

Willoughby Economic Development Study

Final report

Willoughby City Council
May 2016



Independent insight.



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EXECUTIVE SUMMARY

Background

The commercial, retail and industrial precincts of Willoughby are the key employment concentrations in the local government area (LGA). They provide regional and local services and are centres of cultural and community activity. With these two core functions of employment and community in mind, Willoughby City Council commissioned this study to review the factors affecting the future growth and economic sustainability of its employment hubs.

More specifically, the purpose of this review is to ensure Council's economic development policies and land use planning provisions:

- support the retention of existing employment and services in the LGA,
- assist in the achievement of the growth targets identified for the City in the draft Metropolitan Strategy for Sydney to 2031, and
- cater for global and local trends as well as the land use requirements of modern businesses and the expectations of customers.

Since the brief was drafted and the study commenced, the NSW Government has issued a final metropolitan strategy called *A Plan for Growing Sydney* (Department of Planning and Environment, 2014). The report makes reference to this strategy rather than the draft. The final strategy does not nominate employment targets for centres (unlike the draft Metropolitan Strategy).

This report has been informed by a range of tasks undertaken by SGS including:

- A review of existing policies and strategies relevant to each centre
- Analysis of trends and drivers impacting on retail, commercial and industrial land uses
- Economic profiling with a focus on key centres
- Market assessment and demand analysis including incorporation of various scenarios
- Land audit of retail, commercial and industrial floorspace within Willoughby LGA
- Demand forecasts on employment projections and capacity analysis based on the land audit
- Retail modelling, demand assessment and capacity analysis for retail centres
- Net community benefit test
- Stakeholder consultation
- Identification of key issues and strategies.

Subregional and local context

Strategic context

Willoughby LGA is strategically located in the northern part of the so-called Global Economic Corridor, which runs from Macquarie Park through Chatswood and St Leonards (both in the Willoughby LGA), North Sydney, the Sydney CBD and through to the airport. This corridor contains over 80% of metropolitan Sydney's office floorspace and around 60% of its jobs, many in high value professional and technical service sectors.

Chatswood in the heart of the Willoughby LGA is 12 kilometres from the Sydney CBD, and connected by the Gore Hill Freeway and Sydney Harbour Bridge and north shore rail line.

Trends in employment

With a growing service economy in Sydney, particularly focused on professional services, the strategic centre of Chatswood with its established office sector and high quality public transport connections, is well positioned to accommodate employment growth. The centre is also a major retail and service hub for northern Sydney and this role will continue and expand given anticipated population growth.

Though employment in traditional manufacturing and industrial activity continues to decline as a share of the Sydney total, well located industrial precincts in inner and middle ring Sydney areas are still growing as employment locations, with a more mixed business character, often playing an important role in supply chain linkages with the Sydney CBD and other major commercial centres. The inner north subregion has a limited supply of these precincts and Willoughby LGA has two such areas at Artarmon and East Chatswood. The future of these precincts as employment locations is a key strategic issue, particularly given pressure for conversion of some sites to residential or retail uses.

Retail trends and drivers

Overall retail turnover in NSW has continued to grow. However, retail expenditure as a share of disposable income appears to have stabilised and may be declining, as households save or spend more on services and leisure activities.

In Willoughby this is most likely to have an effect at the margins on the rate of growth of Chatswood given its regional retail role. Willoughby's smaller centres can still be expected to grow provided residential growth in and near these locations is also occurring.

Deregulation (for example of shopping hours) enhances the competitive position of brick and mortar retailers relative to online traders. The working population especially benefits from wider opening hours and is also a group that is comfortable with online shopping. Of Willoughby's retail centres Chatswood, with its fashion offerings and wider product range, is likely to be most affected by on-line shopping, though the biggest impact from this trend may have already been absorbed. Chatswood has already adapted to a significant degree, with wider opening hours and a lively dining scene and after-hours activity, boosted by residential growth and investment in cultural and social facilities by Council.

The smaller centres face greater challenges for re-invention based on extended opening hours because this approach may not be viable for family run or small businesses. Facilitating additional residential and mixed use renewal in these centres may add to activation. The availability of food retailing (especially fresh food and delicatessens), eat streets in centres and walkability within centres, will also be increasingly important to strengthen the role and performance of the smaller retail centres located throughout the LGA.

Economic profile

In 2011, health, professional services and retail were the three largest industries of employment in Willoughby. Health has also been the strongest industry of growth in terms of total jobs and proportionate growth from 1996 to 2011.

On the other hand, financial services, public administration and wholesale employment declined at a much stronger rate in Willoughby LGA compared to the inner north and north subregions.

Employment within the health industry is projected to grow strongly, with growth also projected in professional services and information and media, and this is generally reflective of wider trends in the

inner north and north subregions of Sydney. However, some of the expected growth in the health sector may be redirected to the proposed Northern Beaches Hospital at Frenchs Forest¹.

The job to resident ratio is high in Willoughby LGA, however it has been declining over the past 15 years meaning that population growth is outstripping jobs growth.

Compared to the north subregion, Willoughby has achieved significant specialisation in health care and construction² with high growth and high specialisation. Compared to the Sydney metropolitan area, Willoughby has significant economic specialisation in health care, education and construction with high growth and high specialisation.

At a fine grain level, Willoughby has a high degree of specialisation in a range of industries including hospitals, television and broadcasting, clothing retail and magazine publishing, non-residential building, road and bridge construction. However, the specialisation seen in some of these industries has been influenced by the presence of one or two major employers and therefore may be vulnerable to the possible relocation of these firms (e.g. SBS, Lend Lease and potentially Channel Nine).

Willoughby LGA has a comparative advantage in construction and only a marginal comparative / competitive advantage for rental and real estate

Travel patterns

Education³, shopping and social trips are relatively self-contained within the Willoughby LGA, with only a small proportion of residents leaving Willoughby LGA for the purpose of education.

Strategic centres

Chatswood

Chatswood is identified as a strategic centre in *A Plan for Growing Sydney*. The centre has a dual role as a commercial and retail centre, with most of the office floorspace concentrated between the Pacific Highway and the rail line, with the retail floorspace concentrated to the east of the rail line. Not surprisingly, given this floorspace profile, retail and professional services are the two major industries of employment within the Chatswood strategic centre.

Chatswood is accessible to residents on the north shore, particularly those along the railway corridor. This is reflected in journey to work patterns with a significant proportion (over 50 percent) of workers residing in the local area (being the north shore of Sydney). The Sydney Metro⁴ will further enhance the public transport accessibility of the centre from both the north west of Sydney and city and south west. It is expected that bus services will be restructured to suit the high capacity and frequent service offered by the Metro by increasing feeder services.

¹ The current BTS employment projections shows that the health sector in Willoughby LGA will experience a higher job growth from 2011-2041 than Warringah LGA. This implies that the BTS forecasts for Warringah LGA may not have taken into account the health jobs at the proposed Northern Beaches Hospital.

² Construction includes businesses mainly engaged in the construction of buildings and other structures, additions, alterations, reconstruction, installation, and maintenance and repairs of buildings and other structures. Construction contractors like Leighton's would most likely to fall within the professional service category, which is supported by the JTW data by industry.

³ Education includes trips by students to attend educational institutions - kindergarten, primary and secondary school, technical college or universities

⁴ The Sydney Metro Northwest (formerly known as North West Rail Link), is a metro rail line which is currently under construction between Rouse Hill and Chatswood and is expected to open in the first-half of 2019. The Sydney Metro City & Southwest will extend metro rail between Chatswood and Bankstown, including a new crossing under Sydney Harbour, new railway stations along the lower North Shore and in the Sydney CBD, and the upgrade and conversion of the current line between Sydenham and Bankstown.

A comparative advantage for Chatswood as a commercial centre is its competitive rents when compared to North Sydney and the Sydney CBD. However commercial rents are significantly higher in Chatswood compared to other metropolitan office markets such as Macquarie Park.

Tenants are primarily looking for large floorplates of at least 1000 square metres (sqm) which are located within walking distance of Chatswood railway station. Transport accessibility and general amenity is a strong attractor for the Chatswood commercial market. Rents are projected to rise particularly due to low vacancy rates (11%) and the constrained availability of sites for commercial floorspace. There is general consensus from property market stakeholders that sites for commercial or employment only development should be retained and protected from conversion to mixed use which includes residential.

New commercial and office development along the north shore is concentrated in North Sydney and North Ryde and these centres remain strong competitors for Chatswood.

Chatswood is considered to be a major retail centre servicing the growing population within the centre itself and the north shore of Sydney. Westfield and Chatswood Chase are the owners of the two major enclosed shopping centres. Demand is strong for retail space (particularly for restaurants and other food services) along Victoria Avenue which is partly pedestrianised and provides the main connection to the railway station, whilst retail outside of this area and the enclosed centres struggles to compete with the main street.

Traffic congestion, temporary retail (e.g. the Victoria Street markets) and slow DA processing have been identified by real estate agents as challenges for the retail businesses.

The rail line also establishes a barrier of access to the retail core of Chatswood from the Pacific Highway, given limited road underpasses. The existing traffic conditions are poor during peak periods, including:

- weekend congestion due to shopping,
- weekday AM and PM peak traffic delays, mainly due to the heavy traffic volumes on the Pacific Highway, and
- Victoria Avenue congestion as the key east west route which terminates at Anderson Street (and becomes a pedestrian mall in the approach to the station).

SGS has forecast future demand for an additional 191,000 sqm of employment floorspace within Chatswood by 2041. Whilst Chatswood is estimated to have capacity to meet this demand based on existing vacancies and under the current controls, if employment were to grow much beyond this forecast – or commercial sites are converted for residential uses - additional capacity will be required to accommodate growth.

St Leonards

St Leonards is a strategic centre which contains both commercial uses and a significant health and education precinct. However, the commercial market in St Leonards is suffering and being outperformed by nearby commercial centres such as North Sydney, Macquarie Park and Chatswood, demonstrated through a higher vacancy rate (at around 14%).

The portion of St Leonards located in Willoughby LGA (the centre is divided between the Lane Cove and North Sydney Councils) contains primarily pure office floorspace which accommodates professional services and other service based industries of employment. This is reflective of its commercial core zoning.

Based on forecasts by SGS, there is projected to be demand for an additional 24,000 sqm of employment floorspace within St Leonards (Willoughby LGA only). With limited capacity available, there is a need to consider the overall floorspace demand and capacity across the entire centre to better understand constraints and opportunities for growth.

Other centres

Macquarie Park

Macquarie Park is a strategic centre which contains a range of industries of employment including commercial and industrial, as well as health and education.

Macquarie Park is accessible to residents in the northern suburbs and north shore, particularly locations along the railway line. However it remains a car dominated centre, with 71% of journeys to work via car.

Macquarie Park is a significant competitor for Chatswood as a commercial centre, and St Leonards, and has been performing strongly. However, the area suffers from issues with a lack of pedestrian amenity and low walkability.

Macquarie Centre at Macquarie Park is also a strong retail competitor for Chatswood.

There is potential for Macquarie Park to draw employment away from Chatswood, particularly if rents continue to remain cheaper and amenity improves within Macquarie Park.

North Sydney

North Sydney is included as part of Global Sydney (which includes the Sydney CBD) in *A Plan for Growing Sydney* and contains significant employment in professional services.

North Sydney is a very accessible centre in Sydney, particularly via public transport. This accessibility is reflected in journey to work patterns with the majority of workers travelling via public transport.

The accessibility of North Sydney and its proximity to the city are key advantages for the centre which might draw employment away from Chatswood, however rents are likely to remain higher in North Sydney compared to Chatswood, and this remains an advantage for Chatswood.

Directions

The following directions have been identified for the two strategic centres in Willoughby LGA.

Chatswood

Protect commercial core and maintain employment potential

- Underlying future projected employment growth (and the high level 'net community benefit' evaluation of different employment scenarios) suggests that the commercial core zoning in Chatswood should be protected, with no future rezoning of commercial core sites to mixed use dominated by residential.
- If residential is entertained on commercial core sites it should be used to underpin office development in genuine mixed use developments. For example, on any particular site an office component equivalent to the floorspace allowed in the current controls should be required before residential is permitted (in a vertically or horizontally separated built form).

Enhance amenity and activation in fringe, lesser performing retail precincts

- Retail is performing strongly, though traffic congestion and movement within the centre during peak periods is identified as an issue. There are some 'lesser performing' fringe areas (east end of Victoria Ave for example) and activation in these precincts from changes to development controls (to allow select mixed use for example in fine grain areas) or specific precinct interventions and public domain planning may be worth considering.

Reduce Chatswood pressures and congestion by facilitating mixed use elsewhere and constraining traffic growth

- Chatswood carries a ‘burden’ of development given its multiple roles. This pressure could be eased in relation to retail and residential development at least, if other centres in Willoughby were developed or expanded for these uses (see directions for other retail centres). This might ease the pressure for conversion to residential and mixed use of commercial core sites in particular.
- While expected retail and employment growth and potential mixed use developments will place more pressure on traffic congestion, it is recommended to maintain (but not increase) the existing capacity on roads providing access to the centre. Instead, travel demand should be managed through a suite of measures, including land use planning, parking management policies and maintaining road capacity.
- With increased public transport access and a greater use of active transport modes, parking provision should be reduced over time to relieve traffic congestion in the peak periods. Innovative parking policies, such as shared parking between retail, office and residential uses (monitored by time of day for peak utilisation) and unbundling parking and offering as a rental option (meaning that stand alone car parks are developed separately from other developments based on cash contributions and available for rent by residents or office based businesses), should also be promoted. While restricting parking may put the centre at a disadvantage compared to say Macquarie Park the centre should be promoting its amenity and public transport offer as a comparative advantage.

St Leonards

Resolve the future role of St Leonards with Lane Cove and North Sydney councils and the Department of Planning and Environment

- *A Plan for Growing Sydney* suggests a direction to retain a commercial core in St Leonards for long-term employment growth, however the role of the centre needs to be further clarified due to a number of factors including the lack of a specialised centre category within the new metropolitan strategy, fragmentation of the centre across three different council areas, apparently modest current demand for pure office development in this location and pressures for rezoning to other non-employment uses.
- Redevelopment prospects are constrained because of strata title holdings and a lack of future prospects to underpin financing. It may be that prospects for a major employment revival of St Leonards are slipping. In this case a strategy that allows for higher density residential development with ground floor activation could be pursued. The aim would be to create a high quality but mixed residential environment with, for example, restricted car parking to encourage use of the available high quality public transport and given the strength of employment nearby at the RNSH, in the Artarmon industrial area and in Crows Nest (in the North Sydney LGA).
- As part of the subregional planning process, it is suggested that a review of St Leonards Centre as a whole should be completed jointly by Willoughby Council and Lane Cove and North Sydney councils. In addition to the directions set out above, this review needs to consider the concept plan prepared for the RNSH site as part of a Part3A application, which proposes development for high rise office, housing, retail and adaptive reuse of heritage items.

Retail centres

Aside from Chatswood and St Leonards, there are 15 retail centres in Willoughby LGA including one village centre, five small village centres, six neighbourhood centres and a number of other smaller retail centres.

There is over 200,000 sqm of floorspace across these 15 centres, with only around 10,000 sqm (5%) vacant at the time of the floorspace audit. A different approach to calculating capacity for growth has been adopted compared to that for Chatswood and St Leonards but the analysis found that many of the centres are constrained to accommodate future retail floorspace given forecast demand.

Across the LGA there is considered to be a gap in the provision of supermarket floorspace with sufficient demand apparent for, most likely, two supermarkets in future. There is demand for 5,500 sqm of additional floorspace for food/groceries to 2031. This demand for food and groceries floorspace would typically be met by supermarkets, and suggests there is scope for perhaps two major supermarkets in future (if not more given what might be unmet existing demand).

It should be noted that Chatswood contains four of the seven supermarkets located within the LGA (Coles and Aldi in Westfield, Coles in Chatswood Chase and Woolworths at the railway station). This represents a concentration of one type of retailing activity and highlights how the centre serves local and convenience roles alongside its subregional and higher order retailing role. Facilitating local retailing (and associated residential development) outside Chatswood, in other centres in the LGA, could partially address the growing congestion in Chatswood while also reducing the competition for sites between uses in the centre.

The retail analysis also found that there is demand to 2031 for around 33,000 sqm bulky good retail floorspace. One major additional hardware store, or two or three bulky goods retailers in a cluster, would be equivalent to around 33,000 sqm. There is capacity for bulky goods of this scale within the zoned precincts in both Artarmon and East Chatswood, and for some of these retailers in the enclosed centres and appropriate fringe sites within Chatswood.

Consultation with agents also highlighted that similar issues are experienced across all centres, in particular difficulties with access and an apparent lack of car parking. The results of the business survey (home, industrial and local) conducted by Willoughby City Council highlighted that for businesses located within the LGA, parking is a major constraint or issue, and confirms that generally accessibility and access to services and infrastructure such as the National Broadband Network (NBN) are also considered to be key issues.

Directions

Provide new opportunities for retail and employment floorspace in the smaller retail centres

- The basic aims for retailing in Willoughby should be to:
 - De-concentrate retailing which is currently overly focussed on Chatswood, which contributes to congestion and competition for well-located sites in the centre
 - meet generally increasing demand for retail floorspace in new or existing centres (outside Chatswood).
- The detailed demand and capacity analysis highlights that a review of controls to make provision for new employment floorspace is warranted for the Village and Small Village centres of Northbridge, Artarmon, Castlecrag, Victoria Ave/ Penshurst St, Penshurst St/Mowbray Rd. The review should consider four basic options for change.
 1. Ensure employment floorspace within current FSR envelope.
 2. Increase overall FSR and quarantine a share for employment.
 3. Expand footprint and quarantine a share for employment.
 4. Establish new or expand existing centres (particularly where options 1, 2 and 3 are not possible in any centre where employment floorspace is required).

- The aim would be to set the controls to encourage development that will create additional or more efficient retail and employment floorspace. Options 2 and 3 (and perhaps 4) are most likely to be favoured because this will create the incentives for redevelopment that will provide the required new retail and employment floorspace.
- Car parking innovations (including using Council's at grade car parks creatively) and built form control reforms will inevitably need to be part of facilitating appropriate development outcomes. The neighbourhood centres may also provide opportunities for 'overflow' or revitalisation and should not be excluded from the review (in particular High Street, Denawen Ave, Castle Cove, Cnr Boundary and Penshurst, Northbridge East).

Provide for additional food, grocery and supermarket floorspace to meet existing and future demand

- Sites adjacent to all of the Willoughby retail centres sites should be reviewed for their potential for retail and in particular as supermarket sites, with above ground residential if necessary to encourage development. If large single ownership sites are not in evidence then multiple single house sites may be appropriate to be incorporated into adjacent centres if they have appropriate characteristics. Developers may seek to aggregate such sites. Desirable site characteristics might include:
 - aggregate area of say 1 to 2 hectares, to provide for retail building and parking
 - potential for integration with existing centre to strengthen the 'main street' component
 - main road access and exposure
 - potential to be served by existing or future public transport
 - potential to minimise conflicts with surrounding land uses including residential.

Undertake further analysis to develop pursue the above recommended directions

- Further study and analysis would be required to advance the above agenda, including refining the scope of a study brief based on the directions outlined.

Industrial precincts

Artarmon

There is strong demand for industrial properties in Willoughby LGA, particularly within the Artarmon industrial precinct. This is reflected by typically high net face rents, though this is also driven by a somewhat constrained supply.

The Artarmon industrial precinct is strategically significant given its location, including proximity to the St Leonards strategic centre, the Royal North Shore Hospital and superior arterial road and rail access. It is one of the few relatively unconstrained and intact areas of industrial land within the subregion. The precinct contains a wide variety of industries of employment and has experienced growth in a number of these industries. There is projected to be 131,000 sqm of additional floorspace demand within the Artarmon industrial precinct. Based on existing vacancies and development potential, capacity is estimated to be 134,000 sqm, which is just enough to accommodate demand. Any loss of industrial land for other uses such as residential or bulky goods (outside the already designated precinct) should be resisted.

East Chatswood

The East Chatswood industrial precinct contains a cluster of integrated office/warehouse uses including wholesale and retail employment. These are both industries which have experienced growth in employment between 2006 and 2011. East Chatswood is situated in a more remote location compared to the Artarmon industrial area and access, and topography to some extent, are issues. Whilst smaller than the Artarmon industrial precinct, East Chatswood remains a significant industrial precinct within the local area and subregion.

Whilst the East Chatswood precinct experienced some declines in employment between 2006 and 2011, there is expected to be demand for an additional 42,000 sqm of floorspace within the precinct by 2041. Existing capacity is estimated to be around 51,000 sqm which suggests that there would be 9,000 sqm of floorspace capacity after meeting the demand to 2041.

The scenario testing and net community benefit (NCB) analysis highlighted that where East Chatswood loses industrial employment compared to the base case (associated with the displaced jobs relocating to western Sydney, the northern beaches and Lane Cove industrial) there is a minor though negligible community 'cost'. This is a much smaller cost compared to losing employment in Chatswood (strategic centre).

A supermarket has been proposed in the East Chatswood area and this has the potential to bring unmanaged consequences including additional retail development, thereby eroding industrial land, as well as traffic congestion in an area with poor public transport and poor connections to East Chatswood.

Lane Cove West

The portion of the Lane Cove West industrial precinct which is located in Willoughby LGA contains a cluster of heavy industry and manufacturing land uses which accommodate manufacturing and wholesale employment. There is forecast to be demand for an additional 2,200 sqm of floorspace within the Lane Cove West (Willoughby LGA) industrial precinct by 2041. Existing capacity is estimated to be around 17,000 sqm which is well above the forecast demand, however demand and capacity should be considered in the broader context of the entire precinct to better understand constraints and opportunities for growth.

Consultation with Lane Cove Council revealed that it has a strong position on retaining the Lane Cove West industrial precinct as employment lands. Council is looking at increasing the maximum height or floorspace controls for specific strategically located sites which are accessible and can accommodate an increase in density. The precinct is below capacity under current controls as a whole, however the focus is on trying to identify sites where there is potential. Lane Cove West may have some theoretical capacity if floor space ratios (FSRs) are increased.

Overall, Artarmon is constrained to accommodate growth while East Chatswood has a modest surplus of capacity given projected growth. Artarmon is also of strategic significance, while East Chatswood has an important though more locally focussed role. Council may need to look at increasing capacity in Artarmon in particular to accommodate future industrial demand.

Transport accessibility

All three industrial precincts are not well serviced by public transport. The Artarmon Loop shuttle bus run by Council recognises this fact.

The Artarmon and East Chatswood precincts will need improved bus services if sustainable growth in industrial employment is to be achieved.

Directions

The following directions have been identified for the industrial precincts.

Artarmon

Protect existing and investigate potential to increase employment capacity

- The Artarmon industrial or employment lands precinct is identified as strategically important, with significant capacity constraints given future project floorspace demand. It is therefore important that Willoughby Council retain the existing industrial zonings and protect it from rezoning to non-employment uses, though it is expected there may be an increasing business ‘flavour’ to some of the uses on some sites (particularly the larger and less constrained sites in the southern portion of the area).
- Council should investigate the potential to increase development potential within the precinct to accommodate additional demand for employment floorspace to 2041 – recognising that there are limitations on the extent to which increases in FSR, for example, will facilitate additional industrial or business development in a precinct like Artarmon, where required building typologies may not be more than 2 or 3 storeys.
- Reinforce and strengthen existing internal public transport services.

East Chatswood

Protect existing employment capacity

- It is important that the industrial zoning be retained, while continuing to allow for modified and mixed business formats through a flexible planning approach.

Consider and plan for future evolution associated with a possible supermarket development

- While rightly opposing a supermarket which has been proposed in the East Chatswood area, given the potential impacts and unmanaged consequences, Council should contemplate what it would mean for the future of the precinct if approved (by the state government). Any evolution to a more complex employment area should be based on a planned approach which might include a small complex of supporting retail and enterprise activities, and potentially even key worker or integrated ‘work-live’ residential development. The demarcation with the existing industrial uses would need to be strongly drawn to minimise land use conflicts and protect its continued function as an enterprise employment area. At the moment, East Chatswood is not well serviced by feeder buses. Better transport connections to Chatswood and beyond would be necessary to support any intensification of activity.

Lane Cove West

Protect and expand employment capacity and work with Lane Cove Council across the precinct

- Willoughby Council should retain the existing zoning for the Lane Cove West industrial precinct and work with Lane Cove Council to ensure there is enough capacity across the industrial precinct to accommodate future demand for employment floorspace.

1 INTRODUCTION

1.1 Background

The commercial and industrial precincts of Willoughby are the key employment concentrations in the local government area (LGA). They provide regional and local services and are centres of cultural and community activity. With these two core functions of employment and community in mind, Willoughby City Council commissioned this study to review the factors affecting the future growth and economic sustainability of its employment hubs. More specifically, the purpose of this review is to ensure Council's economic development policies and land use planning provisions:

- support the retention of existing employment and services in the City
- assist in the achievement of the growth targets identified for the City in the draft Metropolitan Strategy for Sydney to 2031
- cater for global and local trends as well as the land use requirements of modern businesses and the expectations of customers.

Council was also seeking to understand what measures might be taken within Council's control to facilitate the economic growth and sustainability of the precincts. According to the Willoughby City Strategy 2013 – 2029, the goal of sustainable business activity is “To maintain and promote the City's employment opportunities and the range and quality of businesses, industry and services”.

Since the brief was drafted and the study commenced, the NSW Government has issued a final metropolitan strategy called *A Plan for Growing Sydney* (Department of Planning and Environment, 2014). The report makes reference to this strategy rather than the draft. The final strategy does not nominate employment targets for centres (unlike the draft Metropolitan Strategy).

1.2 Study area

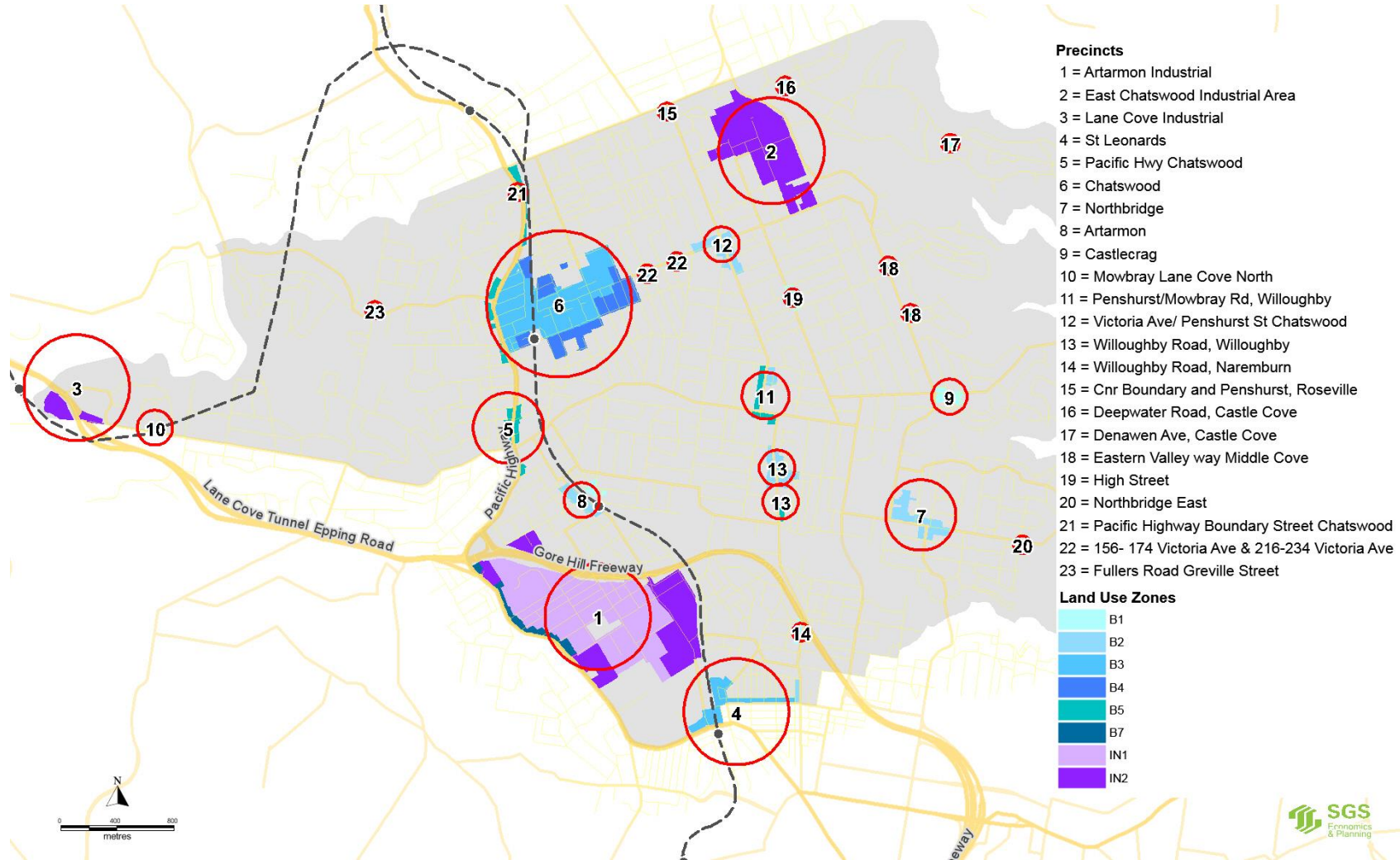
Willoughby LGA is located 8.5 kilometres from the Sydney Central Business District (CBD). The LGA is known mainly for its Chatswood shopping district and transport interchange. Chatswood has been identified as a strategic centre within the 2014 metropolitan strategy for Sydney, *A Plan for Growing Sydney*, and is a major employment district for both retail and commercial jobs along the North Shore.

St Leonards is located across the three LGAs of Willoughby, Lane Cove and North Sydney. It is identified as a strategic centre in *A Plan for Growing Sydney*, however, it was previously designated as a specialised centre because of the scale of office employment, strategic location along rail and bus networks, and health and education assets including the Royal North Shore Hospital precinct and North Sydney TAFE.

The Willoughby LGA also contains a variety of retail centres, ranging from the Northbridge village centre to small village centres such as Naremburn, Willoughby and Castlecrag. Northbridge shops, particularly the Plaza, serve the local area as well as a wider district catchment.

The two major industrial areas of East Chatswood and Artarmon are important employment lands that contain a range of land uses mostly comprising local industry services, utilities/urban services and light manufacturing. The commercial and employment zones in Willoughby LGA are indicated in Figure 1 (overleaf).

FIGURE 1. COMMERCIAL, RETAIL AND EMPLOYMENT ZONES IN WILLOUGHBY LGA



1.3 Scope of the work

SGS Economics and Planning was commissioned by Willoughby City Council to undertake an economic development study. As stated in the study brief, the objectives of the study are to:

- understand factors affecting existing economic activity for the various industry sectors in the City and their catchments,
- understand economic trends for different commercial/ industrial activities and services (including providers and customers) that exist or could exist in the city,
- provide advice to Council on the existing structure of the retail hierarchy, industrial activities, office and business uses of the City. (Key players, clusters, locational drivers, supply chains),
- assess the implications of (benefits and costs) economic growth on traffic, transport, environment and community needs and infrastructure, and
- review planning controls in order to recommend work that Council may facilitate or improve opportunities for economic growth and employment generation.

This report has been informed by a range of tasks undertaken by SGS including:

- A review of existing policies and strategies relevant to each centre
- Analysis of trends and drivers impacting on retail, commercial and industrial land uses
- Economic profiling with a focus on key centres
- Market assessment and demand analysis including incorporation of various scenarios
- Land audit of retail, commercial and industrial centres within Willoughby LGA
- Demand forecasts on employment projections and capacity analysis based on the land audit
- Retail modelling, demand assessment and capacity analysis for retail centres
- Net community benefit test
- Stakeholder consultation
- Identification of key issues and strategies.

1.4 Report structure

This report is structured as follows:

Section 2

Subregional and local context

Identifies the macroeconomic trends and broad policy context impacting on Willoughby's economy. It also provides a profile of the local economy and travel patterns for social, shopping and education trips leaving and entering Willoughby. .

Section 3

Implications of growth paths

Identifies some of the costs and benefits of different employment growth paths, taking a community wide perspective.

Section 4

Strategic centres

Assesses Chatswood and St Leonards, the two strategic centres in Willoughby LGA, looking at their location, strategic nature, employment profile, current market context, floorspace profile and employment and floorspace projections and capacity to accommodate these. It also outlines the industry concentrations

within and current market position of Macquarie Park and North Sydney, which are the major competitors to Willoughby's strategic centres.

Section 5

Retail centres

Identifies the capacity and projected demand for retail and total employment floorspace at all retail centres (except Chatswood and St Leonards) in Willoughby LGA. It also identifies directions relating to the future planning for each of these centres.

Section 6

Industrial precincts

Assesses the three industrial areas in Willoughby LGA in terms of location, strategic nature, employment profile, current market condition and floorspace profile and employment and floorspace projections and capacity to accommodate these. Based on this assessment, preliminary recommendations on strategic land use directions are made.

Section 7

Recommended planning directions

This section outlines the key findings of analysis undertaken in sections 2 to 6 and their implications for strategy development. Recommendations are made in relation to the strategic land use planning, local infrastructure improvement and other actions required to facilitate Willoughby's economic development.

2 SUBREGIONAL AND LOCAL CONTEXT

This section outlines the broad trends, drivers and policy context impacting on the economic activities within Willoughby LGA. This will be followed by a profile of Willoughby's economy in the subregional and metropolitan context and analysis of travel patterns for social, education and shopping trips.

2.1 Macroeconomic trends and drivers

Trends in employment

Growing service economy

The decoupling of the value chain⁵ and movement of production activities across national borders has had a profound impact on the structure of Australia's economy. Australia's economic backbone has transitioned from one built on agriculture and manufacturing to one predominately supplying services. In this transition, competitive advantage has increasingly been gained through specialising in activities higher up the value chain where high levels of innovation and creativity are central.

This movement up the value chain has been most prominent (and indeed profitable) in the advanced business services sector, particularly in the finance and insurance, and professional, scientific and technical service industries. These advanced business services are therefore often dubbed 'knowledge industries' and the backbone of the 'knowledge economy'.

In high value-add sectors, competitive advantage is gained and maintained by offering environments that promote innovation and creativity, and are able to attract a sufficient supply of the highly skilled labour required to enable high productivity firms to flourish. Agglomeration economies often manifest in such environments.

Chatswood (strategic centre) developed as a major commercial hub based on these assets; proximity to skilled labour (professionals, technicians, 'knowledge' workers) and also relative proximity to the dense and diverse employment concentrations in central Sydney.

Agglomeration economies

'Agglomeration economies' is a term used in spatial economics to describe the benefits that flow to firms from locating in areas that have a high density of economic activity. The benefits that arise from locating in a denser economy include:

- **economies of scale and scope:** with a larger customer base firms are able to develop efficiencies through operating at a large scale. This also enables firms to focus the scope of their expertise in a particular field, gaining improved efficiencies through specialisation.
- **deep and diverse pool of clients/employers/employees:** a competitive marketplace presents people and firms with a multitude of potential options. This frees them from

⁵ The value chain refers to the process or activities which contribute to the value of a service or product which a business delivers. These activities can be separated out and conducted by different firms and in different countries (the decoupling).

reliance on a single (or limited) client or employer base, allowing firms to better align their specific skills, again improving productivity.

- **knowledge spillovers:** with multiple firms located together there will be a higher level of technological and knowledge transfers, which will help bolster innovation. This transfer occurs both directly, through stronger supply chain linkages and connections between local firms, and indirectly, when skilled labour moves between firms and transfers knowledge, as well as through incidental exchanges.

These benefits, while experienced by all firms and residents, have particularly benefitted those in the advanced business services sectors, with macroeconomic conditions and Australia's position in the world economy allowing these sectors to be competitive in producing services higher up the global value chain.

Within the Artarmon industrial area and the nearby St Leonards (strategic centre), some of these agglomeration forces are particularly in evidence. Health and media clusters have developed based on value chain linkages within these sectors.

Traditional users of urban industrial zones

As well as increasingly higher value activities, East Chatswood and particularly Artarmon are industrial precincts which also house a raft of essential population servicing industries, including panel beaters, depots requiring an inner city location to service construction sites, distribution centres, utilities provision, and facilities for concrete batching and waste management. The placement of particular industries, firms and facilities (such as Council depots) on the fringe of the CBD is vital to providing essential support services to large population centres. For this reason there will always be a need for some 'industrial' or trade services activities in inner city locations, notwithstanding pressure to convert such areas to residential uses when the market favours this outcome.

Manufacturing's role in the knowledge economy

Manufacturing's decline in Australian cities over the last half century has been well documented, with the process of globalisation and the decoupling of the value chain resulting in many manufacturing processes relocating overseas to lower cost countries. In more recent times, the impact of this macroeconomic restructuring has been compounded by a relatively high Australian dollar and globally soft economic conditions that have reduced aggregate demand (Adonis, 2013). However, manufacturing can still play a relevant role in the economy if, much like other sectors of the economy, production moves up the value chain. This has been demonstrated within a number of other manufacturing nations.

In the global value chain, developing nations (for example China) initially utilise their relatively cheap labour to manufacture less sophisticated, more labour intensive products. Over time, as their manufacturing base expands there is a move towards robotics, intellectual property and other attributes to produce goods and services with a greater degree of sophistication (as witnessed in Germany, Japan and Korea). This specialisation in industries of comparative advantage is impacting all economies and industries, acting as a catalyst for them to evolve from their historical economic configuration into dynamic, adaptive and internationally competitive industries.

While large lot industrial activities will increasingly find homes in western Sydney, some advanced industrial activities will seek inner city locations such as at Artarmon and East Chatswood, for the same reason that advanced business services firms will seek inner city locations; to access agglomeration economies.

Threats and challenges to employment lands

Against the macroeconomic trends driving resurgence in urban manufacturing relative to residential and commercial land users, manufacturers occupy a lower rung on the value-add ladder and do not command the same rent. As such they are at significant risk of displacement from the locations that nurture them, most obviously through rezoning, but also through land speculation associated with possible rezoning and the erosion of industrial zones for non-industrial uses.

These activities bid up rents and erode the productivity of the remaining industrial firms, not because firms become any less efficient, but because of the cost of their inputs (most notably the land upon which they produce) increases at a faster rate than their improvements in internal productivity. Furthermore, without a degree of certainty regarding the long-term zoning of industrial land the owners of such land may have a perverse incentive not to invest in their property in the hope that rezoning will occur in the imminent future.

Incumbent communities sometimes resist this residential growth, however, decisions to re-zone employment land areas for residential purposes should not necessarily be resisted 'across the board'. There are major sustainability and economic productivity gains to be had from having more resident workers close to the pool of jobs available in central Sydney. However, this needs to be sensibly weighed up against any economic role that the employment lands still fulfil. This study is ultimately aiming to better inform some of these decisions and trade-offs.

Implications

While it is clear that Willoughby's major commercial centres and employment lands play a role consistent with some of the economic trends noted above, they remain 'contested' to a greater or lesser degree. With major residential growth pressures, proposals for converting sites to residential or population service uses such as retail continue to emerge.

The strategic economic role of these key precincts needs to be strongly justified in the face of these pressures. Where such a justification does not exist, 'market' based conversions of sites should be entertained where other local and site planning and design objectives can be met.

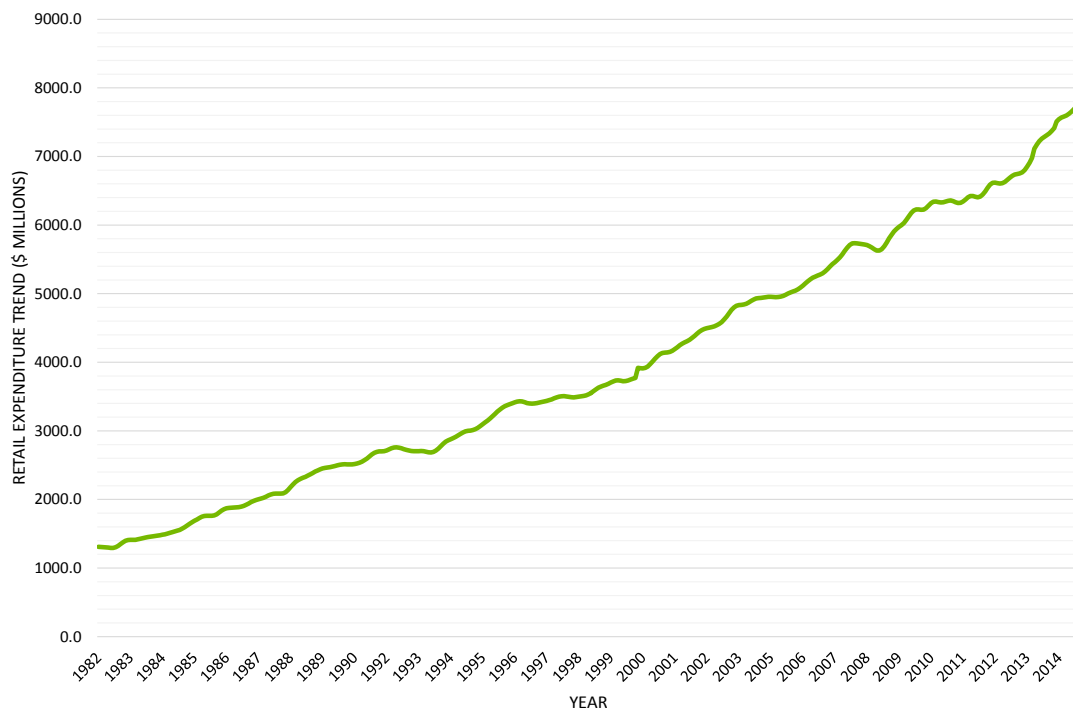
Retail trends and drivers

Retail turnover in NSW

The retail industry remains a significant contributor to the Australian economy contributing, according to the Productivity Commission (PC 2011), 4.1% of gross domestic product (GDP) and 10.7 percent to employment.

Overall retail turnover in NSW has continued to grow (illustrated in Figure 2). The PC, in its report on retailing, noted a weakening of the growth in sales since the global financial crisis (GFC), with consumers reducing the proportion of their income spent on retail goods, as they lift their savings rate and spend more on other items such as finance, health, rent and education.

FIGURE 2. RETAIL TURNOVER NSW, 1982 TO 2014 (IN \$ MLN)

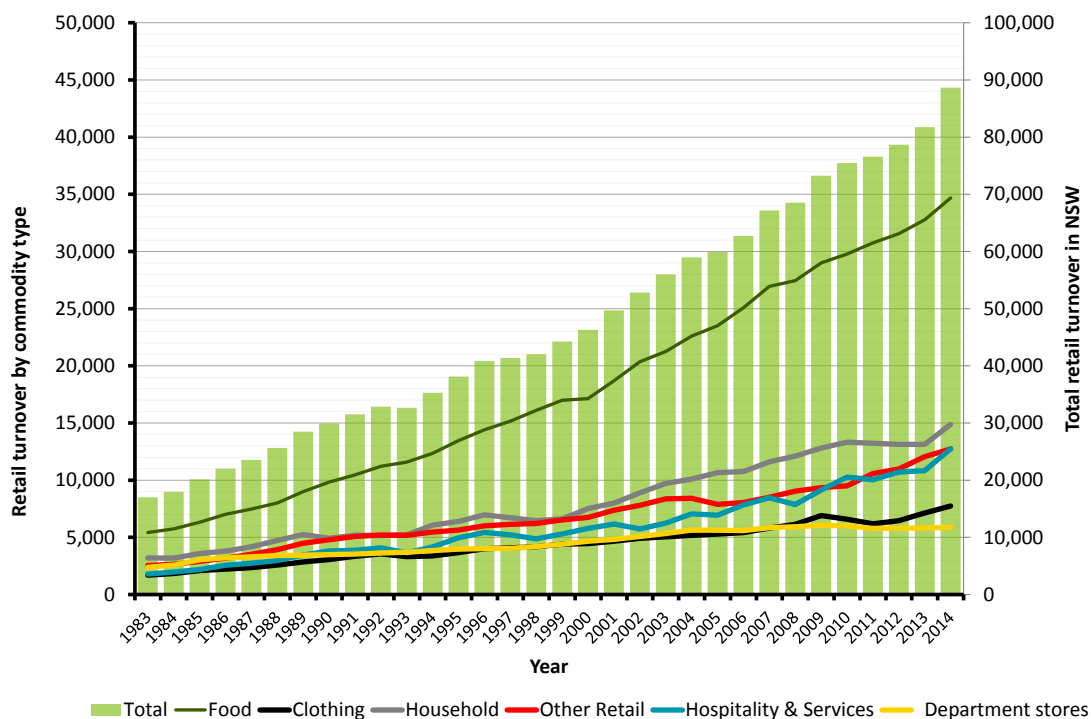


Source: SGS Economics and Planning, 2013 using Australian Bureau of Statistics, 2013 (Catalogue 8501.0 Retail Trade)

It may be that a real expansion in retail expenditure, on the back of rising living standards and a growing population, may not continue. Consumers are currently devoting more of their discretionary expenditure to non-retail items (including services) and to paying off debt. Health expenditure is likely to increase (with an ageing population). Consumers are also 'getting more' for their expenditure, with online retailing expanding options, so sales growth on 'bricks and mortar' retailers may be slower.

However, these trends had different implications on the different retail submarkets. Figure 3 illustrates the growth in retail expenditure on different commodity or store types, highlighting that food retailing has been following the overall retail expenditure trend with clothing, household and department store retailing experiencing much slower growth in comparison. There has been a significant spike in retail expenditure over the past 12 months.

FIGURE 3. RETAIL EXPENDITURE TRENDS BY SUBMARKET TYPE



Source: SGS Economics and Planning, 2015 using Australian Bureau of Statistics, 2015 (Catalogue 8501.0 Retail Trade)

Between 2006 and 2011, employment within the retail sector experienced a modest compound average growth rate of 0.5 percent per annum in both Australia and NSW. This is much lower than total employment growth of two percent, after years of retail employment growing faster than total employment. Interestingly – and perhaps a sign of things to come given the ageing population – the sector of health care and social assistance overtook retail in 2011 (in both Australia and NSW) as the sector with the greatest share of total jobs.⁶

Deregulation of shopping hours

Due to the deregulation of shopping hours retailers now have a wider choice on when to open. A recent report by the PC (2014) states that trading hour regulations restrict the ability of ‘bricks and mortar’ retailers to compete with their online counterparts, and provide the convenience the consumer expects.

Increasing market share of online retail

Online shopping continues to play a more prominent role in the retail industry. Key product groups are books, music, DVDs, clothing, sporting goods, electrical and electronic goods and cosmetics. It has been estimated that over half of the retail industry in Australia could be regarded as trade exposed to (inter)national online retailers, but smaller and non-perishable items are more likely to be purchased online from overseas (PC, 2011).

Online retail sales accounted for about six percent of total retail spending in Australia in 2010 (PC, 2011). This has increased to seven percent by 2013 according the Australian and New Zealand Online Shopping Market (PricewaterhouseCoopers and Frost & Sullivan 2012). This compares to five to eight percent in the UK and nine to 11 percent in the US. Growth rates in spending for online shopping (over 10 percent) outpace ‘bricks and mortar’ retail (generally below 5 percent). A continued growth of online sales is expected to be 9.8 percent by 2017 (PricewaterhouseCoopers and Frost & Sullivan 2012).

⁶ Based on 2006 and 2011 Census data.

A key trend in retail is the integration of the online with the physical retail experience ('click and brick retailing'). The bricks and mortar retail industry is responding to the increased competition by adopting online and advanced technologies and by improving the overall shopping experience. Convenient location and good accessibility (parking and public transport) will become even more important for retailers.

Planning and zoning regulations

The cost of doing business is for retail largely determined by geography, markets and commercial decisions. Some costs are heavily influenced by government regulation such as trading hours, the supply of retail space, workplace relations, transportation and delivery of goods, utility charges and liquor licensing. The PC has argued that one of the major regulatory constraints involves planning and zoning regulations that are complex, excessively prescriptive, and often anticompetitive (PC, 2014).

The PC recommends reforms to planning and zoning systems to support the development of competitive markets for retail space:

- broadening and simplifying business zoning to remove the need for ad hoc changes to council plans to accommodate each variation in business model
- removing consideration of the commercial impact on existing business when assessing development applications.

Land use regulation that centralises retail activity can be either competition-enhancing or competition-reducing, depending on how it is designed and implemented by the relevant planning authorities. Potential net benefits from comprehensively reforming planning and zoning in NSW ranged between \$569 million and \$1,482 million per year, depending on the reform option considered according to analysis by CIE (The Centre for International Economics 2013).

The great deficiency in many of these critiques of planning in relation to retail economies is that they do not take sufficient account of the community benefits deriving from existing planning controls, including maintaining an appropriate centres-focused planning approach to provide for multi-purpose trips and positive agglomeration economies. For example, it is not surprising that the best available comparison shows that Sydney, with its history of centres policy, has an average retail trip length of six kilometres, while in the US where retail planning is more laissez faire, the average retail trip length is ten kilometres (Fensham 2008).

Demand for out of centre retailing premises, particularly bulky goods

From a strategic land use planning perspective, bulky goods retail should be located in or adjacent to centres to support the existing retail hierarchy and minimise trip generation. This adds to customer choice and can improve the 'pulling power' of these businesses. As such, having defined bulky goods precincts benefits both businesses and customers.

The delivery of stock and the collection of bulky goods by customers require sites with good road access. Main road locations provide both access and exposure. Sites with exposure to high traffic volumes are desired by bulky goods retailers because they enable business promotion. Locations on major arterial roads are preferred.

In some locations across Sydney, bulky goods retailing is moving into industrial areas. This allows bulky goods developers to offer cheaper rents and yet achieve high end yields (PC, 2011). The significant difference between the net rental ranges for bulky goods centres compared to major retail centres is highlighted in Figure 4.

FIGURE 4. AUSTRALIAN RETAIL MARKET INDICATORS

Retail Indicator	CBD Retail	Regional Shopping Centres	Sub-Regional Shopping Centres	Neighbourhood Shopping Centres	Bulky Goods Centres
No. of Centres	123	125	249	919	112
Total Stock (sqm)	1,048,259	7,241,217	4,318,819	4,012,305	2,014,891
Average Size (sqm)	8,552	57,929	17,345	4,366	17,990
5-year Supply (sqm)	78,000	572,000	338,000	442,000	1,170,000
Net Rental Range (/sqm)	\$2,750 - \$9,000	\$950 - \$2,250	\$550 - \$1,150	\$250 - \$850	\$125 - \$450
Occupancy Cost Ratio	21.40%	17.90%	13.70%	11.50%	n/a
Average Vacancy Rate	2.30%	1.20%	2.90%	4.40%	7.50%
Prime Yields	5.25% - 8.50%	5.25% - 6.50%	7.00% - 7.75%	7.25% - 8.00%	8.50% - 9.50%
Secondary Yields	n/a	6.50% - 7.50%	7.75% - 10.00%	8.00% - 12.00%	9.50% - 12.00%

Source: Colliers, 2013

Bulky goods retailing within industrial precincts can nevertheless place upwards pressure on land values, potentially forcing industrial land uses to relocate to cheaper areas. This may reduce efficiencies and positive externalities if it affects industrial land users that prefer to be co-located with similar businesses or suppliers and clients (Just-in-Time production processes), or maintain a sense of 'address' in current locations. Further, increased traffic volumes stemming from bulky goods retail customers might affect access to and from industrial operations in the same area. The location of retailers in out of centre locations also has the potential to undermine nearby centres.

The supply of bulky goods retailing has grown significantly in recent years (2012 and 2013) (JLL 2014), and proper planning conditions remain an important means to support sustainable development patterns of the retail hierarchy.

Increase diversification and standalone centres

Regional shopping centres, such as Chatswood Chase and Westfield Chatswood, and super-regional centres (more than 85,000 sqm of retail floorspace) are becoming more diversified and increasingly offer entertainment functions, numerous full-line supermarkets and discount department stores.

Investment in retail investment stock has regained strength after the GFC, especially in refurbishments and extensions in the regional, sub-regional and neighbourhood centres. Having the highest standard of retail offering has become increasingly important in this competitive environment (JLL 2014).

Development of larger supermarkets

There is a continuing trend of growth in the average size of supermarket floor sizes, extension of their trading hours and increase of their market share in the food and beverage segments. Online groceries retailing is expanding. The weekly shopping peak is shifting from Saturday to Sunday, and instead of one weekly trip to the supermarket, households increasingly shop three to four times per week in supermarkets. Australians spend just 34 per cent of their weekly food budget on their primary shopping day (news.com.au, 2013).

Changing profile of DDS

The discount department store sector has experienced stable or declining spending in recent years. Spending is diverted to both super discounters (price killers) and premium specialist suppliers, a phenomenon some analysts describe as the 'hourglass effect' (The Australian, 2014).

Convenience shopping

Convenience stores experience increasing competition from supermarkets. Falling consumer sentiment, fluctuating income growth and continued competition from small-format grocery stores and supermarkets have posed challenges for industry operators. Industry sales are expected to fall by an annualised 3.4 percent over the five years through 2014-15 (IBIS, 2014).

One of the responses of the sector is to move towards 'fresh food', fresh fruit and vegetables, delicatessen items, flowers, bulk foods and continental grocery items. Another innovation is the use of online shopping through online shopping platforms offering 'click and collect' services which allows shoppers to simply pick-up their order at a convenient time.

Convenience shopping needs good accessibility at the local level. Walkable and well accessible locations are important factors for convenience retail. The role of local shopping centres will move more towards fresh food, cafes and 'eat streets'. This is particularly relevant to Willoughby LGA which contains a range of local retail centres which service convenience shopping needs.

Implications

There is potential for retail expenditure as share of disposable income to stabilise or drop. This may affect the retail centres in Willoughby LGA, though with continued growth in population and in food and grocery and 'restaurant' sectors the retail expenditure pool is expected to continue to increase overall in the LGA.

Deregulation (of shopping hours for example) enhances the competitive position of brick and mortar retailers relative to online traders. This may therefore be a relatively important positive change for traders in Willoughby. The working population especially benefits from wider opening hours and this is also a group that is comfortable with online shopping.

Planning and zoning regulations were identified by the PC as a factor that adds to the cost of doing business. It is important to establish the perceived and real complexity of planning regulations in the Willoughby context, in particular recognising the benefits that effective planning can deliver.

Another aspect that needs to be considered as part of this study includes the uptake of industrial land by bulky goods retailing, as this may adversely impact on the existing retail hierarchy in Willoughby. A cluster in an appropriate location rather than a dispersed approach is desirable.

The availability of food retailing (especially fresh food and delicatessen) and eat streets in centres and the walkability within centres is increasingly important to strengthen the role and performance of retail precincts, particularly the smaller centres located throughout the LGA.

Of Willoughby's retail centres Chatswood, with its fashion offerings and wider product range, is likely to be most affected by on-line shopping, though the biggest impact from this trend may have already been absorbed. Chatswood has already adapted to a significant degree, with wider opening hours and a lively dining scene and after-hours activity, boosted by residential growth and investment in cultural and social facilities by Council.

The smaller centres face greater challenges for re-invention based on extended opening hours because this approach may not be viable for family run or small businesses. Facilitating additional residential and mixed use renewal in these centres may add to activation.

2.2 Strategic context

Strategic centres

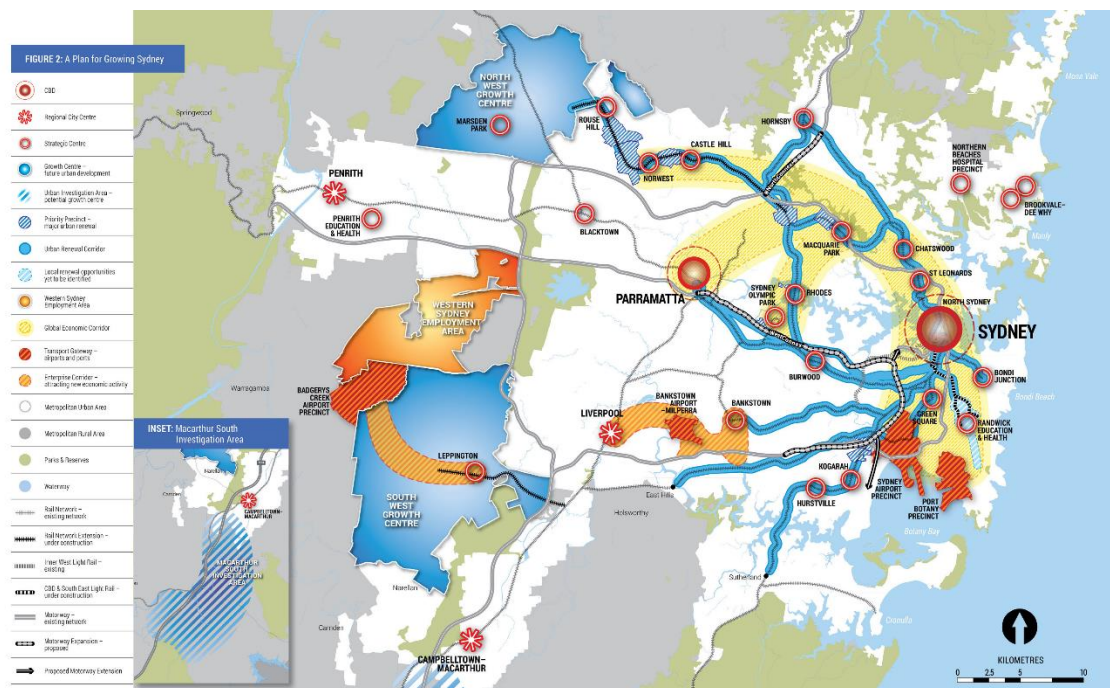
Willoughby LGA is located in a strategic position in the context of the Sydney metropolitan area, falling within the Global Economic Corridor and containing two significant strategic centres - Chatswood and St Leonards.

Willoughby LGA is located within the Global Economic Corridor, which is identified by the Department of Planning and Environment (DP&E) as the powerhouse of Australia's economy. The corridor contains a concentration of jobs and activities in strategic centres, transport gateways and industrial lands extending from Port Botany and Sydney Airport, through Global Sydney, Chatswood to Parramatta and Norwest.

Under the current metropolitan strategy for Sydney, *A Plan for Growing Sydney*, Chatswood and St Leonards are identified as strategic centres. Strategic centres are locations that currently or are planned to have at least 10,000 jobs. These are considered to be the priority locations for employment, retail, housing, services and mixed-uses.

Chatswood centre is wholly located in Willoughby LGA, however St Leonards is split between the Willoughby, Lane Cove and North Sydney LGAs.

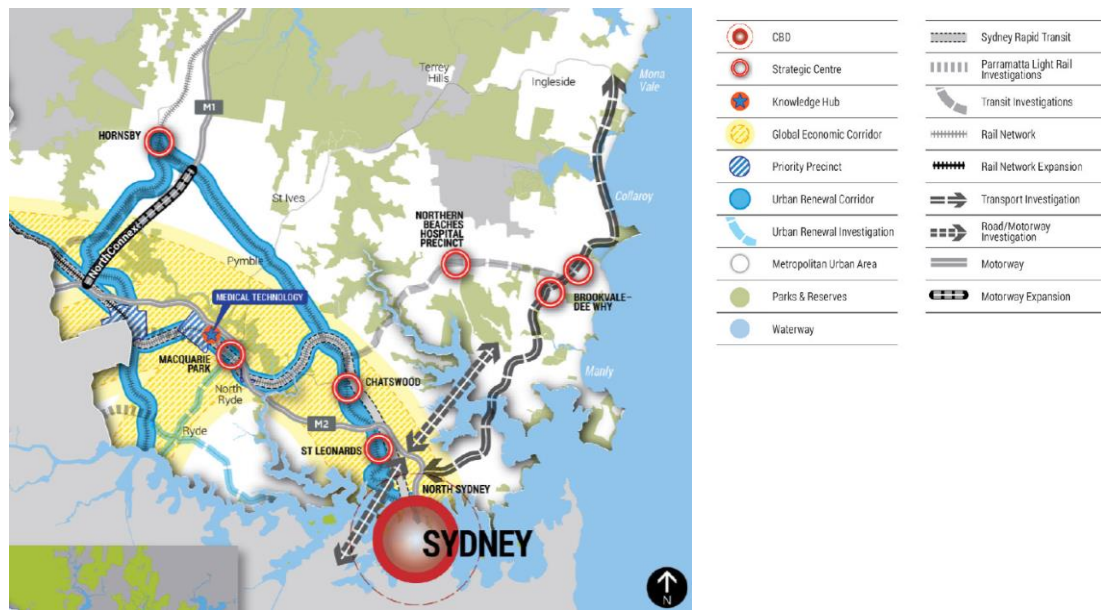
FIGURE 5. A PLAN FOR GROWING SYDNEY MAP



Source: Department of Planning and Environment, 2014

Willoughby LGA is located in the north subregion. The north subregion also includes North Sydney, which is part of global Sydney, and a number of strategic centres; including Macquarie Park/North Ryde, Northern Beaches Hospital Precinct, Brookvale-Dee Why and Hornsby (refer to Figure 6).

FIGURE 6. NORTH SUBREGION



Source: Department of Planning and Environment, 2014

Employment lands

Willoughby LGA contains a significant amount of strategic industrial land, particularly in the context of the surrounding inner north LGAs.

Willoughby LGA contains 91 hectares of industrial zoned land. There are two major employment lands precincts within the LGA:

- East Chatswood: which contains mostly local industry land uses (26 hectares)
- Artarmon: which contains a range of uses including utilities/urban services, local industry and manufacturing light (63 hectares).

A small portion of the Lane Cove West industrial precinct is located in Willoughby LGA. In the context of the inner north subregion, Artarmon is the largest industrial precinct (refer to Figure 7), followed by Lane Cove West.

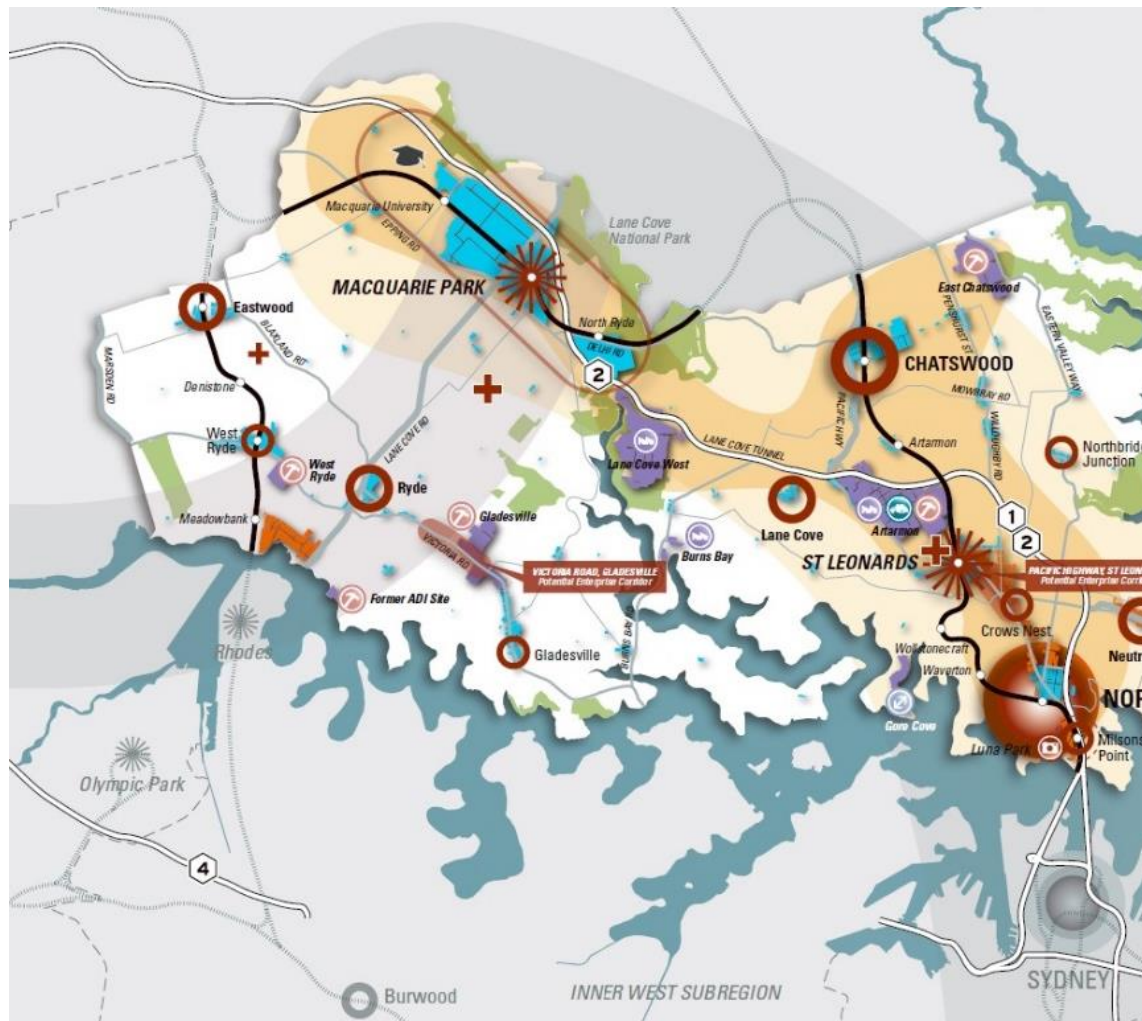
The Artarmon industrial precinct comprises 35 percent of total employment lands within the inner north subregion and 12 percent of total employment lands across the North subregion (refer to Table 1). East Chatswood represents 14 percent of employment lands in the inner north and 5 percent of employment lands in the North subregion.

TABLE 1. EMPLOYMENT LANDS COMPARISON

	hectares	% inner north	% north
Artarmon	63	35%	12%
East Chatswood	26	14%	5%
Lane Cove West	56	31%	11%
Inner north subregion	180		35%
Rest of North subregion	332		65%
North subregion	512		100%

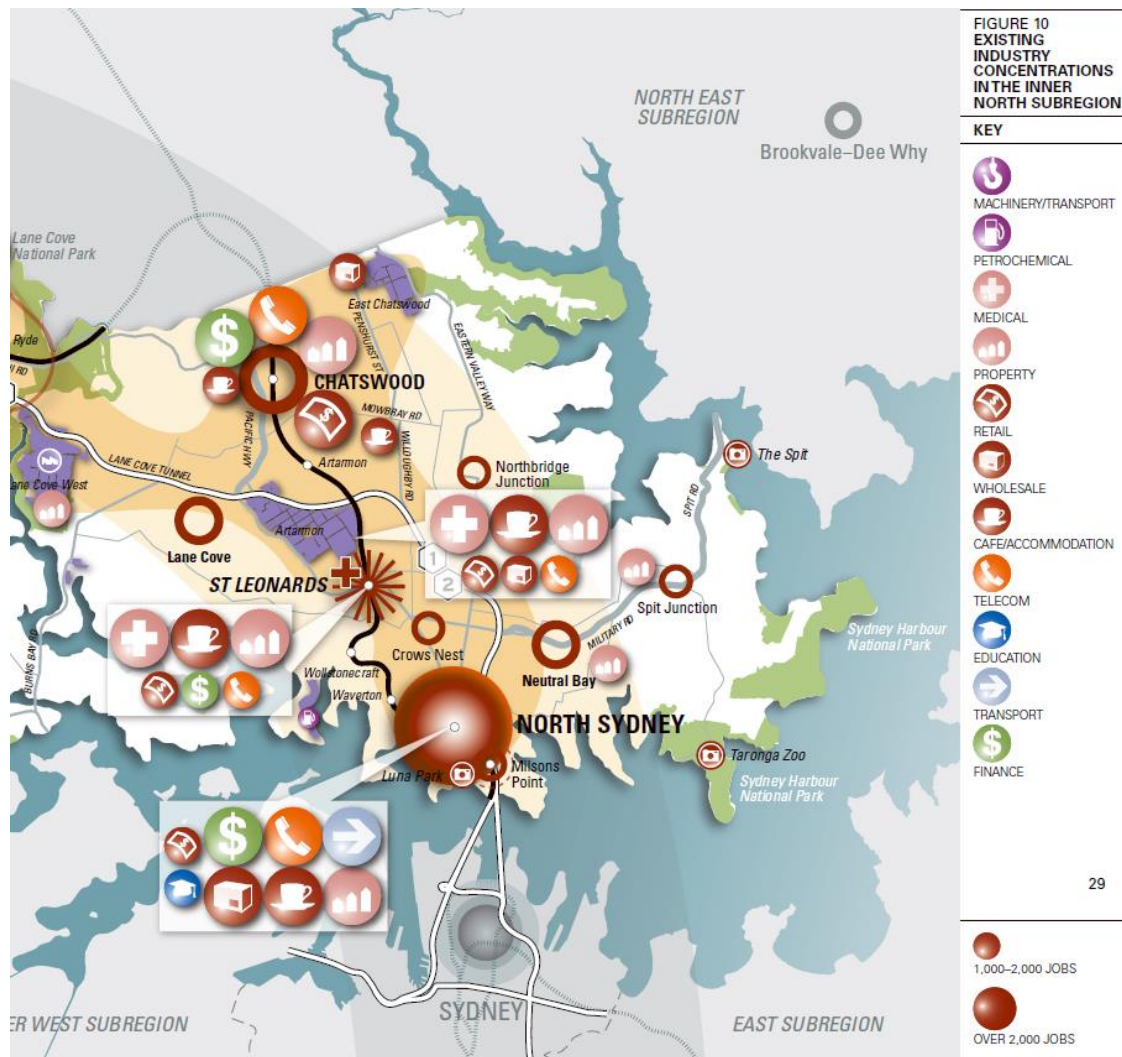
Source: SGS Economics and Planning, 2015 (data sourced from Employment Lands Development Program Report, 2014)

FIGURE 7. EMPLOYMENT AREAS IN THE INNER NORTH SUBREGION (SINCE SUPERSEDED)



Source: Department of Planning, 2007 Figure 8 (from the 2007 draft Inner North Subregional Plan prepared by the Department of Planning (2007)) illustrates existing industry clusters in the inner north subregion. Artarmon contains a cluster of medical industry uses, cafes, property industry uses, retail, wholesale and telecom uses.

FIGURE 8. EXISTING INDUSTRY CONCENTRATIONS IN THE INNER NORTH SUBREGION (SINCE SUPERSEDED)



Source: Department of Planning, 2007

2.3 Economic profile

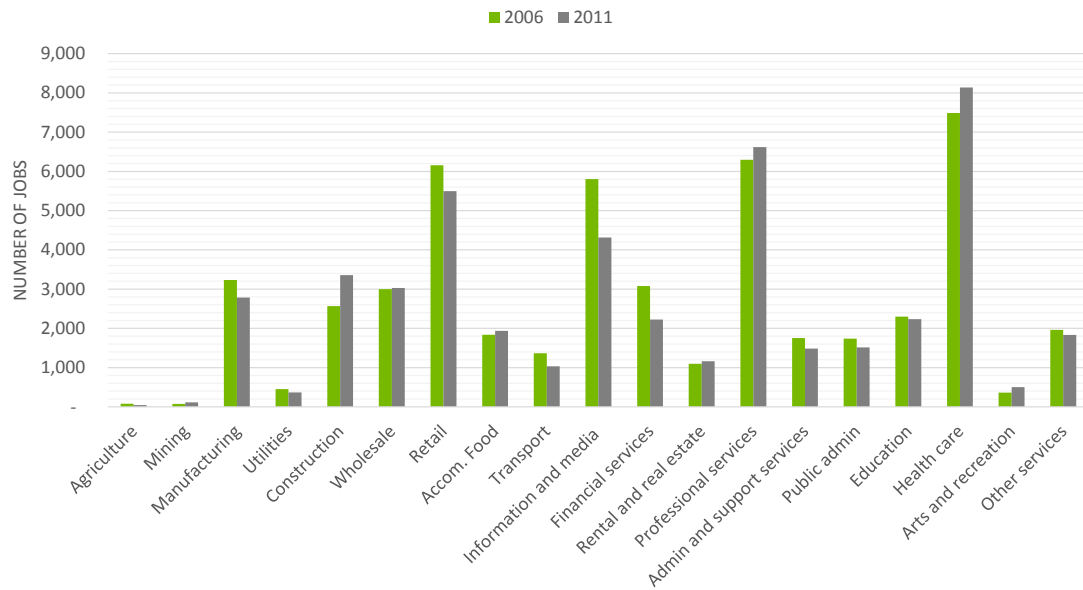
Recent employment change

Between 2006 and 2011 employment in Willoughby declined from 51,000 jobs to 49,000 (a loss of 2,000 jobs or -5 percent). Employment by industry in these two years for the LGA is shown in Figure 9. In 2011, Willoughby LGA contained 23 percent of total jobs in the inner north subregion⁷ or 14 percent of total jobs in the north subregion⁸.

⁷ The inner north subregion from the 2005 and 2010 metropolitan strategies includes Hunters Hill, Lane Cove, Mosman, North Sydney, Ryde and Willoughby LGAs.

⁸ The north subregion includes Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Manly, Mosman, North Sydney, Pittwater, Ryde, Warringah and Willoughby LGAs.

FIGURE 9. EMPLOYMENT BY INDUSTRY 2006 AND 2011 (WILLOUGHBY LGA)



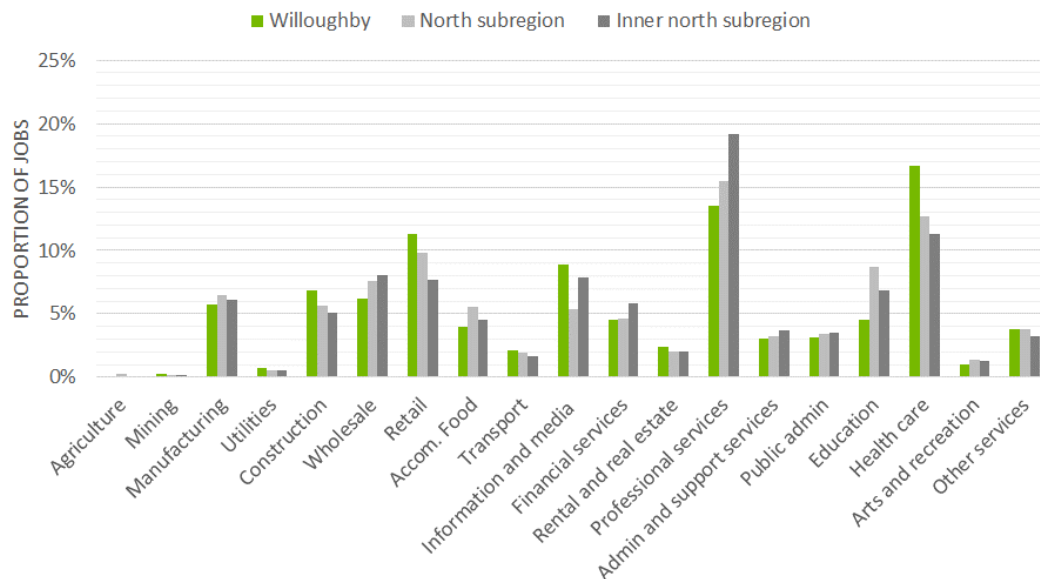
Source: Australian Bureau of Statistics, 2011 (Census of Population and Housing – place of work data)
 Note: Detail on each industry category is provided in Appendix 5

Industry profile

Health, professional services and retail are the three largest industries of employment in Willoughby

The dominant industry of employment in Willoughby LGA is health care with 8,000 jobs which represents 17 percent of total jobs within the LGA (Figure 10). These jobs are primarily located within the Royal North Shore Hospital health precinct within the St Leonards strategic centre. The second largest industry of employment in Willoughby is professional services with 7,000 jobs (14 percent of total jobs) which are located in major employment centres within the LGA such as Chatswood and St Leonards. The third largest industry of employment in Willoughby is retail which represents 11 percent of total jobs.

FIGURE 10. INDUSTRY PROFILE 2011

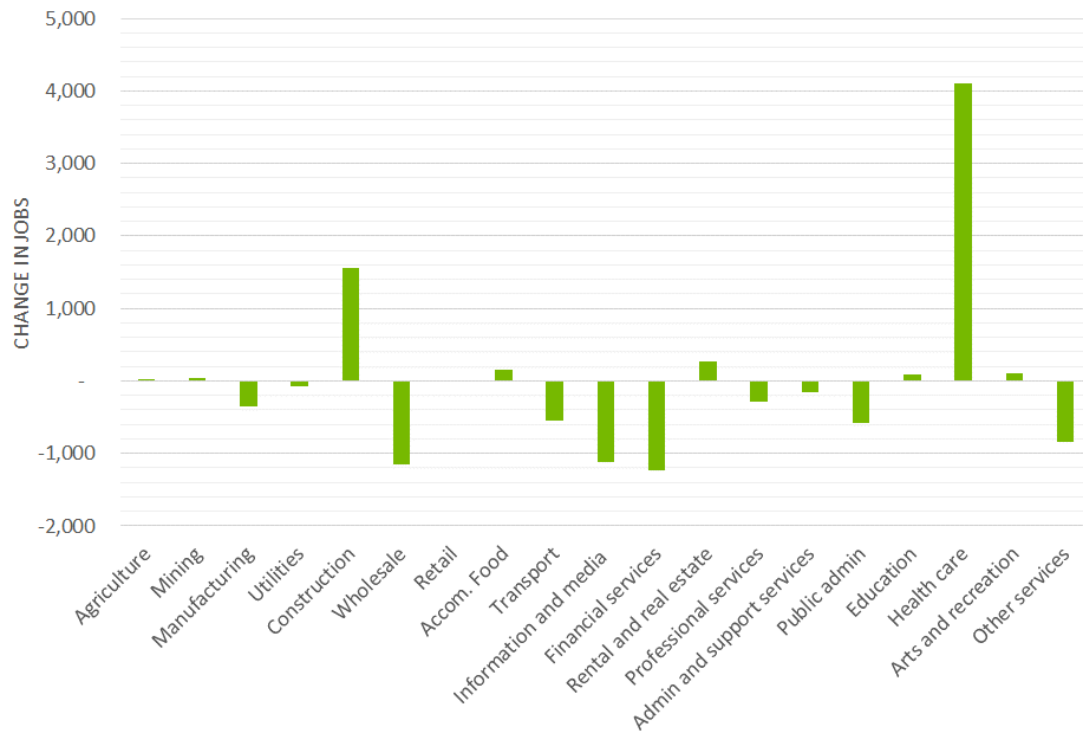


Source: Australian Bureau of Statistics, 2011 (Census of Population and Housing – place of work data).
 Note: Detail on each industry category is provided in Appendix 5

Health has also been the strongest industry of growth in terms of total jobs and proportionate growth

Between 1996 and 2011, Willoughby LGA experienced strong growth in health care with an additional 4,000 jobs created during this period (refer to Figure 11). The only other industry that experienced strong growth in terms of net additional jobs was the construction industry in Willoughby LGA. The industries which experienced declines include financial services, information and media and wholesale.

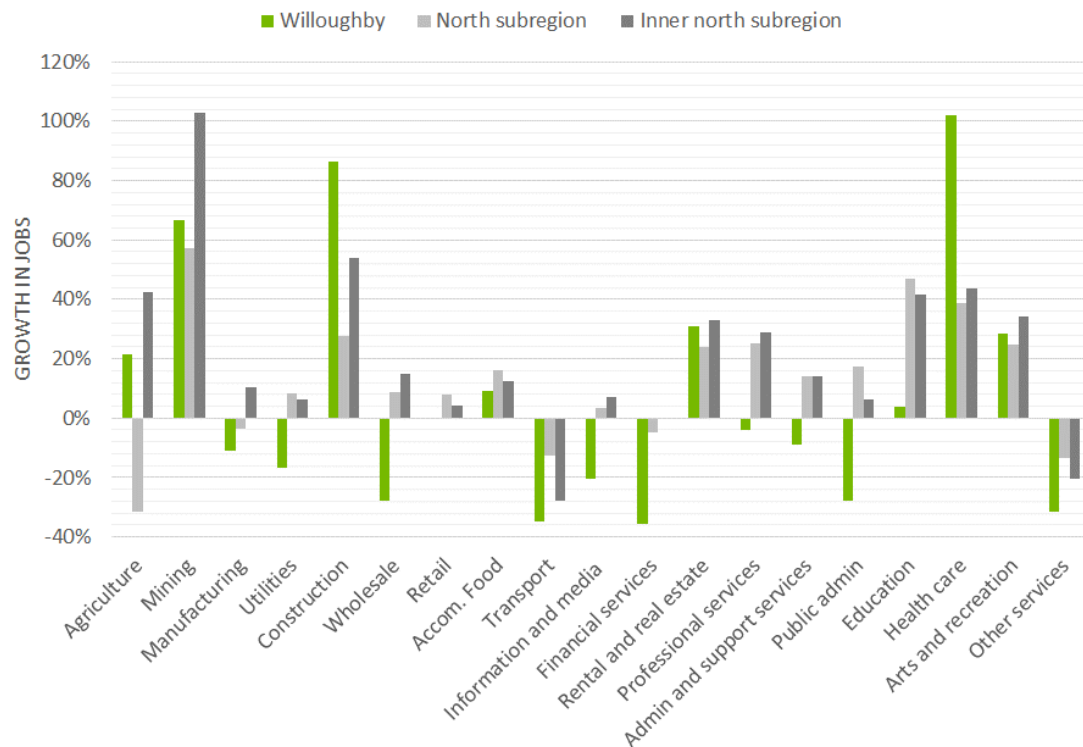
FIGURE 11. ABSOLUTE CHANGE IN JOBS, 1996-2011 (WILLOUGHBY LGA)



Source: Australian Bureau of Statistics, 1996-2011 (Census of Population and Housing – place of work data)

In terms of proportion growth, the growth in health care between 1996 and 2011 represented growth of more than 100% (refer to Figure 12) which is a much stronger growth rate than what was experienced across the inner north and north subregions. Construction jobs grew much stronger in Willoughby LGA than across the inner north and north subregions. Financial services, public administration and wholesale employment declined at a much stronger rate in Willoughby LGA compared to the inner north and north subregions.

FIGURE 12. GROWTH AND DECLINE IN JOBS 1996-2011



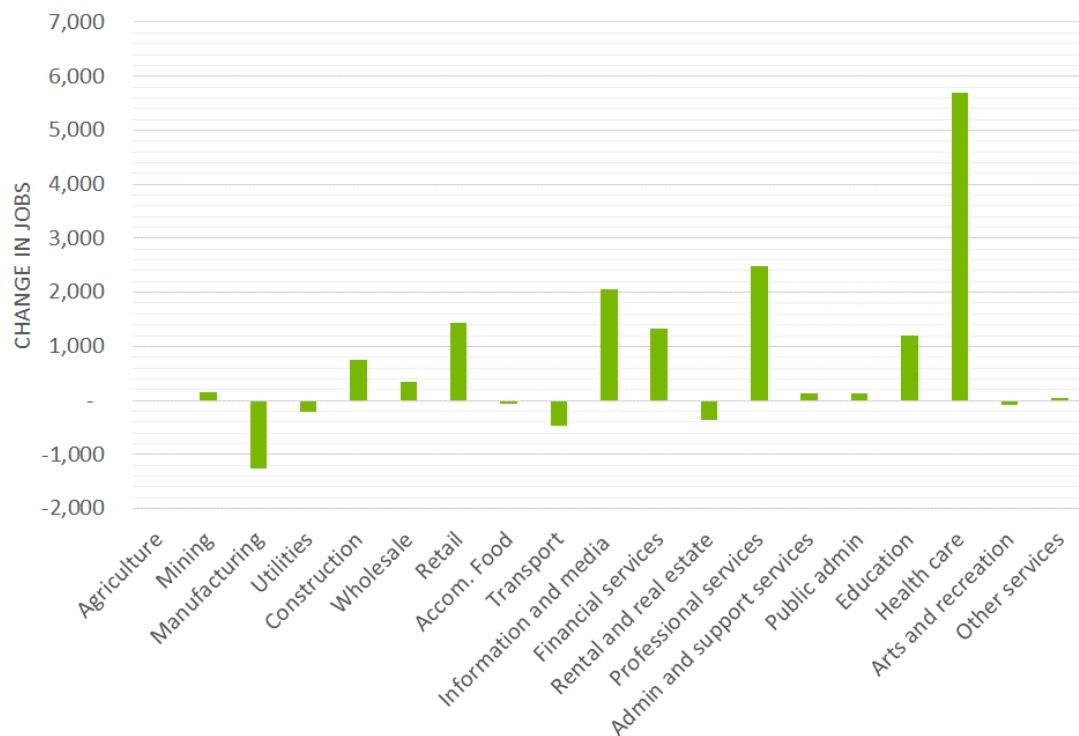
Source: Australian Bureau of Statistics, 1996-2011 (Census of Population and Housing – place of work data)

Employment projections

Employment within the health industry is projected to grow strongly, with growth also projected in professional services and information and media in contrast to the recent historical trend.

Employment is projected to continue to increase in health care with almost 6,000 jobs projected in Willoughby LGA between 2011 and 2031 (refer to Figure 13). Industries which previously experienced declines in employment such as professional services, financial services, information and media and wholesale are projected to experience growth in jobs over the next 20 years with declines projected in manufacturing, transport and rental and real estate.

FIGURE 13. EMPLOYMENT PROJECTIONS 2011-2031 (WILLOUGHBY)



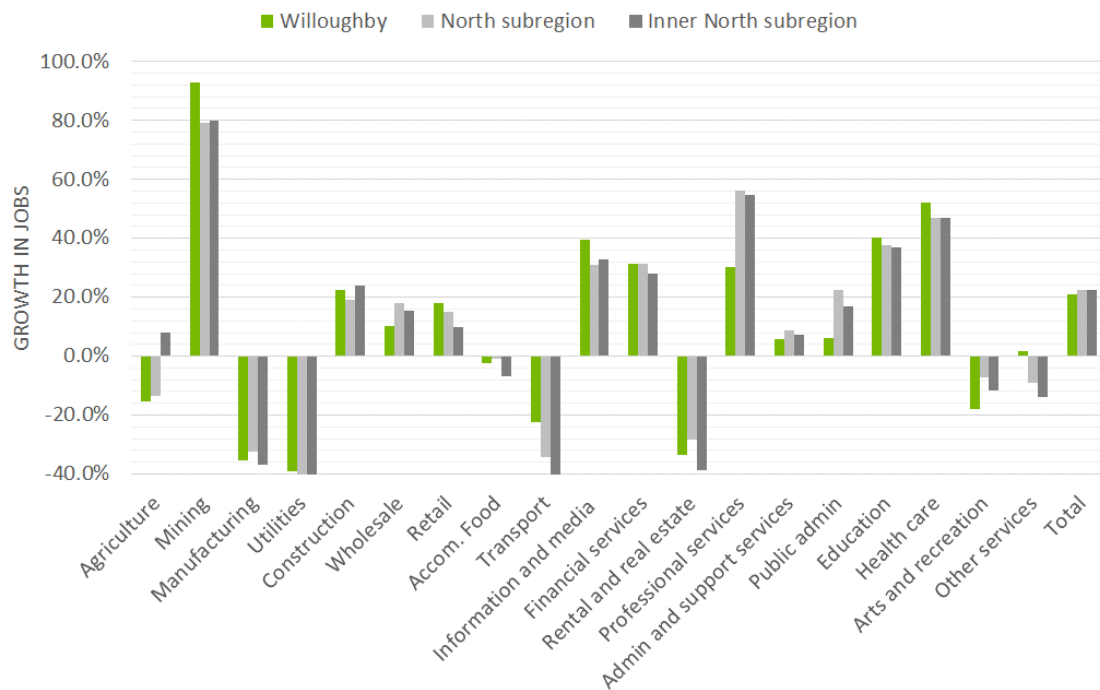
Source: Bureau of Transport Statistics, 2012 (employment projections)

Note: The Bureau of Transport Statistics has taken into account of the construction of the Northern Beaches Hospital within its projections

... and this is generally reflective of wider trends in the inner north and north subregions of Sydney

The trends projected in employment between 2011 and 2031 for Willoughby LGA are reflective of the growth and declines projected for the inner north and north subregions of Sydney (refer to Figure 14). Willoughby LGA is projected to experience slightly stronger growth in health care and education employment and weaker declines in transport and rental and real estate. Growth in professional services is projected to be much stronger across the inner north and north subregions which is particularly driven by strong growth projected in this sector for North Sydney.

FIGURE 14. EMPLOYMENT PROJECTIONS 2011-2031



Source: Bureau of Transport Statistics, 2012 (employment projections)

Self-containment

The job to resident ratio is high in Willoughby LGA...

In terms of the job to resident ratio (which is one indicator of 'self-containment'), Willoughby LGA has a much higher ratio than the north subregion and Greater Sydney (refer to Table 2). This is evidence of a strong supply of local employment opportunities for resident workers.

TABLE 2. JOB TO RESIDENT RATIOS, 2011

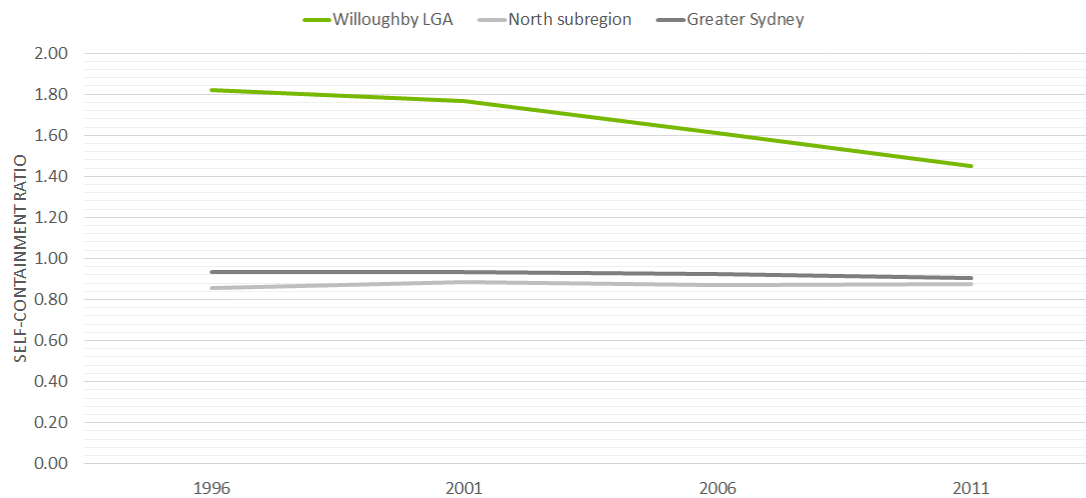
Region	Jobs	Residents	Self-containment ratio
Willoughby LGA	48,819	33,657	1.45
North Subregion	357,220	408,462	0.87
Greater Sydney	1,745,263	1,932,241	0.90

Source: SGS Economics and Planning, 2014

however, it has been declining over the past 15 years

Whilst Willoughby LGA has a high self-containment rate, this has been declining over the past 15 years (refer to Figure 15), meaning that population growth is outstripping recent job growth.

FIGURE 15. TREND IN SELF-CONTAINMENT



Source: SGS Economics and Planning, 2014

Industry specialisation

Willoughby has some degree of specialisation in health care, retail and information and media

A Location Quotient (LQ) is calculated by dividing the proportion of local jobs within a particular industry by the proportion of jobs within that industry in a benchmark area. If the proportion of jobs in a local industry is higher than that of the benchmark area, the industry will show an LQ of greater than 1. This may indicate that the local industry is relatively strong with local specialisation, and suggests that the industry is 'export focused', possibly serving markets outside just the local area.

Table 3 highlights that Willoughby LGA has some degree of specialisation in health care, retail and information and media when compared to the north subregion and Sydney SD (reflecting and building on the presence of Royal North Shore hospital and media companies such as SBS and Channel 9). This specialisation will likely be lost when Channel 9 relocates, particularly if they relocate outside of Willoughby LGA.

TABLE 3. INDUSTRY SPECIALISATION (LQ)

	LQ – North subregion	LQ – Sydney SD	Employment 2011	Employment 2011%
Health care	1.31	1.51	8,137	16.7%
Professional services	0.87	1.29	6,619	13.6%
Retail	1.14	1.14	5,498	11.3%
Information and media	1.65	2.69	4,315	8.8%
Construction	1.22	1.32	3,354	6.9%
Wholesale	0.82	1.08	3,028	6.2%
Manufacturing	0.88	0.65	2,785	5.7%
Financial services	0.99	0.62	2,224	4.6%
Education	0.52	0.57	2,232	4.6%
Accom. Food	0.72	0.65	1,937	4.0%
Other services	1.00	1.03	1,830	3.7%
Public admin	0.92	0.52	1,515	3.1%
Admin and support services	0.93	0.95	1,484	3.0%
Rental and real estate	1.16	1.27	1,164	2.4%
Transport	1.09	0.40	1,032	2.1%
Arts and recreation	0.75	0.63	499	1.0%
Utilities	1.40	0.83	366	0.7%
Mining	1.57	1.11	115	0.2%
Agriculture	0.39	0.28	45	0.1%

Source: SGS Economics and Planning, 2014

Compared to the north subregion, Willoughby has significant economic specialisation in health care and construction with high growth and high specialisation

A LQ analysis was conducted and used to produce the growth-share analysis illustrated in Figure 16. Growth-share analysis involves an assessment of the relative size and specialisation of key industries, or industry clusters, and their recent change relative to the benchmark total growth in employment.

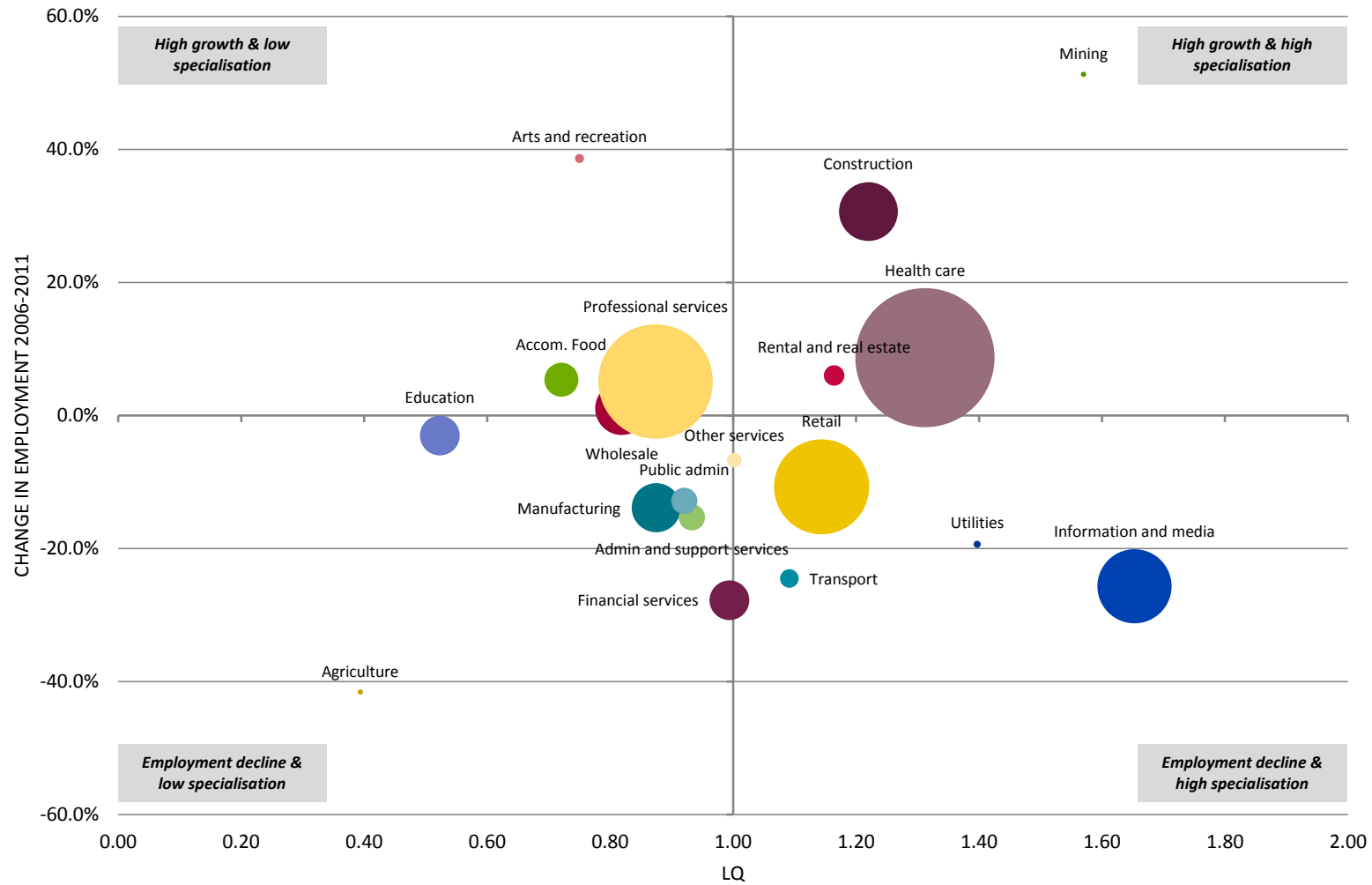
The LQ is shown on the horizontal axis, with the change in employment from 2006 to 2011 on the vertical axis. The size of the marker represents the relative size of the industry within the Willoughby LGA. The north-eastern quadrant shows specialised industries experiencing growth in employment, while the north-western quadrant shows employment growth and low specialisation. The bottom half of the diagram shows industries experiencing a decline in employment with the south-eastern quadrant indicating high specialisation and the south-western quadrant indicating low specialisation.

In contrast to the north subregion (refer to Figure 16), Willoughby has significant economic specialisation in health care and construction with high growth and high specialisation. Willoughby LGA also has a significant specialisation in information and media as discussed above, however this is an industry which experienced strong declines between 2006 and 2011.

Compared to the Sydney metropolitan area, Willoughby has significant economic specialisation in health care, education and construction with high growth and high specialisation

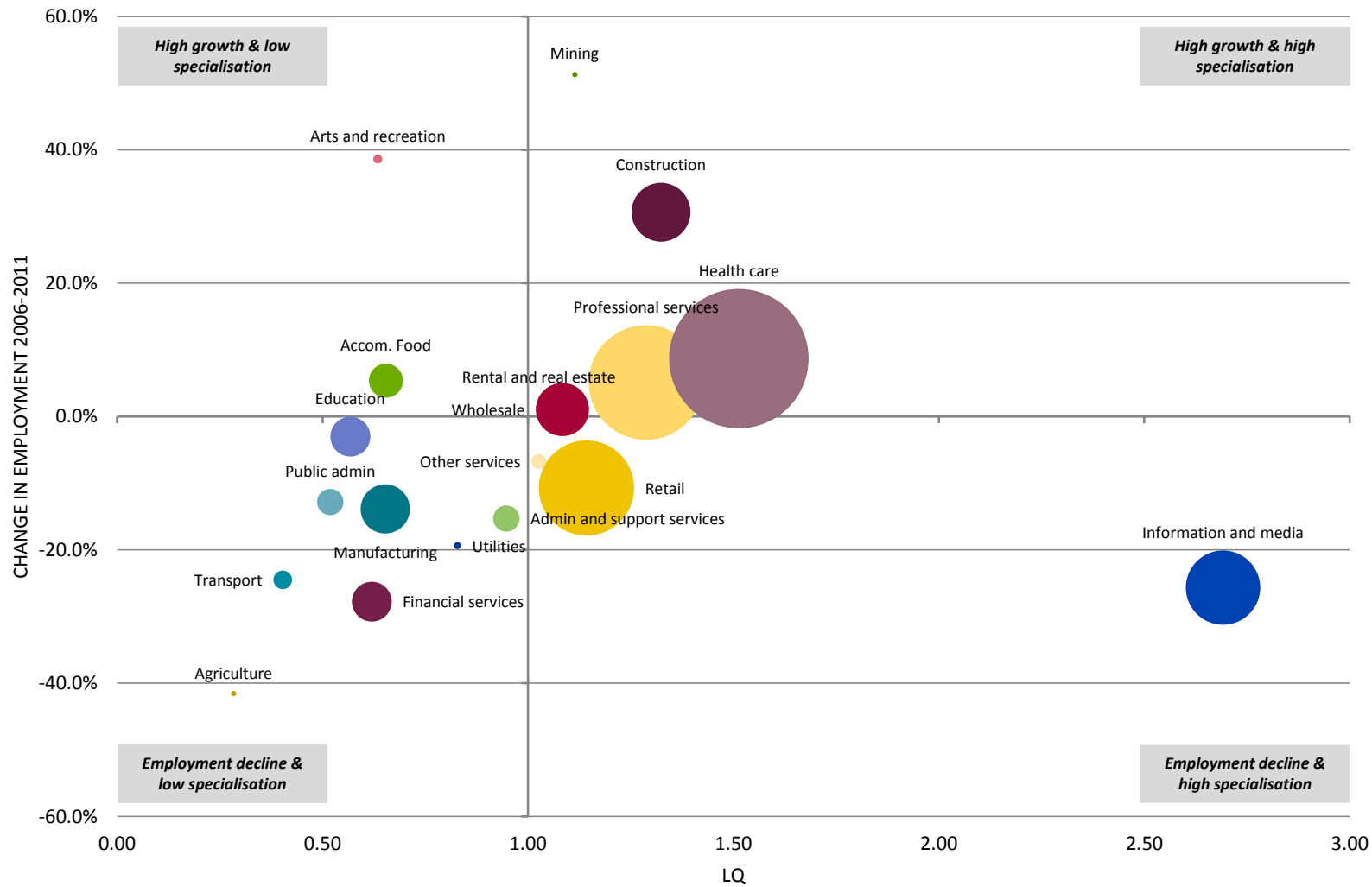
In contrast to Sydney SD (refer to Figure 17), Willoughby has significant economic specialisation in health care, education and construction with high growth and high specialisation. Willoughby LGA also has a significant specialisation in information and media as discussed above, however this is an industry which experienced strong declines between 2006 and 2011. This is expected to continue when Channel 9 moves from its current site in Artarmon.

FIGURE 16. GROWTH SHARE – NORTH SUBREGION



Source: SGS Economics and Planning, 2014

FIGURE 17. GROWTH SHARE – SYDNEY SD



Source: SGS Economics and Planning, 2014

At a fine grain level, Willoughby has a high degree of specialisation in a range of industries

An LQ analysis was also conducted for the 4-digit ANZSIC industries of employment which represented 1percent or more of total employment within Willoughby LGA. The 4-digit ANZSIC industries of employment which Willoughby LGA has a high degree of specialisation in compared to the north subregion and Sydney SD include:

- Hospitals (except Psychiatric Hospitals)
- Free-to-Air Television Broadcasting
- Engineering Design and Engineering Consulting Services
- Clothing Retailing
- Non-Residential Building Construction
- Road and Bridge Construction
- Department Stores
- Magazine and Other Periodical Publishing
- Other Allied Health Services

TABLE 4. INDUSTRY SPECIALISATION (4 DIGIT)

ANZSIC 4 digit industry of employment	LQ – North subregion	LQ – Sydney SD	Employment 2011	Employment 2011%	Growth in jobs 2006-2011
Hospitals (except Psychiatric Hospitals)	2.51	2.52	4,193	8.6%	4.0%
Computer System Design and Related Services	0.75	1.76	2,104	4.3%	22.6%
Free-to-Air Television Broadcasting	5.31	9.58	1,604	3.3%	10.5%
Engineering Design and Engineering Consulting Services	1.23	2.68	1,108	2.3%	45.4%
Cafes and Restaurants	0.90	0.93	839	1.7%	6.9%
Management Advice and Related Consulting Services	0.95	1.61	771	1.6%	53.6%
Clothing Retailing	1.68	1.45	744	1.5%	7.8%
Accounting Services	1.20	0.99	730	1.5%	4.9%
Non-Residential Building Construction	2.66	3.15	673	1.4%	128.9%
Computer and Computer Peripheral Wholesaling	1.28	3.00	657	1.3%	-3.9%
Other Auxiliary Finance and Investment Services	0.94	0.77	607	1.2%	38.9%
Road and Bridge Construction	4.51	6.31	564	1.2%	100.7%
Department Stores	2.14	1.73	560	1.1%	-28.8%
Magazine and Other Periodical Publishing	3.02	4.22	549	1.1%	39.3%
Other Social Assistance Services	0.90	0.91	515	1.1%	41.9%
House Construction	0.84	0.97	498	1.0%	-5.1%
Banking	1.08	0.41	494	1.0%	-14.1%
Other Allied Health Services	1.29	1.83	483	1.0%	39.2%
Real Estate Services	0.78	0.92	479	1.0%	10.6%
General Practice Medical Services	1.10	1.20	476	1.0%	-9.0%
Takeaway Food Services	0.59	0.51	473	1.0%	10.0%

Source: Australian Bureau of Statistics, 2011 (Census of Population and Housing – place of work data)

Shift-share analysis

Willoughby LGA has a comparative advantage in construction and only a marginal comparative / competitive advantage for rental and real estate

Shift-share analysis is one way to account for the competitiveness of a region's industries and to analyse the local economic base. It paints a picture of how well the region's current industries are performing by systematically examining the national, local, and industrial components of employment change. A shift-share analysis provides a dynamic account of total regional employment growth that is attributable to growth of the national economy, a mix of faster or slower than average growing industries, and the competitive nature of the local industries. This analysis clearly identifies those industries that benefit from local competitive advantages and those that suffer from local growth impediments.

A shift-share analysis was conducted for Willoughby against NSW to determine the extent to which job growth can be attributed to unique regional factors and how much is due to broader state trends. The jobs growth for Willoughby and NSW is shown in Table 5.

The shift-share analysis includes the following elements:

- Metropolitan Growth Effect (MG) displays the overall growth of the NSW economy over 2006-11. This is the share of local job growth that can be attributed to growth of the metropolitan economy. Specifically, if the metropolitan area as a whole is experiencing employment growth, ('a rising tide lifts all boats'), one would expect total metropolitan growth to exert a positive growth influence on the local area.
- Industrial Mix Effect (IM) represents the industry growth rate for the benchmark region (Sydney SD) accounting for broader growth. The IM removes (or isolates) the effect of overall growth in the Sydney economy by subtracting the overall growth from the industry growth. For example, finance services grew by 16 percent between 2006 and 2011, but once the Sydney growth of 6 percent is accounted for, then it grew by only 10 percent.
- Expected Change is the rate of growth of the particular industry at the metropolitan level. It is the change that you would expect to see occurring in both the study and benchmark regions, all other things being equal. This is the share of local job growth that can be attributed to the region's mix of industries. This second factor is the change in a local industry that would be attributable to the growth or decline of the industry at a metropolitan level.
- Regional Competitive Shift (CS) explains how much of the change in a given industry is due to some unique competitive advantage that the region possesses, because the growth cannot be explained by broader trends in that industry or the economy as whole. It is the total industry growth in Willoughby minus the change you would expect in that industry (expected change) given the benchmark rates. We observe that even during periods of general prosperity, some regions and still some industries grow faster than others do. This is usually attributed to some local comparative advantage such as natural resources, linked industries, or favourable local labour situations. The local component aids in identifying a local area's economic strengths. This element of the analysis is a representation of how a region's competitive position can contribute to regional job growth.
- The total column is the total amount of growth by industry in Willoughby from 2006-11.

As indicated in Table 5, Willoughby LGA has a comparative advantage in construction and only a marginal comparative / competitive advantage for rental and real estate. The ostensible competitive advantage for mining and arts and recreation is skewed by a small base employment number. At the same time, Willoughby LGA is marginally uncompetitive in most other industries. The strong growth demonstrated above in health care is reflective of a wider trend in health care across the metropolitan area but the specialisation is a unique competitive advantage of Willoughby LGA, given the presence of RNS hospital.

TABLE 5. SHIFT-SHARE ANZSIC 1 DIGIT

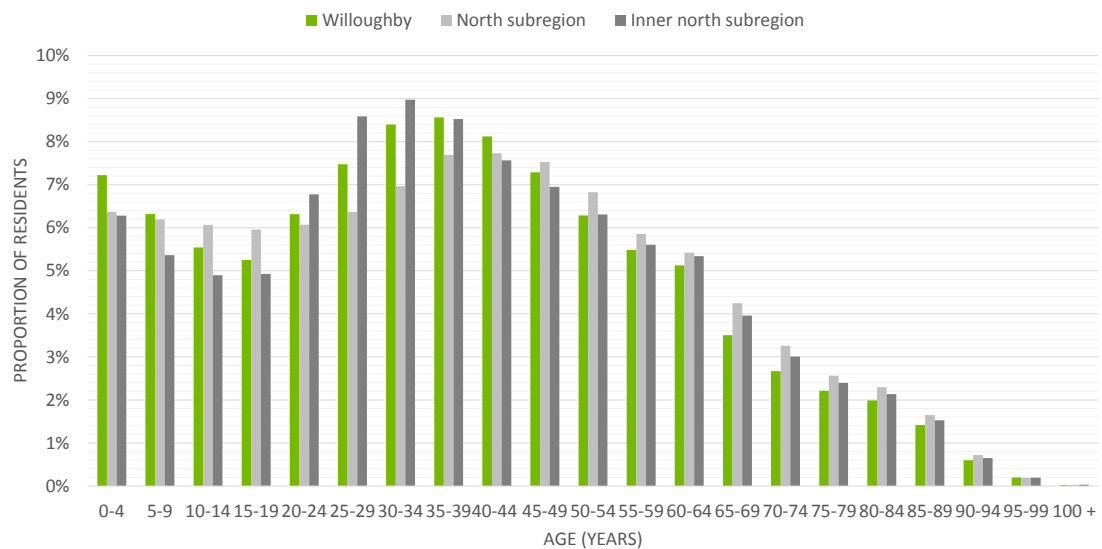
	Metropolitan Growth (MG)	Industrial Mix (IM)	Expected Change	Competitive Shift (CS)	Total
Agriculture	6%	-18%	-12%	-30%	-42%
Mining	6%	5%	11%	40%	51%
Manufacturing	6%	-14%	-8%	-6%	-14%
Utilities	6%	7%	13%	-32%	-19%
Construction	6%	0%	6%	24%	31%
Wholesale	6%	-5%	1%	0%	1%
Retail	6%	-8%	-2%	-9%	-11%
Accom. Food	6%	1%	7%	-2%	5%
Transport	6%	-4%	3%	-27%	-25%
Information and media	6%	2%	8%	-34%	-26%
Financial services	6%	3%	9%	-37%	-28%
Rental and real estate	6%	-4%	2%	4%	6%
Professional services	6%	10%	16%	-11%	5%
Admin and support services	6%	0%	6%	-22%	-15%
Public admin	6%	1%	7%	-20%	-13%
Education	6%	7%	13%	-16%	-3%
Health care	6%	10%	16%	-7%	9%
Arts and recreation	6%	11%	17%	22%	39%
Other services	6%	-4%	3%	-9%	-7%
Total	6%	0%	6%	-11%	-5%

Source: SGS Economics and Planning, 2014

Residential population

The age profile of Willoughby generally reflects the age profile of North subregion and former inner-north subregion (refer to Figure 18). In 2011, a significant proportion of the population was of working age 20 to 65 years (63% of the population of Willoughby), and this was similar observed across the north subregion and inner-north subregion.

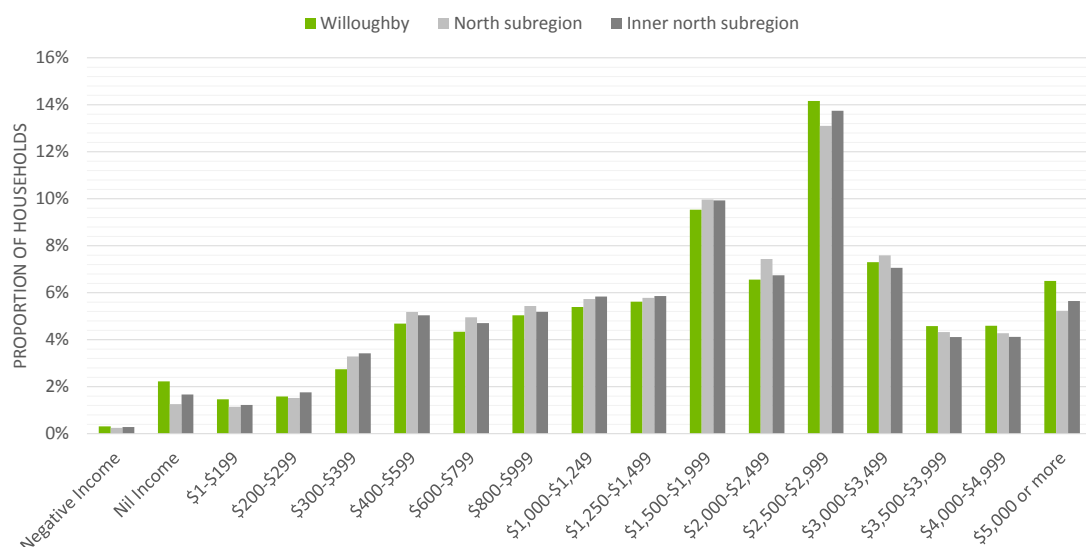
FIGURE 18. AGE PROFILE OF RESIDENTS, 2011



Source: Australian Bureau of Statistics, 2011 (Census of Population and Housing – place of usual residence data)

In 2011, the income profile of Willoughby LGA was relatively consistent to that of the north subregion and former inner-north subregion (refer to Figure 19). 52% of households in Willoughby LGA earn over \$1,500 per week (or \$78,000 per year) and 35% of households earn over \$2,500 per week (\$130,000 per year) which would be considered a high income compared to the rest of Sydney.

FIGURE 19. HOUSEHOLD INCOMES, 2011



Source: Australian Bureau of Statistics, 2011 (Census of Population and Housing – place of usual residence data)

2.4 Travel patterns

Education trips

Education trips are relatively self-contained within Willoughby LGA, with only a small proportion of residents leaving Willoughby LGA for the purpose of education.

In terms of education trips⁹ from Willoughby LGA, more than 50 percent remain within the LGA. There is some leakage of trips to adjacent LGAs such as North Sydney, Ku-ring-gai and Lane Cove (refer to Table 6).

TABLE 6. EDUCATION TRIPS (WILLOUGHBY LGA AS ORIGIN)

LGA	Number of trips	Proportion of trips
Willoughby	11,216	54%
North Sydney	1,997	10%
Ku-ring-gai	1,626	8%
Lane Cove	1,362	7%
Sydney	1,292	6%
Ryde	698	3%
Warringah	506	2%
Randwick	481	2%
Gosford	327	2%
Other	1,110	5%
Total	20,616	

Source: SGS Economics and Planning, 2015 using BTS Household Travel Survey data 2011/12

It is a similar story for education trips to Willoughby LGA with 62 percent of trips from residents living within Willoughby LGA (refer to Table 7). The majority of trips from outside Willoughby LGA come from adjacent LGAs such as North Sydney, Ku-ring-gai and Lane Cove LGAs.

TABLE 7. EDUCATION TRIPS (WILLOUGHBY LGA AS DESTINATION)

LGA	Number of trips	Proportion of trips
Willoughby	11,216	62%
North Sydney	1,359	7%
Ku-ring-gai	854	5%
Lane Cove	827	5%
Sydney	785	4%
Warringah	780	4%
Ryde	698	4%
Other	1,623	9%
Total	18,143	

Source: SGS Economics and Planning, 2015 using BTS Household Travel Survey data 2011/12

Shopping trips

Trips for the purpose of shopping are no different to education, with a high proportion of trips self-contained within Willoughby LGA.

Shopping trips are also relatively self-contained within Willoughby LGA with 66 percent of shopping trips from Willoughby remaining within Willoughby LGA (refer to Table 8). The regional dominance of Chatswood as a shopping centre underpins this performance. In terms of other LGAs, Willoughby residents travel to Ku-ring-gai, North Sydney and Warringah LGAs for shopping.

⁹ Education includes trips by students to attend educational institutions - kindergarten, primary and secondary school, technical college or universities

TABLE 8. SHOPPING TRIPS (WILLOUGHBY LGA AS ORIGIN)

LGA	Number of trips	Proportion of trips
Willoughby	97,258	66%
Ku-ring-gai	10,231	7%
North Sydney	9,302	6%
Warringah	7,879	5%
Ryde	5,076	3%
Lane Cove	4,547	3%
Hornsby	3,811	3%
Mosman	2,586	2%
Other	6,290	4%
Total	146,979	

Source: SGS Economics and Planning, 2015 using BTS Household Travel Survey data 2011/12

Majority of shopping trips to Willoughby LGA, and most likely Chatswood, originate from Willoughby LGA (refer to Table 9). Residents from outside Willoughby LGA who travel to Willoughby LGA for the purpose of shopping generally reside in adjacent LGAs such as North Sydney, Ku-ring-gai and Warringah).

TABLE 9. SHOPPING TRIPS (WILLOUGHBY LGA AS DESTINATION)

LGA	Number of trips	Proportion of trips
Willoughby	97,258	63%
North Sydney	12,319	8%
Ku-ring-gai	10,131	7%
Warringah	7,477	5%
Lane Cove	7,349	5%
Ryde	4,785	3%
Hornsby	4,254	3%
Sydney	3,523	2%
Other	7,344	5%
Total	154,438	

Source: SGS Economics and Planning, 2015 using BTS Household Travel Survey data 2011/12

Social trips

More than half of social trips remain within Willoughby LGA, whilst high, this is lower than the proportion of education and shopping trips.

Analysis of social trips which originate in Willoughby LGA highlights that these are relatively self-contained with more than 50 percent of all social trips remaining within Willoughby LGA (refer to Table 10). The adjacent LGA of North Sydney is the destination of 11 percent of social trips from Willoughby LGA, followed by City of Sydney and Lane Cove with 6 percent.

TABLE 10. SOCIAL TRIPS (WILLOUGHBY LGA AS ORIGIN)

LGA	Number of trips	Proportion of trips
Willoughby	111,847	51%
North Sydney	23,061	11%
Sydney	14,231	6%
Lane Cove	13,663	6%
Ku-ring-gai	11,458	5%
Warringah	9,776	4%
Ryde	4,127	2%
Canada Bay	3,733	2%
Mosman	3,400	2%
Other	23,648	11%
Total	218,943	

Source: SGS Economics and Planning, 2015 using BTS Household Travel Survey data 2011/12

Majority of social trips to Willoughby LGA originate from Willoughby LGA (refer to Table 11). Residents travelling to Willoughby LGA from outside Willoughby LGA, originate from adjacent or nearby LGAs such as North Sydney, City of Sydney, Ku-ring-gai and Lane Cove.

TABLE 11. SOCIAL TRIPS (WILLOUGHBY LGA AS DESTINATION)

LGA	Number of trips	Proportion of trips
Willoughby	111,847	55%
North Sydney	19,611	10%
Sydney	14,314	7%
Ku-ring-gai	11,149	5%
Lane Cove	10,396	5%
Warringah	7,737	4%
Ryde	5,551	3%
Canada Bay	3,333	2%
Other	21,251	10%
Total	205,191	

Source: SGS Economics and Planning, 2015 using BTS Household Travel Survey data 2011/12