provides a summary of demographic insights and their implications for Hawkesbury LGA.

7.1 Introduction

SGS Economics and Planning has undertaken a study of the demographics, social profile, future growth and associated opportunities for Hawkesbury City Council as part of the LSPS preparation process. The demographic insights are important indicators for how Hawkesbury is performing economically and socially, they also have implications for future planning and growth.

Hawkesbury LGA covers 2,775 square kilometres of land, and its current population amounts for 6 per cent of the Western City District population.¹³ Hawkesbury LGA is unique in its demographic character and physical character. Ten key insights were drawn from the analyses conducted in the previous chapters; these insights will assist Council in future planning.

7.2 Key insights

Patterns of growth and decline in population

Whilst there is an overall growth in population in the LGA, the patterns for growth are primarily located in new greenfield development areas such as Pitt Town, which also has a younger demographic profile, with static or declining populations in established centres such as Richmond and Windsor, as the population ages and constraints to redevelopment including for example flooding and bushfire risk and the significant heritage values. Most parts of the LGA are categorised as Metropolitan Rural Areas, which also limits urban developments.

Council may want to consider whether planning for existing towns is encouraging redevelopment and population growth.

Limited migration into the LGA and out migration of younger adults

Hawkesbury receives limited migration into the LGA from overseas, which is a significant contributor to the wider growth of Sydney and has some more limited migration from within Sydney largely from the surrounding LGAs such as Blacktown, the Hills and Penrith. Movement of adults (30 to 45 years) from surrounding LGAs to live in Hawkesbury is evident. Movement of youths (5 to 20 years) and young adults (20 to 30 years) leaving the LGA to live elsewhere is also evident. These movements limited inward migration and loss of young adults contributes to the aging of the demographic profile.

Council will need to consider local job development suitable for young adults as part of economic strategies. Council should also investigate Federal Government opportunities for recent migrants to Australia to locate in Hawkesbury, similar to what is occurring for regional and rural centres.

An ageing population

Across Greater Sydney, there has been a growth in retirees and a decline in younger age groups, however Hawkesbury LGA has showed a stronger rate of decline in younger age groups and a greater rate of growth in older age groups. If this pattern continues,

¹³ ABS Census 2019, 3218.0 - Regional Population Growth, Australia

Hawkesbury will have more demand for senior accommodations and social infrastructures that cater for the older population than many other parts of Greater Sydney.

Council may want to plan for appropriate seniors accommodation and work in partnership with social service providers to meet the needs of an ageing population.

Changes in household composition

There has been an increase in lone person households and a decrease in couples with children households. Overall, most households in Hawkesbury are still couples with children households, however the changes in household composition over the years indicate that there is likely to be an increase in demand for dwellings with less bedrooms and more compact dwelling types.

Council will need to investigate alternative housing supply options as part of its local housing strategy.

The limited diversity in housing types and under-utilisation

Most private dwellings in the Hawkesbury LGA are separate dwellings and most of these have two or more spare rooms, indicating an under-utilisation of housing stock. The provision of smaller and more compact housing types such as apartment or units is essential for people to age in place. The housing needs of older population need to be considered when planning for the future. Currently, the typology of residential development in the LGA has not responded to demands for smaller dwellings.

As per the changes in household composition, Council will need to investigate alternative housing types and better utilisation as part of its local housing strategy.

Pockets of relative social disadvantage

Overall, Hawkesbury LGA is relatively advantaged, however there are pockets of relative disadvantaged areas when analysed using the SEIFA index. South Windsor has the most disadvantaged community in Hawkesbury LGA, while Pitt Town has the most advantaged.

Council may want to target opportunities to address spatial disadvantages including local employment, skills development and accessibility in partnership with employment and education agencies.

Relative affordability and rental stress

The LGA has relative affordability of housing when compared to the wider Sydney metropolitan area, however there are still concerns regarding rental affordability for households that have low and very low-income levels or households that are on benefits or pensions.

Council will need to target stress in the private rental market for low and very low-income households through local housing strategies and working with community and public housing providers. Housing affordability could be a key driver for future population and employment growth.

Education and skills gap

Hawkesbury LGA as compared to Greater Sydney and the Western City District has a smaller share of students enrolled in higher education and more early school leavers. A significant number of studies have shown that educational attainment has an impact on employment and incomes. The median income for a person with an undergraduate degree is 45 per cent

higher than a person with a Year 12 qualification.¹⁴ The future job opportunities created by the Aerotropolis and the North West Growth Area will need people with the right skills.

Council will need to grow the skills and education levels of its local workforce to take advantage of the future employment opportunities in the Western Parkland City including the Aerotropolis and Western Sydney Airport.

No growth in knowledge intensive jobs

There has been a decline in knowledge jobs in the LGA, and at the same time there has been a growth in health and education jobs. The industrial areas in the North West Growth Area have resulted in the growth of technical jobs, with the support of the skills and educational strength of the LGA. Population jobs in health and education have also been growing.

Council will need to develop opportunities for knowledge intensive jobs.

Limited accessibility to employment opportunities

Hawkesbury LGA as demonstrated by the EJD map has relatively low level of job accessibility as compared to other parts of Greater Sydney. This is likely to be due to limited public transport connectivity and limited availability of local jobs. Employment data has shown that the largest industry of employment is population serving industries. There are however future job opportunities at the new Aerotropolis, the North West Growth Area and Hawkesbury's Defence, Education, Research and Employment Precinct at Clarendon.

Council will need to work with the State and Federal Government as part of the City Deal framework to improve north-south public transport accessibility within the Western Parkland City and to include Windsor-Richmond as well as improving connections east-west to the wider Greater Sydney region.

¹⁴ Australian Government, Department of Education, Skills and Employment, Benefits of Educational Attainment, <https://www.education.gov.au/income>

APPENDIX 1 – UNDERSTANDING DATA AND MEASURES

This report has used a variety of measures in order to better understand trends present in the data from several perspectives. Observing indicators from only one perspective can often be misleading. Each perspective (measure) tells a different story and gives a different outlook. This appendix is specifically devised to guide and assist you when analysing the data in this report and help you better understand the original intention of each measure.

Totals - Absolute Values (123)

Totals are the most common used measure for observing data. They are simple, easy to understand and point to straightforward facts. People love using them as they resonate strongly, especially when the numbers are high. For instance, based on the table below, we know we have a large number of people using *Vehicles* (88,789) to travel to work, hence we might end up with a lot of cars on the streets.

METHOD OF TRAVEL TO WORK (PUR) TOTALS AND GROWTH RATES (2006-2016)

Year	Public transport	Vehicle	Active transport	Other Mode	Worked at home or Did not go to work
2016	30,492	88,789	3,193	808	13,183
2011	24,432	81,467	3,043	628	12,240
2006	21,075	75,742	3,292	535	12,155
Growth (Total)	9,417	13,047	-99	273	1,028
Growth (CAGR %)	20.28%	8.27%	-1.52%	22.89%	4.14%

Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

Downside: When we have a lot of (similar) values, it might become hard to notice what to pay attention to. Also, understanding how one number (category) compares to other numbers (categories) or sum totals (of all categories) might become hard. Expressing data as a ratio or proportion (%) usually helps us with this.

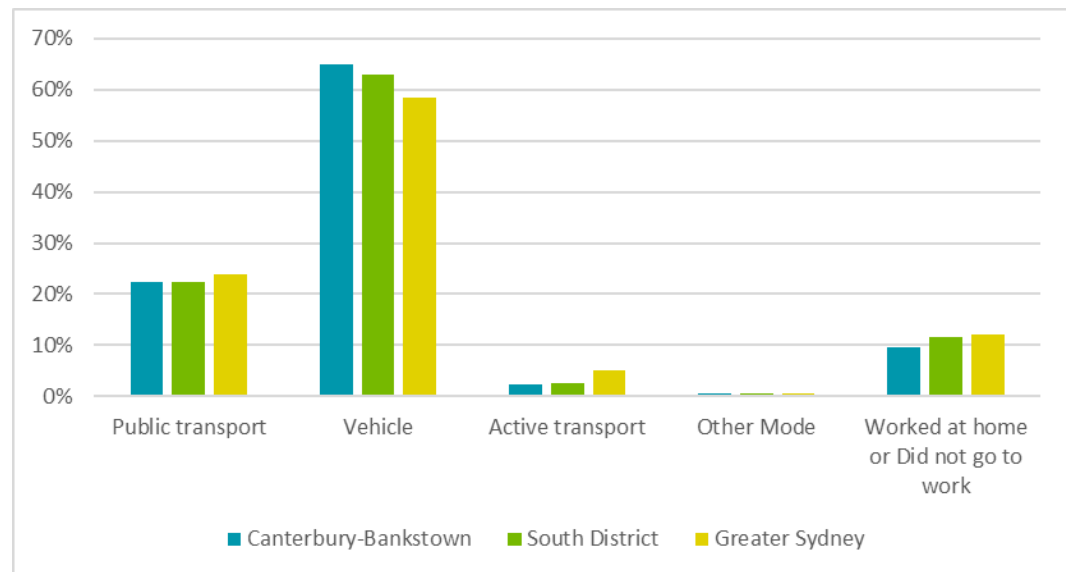
Proportions - Percentage of Sum Total (%)

Proportions, ratios of percentages (name them as you like) usually kick-in handy when trying to understand how something compares to other (sub) categories or SUM totals. This measure is also particularly useful when trying to set up targets.

For instance, we can see that the value of *Vehicles* is quite different when comparing the local level of *Vehicle* usage (30,492) - table above; and the Metropolitan scale (x number of people use *Vehicles*). If someone asked us to put that in context and measure the RATE of *Vehicle* use, we couldn't really achieve it without using a relative measure. However, if expressed as a percentage of the sum total, we would know that the use of *Vehicles* is actually higher at the local level Metro level - see graph below.

Or, let's say our goal is to at least have 30% of people using Public Transport in the future. It makes much more "sense" to express that using proportions (%) than total numbers – e.g. our goal is to have 45,448 people using public transport. Also, the total might change, so 30% isn't 45,448 but a different value.

METHOD OF TRAVEL TO WORK (PUR) STRUCTURE (2016)



Source: ABS Census 2016 (TableBuilder Pro)

Downside: By using percentages or ratios, we can often oversight the overall importance of something in real life terms. Although 2.34% (ratio of people using *Active Transport*) might seem low and negligible, planning for 3,193 cyclists is still quite important. The larger the grand total is, the bigger the chance for such an oversight is to occur.

Growth Totals - Absolute Values (+/- 123)

Again, similar to totals, growth totals are good for understanding the overall impact of some sort of change. From 2006 to 2016, the number of people using *Vehicles* has increased by +13,047 meaning we have a large number of additional vehicles on the streets that we need to plan for. Also, we have an additional +9,417 people using *Public Transport* probably requiring additional services.

Downside: However, growth totals can often “hide” important structural changes that occur over a larger period of time. If we disregarded *Active Transport*, we can see that all modes of transport have experienced a growth between 2006 and 2016. It is easy to jump to a conclusion and say the fastest growing mode of transport is *Vehicles*. However, if we compared the PROPORTION of people using *Vehicles* in 2006 to 2016, we will find that the opposite is actually true - see next heading.

Proportional Changes - Point Percentages (%)

Proportional changes are good in anticipating broader structural changes. This means, that if the current growth trends continued, even though the growth total of *Public Transport* (+9,147) is lower than that of *Vehicles* (+13,047), the number of people using *Public Transport* would eventually “catch up” in the overall proportion. If we translated the first table to proportions instead of totals, it would look something like this:

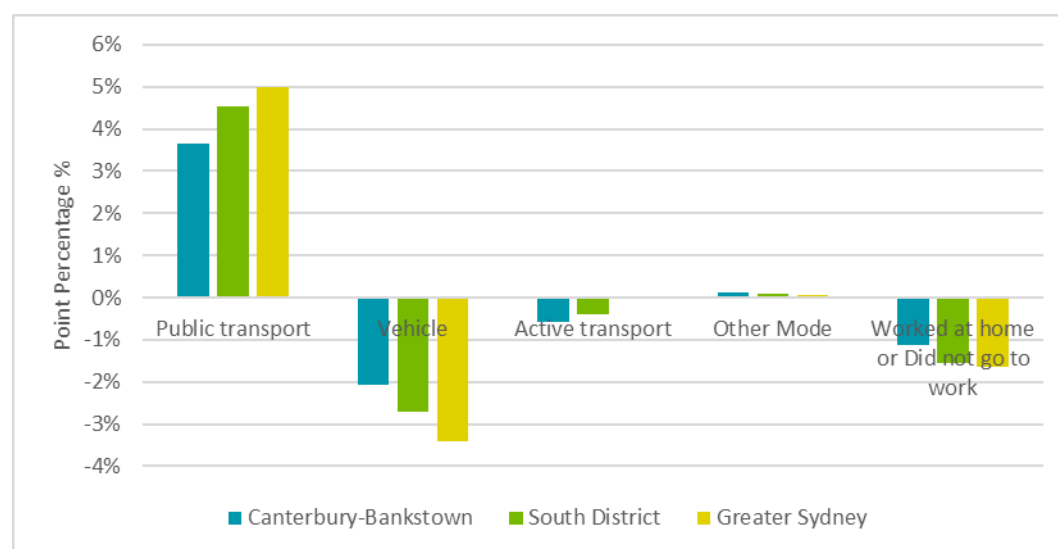
METHOD OF TRAVEL TO WORK (PUR) TOTALS AND GROWTH RATES (2006-2016)

Year	Public transport	Vehicle	Active transport	Other Mode	Worked at home or Did not go to work
2016	22.3%	65.1%	2.3%	0.6%	9.7%
2011	20.1%	66.9%	2.5%	0.5%	10.0%
2006	18.7%	67.1%	2.9%	0.5%	10.8%
Growth (Total)	9,417	13,047	-99	273	1,028
Growth (CAGR %)	20.28%	8.27%	-1.52%	22.89%	4.14%

Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

This is simply because the initial “base value” was a lot smaller for *Public Transport* compared to *Vehicles*.

CHANGE IN METHOD OF TRAVEL TO WORK (PUR) STRUCTURE (2006-2016)



Source: ABS Census 2006, 2011 and 2016 (TableBuilder Pro)

Growth Percentages - CAGR (%)

Relative growth is a measure good for understanding how much a value has changed over time and relative to itself, as well as comparing rates and trends of different geographic scales. In relative terms, the +9,417 increase of people using *Public Transport* represents a +20.28% increase, while the +13,047 represent a +8.27% compared to a previous value of those indicators.

Downside: However, what relative growth numbers don’t “catch” is the base value itself. If looked in more detail the +22.89% of the use in *Active Transport* is higher than both previously mentioned modes, but it only represents an additional +273 commuters.

Note: There is a lot of other things to keep in mind when analysing data and using descriptive statistics to measure performance. Only a small part of it has been mentioned in this appendix. We recommend to observe indicators from a variety of perspectives and angles prior to making any conclusions.

APPENDIX 2 – BROAD INDUSTRY CATEGORIES (BIC) DEFINITION

In conjunction with the Greater Sydney Commission (GSC), SGS Economics and Planning has categorised ANZSIC Divisions into four broad Industry Groups (also known as Broad Industry Categories – BIC). The following table illustrates the classification.

TABLE 44: INDUSTRY GROUPS

ANZSIC 2006 Division Code	ANZSIC 2006 Division Title	Group
J	Information Media and Telecommunications	Knowledge Intensive
K	Financial and Insurance Services	Knowledge Intensive
L	Rental, Hiring and Real Estate Services	Knowledge Intensive
M	Professional, Scientific and Technical Services	Knowledge Intensive
N	Administrative and Support Services	Knowledge Intensive
O	Public Administration and Safety	Knowledge Intensive
P	Education and Training	Health and Education
Q	Health Care and Social Assistance	Health and Education
E	Construction	Population Serving
G	Retail Trade	Population Serving
H	Accommodation and Food Services	Population Serving
R	Arts and Recreation Services	Population Serving
S	Other Services	Population Serving
A	Agriculture, Forestry and Fishing	Industrial
B	Mining	Industrial
C	Manufacturing	Industrial
D	Electricity, Gas, Water and Waste Services	Industrial
F	Wholesale Trade	Industrial
I	Transport, Postal and Warehousing	Industrial

Source: ABS ANZSIC 2006 Support Tool, SGS Economics and Planning and GSC 2016

APPENDIX 3 – GLOSSARY

This appendix contains a glossary of commonly used acronyms through the report.

ABS – Australian Bureau of Statistics

ANZSIC – Australian and New Zealand Standard Industrial Classification

ASCO – Australian Standard Classification of Occupations

BIC – Broad Industry Category

CAGR (%) – Compounded Annual Growth Rate

District – Western City District

GRSP – Greater Sydney Region Plan

GSC – Greater Sydney Commission

LEP – Local Environmental Plans

LGA – Local Government Area

LSPS – Local Strategic Planning Statement

PHIDU – Public Health Information Development Unit

POW – Place of Work

PP (%) – Point Percentage

PUR – Place of Work

RAI – Rental Affordability Index

TfNSW - Transport for NSW

TPA – Transport Performance and Analytics

VET – Vocational Education and Training



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