

Skilling
THE BAY

**Geelong Regional
Labour Market**
- a snapshot

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1 Executive Summary

This *Regional Labour Market Snapshot (Snapshot)* is a summary of key data sources and reports that have informed the Skilling the Bay project. This Snapshot has been designed to provide critical information to support discussion at the Geelong Jobs Forum.

In brief, Geelong is the largest regional economy outside of Melbourne and one of the top five fastest growing regional cities in Victoria, with a GRP of \$8,236m. Geelong has approximately 215,000 residents who each contribute an average of \$38,300 to the city's GRP. The large majority of the Geelong region's workforce lives and works in the region, although many more leave for work than travel in due to connections to its regional neighbours.

While the region is traditionally one of Victoria's major manufacturing centres, the trend in recent times has been from manufacturing towards service sector industries. At present, manufacturing businesses contribute approximately 44 per cent of Geelong's output and 39 per cent of the region's GRP, which is more than five times any other single sector. The rate of change within the manufacturing sector varies, with the food processing manufacturing subsector growing. However, over the next 20 years, it is expected that as the contribution of manufacturing decreases, the health care and social assistance, education and training and financial and insurance service industries will become more important in terms of GRP.

Geelong's business and employment landscape is dominated by small and medium enterprises (SMEs) with a few critical large businesses. So important are SMEs to Geelong's population, they employ 72 per cent of the Barwon region's workforce and account for 99 per cent of the businesses in Geelong. While some sectors are dominated by SMEs, others are dominated by a number of large businesses which have a huge presence in the supply chain. In the wake of recent announcements by Ford, there may be a large impact on the SMEs through the supply chain.

Geelong's workforce profile is shifting from private employers to those dependent on government funds. This is a key challenge for Geelong as more of its workforce becomes employed in lower wealth generating industries that are tied to Government policy. Geelong is expected to experience skills shortages in all sectors that are important to the region, most significantly in health and social assistance.

In terms of the labour market profile, Geelong has a slightly older population than the general Victorian age profile, with some industries employing a disproportionately high number of males (manufacturing) or females (health and social care). The region is expected to experience greater than the general state level of growth for those aged over 60 as the large number of middle-aged residents head towards retirement.

The City of Greater Geelong also has lower levels of higher education attainment, but higher levels of vocational education attainment, than the general level of state education attainment. The region as a whole has lower levels of attainment for all post-secondary school education, with pockets of significant economic disadvantage, particularly Corio, Norlane – North Shore and Whittington. In addition, student choices for further education do not generally align closely with local industry needs or the future growth sectors.

This *Snapshot* also includes a case study and summary of lessons learned from a similar industry transition in Canada.

2 This *Labour Market Snapshot* informs Skilling the Bay

Skilling the Bay is an important project that aims to secure the future workforce of Geelong and support the growth of emerging industries. Key objectives of the project include the creation of a long term jobs vision for Geelong and agreeing actions to support the region in transition. This *Snapshot* is an important resource to inform debate about the next steps at the upcoming Geelong Jobs Forum.

This *Snapshot* is a summary of data and evidence contained in reports on economic and workforce issues impacting Geelong. This includes publicly available data from the Australian Bureau of Statistics ('ABS') Census (2011), Local Government Planning resources, Victorian Training Market reports (2013) and *On Track* data (2012) as well as other government research regarding economic and labour market trends in the region. The community and student consultations conducted over the last month are also critical inputs into the forum.

The forum will involve major business and political leaders who will help determine the next steps that will guide the region to transition into the future and will ensure that participants are informed of the major economic and workforce trends and the key findings so that they will be well equipped to provide meaningful and informed input into creating actions that support the region in transition.

The Skilling the Bay project principally applies to the City of Greater Geelong, although the flows of residents and employees into and out of the city necessitate the broader consideration of the surrounding local government areas (LGAs). The studies reviewed to inform this *Snapshot* consider different boundaries for different items of analysis. For ease of reference, Geelong refers to the City of Greater Geelong, while the Geelong region includes the municipal boundaries of Queenscliff, Surf Coast and Golden Plains.

Skilling the Bay is funded by the Victorian Government. The project is being led by the Gordon in collaboration with Deakin University, the Victorian Government and the City of Greater Geelong.

3 Geelong’s regional profile

This section outlines the Geelong region’s profile in terms of macroeconomic and demographic features.

3.1 Macroeconomic features

3.1.1 Geelong’s large population drives its high gross regional product (GRP)

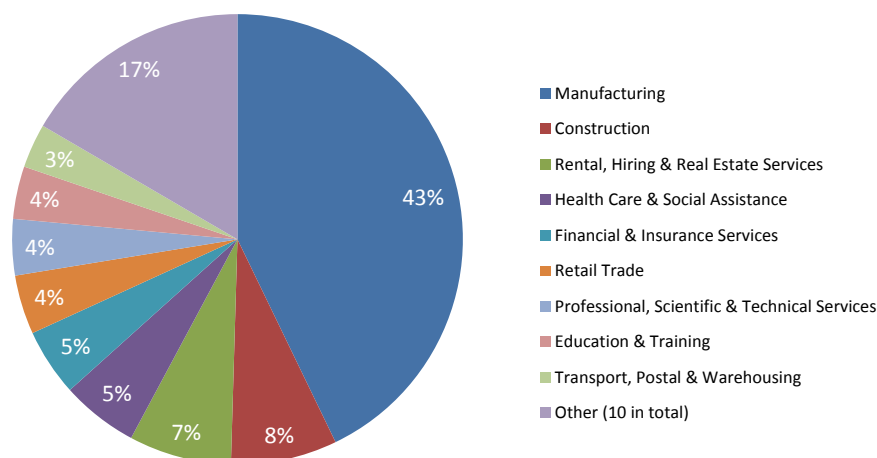
Geelong is the largest regional economy outside of Melbourne: a position that it is expected to maintain into the future.¹ Geelong has a GRP of \$8,236m and experienced growth of 2.86 per cent in the period 2001-2011: the fifth fastest growth rate of all Victorian regional cities.²

Geelong’s GRP is driven by its high population compared to Victoria’s other regional cities rather than high productivity within the region: the city has the fourth lowest GRP per capita in Victoria and its GRP per capita is 9 per cent lower than the Geelong region more broadly. Geelong has approximately 215,000 residents who each contribute an average of \$38,300 to the city’s GRP.³

3.1.2 Geelong is in transition from manufacturing to a diverse service based economy

Manufacturing plays a key role in Geelong’s economy, contributing approximately 43 per cent of Geelong’s output and 39 per cent of the region’s GRP: more than five times any other single sector (see Figure 1). In contrast, manufacturing contributes only 26 per cent of Victoria’s gross state product.

Figure 1: Proportion of output by sector (\$m)



Source: REMPLAN, Economic Modelling and Planning System, *Compelling Economics*. Latest data update as at December 2012 as cited in *City of Greater Geelong, 'Output by Industry, City of Greater Geelong 2012', in Economic Indicators, Geelong: Open for Business, Bulletin 2012 p. 34.*

¹ NIEIR 2012 cited in Regional Development Victoria, *Regional Cities Economic Profile: Geelong* (March 2013).

² Ibid

³ Based on 2011 population of 294,529 and GRP of around \$12.5bn: G21 Region Economic Development Strategy: Background Paper (draft report) 2012.

Labour Market Snapshot

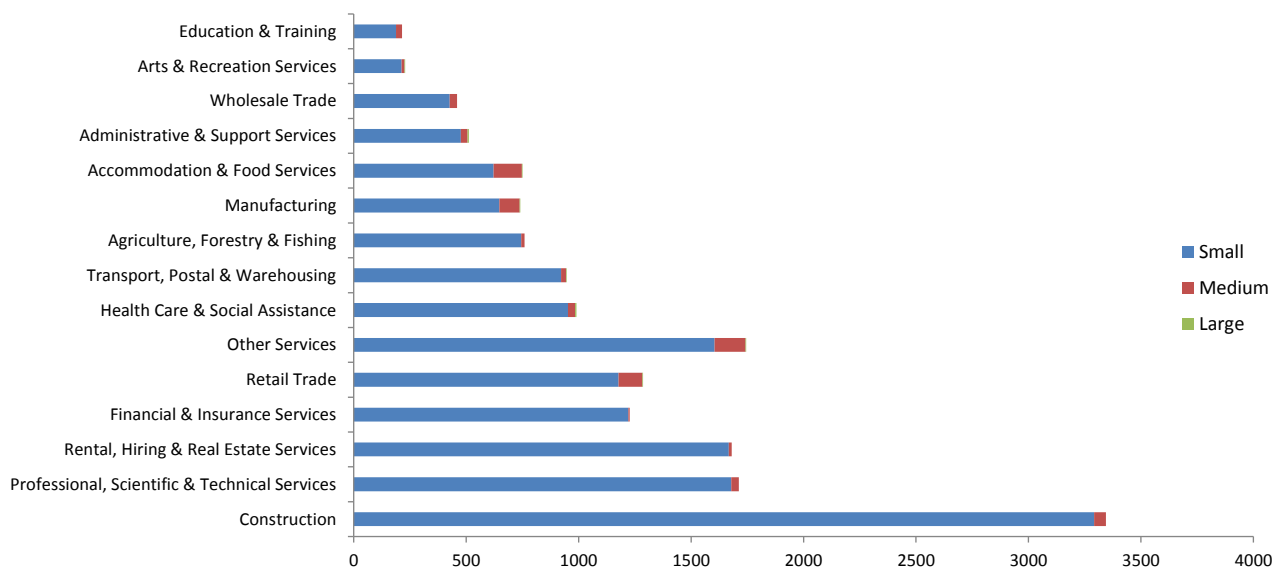
While manufacturing is very much embedded in Geelong’s economy, its proportionate contribution to the economy is forecast to reduce over time. Major industry sectors that are expected to increase in relative contribution to the region’s economy are health care and social assistance, education and training and financial and insurance services, with the former expected to become the most important industry in Geelong in terms of GRP.⁴

3.1.3 Geelong is dominated by SMEs with some large employers

Geelong’s business and employment landscape is dominated by small and medium enterprises (SMEs) with a few critical large organisations. SMEs employ 72 per cent of the Barwon region’s workforce⁵ and account for 99 per cent of the businesses in Geelong.⁶ A proportion of those SMEs rely upon the large companies in the region, forming part of their supply chain.

Different sectors in Geelong have varying distributions of small, medium and large organisations. Most of the employers in the region operating in the education and training and manufacturing sector are large. Retail trade and accommodation and food services have many medium-sized enterprises, while the rest of the industry sectors are dominated by small organisations with fewer than 20 employees. Figure 2 provides a snapshot of Geelong’s organisation sizes by sector. A small number of large organisations employ most of those working in the education and training and manufacturing sectors while there are many small construction businesses across Geelong without any companies employing large sections of the workforce.

Figure 2: Business count by size and industry



Source: Australian Bureau of Statistics, ‘Counts of Australian Businesses, including Entries and Exits, June 2007 to June 2011’ as cited in City of Greater Geelong, ‘Business Counts by Industry and Employment Size Ranges’, in *Economic Indicators, Geelong: Open for Business, Bulletin 2012* p. 32.

⁴ Regional Development Victoria, *Regional Cities Economic Profile: Geelong* (March 2013).

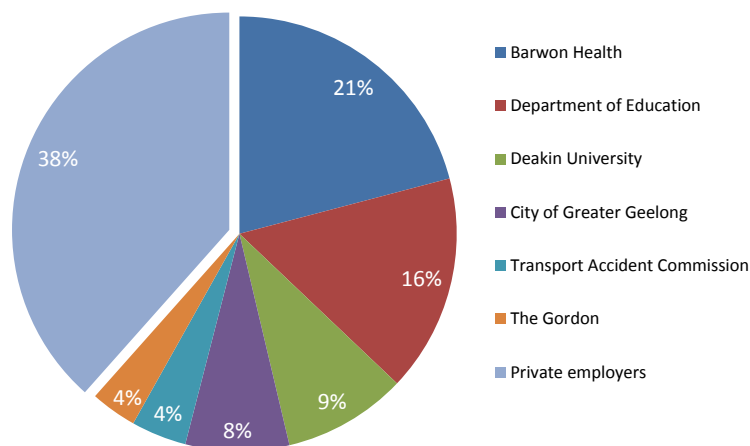
⁵ The Barwon region consists of the City of Greater Geelong, Surf Coast Shire, Borough of Queenscliffe, Golden Plains Shire and Colac Otway Shire.

⁶ City of Greater Geelong, *Economic Indicators, Geelong: Open for Business, Bulletin 2012*.

3.1.4 Public organisations employ a large component of Geelong’s workforce

Figure 3 shows that over 60 per cent of employers in the Barwon region that employ over 500 people are public sector organisations.

Figure 3: Percentage contribution to employment by major public and private employer (those who employ over 500 people)



Source: City of Greater Geelong, 'Selected Major Employers', in *Economic Indicators, Geelong: Open for Business, Bulletin 2012* p. 27.

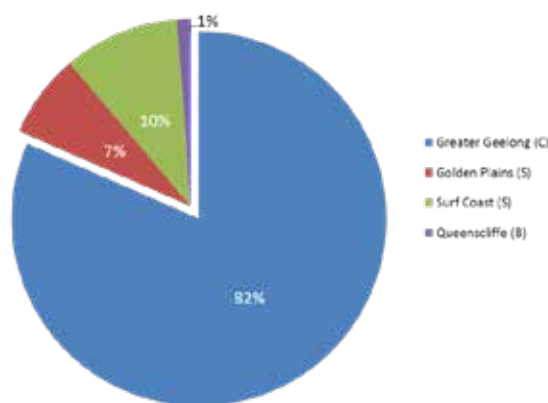
3.2 Demographic features

3.2.1 Geelong is a large and growing regional city

The Geelong region has a population of around 280,000. As illustrated in Figure 4, the City of Greater Geelong makes up over 80 per cent of the region’s population.⁷

Geelong’s population growth rate was an average of 1.02 per cent per annum in the period 2001-2011, making it the fourth fastest-growing regional city.⁸ Victoria’s average annual population growth rate over the same period was 1.4 per cent. Geelong’s growth rate is forecast to increase over the next twenty years, with forecast annual population growth of 1.7 per cent between 2011-2031, compared to 1.4 per cent for Victoria as a whole.⁹

Figure 4: Population by percentage



Source: ABS Census 2011

⁷ ABS Census 2011.

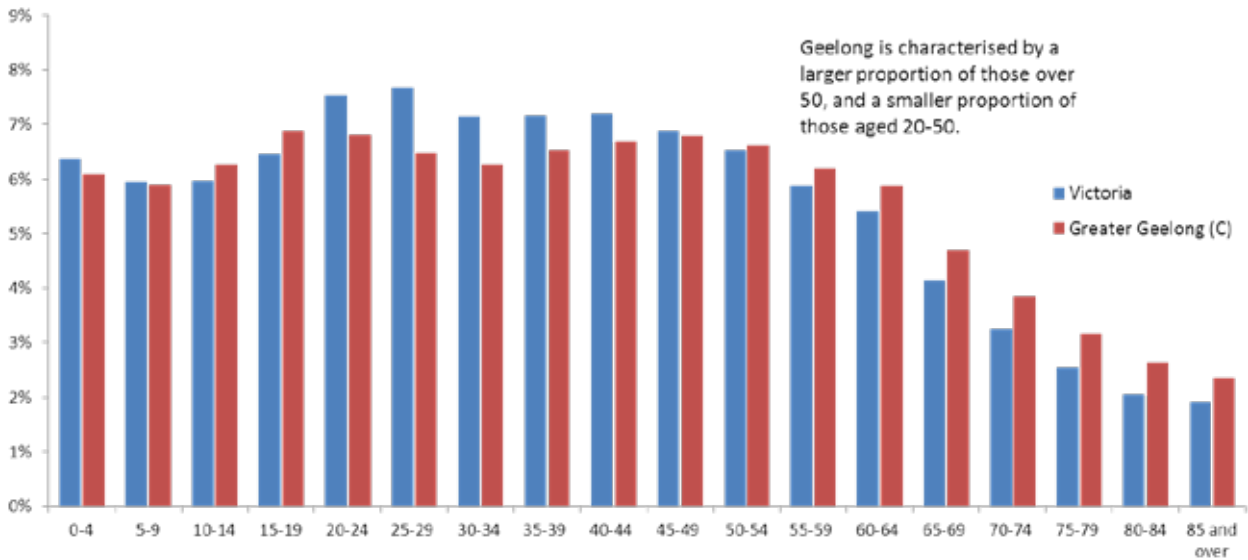
⁸ ABS Census 2011; Development Victoria, *Regional Cities Economic Profile: Geelong* (March 2013).

⁹ Department of Planning and Community Development, *Victoria in Future 2012*.

3.2.2 Geelong's population is ageing

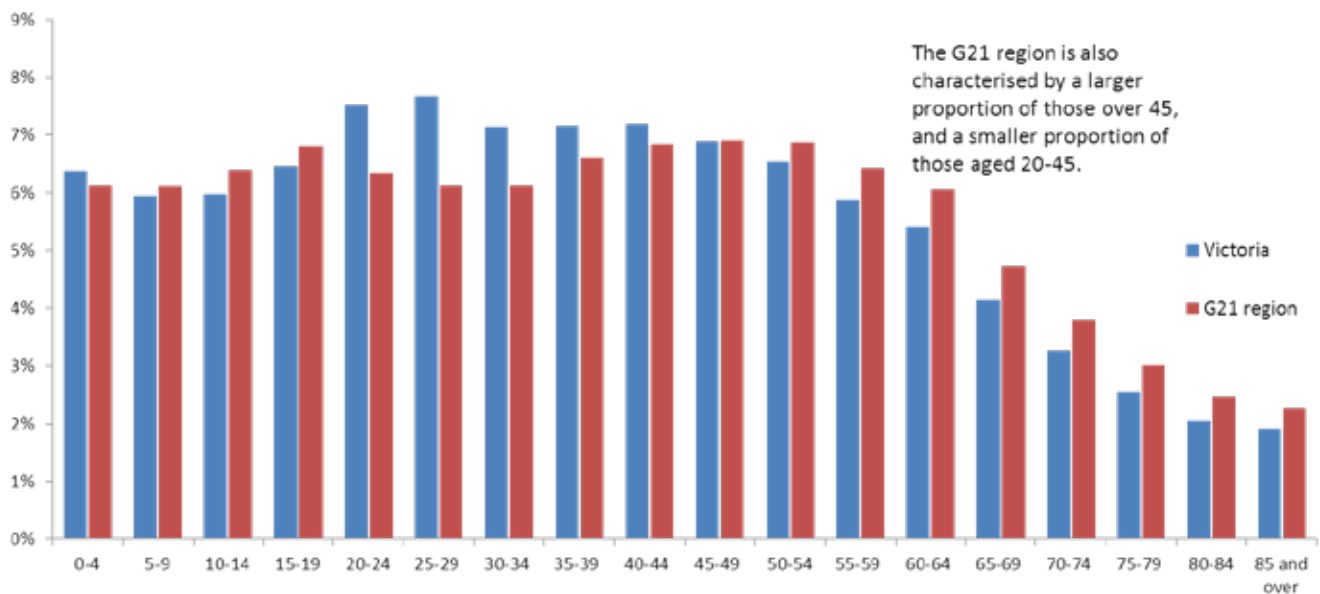
Geelong has a slightly older population than the general Victorian age profile, with a notable dip in the proportion of those aged 20-40 that is not matched by a comparable change in the composition of Victoria's population (see Figure 5). This age profile broadly matches that of the region as a whole (see Figure 6)

Figure 5: Percentage of the population in each age bracket



Source: ABS Census 2011.

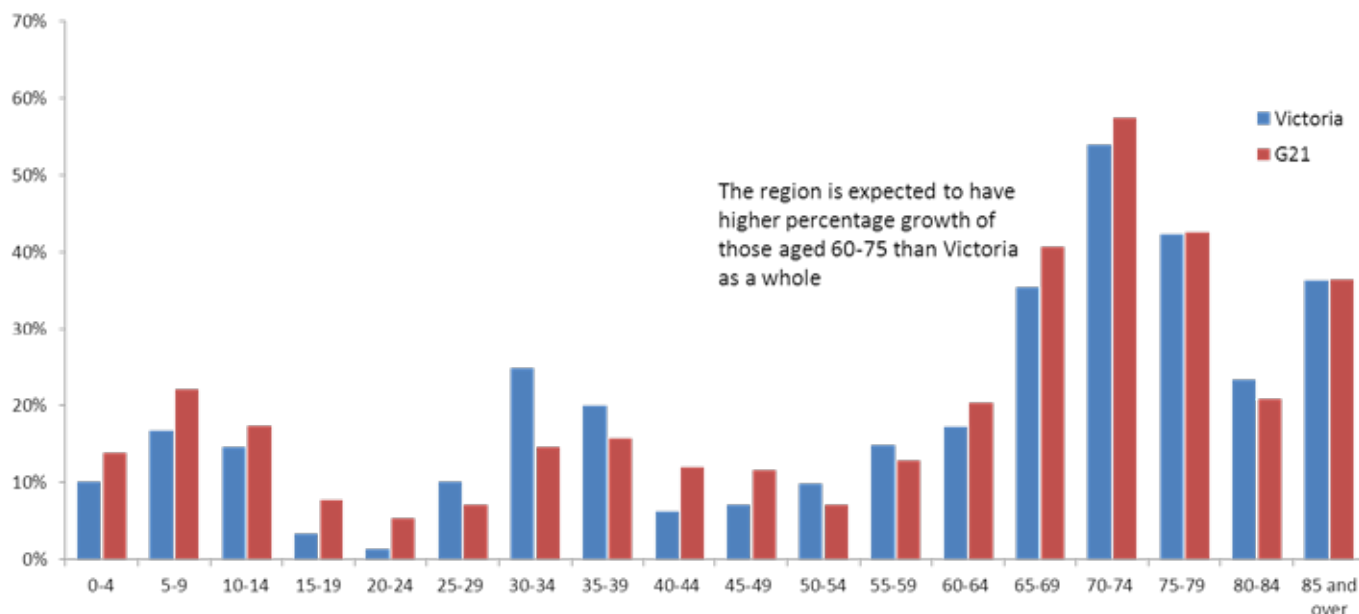
Figure 6: Percentage of the population in each age bracket



Source: ABS Census 2011

As illustrated in Figure 7, the region is expected to experience greater than the general state level of growth for those aged over 60 as the large number of middle-aged residents head towards retirement.

Figure 7: Population growth (%) by age bracket, 2011-2021



Source: Department of Planning and Community Development, *Victoria in Future 2012*.

The decreasing number of workers who can replace the retiring workforce places pressure on the region to increase its participation rate. As those of working age retire, and Geelong continues to attract retirees, there will be a relatively high proportion of the population dependent on those still of working age to support the region’s economy: the dependency ratios for Geelong and the region are expected to reach 62 per cent by 2021, compared to 53 per cent for Victoria as a whole.¹⁰

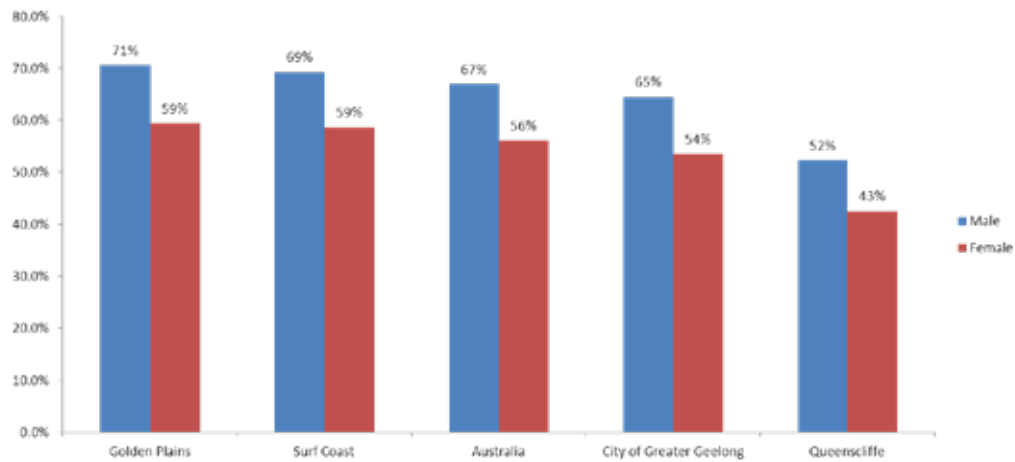
3.2.3 Geelong’s participation and employment rates are comparable to the rest of Australia

Geelong’s participation rate (59.5 per cent) is comparable to, but marginally lower than, Australia’s labour force participation rate (61.4 per cent).¹¹ This indicates that around 60% of the working aged population are either employed or looking for work. Geelong’s marginally lower participation rate is partly due to the lower participation rate of women in the region: 54.2 per cent compared to 56 per cent of Australian women generally. The following graph shows the labour force participation rates for males and females across each of the LGAs making up the regions, as compared to the participation rates for Australia as a whole.

¹⁰ Dependency ratio is the ratio of people aged 0-14 and over 65 to those aged 15-64. Department of Planning and Community Development, *Victoria in Future 2012*.

¹¹ ABS Census 2011 data cited in RMIT University, *Skilling the Bay – Geelong Regional Labour Market Profile (2013)* ('*Geelong Regional Labour Market Profile*'), p 71.

Figure 8 Labour force participation rates

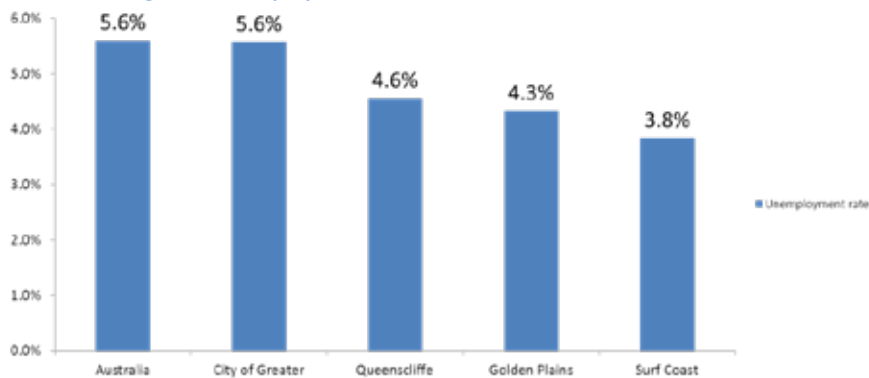


ABS Census 2011, cited in Geelong Labour Market Profile, p 73

Geelong and the Surf Coast have participation rates that are closer to the national average, while Golden Plains has a higher participation rates and Queenscliffe has the lowest participation rates.

The region’s unemployment rate (5.3 per cent) is comparable to the Australian rate (5.6 per cent). Geelong’s unemployment rate was the same as Australia’s in 2011, but all of the other LGAs had lower unemployment rates. The graph below illustrates the unemployment rate for each of the LGAs and Australia as a whole. These aggregate figures obscure greater variability in employment status across the age groups: among those aged 15-19 in the region, the unemployment rate is 15.3 per cent, and 7.2 per cent of those aged 15-19 who are not in the labour market are also not engaged in education or training.¹²

Figure 9 Unemployment rate in each of the LGAs and Australia



ABS Census 2011, cited in Geelong Labour Market Profile, p 73

¹² All figures cited from ABS Census 2011, see discussion in *Geelong Regional Labour Market Profile*.

3.2.4 There are some pockets of disadvantage

The region has relatively low levels of socio-economic disadvantage overall, according to the ABS' Socio Economic Indexes for Areas (SEIFA). Figure 10 shows the SEIFA indices across the region.¹³

Figure 10: SEIFA indices



Geelong and Queenscliffe are areas of relative 'advantage' in the area, indicated by their relatively high SEIFA indices (7 and 8 respectively). There are also areas of significant disadvantage within the region as shown in Figure 10. Corio, Norlane – North Shore and Whittington are relatively disadvantaged, as reflected in their SEIFA and their lower levels of income, lower levels of educational attainment, higher unemployment and higher reliance on government support relative to the Australian average.¹⁴

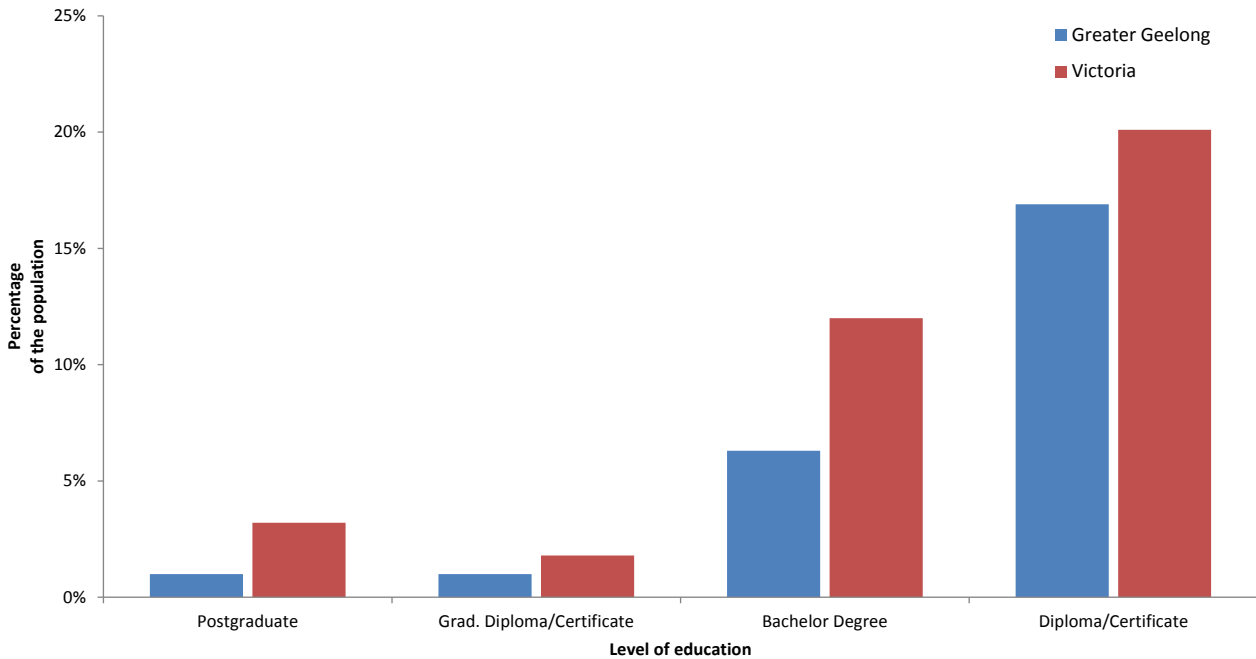
3.2.5 Geelong has relatively low attainment rates

Geelong has lower levels of higher education attainment but higher levels of vocational education attainment than the general state level of education attainment (see Figure 11). The region as a whole has lower levels of attainment for all post-secondary school education (see Figure 12).

¹³ Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2011 (cat. no. 2033.0.55.001).

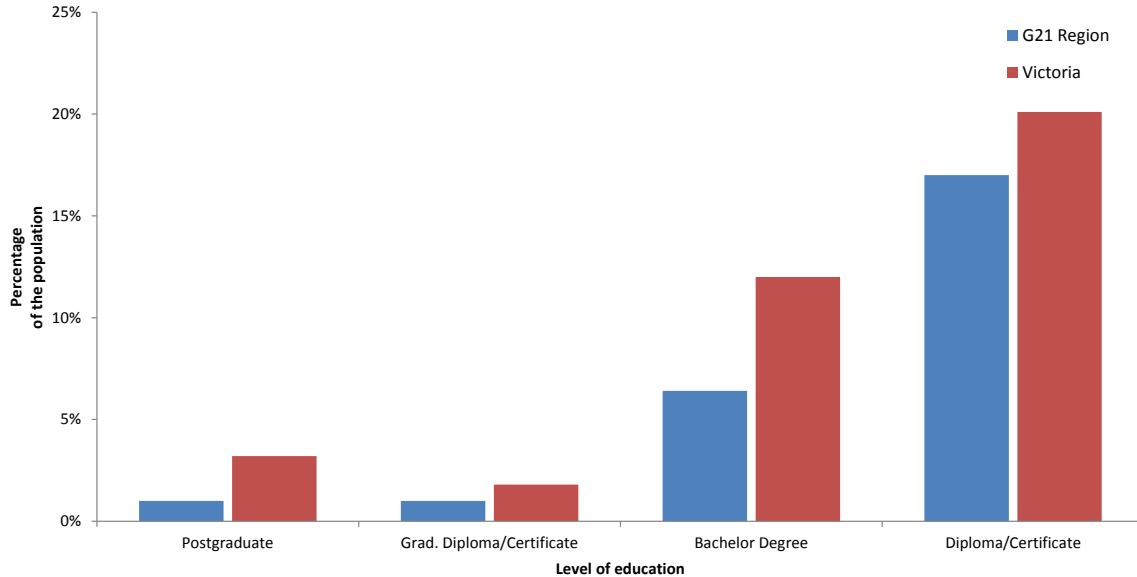
¹⁴ *Geelong Regional Labour Market Profile*, p 253-254.

Figure 11: Rate of tertiary education attainment: Geelong and Victoria



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'Qualification Attainment by Place of Usual Residents, RGA and Victoria, 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 68.

Figure 12: Rate of education attainment: G21 region and Victoria



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'Qualification Attainment by Place of Usual Residents, RGA and Victoria, 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 68.

These relatively poor post-secondary school educational outcomes are reflected in the region's school level outcomes – the region has a lower percentage of year 12 completion (36 per cent of the population) than Victoria (42 per cent).

3.2.6 School pathways suggest increased higher education attainment

On Track survey data suggests that a large proportion of Geelong year 12 leavers intend to go to university. The data provides an indication of Geelong residents' intended destinations after finishing school. Of the Geelong residents who completed the *On Track* survey (2,094 respondents), 11.7 per cent were early school leavers and 88.3 per cent had completed their year 12 education. The most commonly cited intended destination for those who completed year 12 in Geelong was higher education (45.3 per cent), with the next most commonly cited destination being the workforce (26.1 per cent). The proportion of year 12 leavers in Geelong who intended to attend university was lower than the proportion of Victorian survey respondents, reflecting the higher proportion of Geelong year 12 completers intending to undertake apprenticeships/traineeships or enter directly into employment. Fourteen per cent of those who completed year 12 intended to undertake vocational education and training and 9.4 per cent intended to undertake apprenticeships or traineeships. Those who intended to undertake VET training often intended to attend Gordon TAFE (18.9 per cent) or private RTOs (14.8 per cent).¹⁵

3.2.6 Current training market outcomes

The region's training activity is concentrated in the Greater Geelong area, which accounted for 98 per cent of all government subsidised vocational training enrolments in 2012, with 94 providers delivering training in the local government area. In 2012, the top five courses delivered in the region were: Certificate III in Hospitality, Certificate III in Driving Operations, Certificate II in Hospitality, Certificate III in Community Pharmacy and Certificate I in Vocational Preparation.¹⁶ The large number of enrolments in Certificate I in Vocational Preparation (and other foundation courses) indicates the demand in the region for the development of work-ready/employment skills. There are clear opportunities to further align training delivery to those sectors which offer employment opportunities in the future.

4 Workforce profiles for Geelong's key industry sectors

While Geelong's population is increasing at a rate above Victoria's general population growth rate, the region is forecast to experience slow employment growth relative to the rest of Victoria.¹⁷ At the same time, the region's ageing population places greater pressure on those remaining in the region to contribute to the region's economic development (see section 3.2.2 above). Unless the region's employment issues are addressed, it is likely that the area will decline economically and/or residents will experience increasing pressure to secure employment outside of the region.

This section sets out Geelong's employment by sector and looks at the forecast employment trends over the coming decade or so and the impact that those trends may have on Geelong's labour force and skills needs. This section focuses on the education and training, health care and manufacturing sectors as sectors that are critical to the future of Geelong in terms of shaping the region's changing economy and impacting skills, displaced workers and job opportunities. Manufacturing has long been at the core of the economy, health care and social assistance is a major

¹⁵ *Geelong Regional Labour Market Profile*, p 69 citing DEECD, *On Track* (2013) data.

¹⁶ Department of Education and Early Childhood Development

¹⁷ Juturna Consulting, *Geelong and Wyndham Labour Market Trends and Initial Analysis* (2013), p 15.

area of employment and is expanding due to both the growing and ageing both population and government policy reasons, and education and training is both a large, expanding sector and critical in delivering the qualifications and training needed to develop the region. The Geelong Regional Labour Market Profile identified those three sectors as critical to the region's future economic development.¹⁸

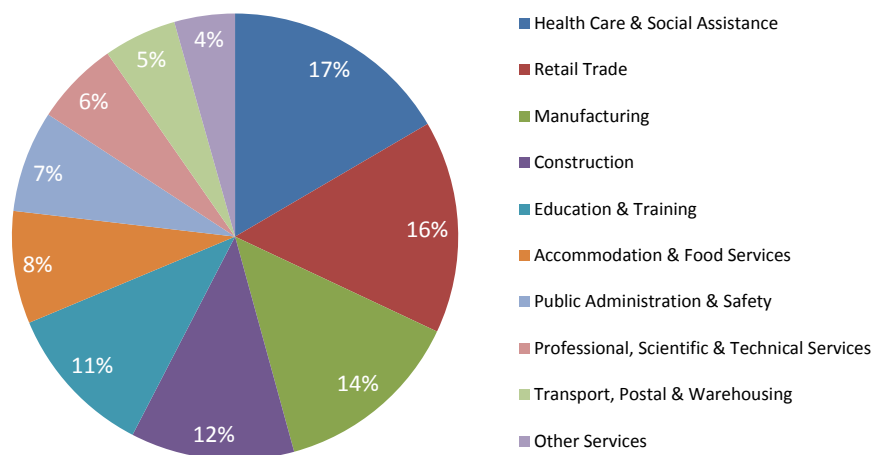
4.1 Employment by sector

4.1.1 Geelong has five major employing sectors and is diverse

As

Figure 13 shows, the largest contributions to Geelong's employment are the health care and social assistance, retail trade, manufacturing, construction, and the education and training sectors. The sectors contributing to Geelong's employment are fairly diverse: the three largest employment sectors (health care, retail trade and manufacturing) contributed less than 40 per cent to the region's employment.

Figure 13: Percentage contribution to Geelong's employment sector, 2011

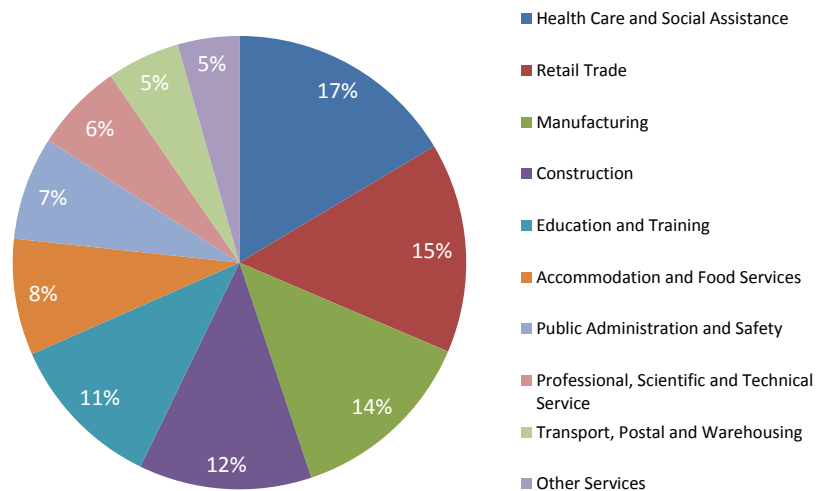


Source: Australian Bureau of Statistics, 2006 and 2011 Census of Population and Housing (Usual Residence Data) as cited in City of Greater Geelong, 'Employment by Industry, city of Greater Geelong 2006-2011', in *Economic Indicators, Geelong: Open for Business, Bulletin 2012* p. 28.

These figures broadly align with those for the region as illustrated in Figure 14 below.

¹⁸ Geelong Regional Labour Market Profile, p 103.

Figure 14: Percentage contribution to the region's employment, 2011

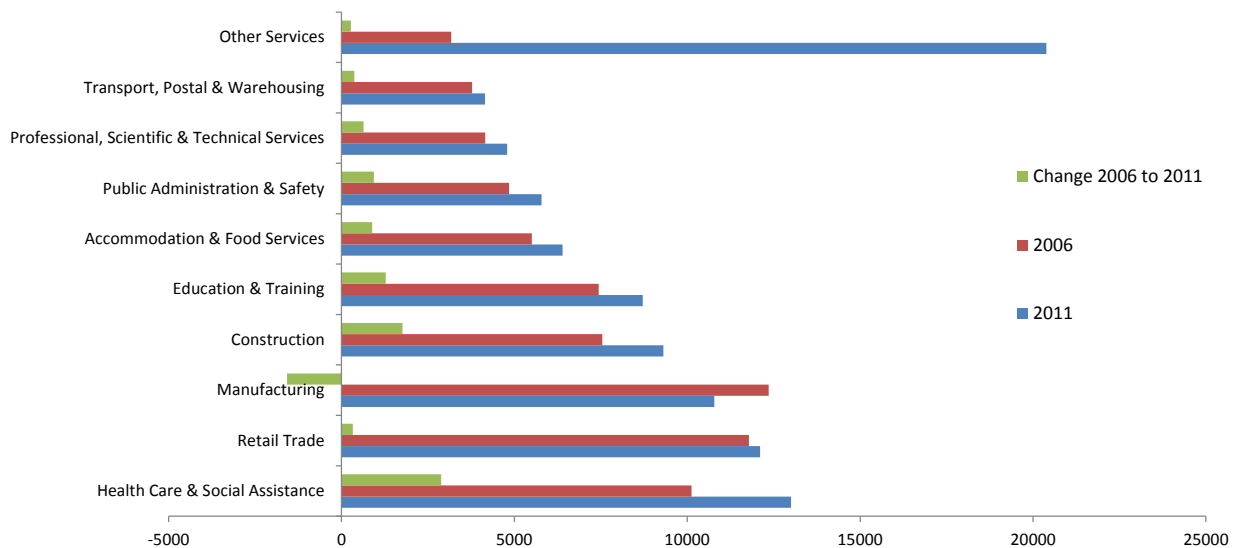


Source: Australian Bureau of Statistics, 2006 and 2011 Census of Population and Housing (Usual Residence Data) as cited in City of Greater Geelong, 'Employment by Industry, city of Greater Geelong 2006-2011', in *Economic Indicators, Geelong: Open for Business, Bulletin 2012* p. 28.

4.1.2 Employment is shifting from manufacturing to other services

Employment in manufacturing decreased by approximately 13 per cent over the last five years, while employment in all other industry sectors increased.

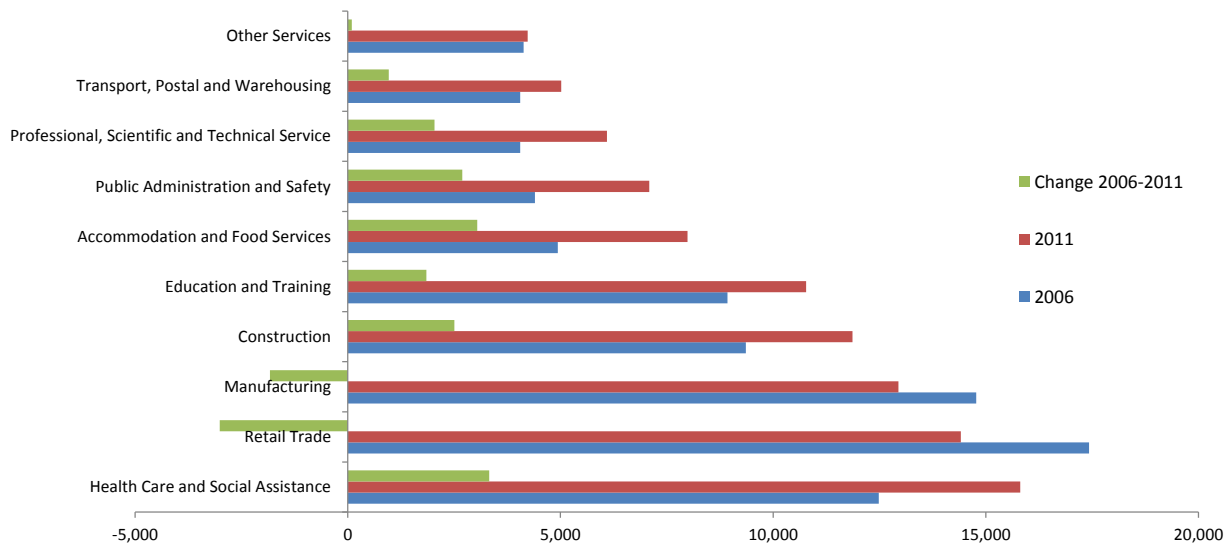
Figure 15: Number of employees in the City of Greater Geelong by sector in years 2006 and 2011



Source: Australian Bureau of Statistics Census of Population and Housing, 2006 and 2011 as cited in RMIT, 'RGA Residents Employed by Most Common Divisions, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 80.

The region as a whole has experienced similar trends, with manufacturing's contribution to employment decreasing by 12 per cent and retail trade's contribution to employment decreasing by 17 per cent.

Figure 16: Number of employees in the region by sector in years 2006 and 2011



Source: Australian Bureau of Statistics Census of Population and Housing, 2006 and 2011 as cited in RMIT, 'RGA Residents Employed by Most Common Divisions, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile*, 2013, p. 80.

The rate of change within the manufacturing sector varies between sub-sectors: for example, the automobile subsector is declining rapidly while the food processing subsector is growing.

Economists have projected continued decreases in employment in Geelong in the sectors of manufacturing and construction and significant increases in health care and social assistance. The expansion of existing health care operators, particularly Barwon Health (the region's largest employer),¹⁹ policy changes within early childhood development (for example, changing staff to children ratios: it is anticipated that by 2016 there will be one staff member for every five children aged 25-35 months at child care centres) and the ageing population are expected to contribute significantly to jobs growth in the sector.²⁰ Employment in the education and training sector is also characterised by strong growth projections, driven by population growth and introduction of, or changes to, minimum qualification requirements driving demand for post-secondary school qualifications.²¹

¹⁹ *Geelong Regional Labour Market Profile*, p 139.

²⁰ *Ibid* p 157.

²¹ *Geelong Regional Labour Market Profile*, pp 162, 166.

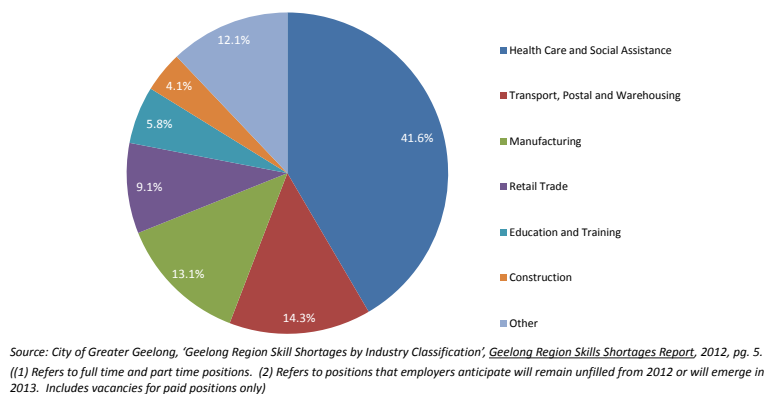
Figure 17: Projected employment growth 2011 - 2021



4.1.3 Sectoral trends will impact skill shortages

Geelong is expected to experience significant skills shortages in health care and social assistance. The shortage in health care skills is partly due to a lack of clinical placements and supervisors relative to student numbers²² and a lag between changing skills needs and the courses offered by the tertiary education sector.²³ At the same time, those seeking employment in the sector are facing increasing pressure to have formal qualifications.²⁴ To address these twin pressures, the region will need to attract more students into that field of study and/or attract more people trained in those industries to the region.

Figure 18: Current and anticipated (2012-2013) skill shortages by sector



²² Geelong Regional Labour Market Profile, p 159.

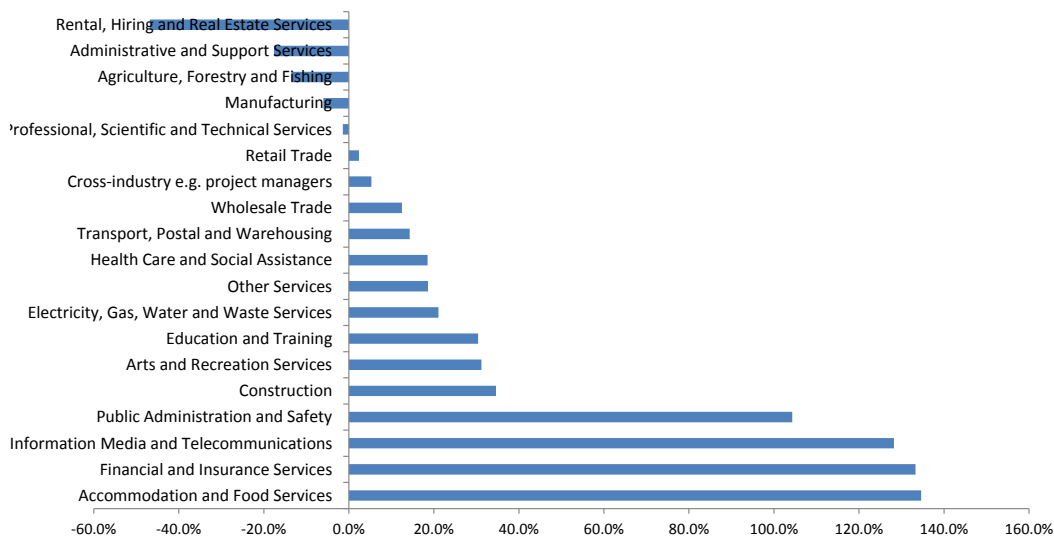
²³ Ibid p 163.

²⁴ Ibid p 166.

Despite manufacturing’s overall decrease in employment figures, the sector is also likely to face skill shortages as the composition of manufacturing in the area changes: as Figure 18 above shows, 13 per cent of Geelong’s expected skill shortages are in the area of manufacturing.

Some of the region’s expected skill shortages may be addressed by training people now. Figure 19 below illustrates percentage change in VET enrolments in Geelong between 2011-2012. Training in manufacturing declined by 6 per cent over this period, which may present a challenge to the region given that most of the employees in the sector are trained through apprenticeships/traineeships, VET or on the job (see section 4.1.5 below).

Figure 19: Percentage change in VET enrolments in the City of Greater Geelong, by sector, 2011-2012



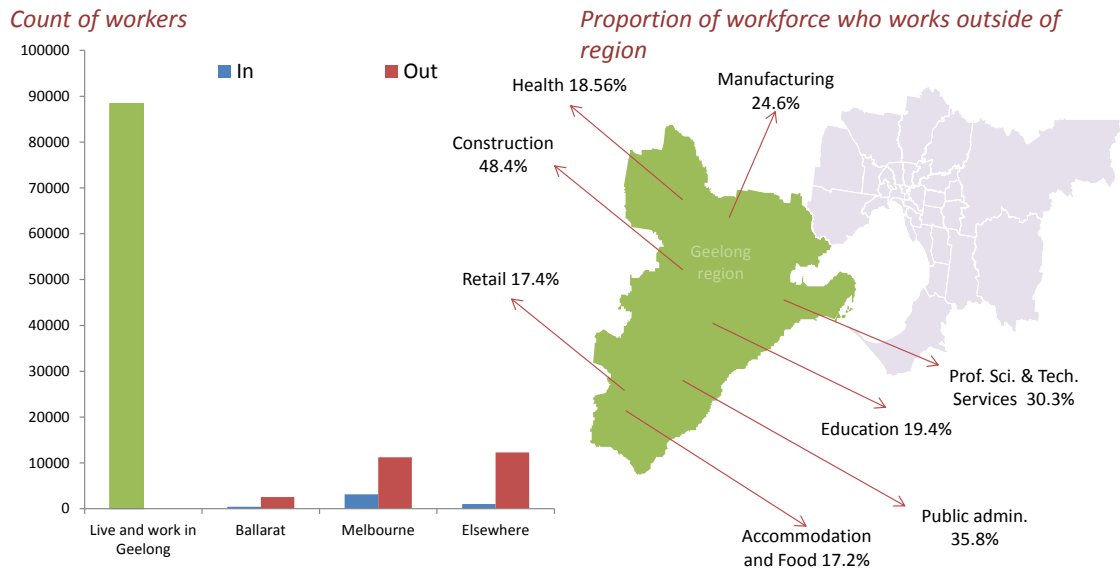
Source: City of Greater Geelong (2012) Geelong Region - Skill Shortages Report, Sept 2012 as cited in Department of Education and Early Childhood Development, Trends in Vocational Training in Greater Geelong, 2013, p. 4.

4.1.4 Geelong is both an inter-connected and self-contained regional city

Geelong’s labour market is highly connected to its regional neighbours with Geelong both an employment hub and also reasonably self-contained. In a number of industries, many residents travel outside of the region for work, while in others there is substantial inflow and a high degree of self-containment, including cross-over between local government areas within the region. This reinforces the interconnectedness of Geelong to the surrounding local government areas and the benefit it obtains through its proximity to Melbourne.

The large majority of the Geelong region’s workforce lives and works in the region, although many more leave for work than travel in. This is driven by certain sectors more than others. Figure 20 (below) shows that more than 77 per cent of regional residents work within the region with a significant number travelling to Melbourne and elsewhere for work. The major contributing sectors to the outflow of workers are construction (5,740), manufacturing (3,187) and health care and social assistance (2,927) while Figure 20 shows that of these only construction is not reasonably self-contained within the region. Of those employed in the region in the sectors of manufacturing, education and health, only a small proportion of the workforce (8.7 per cent, 6.5 per cent and 4.4 per cent respectively) commute into the region from elsewhere.

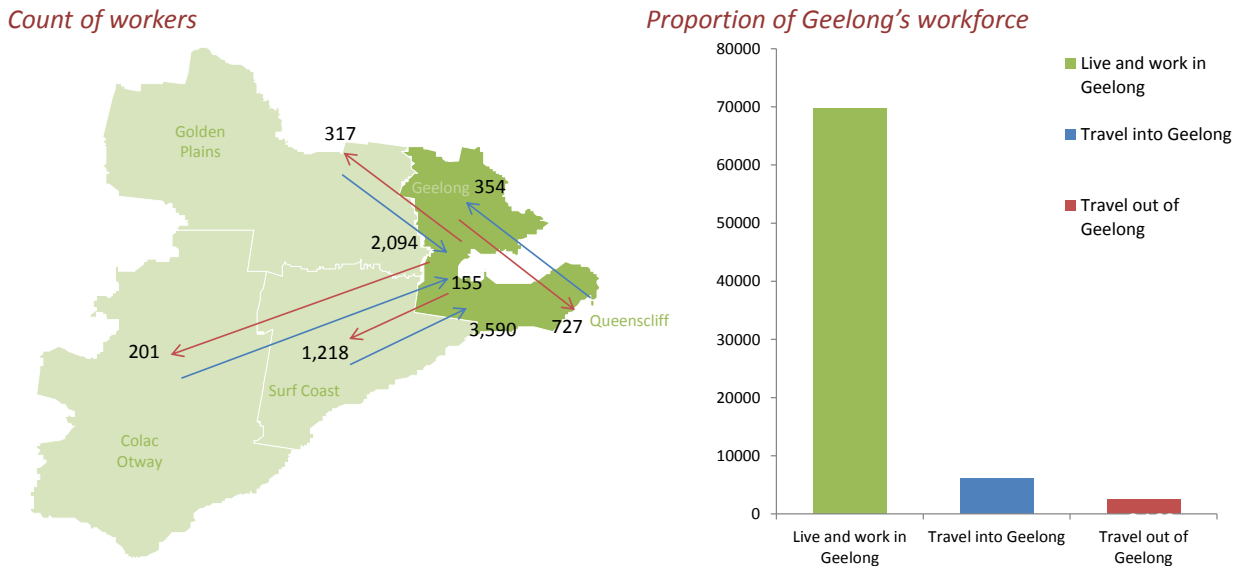
Figure 20: Journey to work – Geelong region



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Residents Employed by Most Common Divisions, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile*, 2013, p. 80.

Within the Geelong region, Geelong city is the workforce hub and there is a high degree of connectedness between the various LGAs. Figure 21 (left) shows that Golden Plains has a large workforce who travel to Geelong for work, while there is a high degree of connectedness between Geelong and the Surf Coast. Figure 21 (below) illustrates that Geelong is an overwhelmingly self-contained city in its own right and within the region.

Figure 21: Journey to work – Geelong city

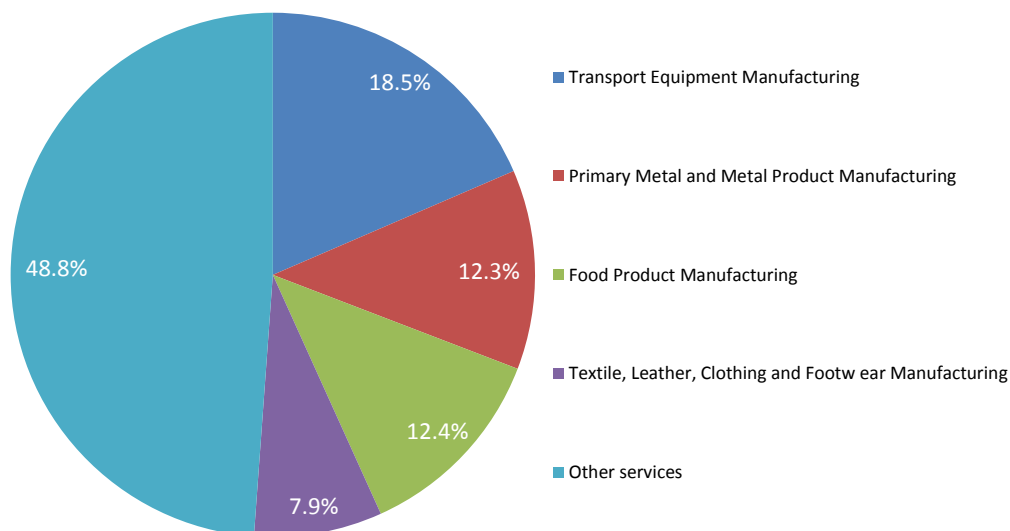


Source: Australian Bureau of Statistics, 2011 as cited in AEC Group, 'Business Count by Industry, 2009', *Draft G21 Economic Development Strategy: Background Paper*, 2012, p.26.

4.1.5 Workforce profiles: manufacturing

The manufacturing sector employs 12,943 people in the region, most of whom manufacture transport equipment (including automobiles), metal or food products. Figure 22 shows the breakdown of manufacturing by sub-division.

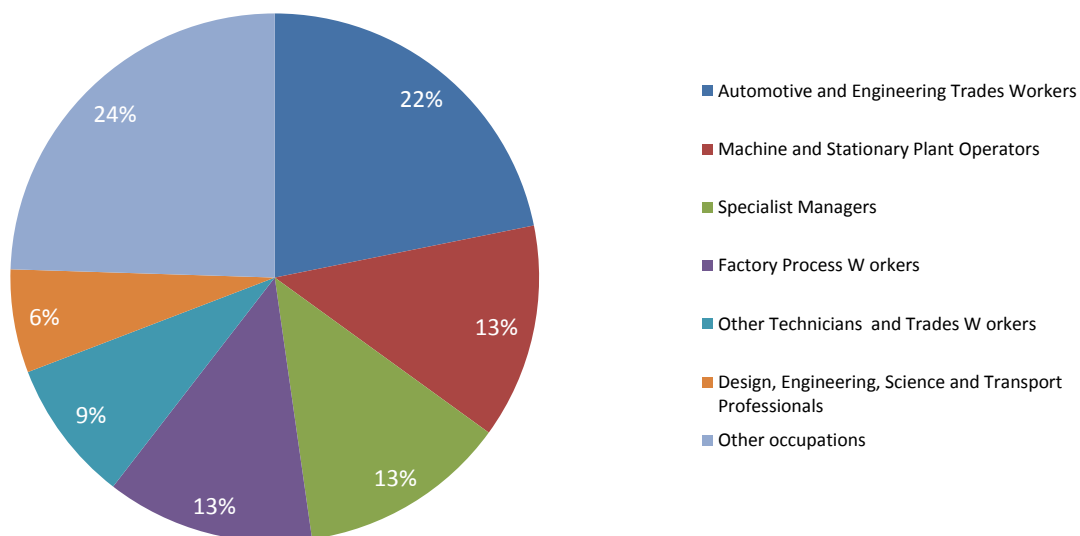
Figure 22: Manufacturing - employment by subdivision



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Residents Employed in the Manufacturing Division by Sub-Division and Sex, 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 106.

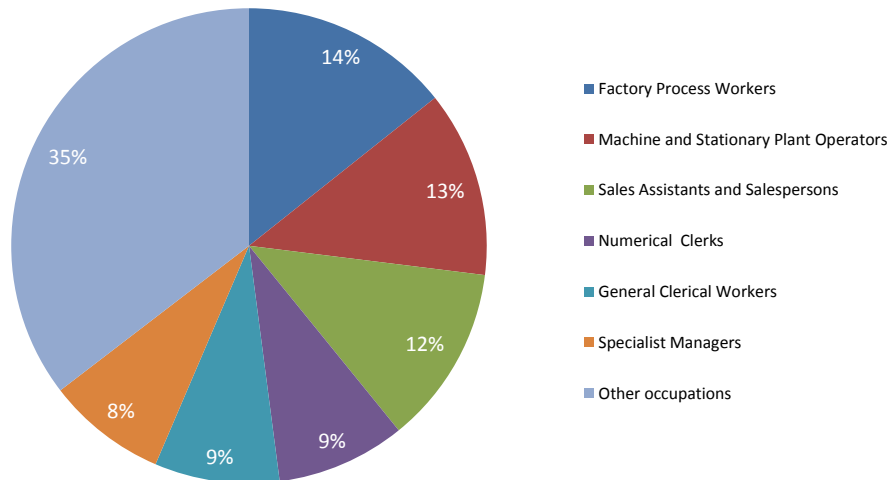
Of the three sectors being considered, manufacturing shows the starkest differences in common occupations held by men or women: none of the top ten occupations held by men were also among the top ten occupations held by women. Figure 23 and Figure 24 illustrates the most commonly held occupations by males and females in the sector.

Figure 23: Main occupations for males in the manufacturing sector in the Geelong area



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Resident Males Employed in the Manufacturing Division by Most Common (Top 15) Occupations, 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 114.

Figure 24: Main occupations for females in the manufacturing sector in the Geelong area

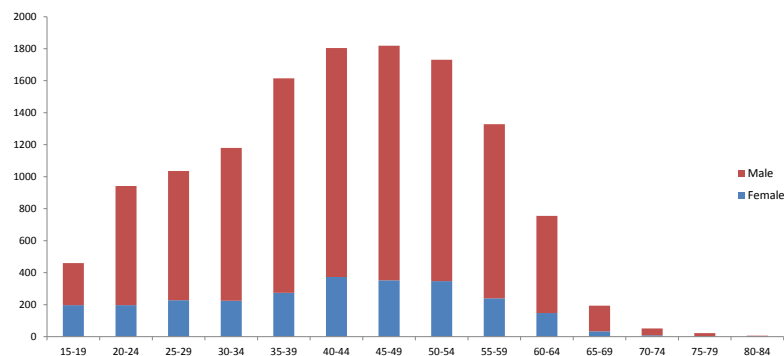


Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Resident Males Employed in the Manufacturing Division by Most Common (Top 15) Occupations, 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 115.

The manufacturing sector predominantly employs males, most of whom are aged between 35-54. This may pose a challenge to the sector, as there are relatively few younger employees to replace those who are retiring. In particular, over a third of those in the following occupations are over the age of 50:

- mechanical engineering trades workers
- construction, distribution and production managers
- machine operators
- stationary plant operators
- miscellaneous factory process workers
- miscellaneous technician and trades workers.²⁵

Figure 25: Number of employees by age bracket and gender in the manufacturing industry in the Geelong area

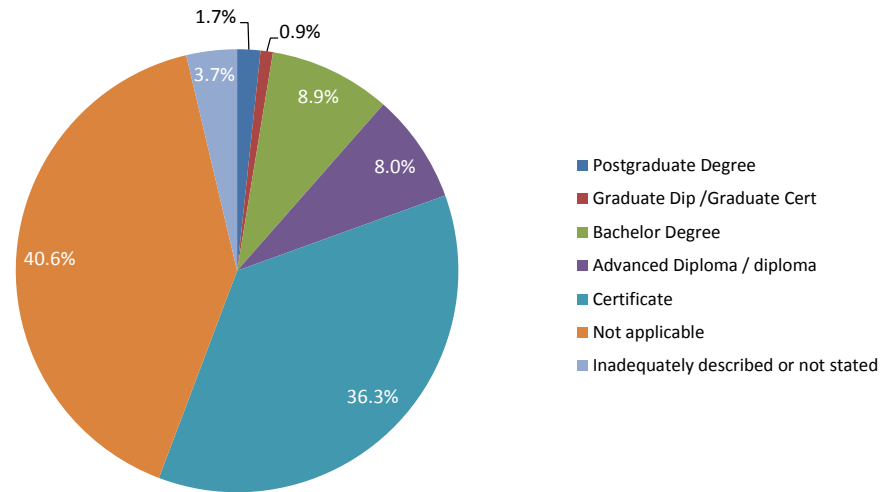


Source: Australian Bureau of Statistics Census 2011. Includes the LGAs of the City of Greater Geelong, Queenscliffe Shire, Surf Coast and Golden Plains.

²⁵ ABS 2011 Census; *Geelong Regional Labour Market Profile*, pp 116-119.

Almost 80 per cent of the employees in the sector either have no post-secondary school education or certificate level education (Figure 26).

Figure 26: Percentage of regional residents employed in manufacturing, 2011

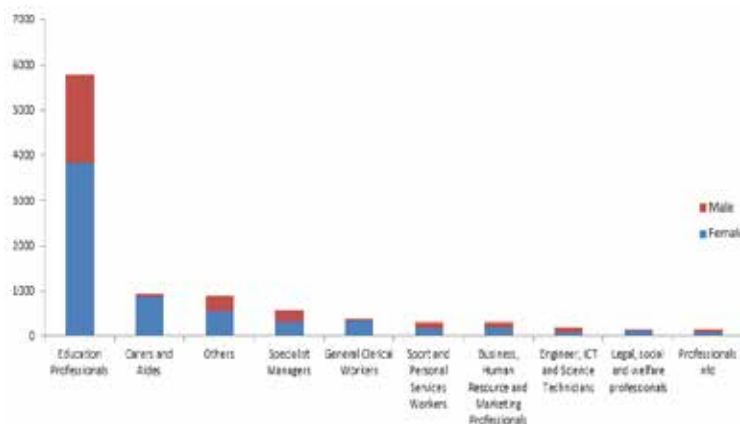


Source: Australian Bureau of Statistics Census of Population and Housing, 2006 and 2011 as cited in RMIT, 'RGA Residents Employed in the Manufacturing Division by Qualification Attainment and Sex, 2006 and 2011'; *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 111.

4.1.6 Workforce profiles: education and training

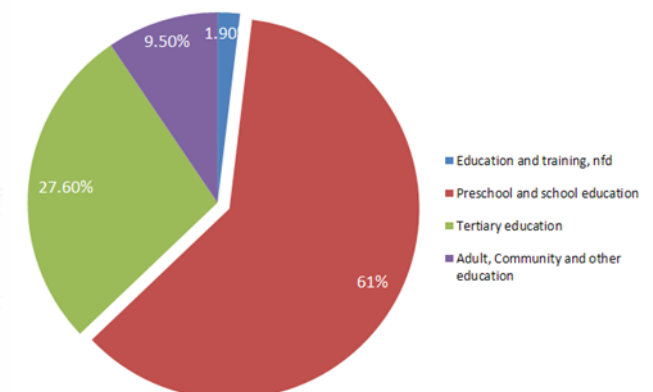
The education and training sector employs 10,776 of the region's residents, most of whom are employed in preschool and school education (61 per cent), followed by tertiary education (27.6 per cent). Across all subdivisions, the most commonly held occupation is 'education professionals'.

Figure 27 Employment in the education and training sector by sub-division



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA (Females and Males) Employed in the Education and Training Division by Most Common Occupation, 2011'; *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 186-189.

Figure 28 Occupations held in the education and training sector in the region

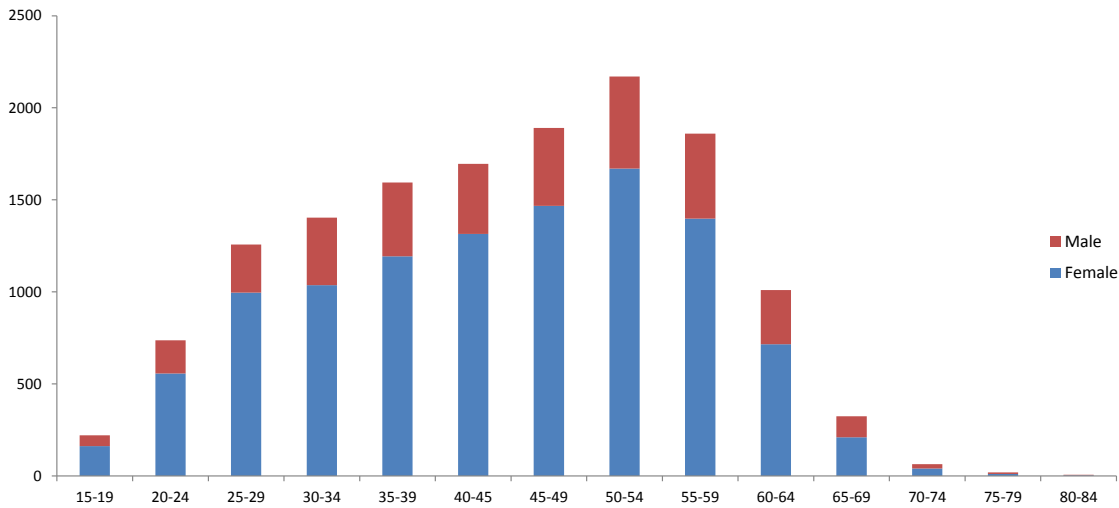


Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Residents Employed in the Education and Training Division by Sub-Division and Sex, 2011'; *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 178.

The education and training sector faces an ageing workforce, with 37.5 per cent of regional residents employed in the sector over the age of 50, even higher than the proportion of those employed in manufacturing in the same age range (31.6 per cent). In particular, almost half of tertiary education teachers are aged 50 years or over (46.5%) and

over a third of school teachers (35.8%) and education aides are also 50 years or over (34.2%). Over half of education, health and welfare services managers are aged over 50 years.

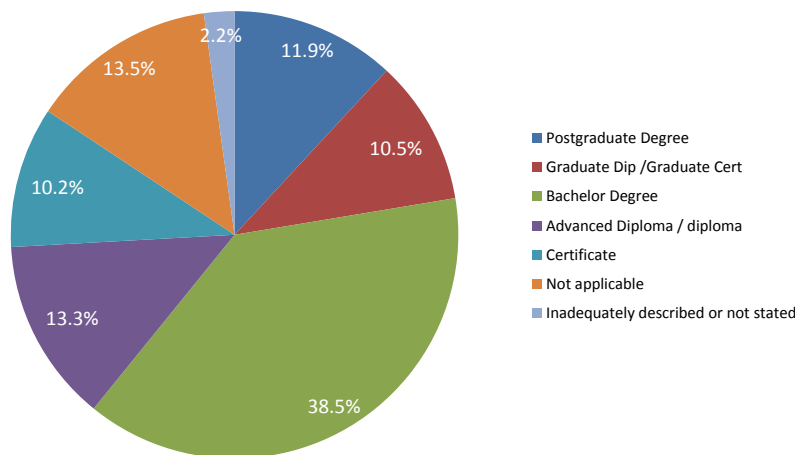
Figure 29: Number of regional residential employees in the education and training sector by age and gender



Source: Australian Bureau of Statistics Census of Population and Housing, 2006 and 2011 as cited in RMIT, 'RGA Residents Employed in the Education and Training Division by Age Group and Sex, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 187.

The vast majority of employees in the sector hold bachelor degrees (38.5 per cent), with smaller percentages (around 10-13 per cent) holding either a graduate certificate/diploma or advanced diploma/diploma. Over one in ten employees in the sector holds a postgraduate degree (11.9 per cent).

Figure 30: Percentage of regional residents employed in education and training: qualification attainment, 2011



Source: Australian Bureau of Statistics Census of Population and Housing, 2006 and 2011 as cited in RMIT, 'RGA Residents Employed in the Education and Training Division by Qualification Attainment and Sex, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 185.

4.1.7 Workforce profiles: health care and social assistance

In 2011, 15,811 of the region’s residents were employed in the health care and social assistance sectors, most commonly in hospitals or medical and other health services (see Figure 31). Figure 32 shows the distribution of

occupations within the health care and social assistance sector: the most commonly held occupation (held by 40 per cent of residents employed in the sector) is health professionals.

Figure 31 Health care and social assistance employment

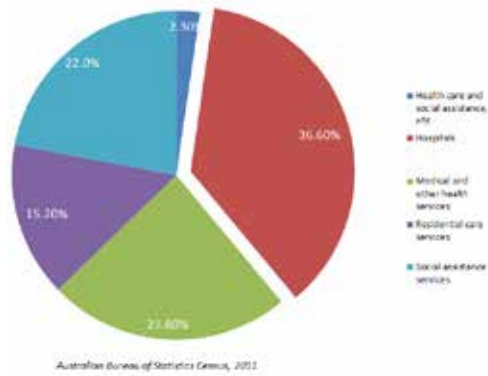


Figure 32 Occupations by gender held in the health care and social assistance sector in the region

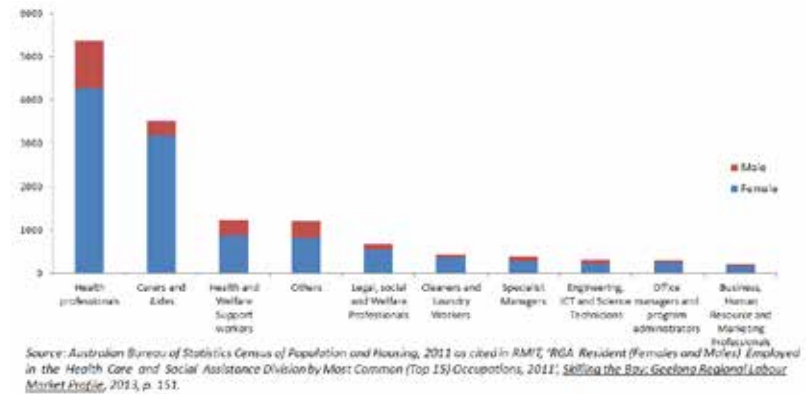
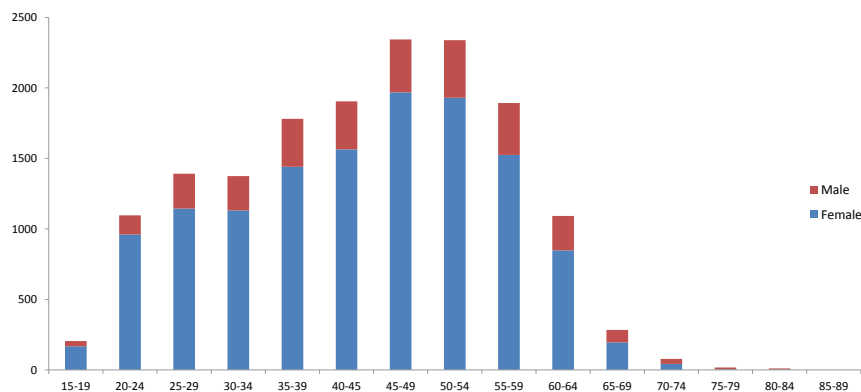


Figure 33 illustrates that most employees in the health care and social assistance sector are aged 40-59, posing challenges for the work force. The majority of health professionals (66 per cent) are midwifery and nursing professionals, 34.8 per cent of whom are aged 50 years or over.²⁶ Similarly, of the third most common category, health and welfare support workers, over a third of the workforce is aged 50 years or over.²⁷ Over a third of medical practitioners and social and welfare professionals were also at least 50 years old in 2011.²⁸

Figure 33: Number of total health care and social assistance employees in the region by age group and gender



Source: Australian Bureau of Statistics Census of Population and Housing, 2006 and 2011 as cited in RMIT, 'RGA Employed Residents in the Health Care and Social Assistance Division by Age Group and Sex, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile*, 2013, p. 149.

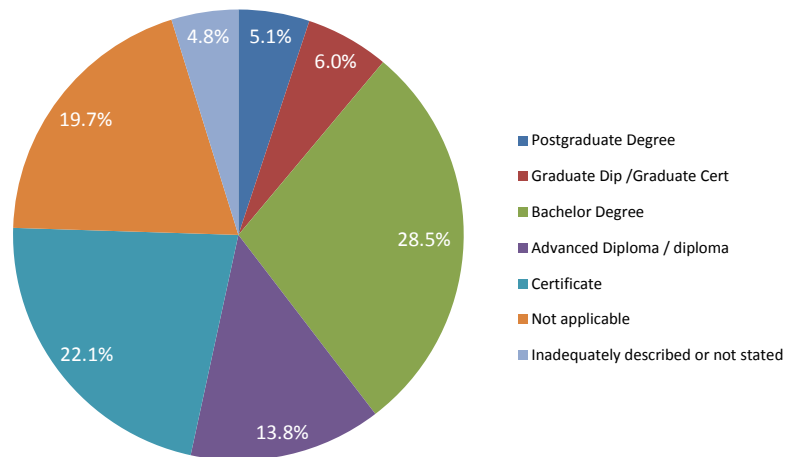
In 2011, over a quarter of employees in the sector held a bachelor degree, and over a fifth held a vocational qualification.

²⁶ ABS Census 2011 cited in *Geelong Regional Labour Market Profile*, p 153.

²⁷ ABS Census 2011 cited in *Geelong Regional Labour Market Profile*, p 154.

²⁸ ABS Census 2011 cited in *Geelong Regional Labour Market Profile*, p 154-5.

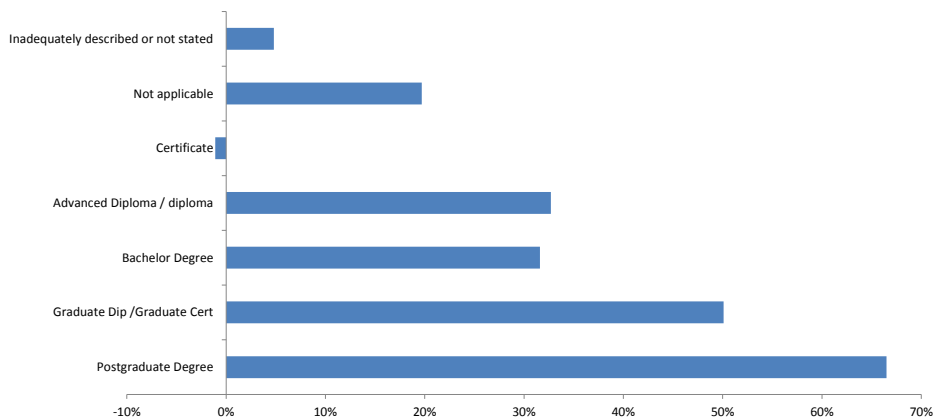
Figure 34: Percentage of regional residents employed in health care and social assistance: qualification attainment, 2011



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Residents Employed in the Health Care and Social Assistance Division by Qualification Attainment and Sex, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 147.

Over time, the proportion of those in the sector holding a qualification is likely to increase,²⁹ in line with historical trends. Figure 35 below shows the decrease in certificate level qualifications and corresponding increase in higher education or graduate qualifications between 2006-2011, which may reflect the increased emphasis placed on formal qualifications in the sector.³⁰ In particular, the percentage of employees holding postgraduate degrees increased 66.5 per cent between 2006-2011.

Figure 35: Percentage change in qualification attainment, 2006-2011



Source: Australian Bureau of Statistics Census of Population and Housing, 2011 as cited in RMIT, 'RGA Residents Employed in the Health Care and Social Assistance Division by Qualification Attainment and Sex, 2006 and 2011', *Skilling the Bay: Geelong Regional Labour Market Profile, 2013*, p. 147.

²⁹ Geelong Regional Labour Market Profile, p 166 .

³⁰ Geelong Regional Labour Market Profile, p 166.

5 Lessons from Canada

Geelong may learn from the experience of Hamilton in Ontario, Canada, which has undergone a comparable experience related to the shifting focus of its manufacturing sector and the need to retrain and find new employment for retrenched workers. Hamilton, a city of 720,000 people,³¹ is located at the centre of a densely populated and industrialised region. Hamilton is characterised by a significant and diverse manufacturing base and a large service sector. Hamilton's manufacturing sector was being undermined by its slow response to increasing competition and a mismatch between the labour force and the region's skill needs.³² Ontario as a whole is Canada's leading manufacturing province, with eleven automotive assembly parts and more than 300 auto parts manufacturers.³³

5.1 Worker transition centres support displaced employees

Hamilton found that worker transition centres ('action centres') were particularly effective at helping workers to transition to new jobs. Hamilton implemented six action centres to provide services and resources for displaced workers. The action centres' primary objectives were to:

- provide training and education for workers to find appropriate employment
- enable workers to learn about new training offers that could result in new employment opportunities
- ensure that workers and their families receive the financial support that they need during the period of unemployment.

Hamilton's action centres provide services such as counselling sessions, teaching job search techniques, resume writing and interview skills and facilitate access to accredited courses that retrain workers. Centres also provide emotional support by staffing the centres with displaced workers who have experienced a similar redundancy and are able to relate to the workers' experience. Research has found that support from peers reduces the stigma associated with using support services and facilitates greater trust to maximise the effectiveness of support services.³⁴ The combination of the supportive environment and services offered was effective. For example, Hamilton Jobs Action Centre, found jobs for approximately half of the 652 clients who came to the centre for support. Further, all of those who completed training at the centre (169 participants) subsequently secured employment.³⁵

³¹ 721,053 in 2011: *Geelong Regional Labour Market Profile: Attachment to Final Report* p 109.

³² *Geelong Regional Labour Market Profile: Attachment to Final Report* p 172

³³ *Geelong Regional Labour Market Profile: Attachment to Final Report* p 142

³⁴ *Geelong Regional Labour Market Profile: Attachment to Final Report* p 160

³⁵ *Ibid* p 164.

5.2 Employers and training organisations create outcomes through collaboration

Hamilton's Skilled Trades Apprenticeship Consortium has demonstrated the effectiveness of training organisations collaborating directly with employers to increase the uptake of apprenticeships and training. Under the Hamilton Skilled Trades Apprenticeship Program, a consortium of employers, a union, a further education college and provincial government department agreed on a program of apprenticeship training and employment. Under the program:

- consortium members are encouraged to discuss and solve common apprenticeship issues by drawing on their shared resources
- employers have the opportunity to see the benefits of working with the apprentice
- employers receive government tax credits from offering the apprenticeship, and also benefit from the work undertaken by the apprentice during the placement
- apprentices are less likely to be laid-off by their sponsoring employer because the consortium sponsors the apprentice.

Employers are also encouraged to take on apprentices because they do not have any commitment to provide apprentices with full time employment after their apprenticeship is completed. The pilot program resulted in the registration of approximately 300 apprenticeships in the steel industry, most of whom completed their apprenticeships. The program has also been found to result in improved apprenticeship completion rates.³⁶

³⁶ *Geelong Regional Labour Market Profile*, p 228-229.