



Jobs Growth in Queensland

Trends and Prospects

**Tom Swann
Mark Ogge
Rod Campbell**

April 2016

The **Australia Institute**

Research that matters.

Jobs Growth in Queensland

Trends and prospects

This paper outlines the recent employment trends and future prospects of Queensland's industries and regions, and explores the state's changing economic context.

Discussion paper

Tom Swann

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Summary

In the last two years employment has grown and unemployment has fallen in Queensland, despite job losses in the resource sector.

After rising to a peak in early 2015, unemployment has fallen to six per cent. At the same time there has been a modest increase in labour force participation. More people are looking for work and more people have been finding work -- because the number of jobs has grown, in particular full time jobs.

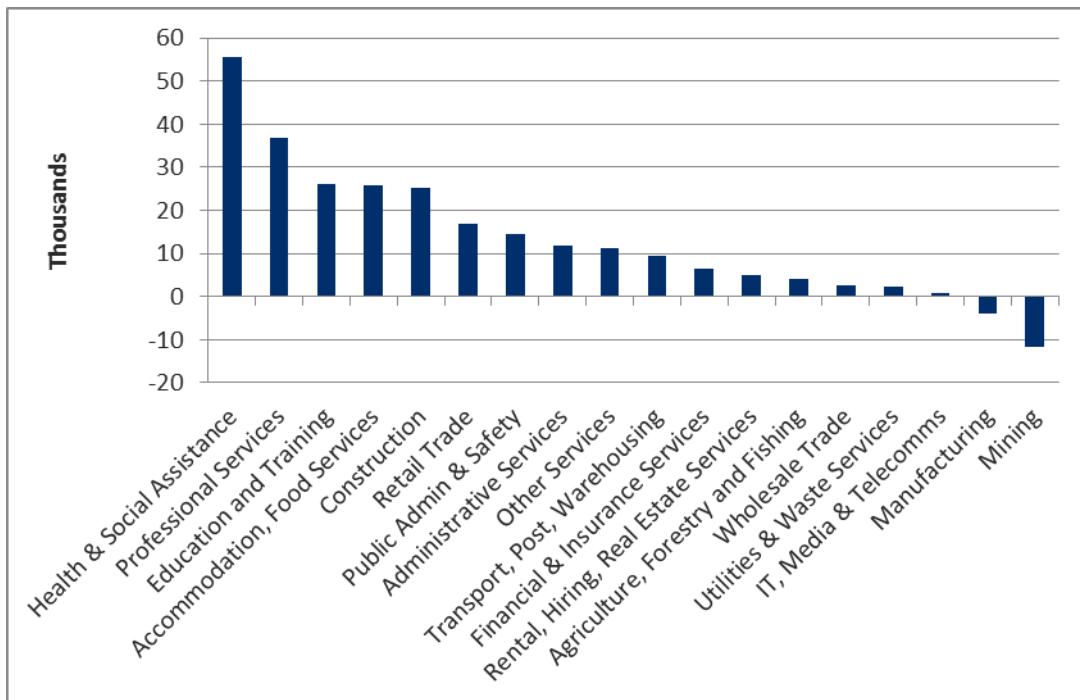
In March 2016, trend employment in Queensland was 50,000 higher than the year before, a growth rate of 2.2 per cent. This was down from the growth rate of 2.7 percent in the year to December 2015, the strongest in seven years. Nonetheless, current growth is well above zero growth experienced over two of the last five years. During these periods, full time employment declined, with a shift into part time employment. By contrast, most of the growth in the last two years has been from full time employment.

Recent jobs growth has been driven by Queensland's service industries. While the resources sector has cut 22,000 jobs over the past two years, four other industries each created more jobs than were lost in the resource sector over that period: health, education, professional services and accommodation and food services, which is closely related to tourism.

These recent trends reflect the changing economic context associated with the end of the mining construction boom, including the easing of the high Australian dollar and skills shortages for some sectors. This changing economic context shapes the opportunities for future jobs growth in Queensland's modern, diverse economy, where four in five jobs are in service industries.

Commonwealth Government employment projections suggest that employment growth for the remainder of the decade will come overwhelmingly from the services sector.

Queensland employment projections by industry



Source: Commonwealth Department of Employment Labour Market Information Portal

All industries except mining and manufacturing are expected to contribute to jobs growth over the next five years. Two in three of the new jobs are projected to come from five industries:

- Health care and social assistance
- Professional, Scientific and Technical Services
- Education and training
- Accommodation and Food Services (closely linked to tourism)
- Construction.

Health Care and Social Assistance is already the largest employer in Queensland, employing over 300,000 people. It is projected to add around 57,000 new jobs by November 2019, an increase of 10.9%, representing one in five new jobs. Professional, Scientific and Technical Services provides the second largest growth and the fastest projected growth rate, adding around 37,000 new jobs. Both Education, and Accommodation and Food Services are each expected to contribute around 25,000 jobs.

Jobs growth in Accommodation and Food Services, as well as Retail and Transport, should benefit from increased tourism, with visitor numbers expected to increase by 3 percent per year over the next decade.

While manufacturing is expected to decline overall, the decline is small relative to the size of the manufacturing industry, which remains among the largest employers overall. Moreover, some subdivisions of the sector are expected to experience modest growth, including Food Product Manufacturing, which is Queensland's largest manufacturing subdivision. Manufacturing employment in Queensland has not experienced the decline experienced by the industry nationally, and has in fact increased over the last two years.

While employment in the construction sector has declined since 2013, it is projected to grow in the next five years. Sectors associated with residential and commercial construction are forecast to increase by 18 percent, although construction associated with the resource sector will decline by 10 percent.

Regional unemployment remains Queensland's greatest jobs challenge. Despite progress over the last twelve months in reducing unemployment in several regional areas, unemployment remains stubbornly high in several regions, notably in regional centres along the central and north coast, Ipswich and Outback Queensland.

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Which industries employ Queenslanders?

There are 2.4 million people employed in Queensland across a diverse range of industries. According to the Australian Bureau of Statistics, service industries provide four in five Queensland jobs.¹

Table 1 shows the top eight employing industries in Queensland, together contributing two in three jobs. The major employing service industries include Health, Retail, Education, and Professional, Scientific and Technical Services. Other large employers include Construction and Manufacturing.

Table 1: Top eight employing industries in Queensland

Industry	Total employment	Percentage of state employment
Health care and social assistance	305,100	13%
Retail Trade	256,000	11%
Construction	204,200	9%
Education and Training	196,200	8&
Professional, Scientific and Technical services	183,000	8%
Manufacturing	171,300	7%
Accommodation and Food Services	168,700	7%
Public Administration and Safety	148,600	6%

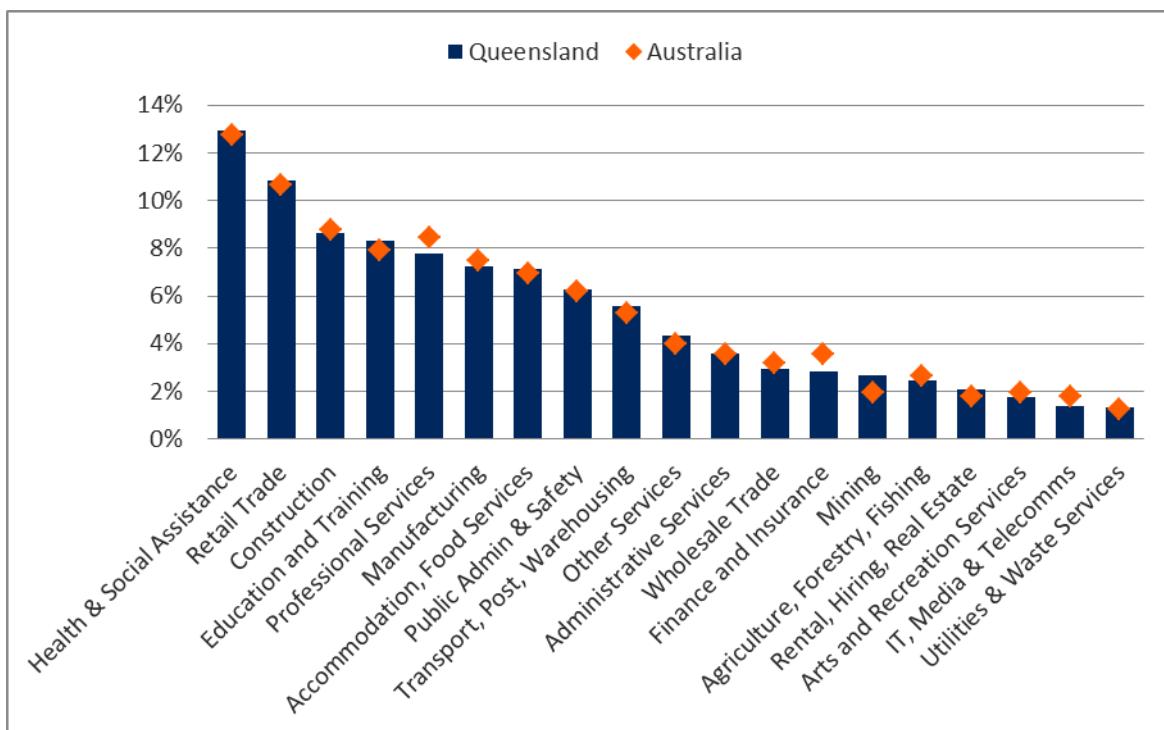
Source: ABS Labour Force, Australia, Detailed, Quarterly; average year to Feb 2016

Queensland's economy is similar to the wider Australian economy. Both are diverse, modern economies based on service industries, similar to most advanced economies globally.

Figure 1 shows the percentage of Queensland's workers employed in each industry in the blue bars, with the corresponding percentage for Australia marked with a diamond.

¹ ABS Cat no. 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly, Table 5;
Using definition of services in ABS Cat no. 1301:
<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/1301.0Main+Features332012>

Figure 1: Share of employment by industry, Queensland and Australia



Source: Average year to Feb 2016. ABS Labour Force, Australia, Detailed, Quarterly

Tourism does not appear in Figure 1 as it is not classified as a separate industry by the ABS. However, tourism also contributes substantially to employment in Queensland through other industry classifications, in particular Accommodation and Food Services (close to a third of tourism related jobs) and Retail Trade (one in six tourism related jobs).² Using this ABS data, Tourism and Events Queensland estimates direct employment in tourism related services of 131,000 people in 2013-14, or over one in twenty jobs in the state.³

² Proportions of ‘Tourism characteristic and connected industries’

ABS, Australian National Accounts: Tourism Satellite Account 2013-14, Table 14

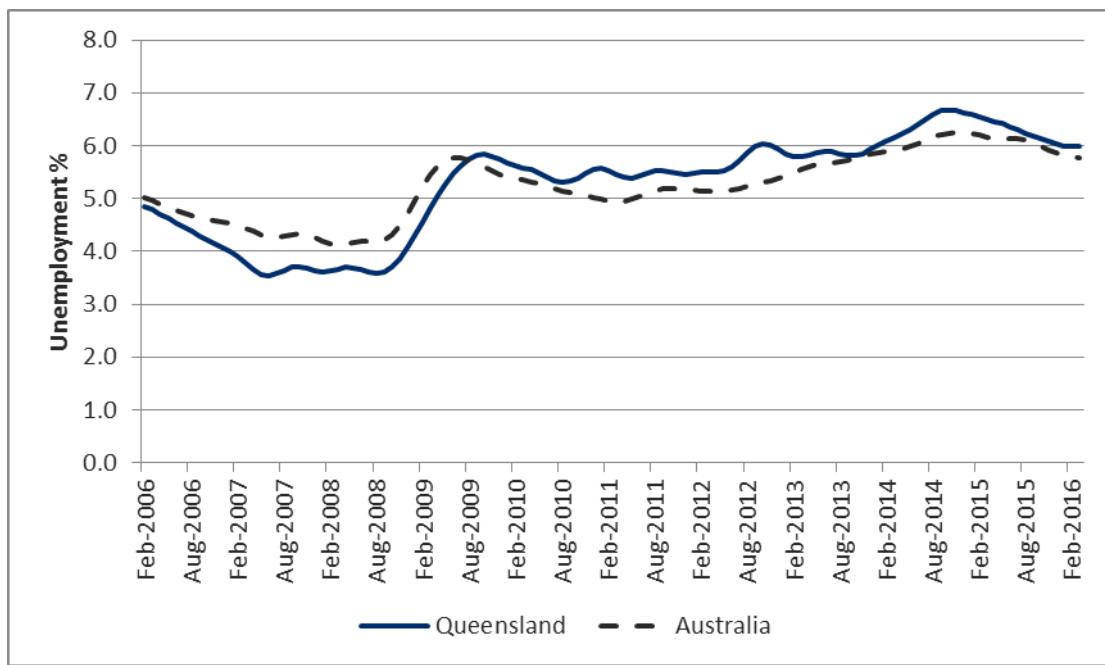
³ Tourism and Events Queensland, 2015, Tourism Economic Key Facts

Recent employment trends

Employment in Queensland has improved over the last two years, with falling unemployment and increased jobs growth, in particular full time jobs.

Employment trends in Queensland are heavily influenced by international and national trends. For example, unemployment in Queensland has generally followed the same patterns as Australia more widely, as shown in Figure 2.

Figure 2: Unemployment in Queensland and Australia



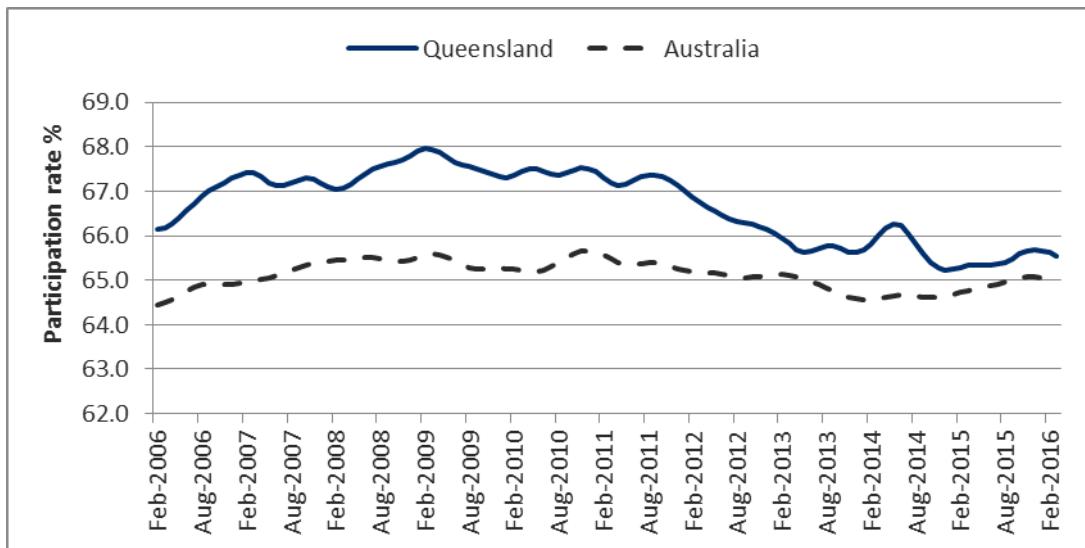
Source: Trend, ABS Cat no. 6202.0 Labour Force, Australia

Figure 2 shows that trend unemployment in Queensland has declined from a peak of 6.7 percent in October 2014 to 6 percent currently. This remains above Australia's 5.8 percent.

Prior to the GFC, during years of strong growth in the world economy and the early mining boom, unemployment in Queensland tended lower than Australia more widely. Since the GFC, although the mining boom continued, Queensland's unemployment increased and has generally been higher than the rest of the country.

As unemployment has declined in Queensland, labour force participation stabilised and edged upwards after years of decline, shown in Figure 3.

Figure 3: Participation rate in Queensland and Australia

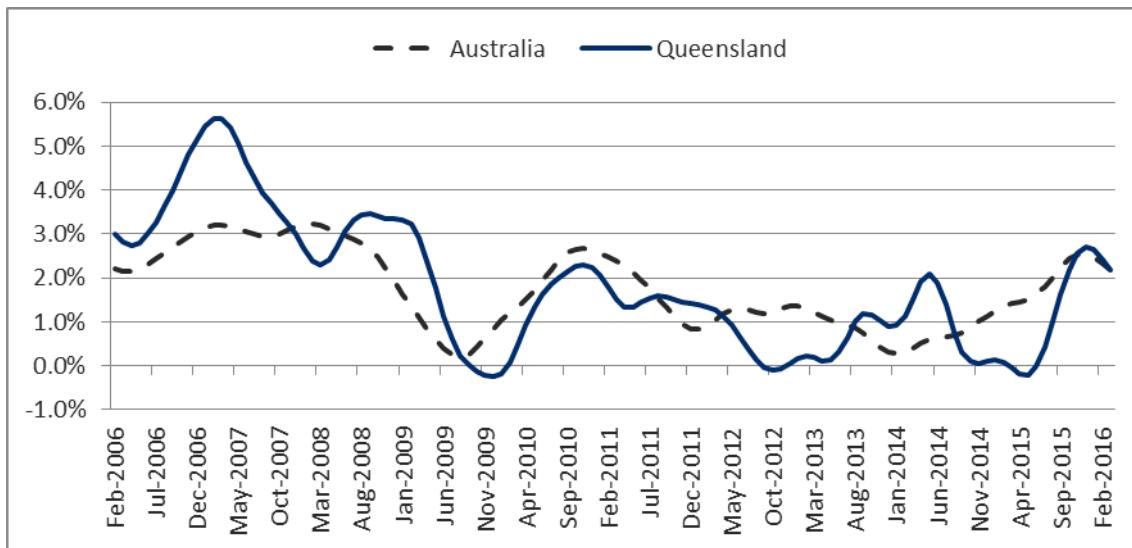


Source: Trend, ABS Cat no. 6202.0 Labour Force, Australia

Queensland's participation rate is generally higher than Australia's, but from 2009 to 2013 it experienced a faster decline than the national rate. In February 2015 it reached a low point of 65.2 percent but has trended upwards to 65.5 percent in March 2016.

In other words, even as more people have looked for work, more people have been finding work. This is reflected in the growth in overall employment, shown in Figure 4. Over 2015, Queensland experienced the largest annual growth in seven years, since before the GFC. Annual growth to December 2015 was 2.7 percent.

Figure 4: Annual employment growth rate, Queensland and Australia

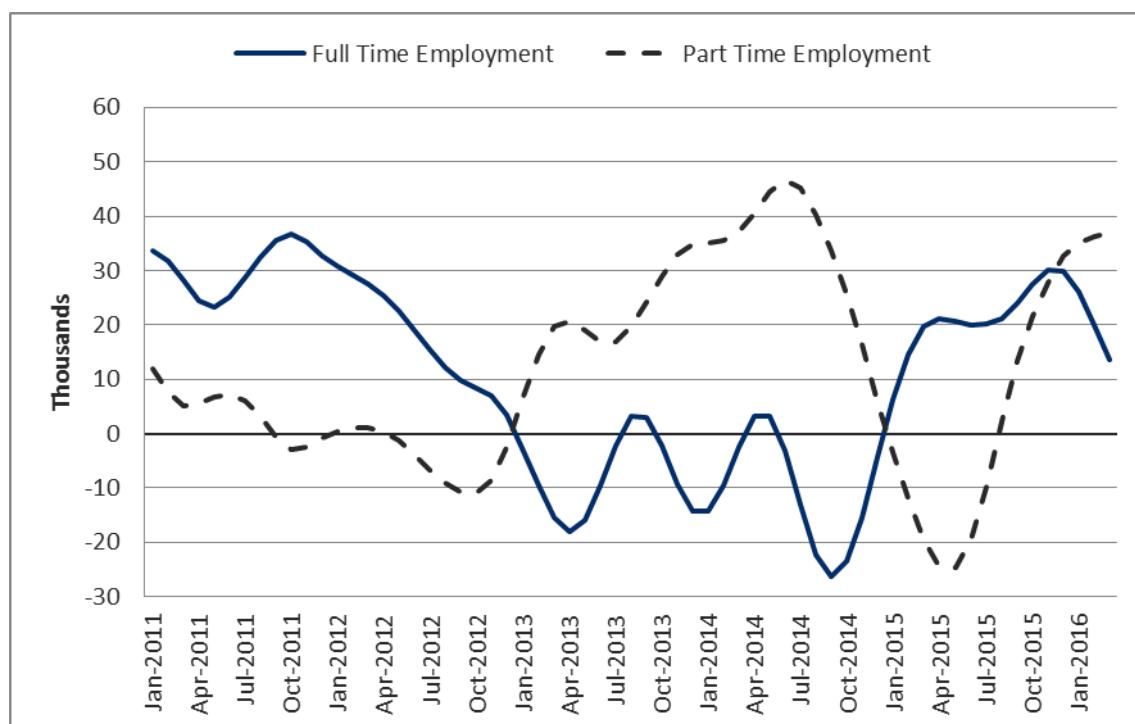


Source: Annual growth derived from Trend Total and Full Time Employment, ABS Labour Force, Australia

In line with broader Australian growth trends, Queensland jobs growth is yet to return to pre-GFC levels. Figure 4 shows that prior to the GFC, there was a spike in Queensland employment growth above national growth rates; this appears to be associated with the mining boom, however it was not sustained through the GFC.

Improved employment growth in recent years has come predominately from increased full time employment, as shown in Figure 5. This reverses a trend from 2012 to late 2014. During these years, full time employment actually fell in Queensland, with a shift towards part time employment. The most recent data show full time and part time employment both experiencing growth, although with full time growth slowing.

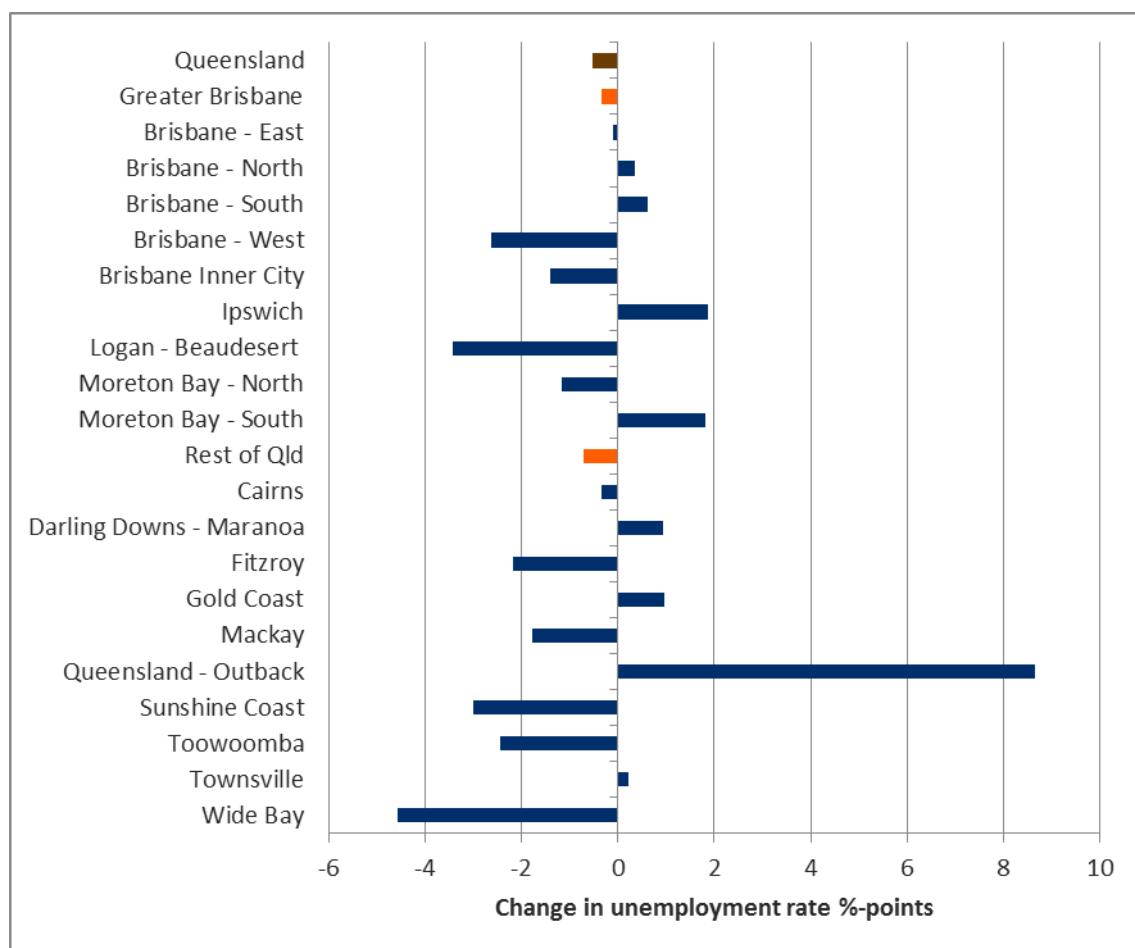
Figure 5: Full time and part time employment growth in Queensland



ABS Cat no. 6202.0 Labour Force, Australia

There have been significant improvements in the unemployment rate in several key regions over the last year, however regional unemployment in Queensland remains a major challenge. Regional employment is examined in Figure 6 and in more detail later in this report.

Figure 6: Change in unemployment rate by region in year to Feb 16



ABS Cat no. 6291.0.55.001 Labour Force, Australia, Detailed - Electronic Delivery

Where has recent growth come from?

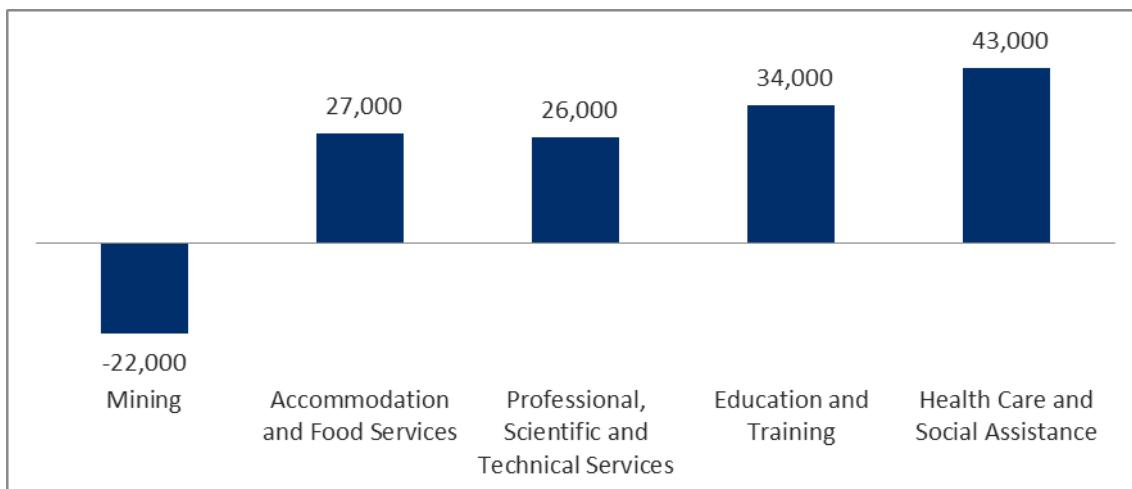
Despite recent job losses in the resource sector as a result of falling commodity prices and the end of the mining construction boom, employment in Queensland has grown over the past two years.

In January, the Queensland Resources Council noted that the mining industry had cut over 20,000 jobs over two years. This is more than a quarter of the mining workforce.⁴

Fortunately, over the same period total employment in Queensland increased by 72,000 due to strong employment growth in other industries, particularly service industries.⁵

Over the last two years, as shown in Figure 7 below, four industries each added more jobs than were lost in the resource sector.

Figure 7: Employment change in selected industries, Nov 2013 to Nov 2015



ABS Cat no. 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly

⁴ QRC, 2016, Government must support sector during tough times, press release 20 January, https://www.qrc.org.au/01_cms/details.asp?ID=3843

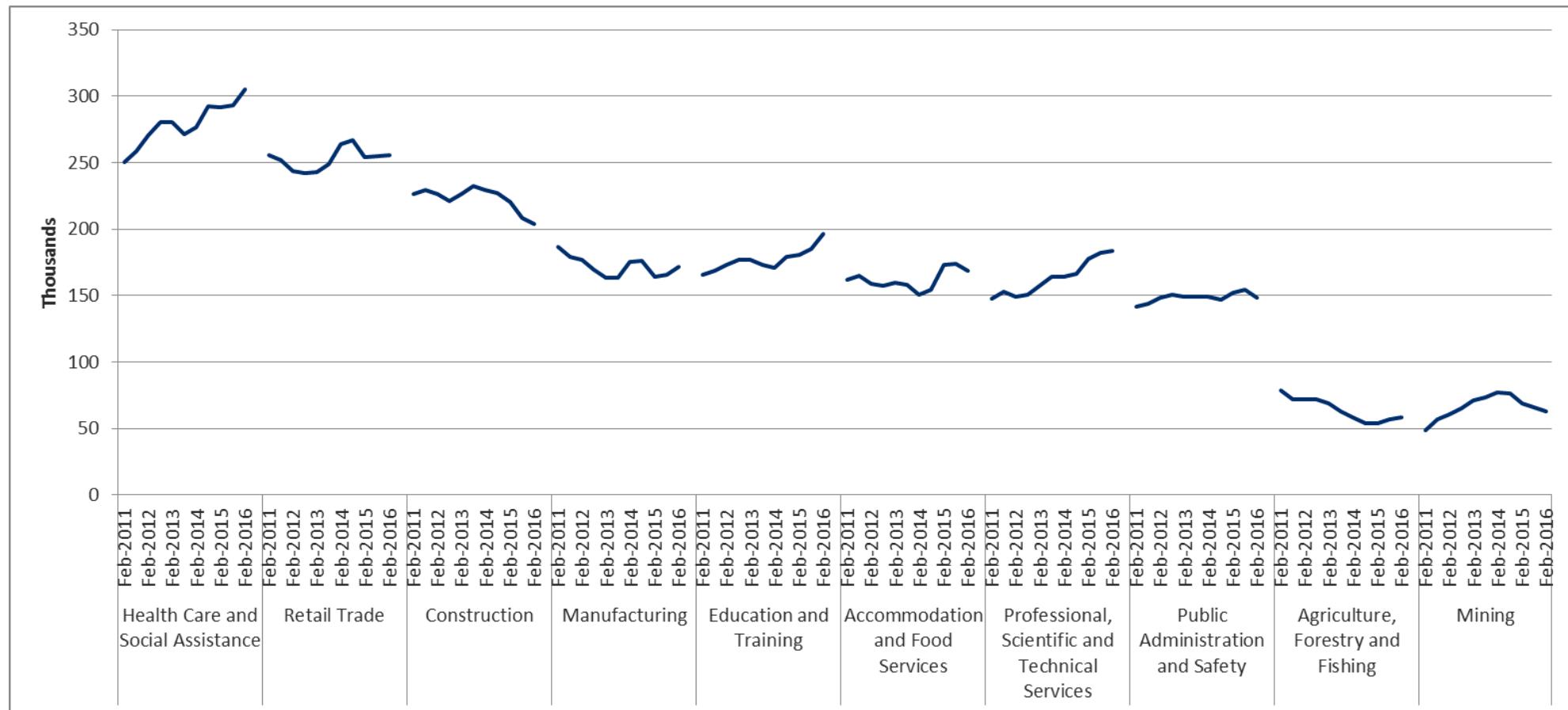
The QRC appears to be taking original figures from a highpoint in November 2013 to November 2015. The point made here still holds when comparing four quarter averages to November. ABS Cat no. 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly Table 5.

⁵ ABS Cat no. 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly Table 5

Employment trends in key Queensland industries over 2011 to 2016 are shown in Figure 8. These trends suggest a transition is underway in the sources of employment growth in Queensland:

- The most consistent growth in this period was in *Professional, Scientific and Technical Services*.
- Both *Health and Social Services* and *Education and Training* showed substantial growth over the five years, reflecting growing demand for essential services from a growing population. In both sectors there were marked declines during 2013.
- There were declines in *Retail Trade* to 2013 and in *Accommodation and Food Services* to 2014, two industries closely associated with tourism. Both industries have experienced growth in subsequent years, although Retail has been more volatile.
- *Manufacturing* declined to 2013, in line with long-term national trends. Since then there has been oscillation at around 170,000 employed.
- Growth in *Mining* to 2014 was followed by a substantial decline.
- Employment in *Construction* stayed steady to 2014 and then fell, as mining construction phased out. Nonetheless, Construction remains one of the largest employers in the state while even at its peak Mining was one of the smallest.
- *Agriculture* experienced a substantial and sustained decline to 2014, but has edged upwards since then, and is now around the same size as Mining.

Figure 8: Employment in selected industries, February 2011-16



Source: Four quarter averages, using data for February and August; ordered by beginning employment. ABS Cat no. 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly

The changing economic context

The end of the mining construction boom has eased pressure on some parts of the economy, particularly those impacted by the high Australian dollar and particular skills shortages.

The Reserve Bank of Australia attributed 44 percent of the value of the Australian dollar to the mining boom at its peak in 2013⁶. As Australian exporters tend to be price takers in international markets this reduced the export income of our key export industries such as agriculture, manufacturing and tourism proportionally to the increase in the value of dollar. It also made imported goods and services cheaper, impacting the competitiveness of these industries in the domestic market.

As the mining construction boom has ended and the value of the dollar has declined, conditions have improved for these industries. As put recently by Dr Shane Oliver, AMP Capital Chief Economist:

The end of the mining boom is probably a good thing for Australia because we have gone back to being a more balanced economy. ...

[The mining boom] caused a lot of pain for other parts of the economy that were really squeezed as a result ... If you were in a non-mining part of the economy your job was at risk because of the strength of the Australian dollar and you were paying interest rates on your mortgage that would be much higher than would normally be justified. ...

We've seen a much stronger environment in terms of job security and it's made it easier for Australians to service their loans. ... the positive impact of the low Australian dollar [is] helping companies that are exposed internationally ...

Deloitte Access Economics similarly observed:

...real opportunities for the Sunshine State are in our staples - housing construction, tourism, international education and agriculture. All are expected to get a kick along from the lower Aussie dollar.

Dr Oliver also noted that the mining boom also resulted in interest rates that were “much higher than would normally be justified”. Few Australians are employed in the

⁶ Peter Downes, Kevin Hanslow and Peter Tulip, 2014, The Effect of the Mining Boom on the Australian Economy, RDP 2014-08.

mining industry, but many were impacted by pressure on interest rates. Conversely, falling interest rates have reduced these pressures. Deloitte paints an optimistic picture about these trends in Queensland in particular:

Queenslanders are feeling good; we have been driving our new cars to spend more in shopping centres, we are buying homes and renovating them, and health spending is up. ... lower interest rates are showing up in the pace at which Queensland families are spending.⁷

Deloitte sees this as driving the recent 11 percent increase in dwelling approvals, and expects there will be new investment in tourism infrastructure to help “Queensland’s tourism industry to win back market share”.⁸

Fairfax economics editor Ross Gittins focused on the growth in services in driving the transition away from the mining boom:

Our most recent worry has been where our economic growth would come from now coal and iron ore prices are falling and no new mining construction projects are taking the place of completing projects.

But the evidence is coming in. We're experiencing strong expansion in parts of the vast services sector, which is generating lots of extra jobs.⁹

As well as the boost to export services from the Australian dollar, Gittins points out China’s growing middle class is increasing demand for services, such as education and tourism.

The growth in services is particularly important, because as Gittins points out, services are labour intensive, requiring relatively more employees. By contrast, mining is capital intensive, as are other primary industries. Because of the labour intensive nature of services, they are the major driver of employment growth.

The mining construction boom also created skills shortages for particular professions, particularly relating to construction and engineering. This had significant adverse impacts on other industries in Queensland. Manufacturing and agricultural businesses

⁷ Deloitte, 2016, *Queensland Business Outlook; Challenge accepted*, <http://www2.deloitte.com/au/en/pages/economics/articles/queensland-economic-business-outlook.html>

⁸ Deloitte, 2016, *Queensland Business Outlook; Challenge accepted*, <http://www2.deloitte.com/au/en/pages/economics/articles/queensland-economic-business-outlook.html>

⁹ Gittins, R, 2016, *After the mining boom, the jobs will keep flowing to the service industry*, 8 March, Sydney Morning Herald <http://www.smh.com.au/comment/service-industries-make-consistent-contribution-to-growth-and-jobs-20160307-gnd44m.html#ixzz45rKep1aa>

in particular had difficulty in recruiting and retaining skilled staff, and were forced to compete with boom-era mining wages which added significantly to their costs. When skilled workers from these industries move to the resource sector, they are often not replaced. Economic assessments of major resource projects in Queensland have acknowledged the displacement impact of these projects, with the Arrow LNG and China First Coal mining economic impact statements estimating that these projects would have displaced around 1000 and 3000 manufacturing jobs respectively.¹⁰ The end of the mining construction boom will ease these pressures and is likely to have a positive impact on employment growth in these industries.

¹⁰ Arrow Energy (2012a) Arrow LNG Plant Environmental Impact Statement, Appendix 21: Economic Impact Assessment,
Waratah Coal 2010. *Economic Impact Assessment for the China First Project EIS - Final Report*. Online:
<<http://www.waratahcoal.com/publications.htm>> Accessed 14 Dec 2011.

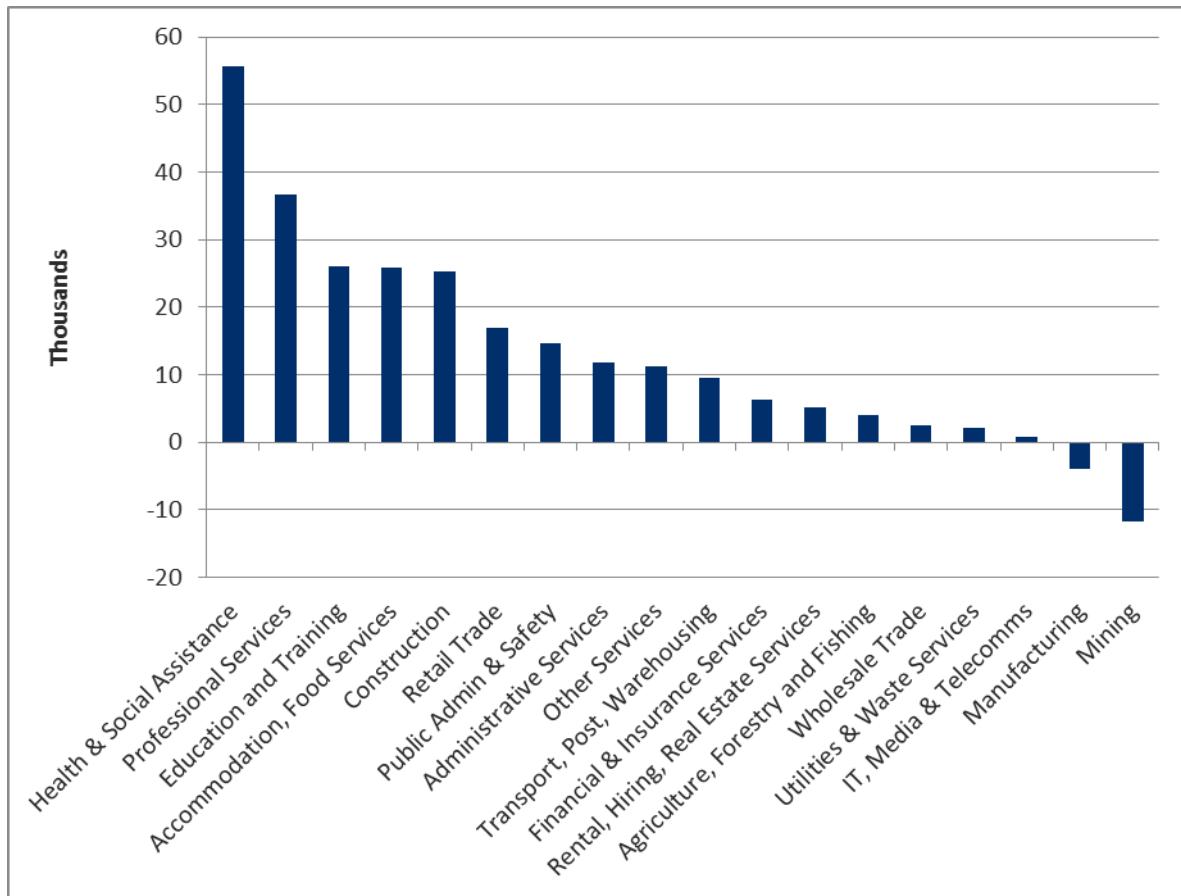
Future growth

As Queensland's economy changes, which industries will drive employment growth?

The Australian Government Department of Employment produces employment projections by industry and region for five-year periods. Queensland employment is projected to grow at 10.4 percent, higher than the national average over the current projection period.

The most recent projection for Queensland, to November 2019, is shown in Figure 9.

Figure 9: Projected employment change in QLD by industry, five years to Nov 2019



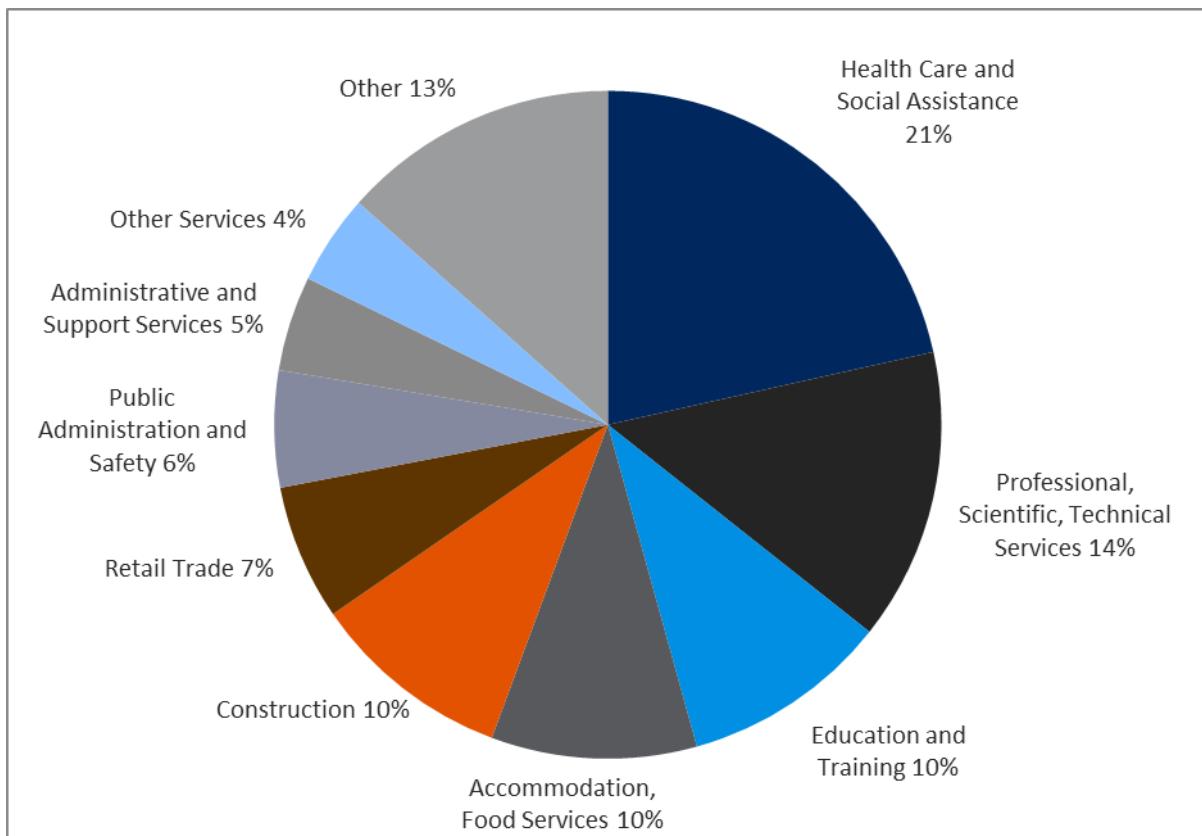
Source: LMIP, 2015, Employment projections for the five years to November 2019

Most industries grow over the projection period. However, as shown in Figure 10, five industries provide two thirds of the growth:

- Health Care and Social Assistance,

- Professional, Scientific and Technical Services,
- Education and Training,
- Accommodation and Food Services, and
- Construction.

Figure 10: Industry share of projected employment growth in QLD - five years to November 2019



Source: LMIP, 2015, *Regional Projections – Five Years to November 2019*¹¹

It is important to note that all projections are subject to uncertainty. In reality, jobs growth will be impacted both by unexpected events and by decisions made over this period – in particular, by government policies.

¹¹ ‘Other’ consists of Transport, Postal and Warehousing; Financial and Insurance Services; Rental, Hiring and Real Estate Services; Agriculture, Forestry and Fishing; Arts and Recreation Services; Wholesale Trade; Electricity; Gas and Waste Services; and Information Media and Telecommunications. Mining and Manufacturing are excluded from the chart as they are not projected to grow over the five years to November 2019.

Nonetheless, these projections are a useful indication of future trends from an authoritative source, based on ABS time series data and knowledge of existing policy, and are consistent with Commonwealth Treasury macro-economic forecasts.

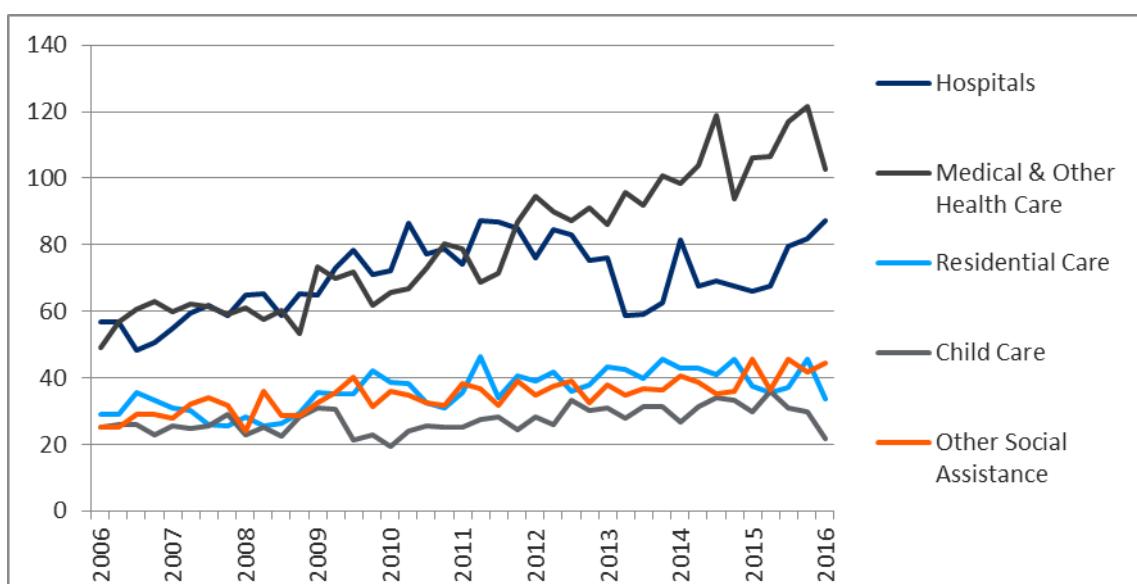
In the following sections we explore in more detail the factors influencing key industries for employment in Queensland.

Key Industries

HEALTH CARE AND SOCIAL ASSISTANCE

The Health Care and Social Assistance sector is the largest employer in Queensland, currently employing over 300,000 or nearly one in seven jobs. Over the past decade there has been growth in all subdivisions, shown in Figure 11.

Figure 11: Queensland Health and Social Assistance employment by subdivision



Source: 6291.0.55.003 *Labour Force, Australia, Detailed, Quarterly*

The strongest employment growth was in *Medical and Other Health Care Services*, which doubled in Queensland over the decade, an increase of around 60,000 jobs. The subdivision includes *General Practice* and *Specialist Medical Services*, as well as services like *Pathology and Diagnostic Imaging*, and *Allied Health*.

In the six years to 2012, *Hospitals* saw similarly significant growth, yet over 2013 there was a substantial decline; at the low point, there were 18,000 fewer people employed in hospitals compared to two years earlier. Hospital employment has since increased back to 2011 levels, despite population growth over the last five years.

By far the largest occupation amongst Health Professionals is *Midwifery and Nursing Professionals*, numbering 65,000 in February 2016. There are more nurses and midwives in Queensland than the employed by the entire mining industry.¹² Other

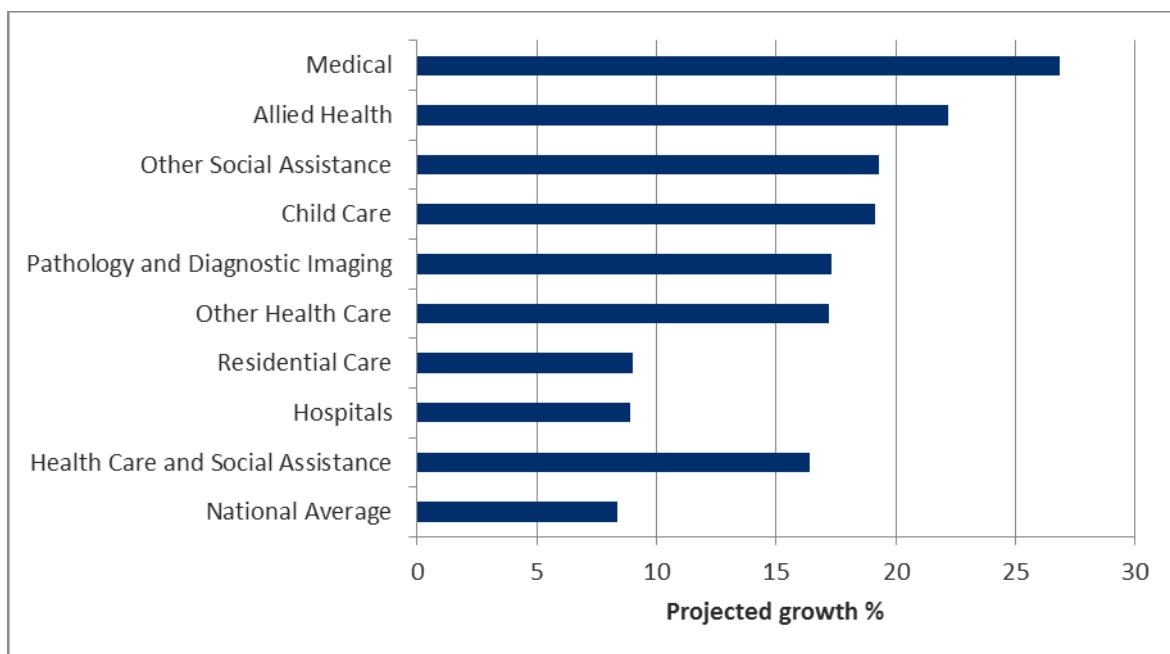
¹² ABS Cat no. 6291.0.55.003 *Labour Force, Australia, Detailed, Quarterly*

major health and carer occupations are *General Practitioners and Resident Medical Officers* (around 10,000), *Aged and Disabled Carers* (around 30,000), and *Childcarers* (22,000, down from above 30,000 a year ago).

Health Care and Social Assistance is projected to be the biggest growth industry in Queensland. The Department of Employment projects 55,700 more jobs in Queensland in Health and Social Assistance over the five years to November 2019, an increase of 18.9 percent.¹³ More than one in five of all new jobs are projected to come from the industry.

All parts of the Health and Social Assistance sector are projected to grow.¹⁴ In the subdivision projections to 2020, the strongest growth is projected for *Medical Services* (27 per cent), *Allied Health* (22 percent) and *Other Social Assistance and Childcare* (both 19 percent). The exception is employment in *Hospitals* and in *Residential Care* which is projected to grow at 8.9 percent – less than other parts of health, but above the average for all industries in the 2020 projection.

Figure 12: Projected growth in selected Health and Social Assistance Subdivisions to November 2020



Source: LMIP, 2016, *Industry Employment Projections*, excluding 'nfd'

¹³ LMIP, 2015, *Regional Projections - Five years to November 2019*

¹⁴ LMIP, 2016, *Industry Employment Projections – Five years to November 2020*

A recent Deloitte Access Economics report on Community Services in Queensland provides a similar projection of employment growth in the industry subdivision.¹⁵ They project growth in these services at 3.8 percent per annum over the next decade, is nearly three times faster than their forecast jobs growth rate for the state on average.

Recent policy announcements supporting employment growth in Health include Queensland government changes to nurse to patient ratios¹⁶ and the placement of 1,000 additional nursing graduates into Queensland Health per year over the next three years.¹⁷ Similarly, the implementation of the NDIS will increase employment in community services in the state, as well as facilitating increased employment amongst people with a disability.

Demographic changes will be major drivers of demand for employment in coming years, including population growth, the ageing population and increasing demand for childcare. Meeting this demand will require increased health expenditure.

Private health spending in Queensland is growing quickly. In the last five years Queensland household expenditure on health increased by 34 percent, more than twice as fast as overall household expenditure (14 percent).¹⁸

In addition, there is substantial health employment in the private sector in Queensland. Two in five Nursing and Midwifery staff in Queensland in 2014 were employed by the private sector.¹⁹ In 2013-14, private sector health care and social assistance employed 209,000 people in Queensland.²⁰

Nonetheless, governments continue to provide most health funding in Queensland, including to private sector employment. In 2013-14, government funding was 71 percent of all Queensland health funding; a decade before the government share was 72 per cent.²¹ Public funding will be central to employment growth in the industry.

¹⁵ Deloitte, 2016, *Forecasting the future: Community Services in Queensland 2025*

¹⁶ Queensland Government, 2015, *More Nurses, Better Outcomes for Patients*, Media Statement, 12 July <http://statements.qld.gov.au/Statement/2015/7/12/more-nurses-better-outcomes-for-patients>

¹⁷ Queensland Government, 2015, *Queensland Budget 2015-16*, <http://www.budget.qld.gov.au/budget-highlights/health.php>

¹⁸ ABS Cat No. 5206.0 *Australian National Accounts: National Income, Expenditure and Product*

¹⁹ Full Time Equivalent. AIHW, XXXX <http://www.aihw.gov.au/workforce/nursing-and-midwifery/additional/>

²⁰ ABS Cat no. 8155.0, *Australian Industry, 2013-14*

²¹ AIHW, 2015, Expenditure Data, <http://www.aihw.gov.au/expenditure-data/>
Within the overall trend, Queensland Hospitals are now less government funded: 76 percent in 2013-14, falling from 83 percent a decade before. Primary health care was 64 percent government funded in 2013-14, up from 61 percent a decade before.

When considering options for job creation, it is important to note that health and social assistance, like many services, health and social assistance services are highly labour-intensive. Overall, more jobs are created per dollar invested.²²

It is also important to note that the Queensland government currently spends less on health per capita than most other states and territories.²³

Health and social assistance delivers broader benefits for employment. As federal Treasury points out, “A key question for Government is how to best make use of available budget funding to maximise the health of the community, thereby enhancing labour force participation and productivity.”²⁴ Similarly, childcare can support increased parental workforce participation.

In addition, community services can enhance workforce participation for excluded groups. As put by Deloitte, “Supporting disadvantaged and marginalised people to make the most of jobs growth in Queensland will assist in improving the State’s social and economic outcomes.”²⁵

²² Campbell, 2015, *Outclassed*, The Australia Institute

²³ 2013-2014 figures in Campbell, 2015, *Outclassed*, The Australia Institute

²⁴ Treasury, 2009, *Australia's Demographic Challenges*,

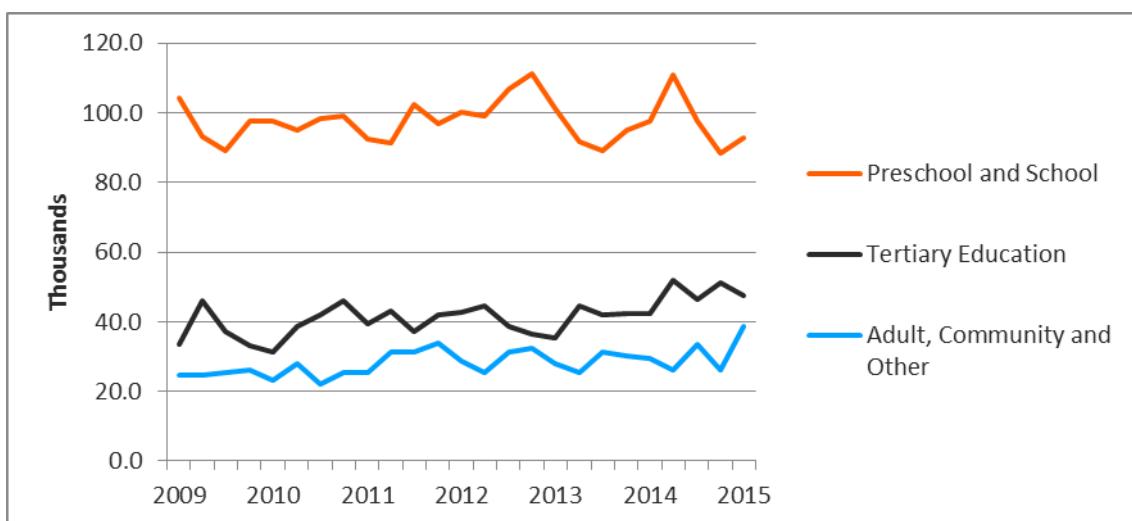
http://demographics.treasury.gov.au/content/_download/australias_demographic_challenges/html/adc.asp

²⁵ Deloitte Access Economics, 2016, *Forecasting the future: Community Services in Queensland 2025*, Page 28

EDUCATION AND TRAINING

The education sector is the fourth largest employer in Queensland, employing almost 200,000 workers. While overall education employment has grown strongly, the fortunes of different parts of Queensland's education sector have changed in recent years. As shown in Figure 13 below, employment in preschool and schools has declined, while the tertiary and adult, community and other education sectors have increased.

Figure 13: Queensland education employment by industry sub-division

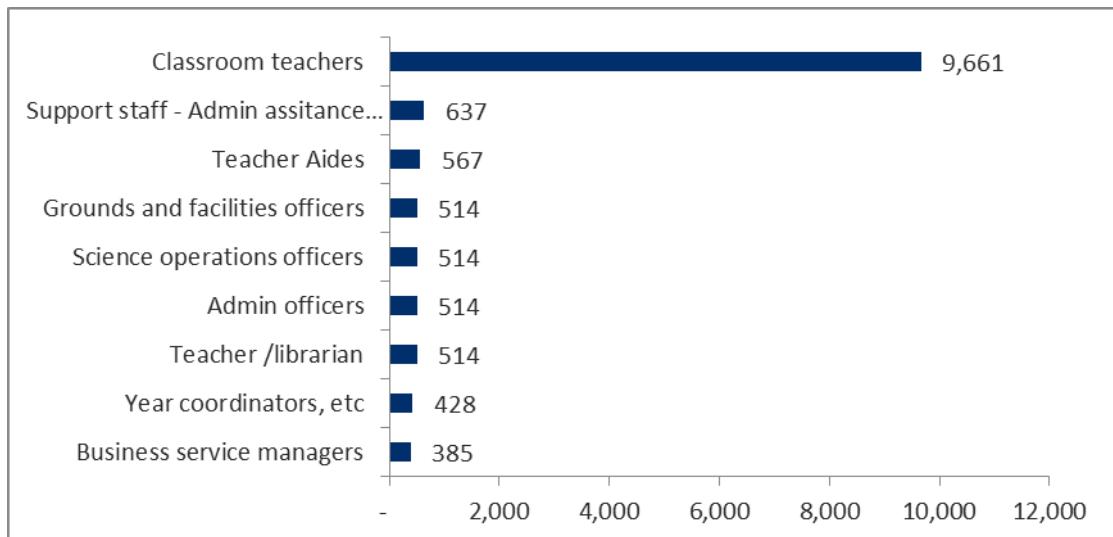


Source: 6291.0.55.003 *Labour Force, Australia, Detailed, Quarterly*

These changes likely reflect the volatility of schools funding and policy on preschool and school employment, increasing tertiary education, in particular under the demand driven university funding arrangements, and the importance of exports through foreign students coming to Queensland for education.

With Queensland's growing population, staffing of schools will again become a priority. According to the Queensland Schools Planning Commission, in the next 15 years Queensland's student population will grow by 257,000 students. Many schools will need to be expanded and around 110 new schools will need to be built. Schools also need to be staffed, not only by teachers but also by support and administrative staff. Based on Queensland's school staffing allocation guidelines this will require an extra 13,734 classroom teachers and school support staff, as shown in Figure 14.

Figure 14: Extra school staff required to 2031 in Queensland



Source: Based on data and formulas in (Queensland Schools Planning Commission 2014; Queensland Department of Education Training and Employment 2014) Note all staff numbers are full-time equivalent.

TOURISM-RELATED SERVICES

Tourism is a major employer in Queensland, providing approximately 130,000 jobs. This would make tourism the ninth or tenth largest employer in the state, similar to transport or public administration.

Such comparisons are difficult, however, as tourism is not an industry category for most official statistics. This is because tourism draws on many industries, particularly accommodation, food services, retail and transport. Estimates on the size of the tourism industry and its contribution to employment and economic output are made in separate 'satellite accounts' by the Australian Bureau of Statistics.²⁶ Other analysis from bodies such as Tourism Research Australia are often based on the ABS satellite accounts.²⁷

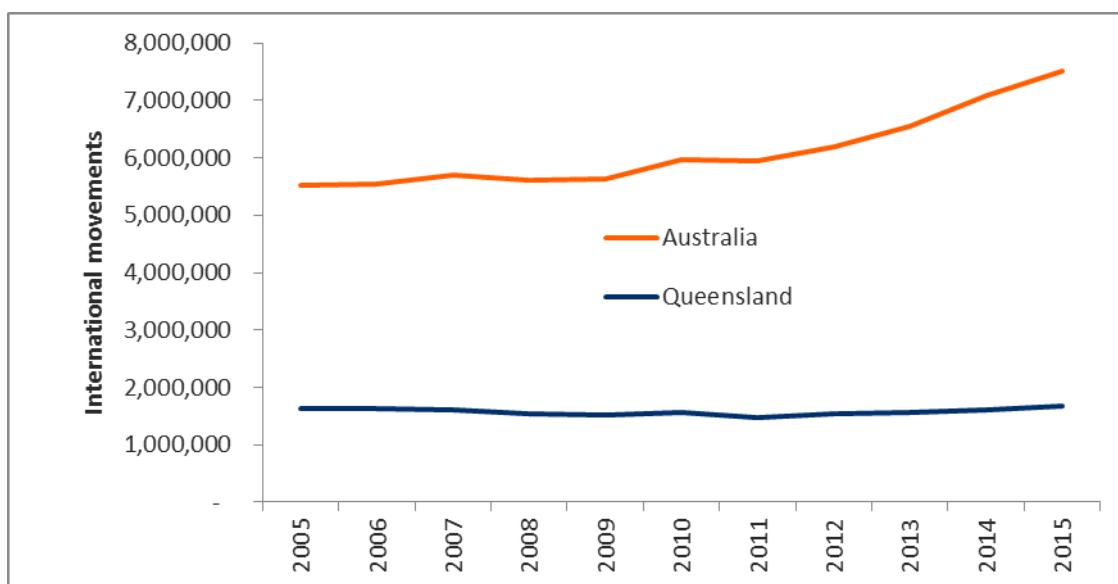
²⁶ See ABS 5249.0 - Australian National Accounts: Tourism Satellite Account, available at <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Main+Features12013-14?OpenDocument>

²⁷ For example, Tourism Research Australia 2015, State Tourism Satellite Accounts, available at: http://www.tra.gov.au/documents/Economic-Industry/State_Tourism_Satellite_Accounts_2013_14_FINAL.pdf

Queensland's tourism industry has seen hard times in recent years. Between 2012-13 and 2013-14 tourism employment declined by 5.7 percent, or 7,900 people.²⁸

A commonly cited cause of this decline has been the high exchange rate that has prevailed through much of the mining boom. However, through this period Australia's overall international arrivals have grown, while Queensland has struggled, as shown in Figure 15 below:

Figure 15: International movements, Australia and Queensland



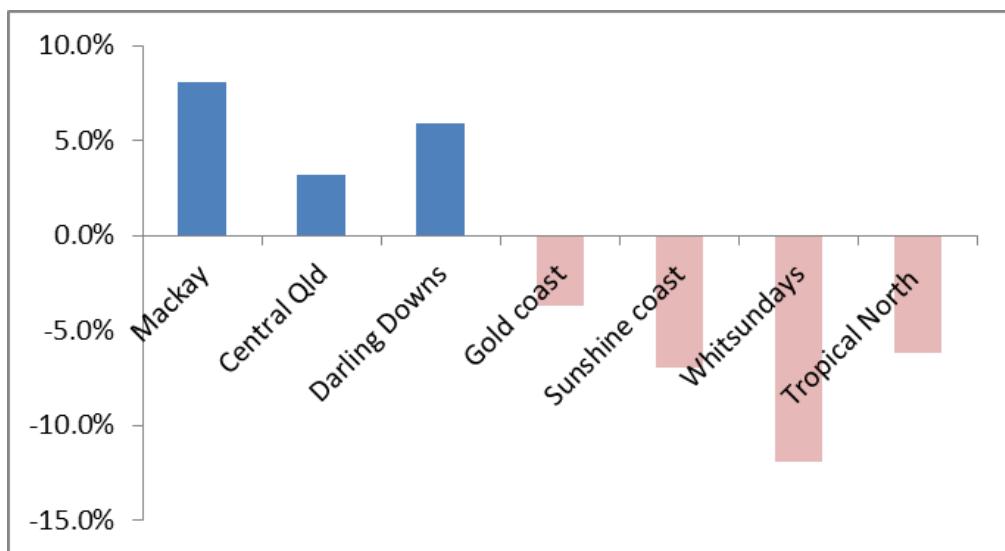
Source: ABS 2016 3401.0 Overseas Arrivals and Departures

Figure 15 shows that Australian international visitor movements have increased by 2 million, or 42 per cent, over the period from 2005 to 2015. However, over the same period Queensland saw an increase of only 45,000, an increase of just 3 percent. Domestic visitor nights have shown similar stagnation both in Queensland and overall, with Queensland showing a decline of 6 per cent, slightly worse than Australia overall, which declined by 5 per cent.

The mining construction boom had a positive influence on some parts of the accommodation and travel industries, i.e. those servicing business travel in the mining regions. These areas saw increases in accommodation occupancy rates, while areas devoted more to leisure tourism have declined. Mining-focused areas are the blue, darker bars in Figure 16 below, while leisure tourism-focused areas are the lighter, pink bars:

²⁸ Tourism Research Australia 2015 *State of the Industry 2015*, available at: http://www.tra.gov.au/documents/State-of-the-industry/State_of_the_Industry_2015_FINAL.PDF

Figure 16: Change in accommodation occupancy rates 2005-2011, selected regions



Source: Tourism Research Australia (2013) The economic impact of the current mining boom on the Australian tourism industry

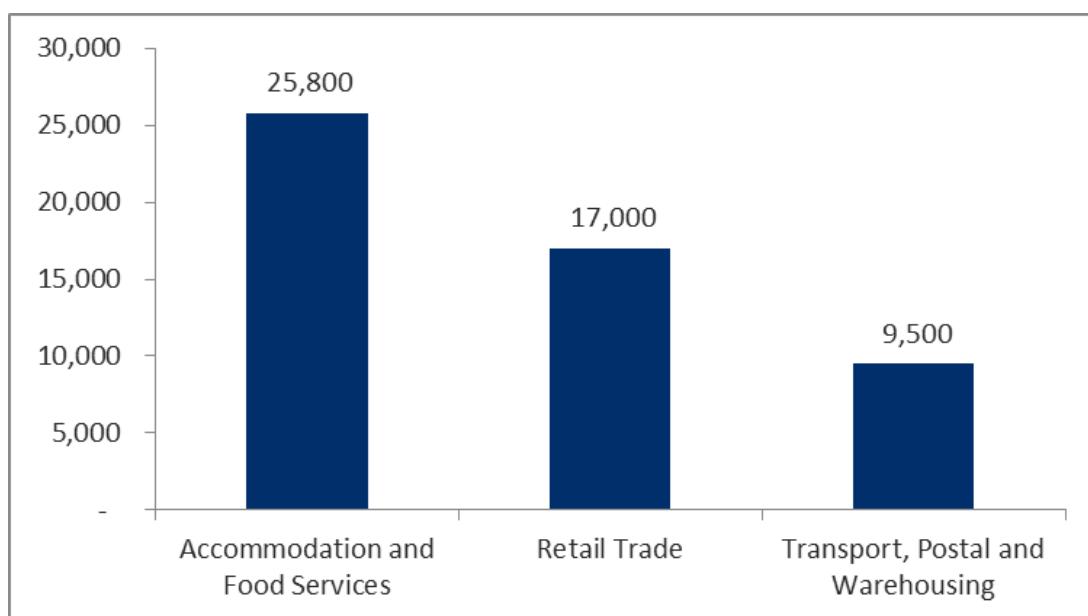
Note that Figure 16 shows changes in percentage terms, suggesting that the mining areas' gain has largely offset the loss of the leisure tourism areas. However, leisure tourism areas have far greater numbers of beds and accommodation employees than the mining regions. The mining areas in Figure 16 have only 25,178 beds employing 3,607 people. The leisure areas are far bigger, with 102,824 beds and 15,540 employees. The downturn in the leisure areas is of far greater magnitude than the upturn in the mining areas.²⁹

With the Australian dollar returning to its longer term average and pressure on regional travel and accommodation services easing, forecasts for Queensland tourism are more upbeat. Tourism Research Australia expects growth in Queensland visitor numbers of around 3 per cent per year out to 2024-25.³⁰ Similarly, the Commonwealth Department of Employment expects tourism-related industries Accommodation and Food Services, retail and transport to add 52,000 jobs out to 2019, as shown in Figure 17.

²⁹ ABS (2013) *Tourist Accommodation, Small Area Data, Queensland, Jun 2013*

³⁰ Tourism Research Australia (2015) *State and Territory Tourism Forecasts*, available at: <https://www.tra.gov.au/research/State-and-Territory-Tourism-Forecasts-2015.html>

Figure 17: Projected employment growth five years to November 2019, Queensland, selected industries

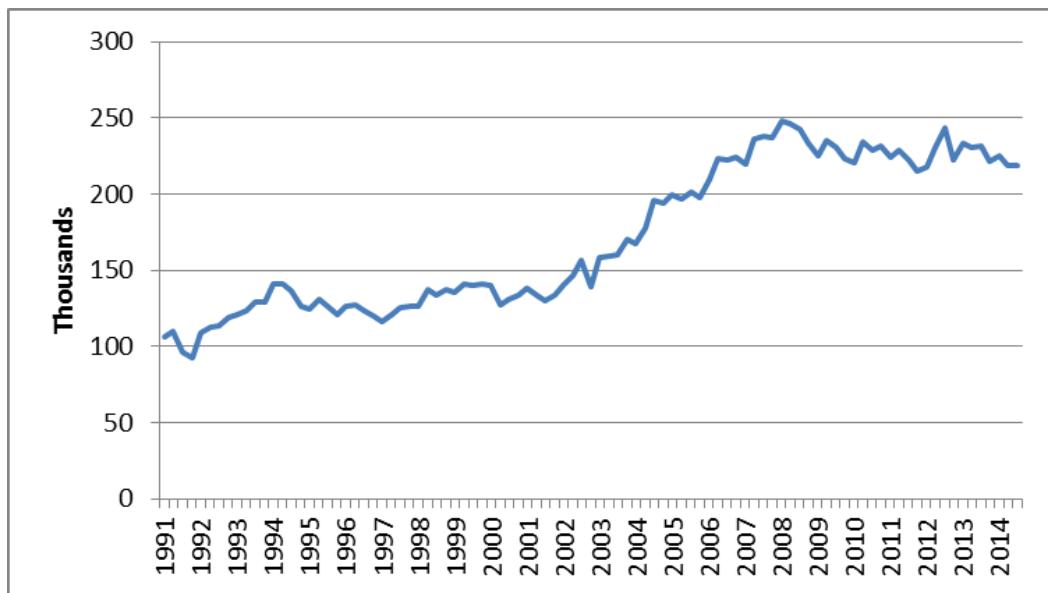


Source: Commonwealth Department of Employment 2015 Labour Market Information Portal, Employment Projections, Regional employment by ANZSIC Industry

CONSTRUCTION

After a period of strong growth through the early part of the century, employment in construction in Queensland has levelled off since the global financial crisis, as shown in Figure 18 below:

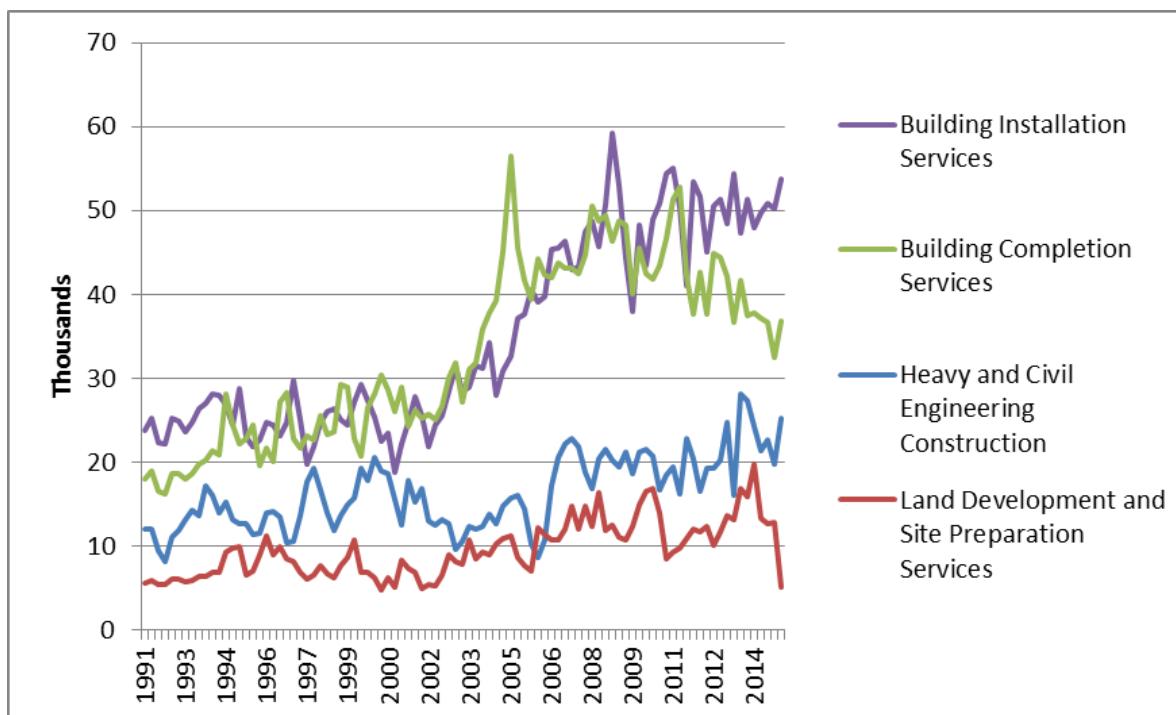
Figure 18: Construction employment in Queensland



Source: ABS 2015 Labour Force, detailed, quarterly

While the strong increase in construction employment in Queensland coincided with the mining boom, mining was only a small factor in this increase. As shown in Figure 19, the subsectors of the construction industry that drove the growth in construction employment were Building Completion and Installation Services, associated with residential and commercial construction.

Figure 19: Construction employment in Queensland by sub sector



Source: ABS 2015 Labour Force, detailed, quarterly

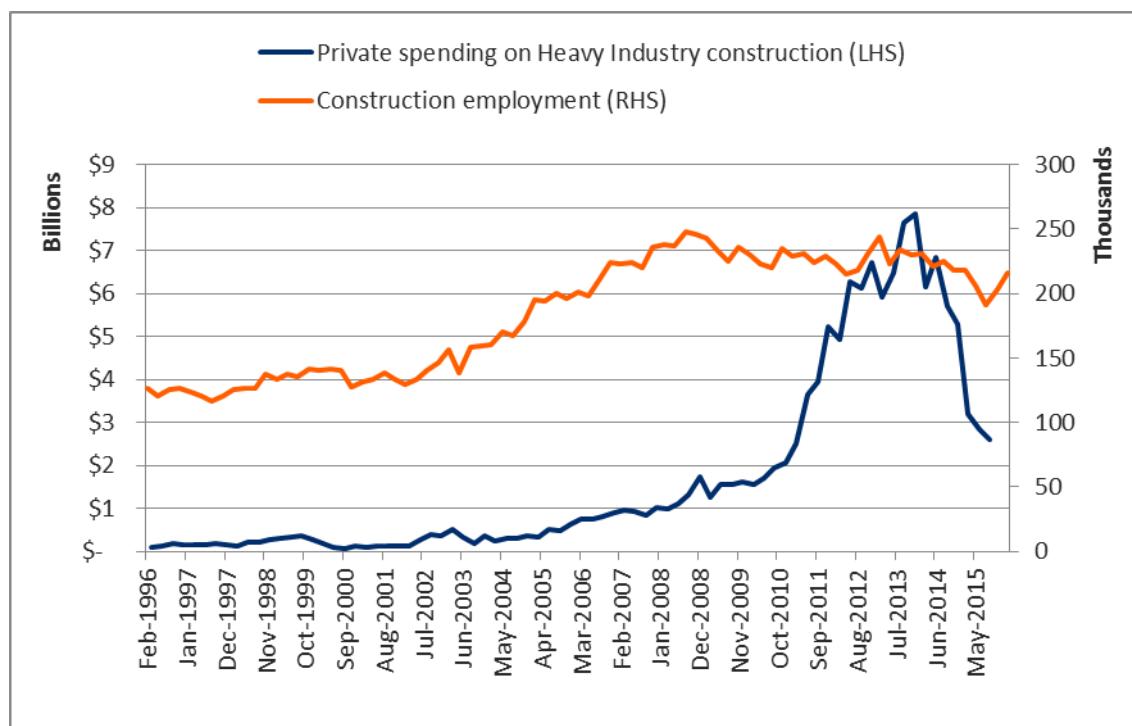
Building Completion and Installation Services include activities such as plumbing, electrical services, air conditioning, plastering, tiling, painting and glazing. The increases in these parts of the industry are driven not by mining, but by increased housing and apartment construction. Population growth, strong economic growth and huge amounts of credit directed towards residential property by policies such as changes to the capital gains tax discount and negative gearing are likely to have contributed to this growth.³¹

By contrast, Figure 19 above shows that construction sectors more closely influenced by mining had modest increases in worker numbers through these years. Heavy and Civil Engineering Construction saw sharp increases through 2006-07 as mine construction began, but has remained around 20,000 since. Land Development and Site Preparation Services, which includes activities such as earthmoving and removal of overburden also increased over the last 15 years, with recent sharp falls. Neither of these industry subdivisions, however, had as much influence on the growth in construction employment as those related to housing and commercial buildings.

³¹ See Grudnoff 2015 *Top Gears: How negative gearing and the capital gains tax discount benefit the top 10 percent and drive up house prices*, The Australia Institute, <http://www.tai.org.au/content/top-gears-how-negative-gearing-and-capital-gains-tax-discount-benefit-drive-house-prices>

Figure 20 confirms this analysis, showing the ramp up of heavy industry spending largely unrelated to construction employment.

Figure 20: Construction employment vs private sector spending on heavy industry construction

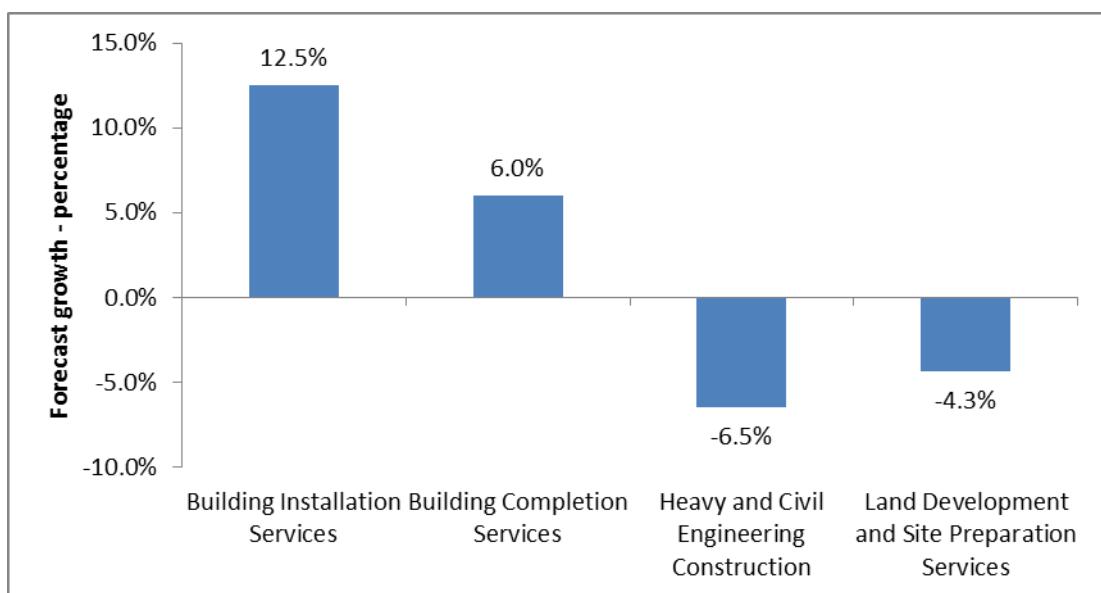


Source: ABS 2015 *Labour Force, detailed, quarterly*, ABS 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

These trends are forecast to continue by the Commonwealth Department of Employment, which expects construction employment in Queensland overall to increase by 11.4 percent to nearly 250,000 people.³² While no forecasts are available for Queensland, Australia-wide forecasts by industry subsector anticipate further declines in Heavy and Civil Engineering Construction and Land Development, with growth focused on the residential construction sector, as shown in Figure 21.

³² Commonwealth Department of Employment 2015 *Employment projections for the five years to November 2019*

Figure 21: Forecast change in construction subsectors to 2019, Australia



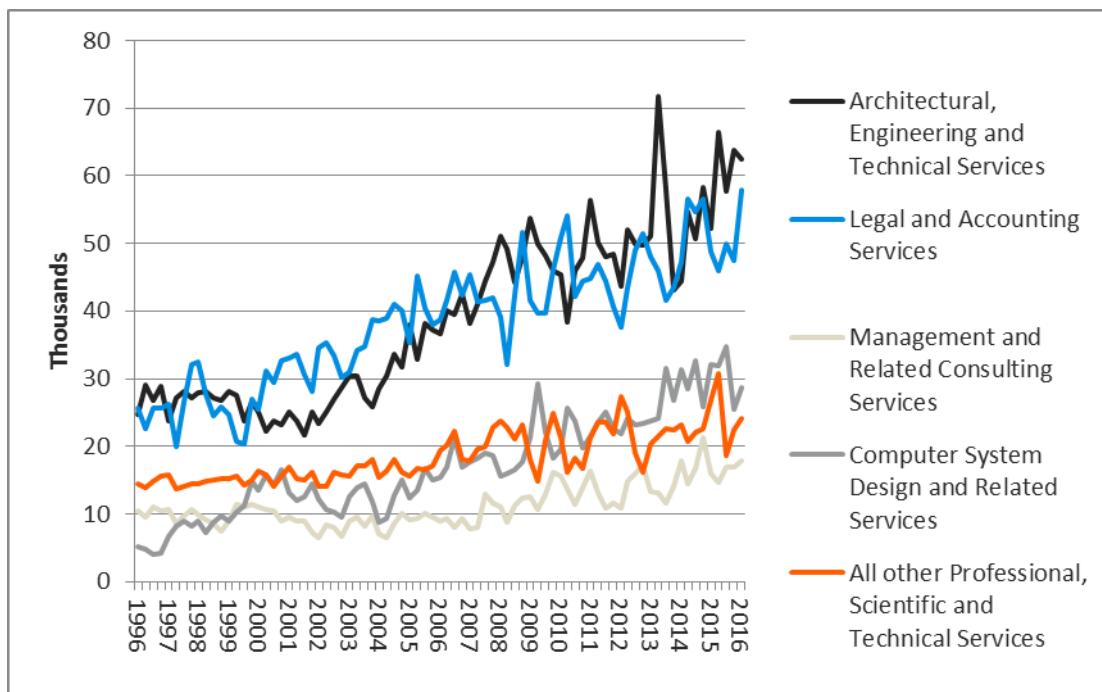
Source: Commonwealth Department of Employment 2015 Employment projections for the five years to November 2019

PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES

Professional, Scientific and Technical Services is a broad industry including a range of generally high-skilled services, currently employing 191,100 people - about one in 12 of jobs in Queensland. These services are projected to be the fastest growing industry in Queensland to 2019, providing 36,700 more jobs or more than 20 per cent growth. There is strong growth projected in all subdivisions.

The main subdivisions are *Architectural, Engineering and Technical Services; Legal and Accounting; and Computer System Design and Related Services*. Figure 22 shows growth in key industry subdivisions over the 20 years to 2016.

Figure 22: Professional, Scientific and Technical Services employment by subdivision



Source: 6291.0.55.003 *Labour Force, Australia, Detailed, Quarterly*³³

The biggest increase over the last 20 years has come from *Architectural, Engineering and Technical Services*, increasing by more than 35,000 or 60 percent. This represents about a third of the growth in the industry over the last 20 years. As with subsectors of

³³ 'All other Professional, Scientific and Technical Services' is made up of amalgamation of a number of small subdivisions including Scientific Research Services, Advertising Services, Market Research and Statistical Services, Veterinary Services, Other Professional, Scientific and Technical Services, Professional, Scientific and Technical Services (Except Computer System Design and Related Services), nfd, Professional, Scientific and Technical Services, nfd

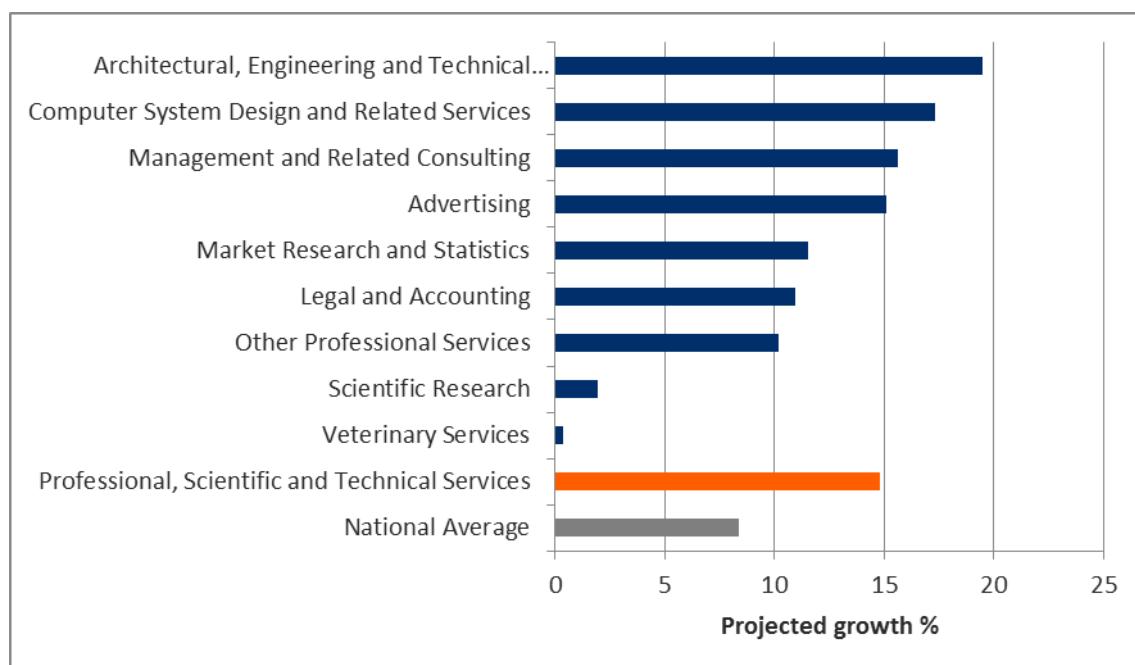
the construction industry discussed above, much of this growth was related to increases in residential and commercial building through the early years of the century, rather than mining construction which began later.

Legal and Accounting Services has also grown strongly over the last 20 years, increasing by more than 30,000, roughly doubling. This represents about 30 percent of all the industry growth in Queensland over the last 20 years.

Finally there has been strong growth in *Computer System Design and Related Services* which has increased by about 25,000 people or 82 percent. This represents about a fifth of the employment growth in the industry in Queensland over the last 20 years. The substantial growth in this subsector is likely to continue as businesses seek to increase productivity and innovation through use of digital tools.

In the Department of Employment projections, all subdivisions are projected to grow to 2020. Most grow at above the national average rate. *Scientific Research* and *Veterinary Services* both see only a low level of growth, more than offset by growth in other sectors.

Figure 23: Growth forecasts in Professional, Scientific and Technical service subsectors

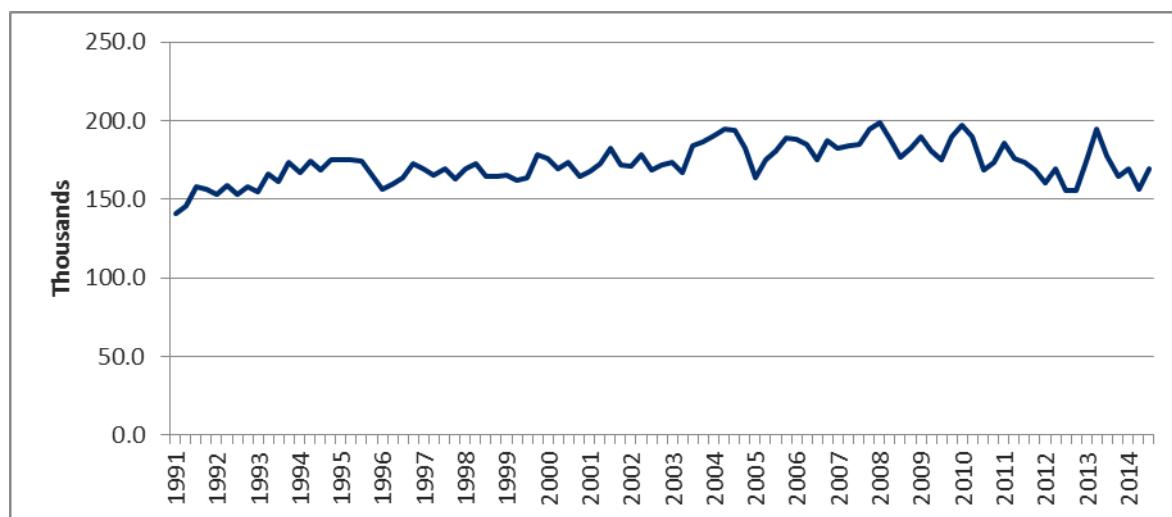


Source: Commonwealth Department of Employment 2015 Employment projections for the five years to November 2020

MANUFACTURING

Manufacturing is a large and varied industry in Queensland. In total manufacturing employs around 170,000 people, or 1 in 12 Queensland jobs. Despite occasional claims that manufacturing is in decline, the sector has employed similar numbers of people in Queensland for decades, as shown in Figure 24 below:

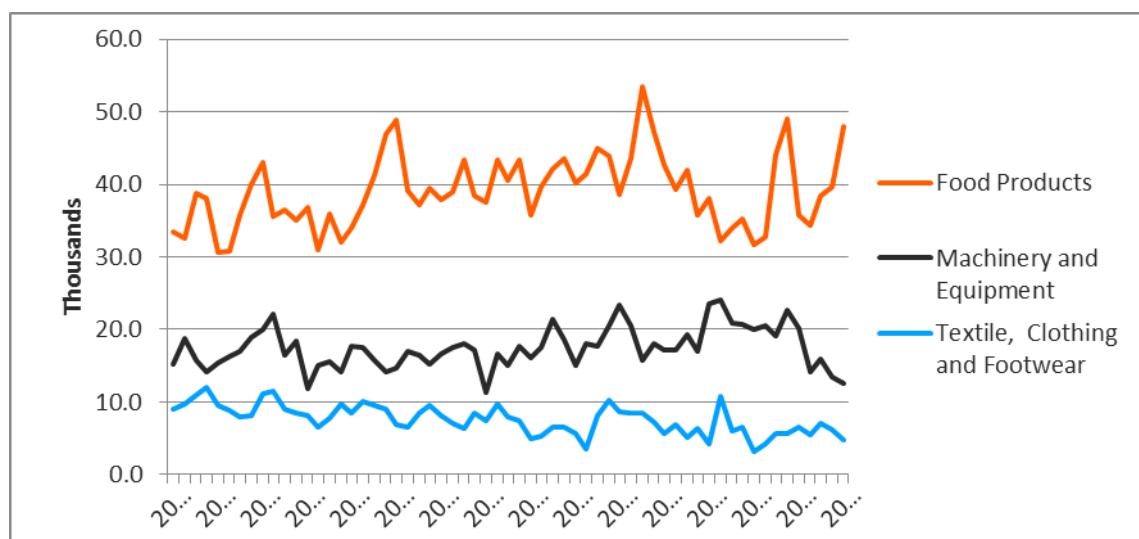
Figure 24: Queensland manufacturing employment



Source: ABS Cat no. 6291.0.55.003 *Labour Force, Australia, Detailed, Quarterly*

While manufacturing as a whole has shown no clear trend in employment numbers in the long term, the industry has many subsectors, which have had differing fortunes. Some like Textiles, Clothing and Footwear manufacturing have shown steady declines. Others have had periods of growth, decline and volatility, as shown in Figure 25 below:

Figure 25: Queensland manufacturing employment, selected sub industries

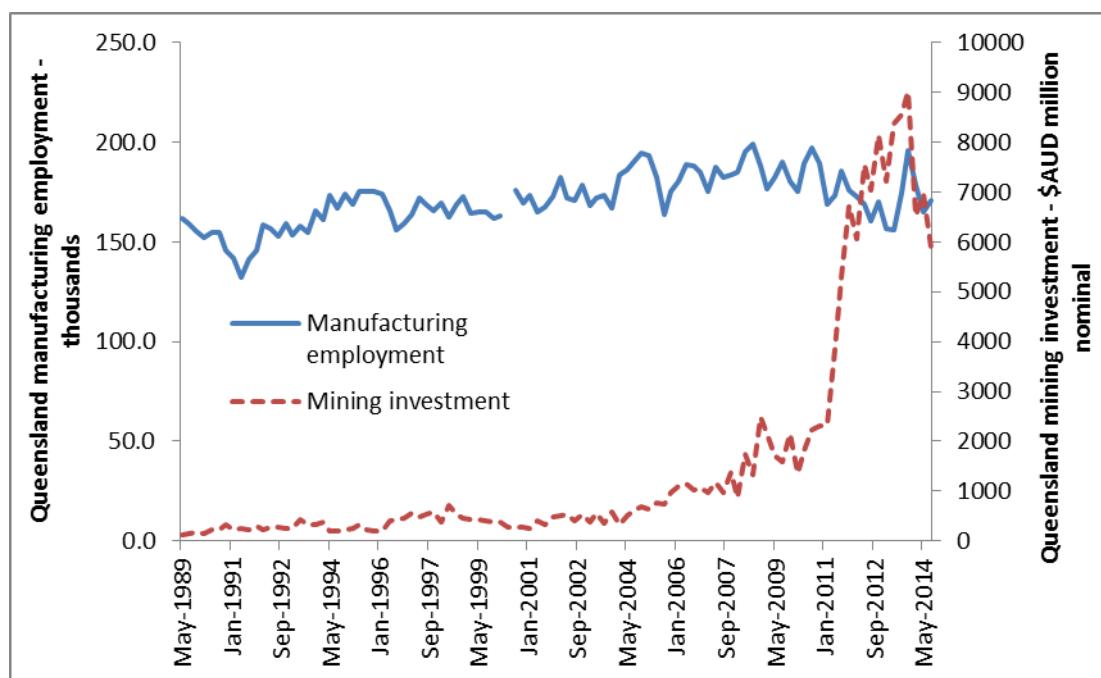


Source: ABS Cat no. 6291.0.55.003 *Labour Force, Australia, Detailed, Quarterly*

There has been considerable commentary on how the mining boom has affected manufacturing. For example, the Reserve Bank of Australia attributed 44 per cent of the value of the Australian dollar at its 2013 peak to the mining boom, which reduced Australian manufacturing exports and made imported goods in the domestic market cheaper.³⁴ Conversely, mining advocates have claimed that mining projects cause ‘indirect’ employment in manufacturing. For example, the economic assessment of the Kevin’s Corner mine in the Galilee Basin claimed that project alone would generate between 3-4,000 manufacturing jobs.

While some sectors may have felt major effects of the mining boom, overall, Queensland’s level of employment in manufacturing has been largely unchanged. Figure 21 above shows that even in a sector likely linked to mining such as machinery and equipment manufacture, growth has been modest. As shown in Figure 26 below, the vast bulk of mining investment has occurred since 2009, making no discernible impact on overall manufacturing employment in Queensland.

Figure 26: Queensland manufacturing employment and mining investment



Sources: ABS 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly and ABS 5625.0 Private New Capital Expenditure and Expected Expenditure, Australia

³⁴ Peter Downes, Kevin Hanslow and Peter Tulip, 2014, The Effect of the Mining Boom on the Australian Economy, RDP 2014-08.

The Commonwealth Department of Education projects a decline of 2.4 percent in Queensland manufacturing by 2019. However some subdivisions of the manufacturing industry are expected to increase their level of employment.

Food Product Manufacturing is by far the largest employer in the manufacturing sector in Queensland and is projected to grow by 2.5 per cent. Food manufacturing employs around 47,000 people,³⁵ around 27% of the manufacturing workforce in Queensland. This is a substantial employer in its own right, employing more than twice the amount of people currently employed in coal industry and almost ten times as many people employed in the oil and gas extraction in Queensland.

The next largest employing subdivision Machinery and Equipment manufacturing is forecast to grow 1.5 per cent, however some of the smaller subdivisions are projected to experience sharp declines, particularly Transport Equipment Manufacturing which is projected to decline by nearly 40 per cent. It is important to remember that these projections of changes to employment levels in industry subdivisions are for Australia as a whole, and nationally this subdivision is dominated by Motor Vehicle and Motor Vehicle Parts Manufacturing, which is likely to be more heavily impacted in southern states with a higher concentration of motor vehicle manufacturing.

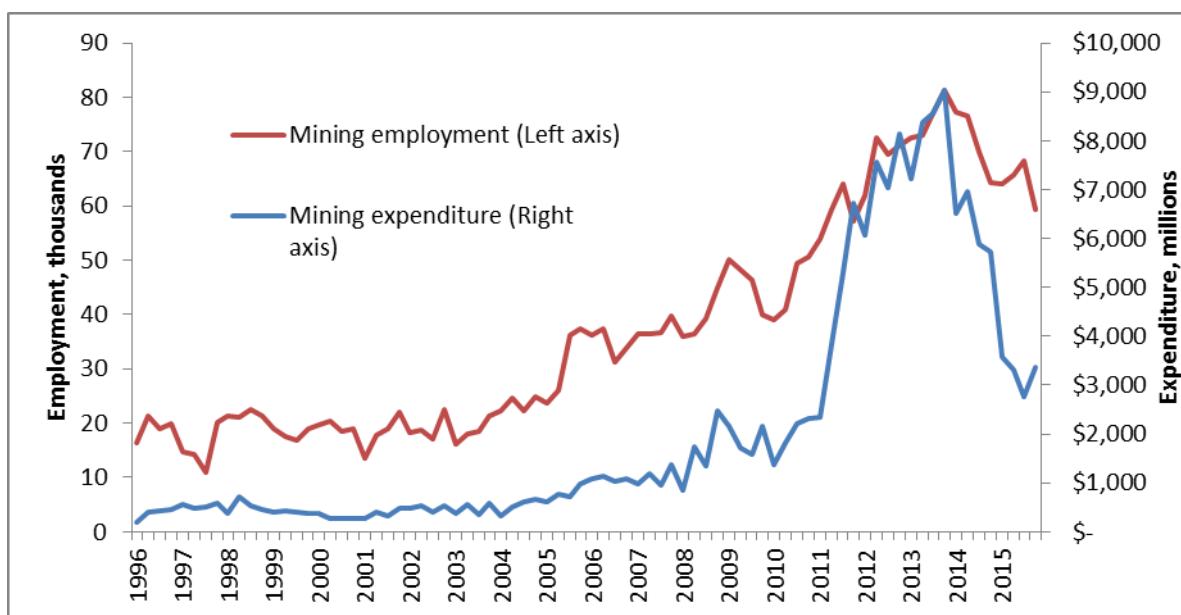
³⁵ ABS 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly

MINING

Mining is a capital intensive industry which does not employ many people. Although discussion of Queensland's economy has often been framed as a 'mining state' mining has never employed more than a few percent of the workforce.

Until 2004 mining had employed around 20,000 people in Queensland for many years. As commodity prices rose during the first decade of the century, the state's mines responded by first expanding output in existing mines and later by building new mines. Mining employment grew steadily from 2004 to the global financial crisis in 2008. After cutting jobs dramatically at the financial crisis, a huge spike in mining investment drove mining employment from 2010 to a peak in 2014, as shown in Figure 27 below:

Figure 27: Mining employment and expenditure in Queensland



Source: ABS 2016 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly, ABS 2016 5625.0 Private New Capital Expenditure and Expected Expenditure, Australia

From the peak in 2014 mining employment has declined along with expenditure, as many projects have been completed and others abandoned as commodity prices return to long term averages. It seems likely that mining employment will stabilise below current levels, but higher than traditional numbers, given the number of new mines built.

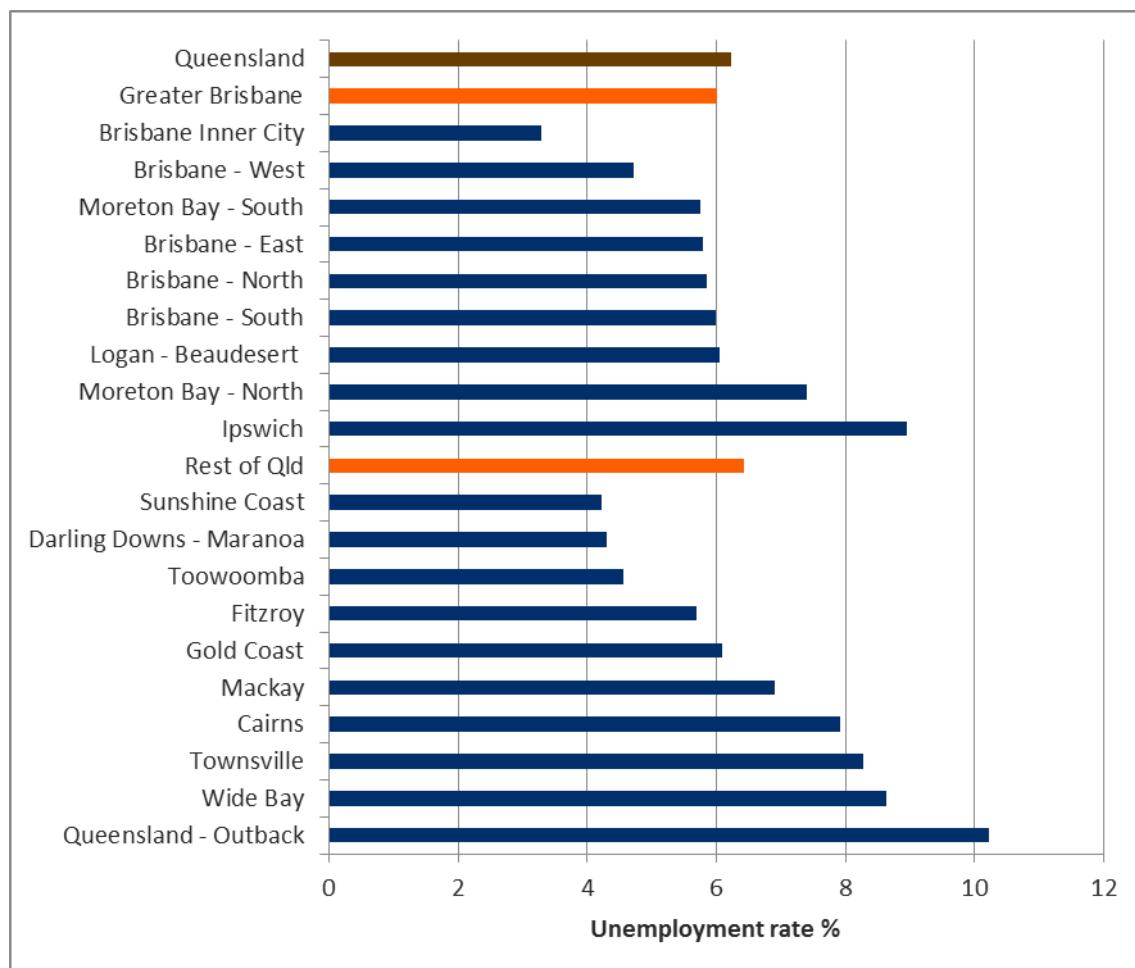
The Commonwealth Department of Employment also forecasts mining employment to fall, by 11,700 people to November 2019, the largest amount of any industry. No sub-industries of Mining are expected to provide significant job growth. Across the Australia, falls in exploration, coal, ore and other mineral mining are all between 11

and 21 per cent between November 2016 and November 2020. Oil and gas extraction is projected to add just 100 people across the whole country – in other words, to remain at current levels.

Queensland's Regional Jobs Challenge

While the paper so far has discussed state-wide data and trends, Queensland is a large and state with significantly different regions. There is a wide disparity of unemployment rates between regions as shown in Figure 28:

Figure 28: Unemployment by region, Queensland, February 2016



Source: Three month average to Feb 16, ABS Cat no. 6291.0.55.001 *Labour Force, Australia, Detailed - Electronic Delivery*. Note the three month average for Queensland is different to the trend figure.

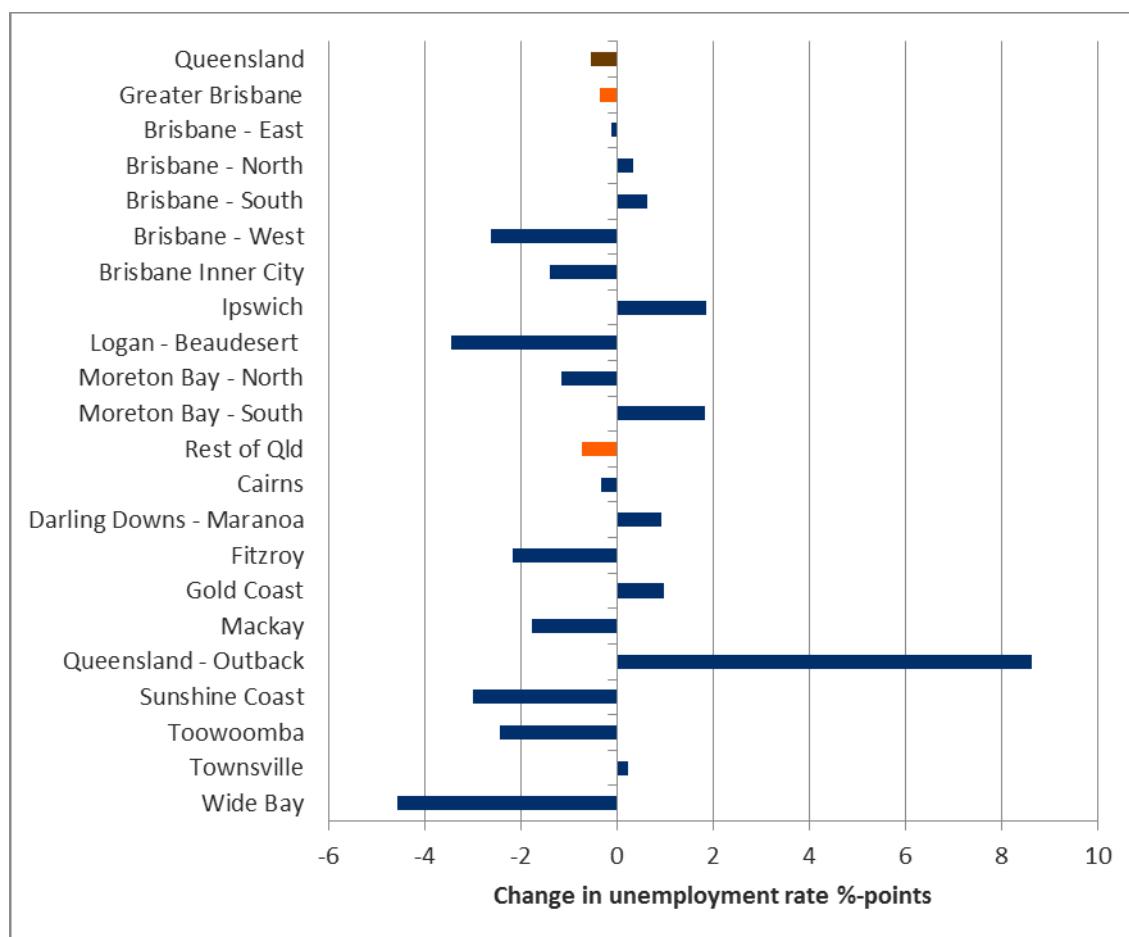
Regional labour force data separates Queensland into *Greater Brisbane* and *Rest of QLD*. Current unemployment rates for *Greater Brisbane* regions, listed in ascending order in the first part of Figure 28, are mostly around average, although some are higher (*Ipswich* and *Moreton Bay – North*) and some lower (*Inner City* and *West*).

Unemployment in regions in the *Rest of QLD*, listed in the bottom part of Figure 28, is more varied. There is below average employment in the *Sunshine Coast, Darling Downs* and *Toowoomba*, while unemployment rates in *Gold Coast* and *Fitzroy* are around average.

However, most of the regions with above average unemployment are outside of Brisbane: *Mackay, Cairns, Townsville, Wide Bay* and *Outback Queensland*. These regions are home 26 percent of all currently unemployed Queenslanders, despite being home to 22 percent of all Queenslanders. While most unemployed people in Queensland do not live in these regions, unemployed people in these regions will tend to find it harder to get work.

Despite the regional diversity in unemployment, over the last year unemployment has fallen most regions, as shown in Figure 29:

Figure 29: Change in unemployment rate by region in year to Feb 16



Source: Based on three month average of original data. ABS Cat no. 6291.0.55.001 Labour Force, Australia, Detailed - Electronic Delivery

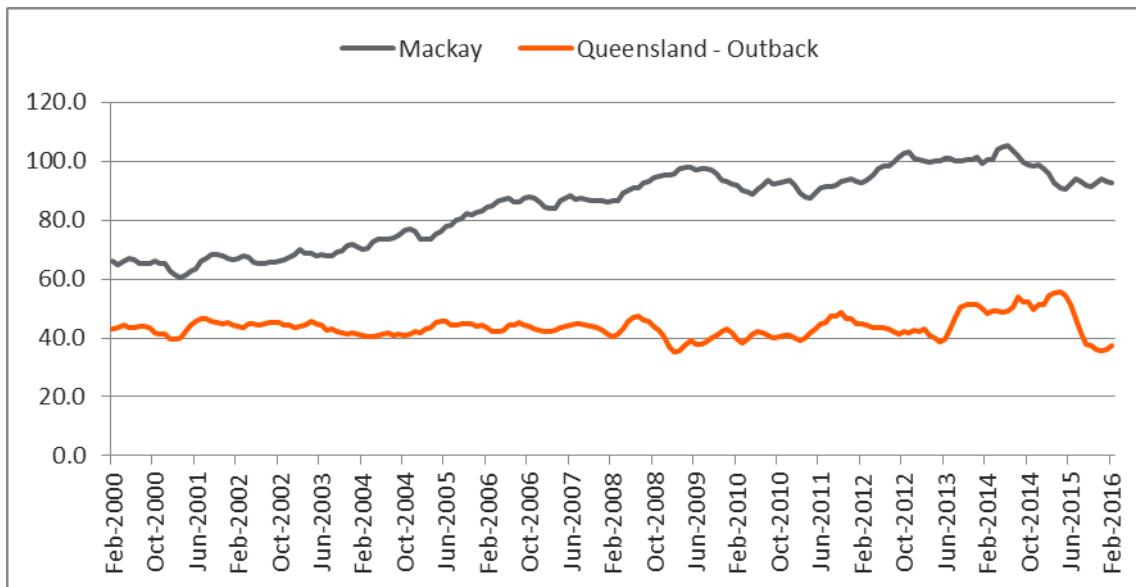
The largest fall was in *Wide Bay*, where unemployment fell around five points, to 8.6 percent. There have also been reductions of between 2-4 percent in seven other regions, notably *Logan-Beaudesert* and *Brisbane West* in Brisbane, and *Sunshine Coast*, *Toowoomba* and *Mackay* outside of Brisbane.

Where there have been increases in unemployment, they have been relatively moderate. *Ipswich* and *Moreton Bay South* have both seen unemployment increase by two percentage points.

The main exception is *Outback Queensland*, which has seen a startling eight percentage point increase in unemployment. Employment levels in this region fell by 15,000 in the year to February 2016, in large part associated with a fall in mining employment. As a geographically large region with relatively small employment, currently only around 40,000, the Outback is exposed to such large changes. Mining remains around 20 percent of employment in the region.

The region where mining has the next biggest share of employment is *Mackay*, around 13 percent of employment. As shown in Figure 30.

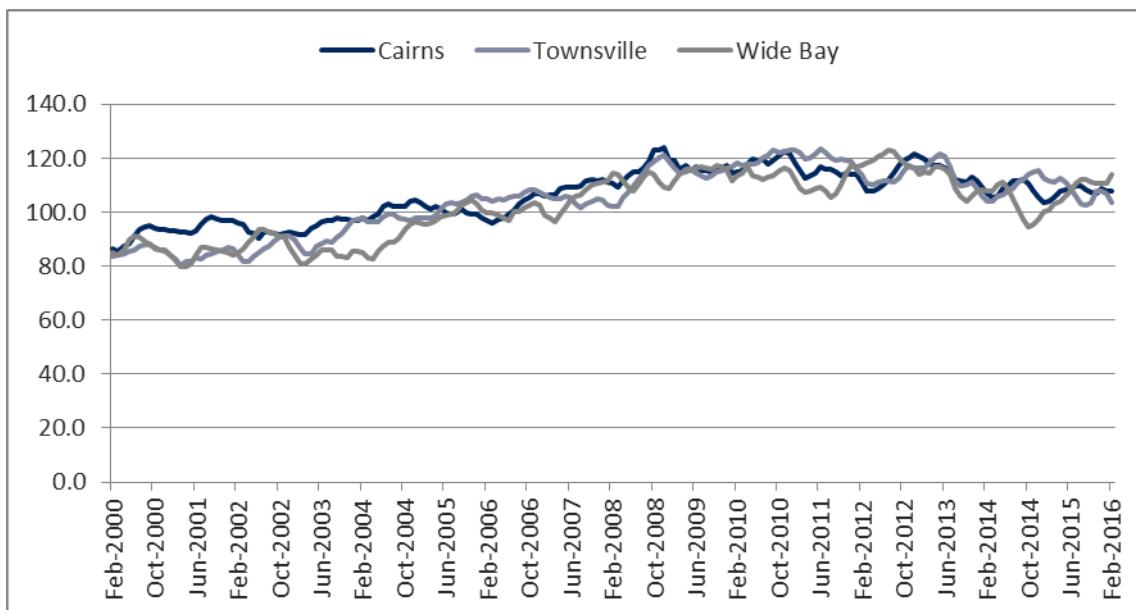
Figure 30: Employment in Mackay and Outback Queensland.



Source: Three month moving average of original data. ABS Cat no. 6291.0.55.001 *Labour Force, Australia, Detailed - Electronic Delivery*

The other coastal regions experiencing higher than average unemployment – *Cairns, Townsville* and *Wide Bay* – have all experienced similar employment trends, with growth over the decade to 2010, followed by stagnation, volatility and a downwards trend.

Figure 31: Employment in Cairns, Townsville, Wide Bay

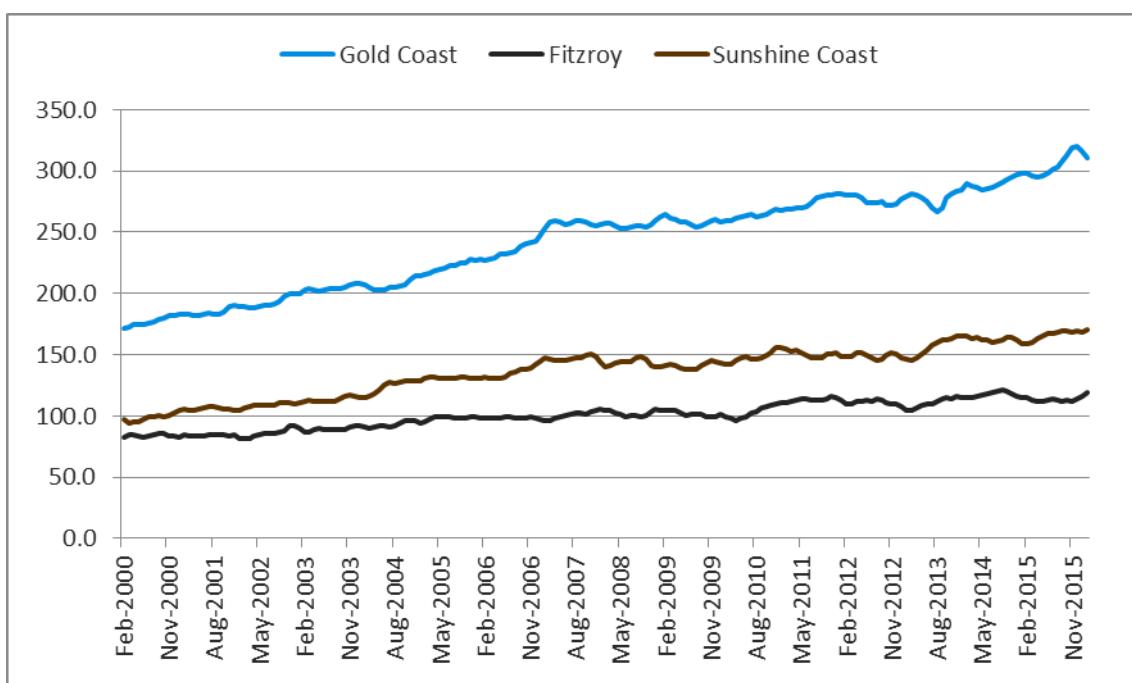


Source: Three month moving average of original data. ABS Cat no. 6291.0.55.001 *Labour Force, Australia, Detailed - Electronic Delivery*

Two of the strongest growth regions outside of Brisbane have been the *Gold Coast* and the *Sunshine Coast*. Together these regions represent about one in five jobs in Queensland and they have both grown around 70 percent in the last fifteen years.

The *Fitzroy* region has also had relatively sustained employment growth over the same period, albeit at a slower rate. Fitzroy has a substantial mining workforce -- in terms of share of regional employment, it is the third largest mining region -- however, it also has comparable employment in Accommodation and Food Services, Agriculture and Manufacturing.³⁶

Figure 32: Employment in Gold Coast, Sunshine Coast and Fitzroy



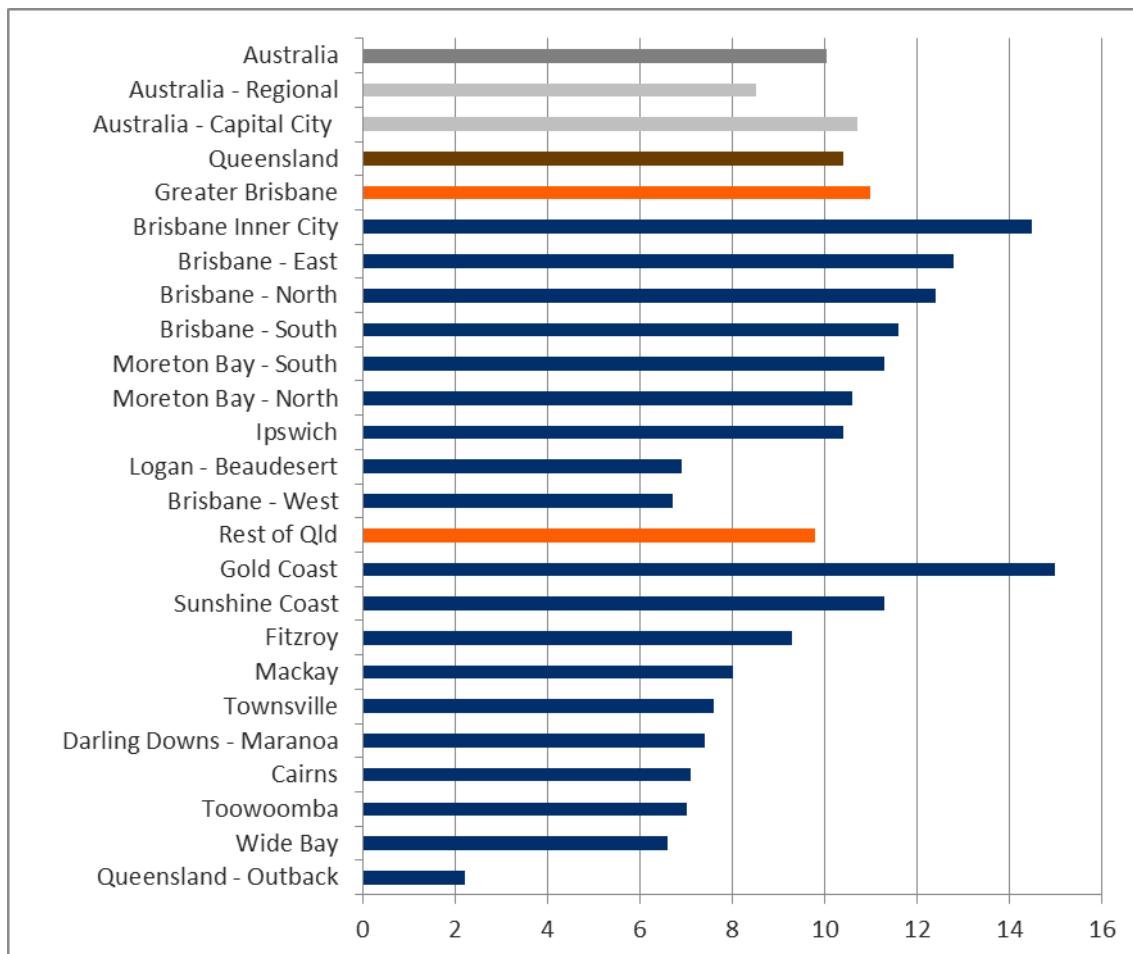
Source: Three month moving average of original data. ABS Cat no. 6291.0.55.001 *Labour Force, Australia, Detailed - Electronic Delivery*

Where will the new jobs be created over the coming years? Again, while the Department of Employment's projections are only projections, they provide a useful indication based on recent trends.

Over the projection period, there is 10 per cent growth across Australia, higher in capital cities. This trend is clear in the projections for Queensland, shown in Figure 33.

³⁶ ABS data, four quarter averages, reported in LMIP SA4 - Employment by Industry Time Series, February 2016

Figure 33: Projected employment change in Queensland regions, five years to November 2019 (percent)

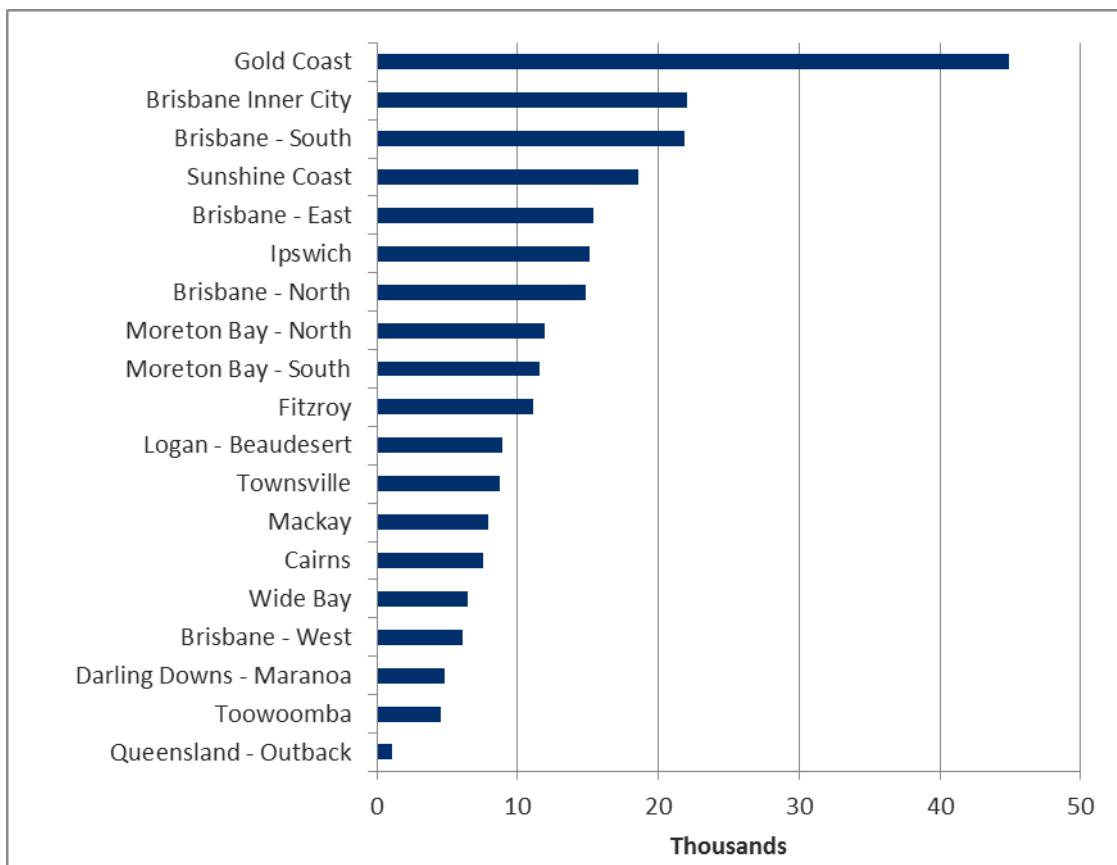


Source: LMIP, 2015, Regional Projections – Five years to November 2019

Greater Brisbane is projected to grow faster than the national average, at 11 per cent, as is the state as a whole, at 10.4 percent. Ipswich, one of the regions with highest unemployment at present, is projected to see employment growth comparable to the state-wide average.

However, most regions of Queensland outside of Brisbane have lower than average projected growth, and low absolute growth, shown in Figure 34.

Figure 34: Projected employment growth by region to November 2019

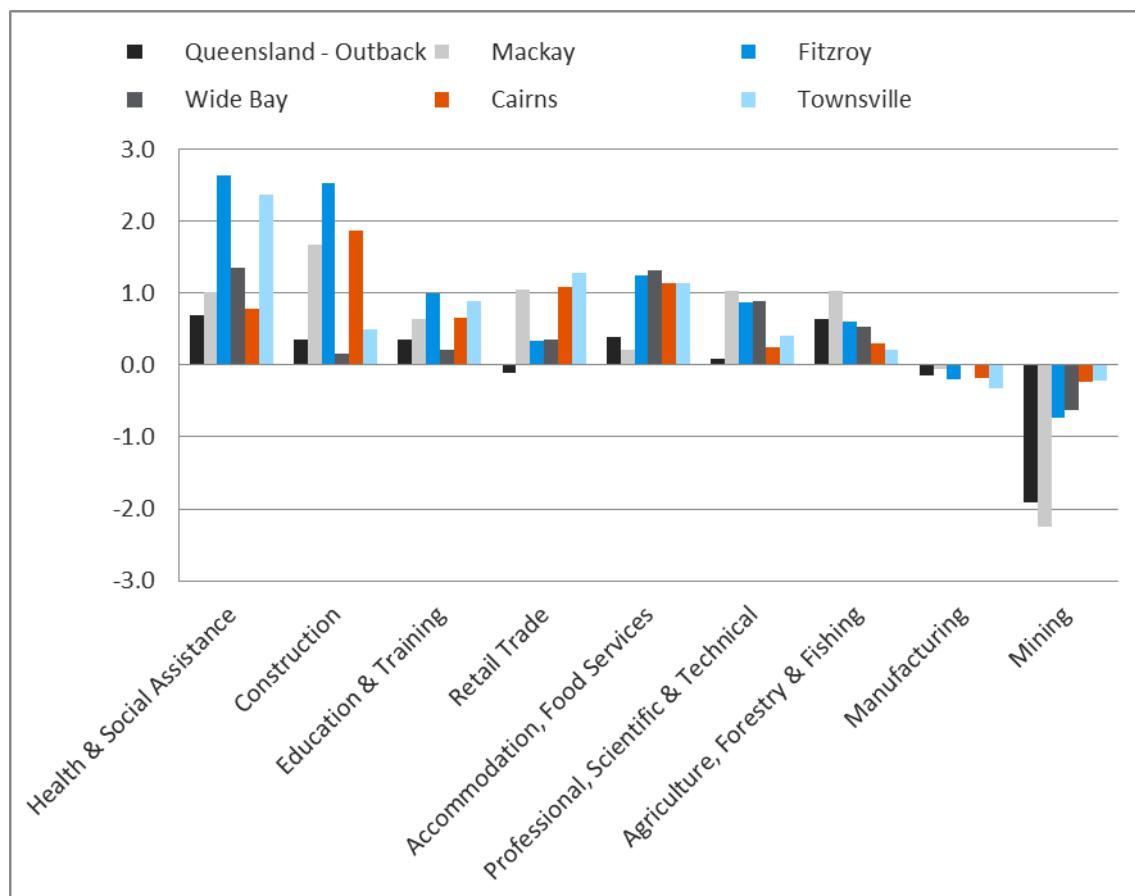


Source: LMIP, 2015, Regional Projections – Five years to November 2019

Brisbane Inner City and the *Gold Coast* have the largest projected growth – both in percentage terms and in absolute terms. They are among the top 15 growth regions in the whole country. Other areas of *Brisbane*, the *Sunshine Coast* and *Ipswich* are also large contributors to growth.

The worst performing region is the *Queensland Outback*. Both in percentage and absolute terms, this is the lowest growth region in Australia. The projected employment growth of only 2.2 per cent is less than half that of the next lowest – Western Australia’s *Wheat Belt* – at 4.5 per cent. The low employment growth in Outback Queensland is overwhelmingly due to a very large drop in Mining jobs, offsetting modest growth in several other areas. There is a similarly large fall in mining employment projected for Mackay, while mining employment is also a drag on growth in other regions where it is a relatively large employer, as shown in Figure 35. However, in the coastal regions, growth in other sectors is more substantial, leading to projected growth rates of three to four times as high as in the Outback region, as outlined above.

Figure 35: Projected growth in selected coastal regions, selected industries, five years to November 2019



Source: LMIP, 2015, Regional Projections – Five years to November 2019

As with much of Australia, regional unemployment remains the greatest jobs growth challenge for Queensland. A thorough understanding of regional economies and careful policy settings will be important in addressing this challenge.

Conclusion

Queensland, like the rest of Australia has a strong modern diverse service based economy. Jobs growth over the next decade will be driven by the service industries, however construction and manufacturing will remain large employers integral to the rest of the economy.

Employment growth and reducing unemployment are central policy aims of all governments that wish to maximise the wellbeing of their citizens.

Government policy settings and industry assistance can help provide the conditions for industries to grow and increase employment, however governments have limited resources and industry assistance needs to be directed to where it can have the greatest effect.

Industry policies and assistance aimed at employment growth should be directed to industries that have real prospects of growth and provide long-term sustainable employment. When limited resources are spent on supporting capital intensive industries that employ few people, or industries that have little prospect of success due to market conditions, those resources are likely to be wasted.

Too often in Queensland there has been an inverse relationship between the amount certain industries talk about the jobs they provide and the amount of jobs they actually provide. Health and community services, education, tourism and professional service are the real drivers of employment and employment growth in Queensland, but their contribution is rarely heralded.

Manufacturing remains one of the state's largest employers, and building construction remains by far the largest and fastest growing segment of the construction industry.

It is now widely recognised that end of the resource construction boom is has eased the pressure on Queensland's non-resource export industries allowing them to expand.

Regional unemployment remains the greatest jobs growth challenge for Queensland, but it is important to acknowledge that the mining construction boom had little impact on unemployment on many of the areas of highest and most persistent unemployment, and is even less likely to provide a solution in a period oversupply and falling commodity prices.

Queensland has enormous challenges and opportunities in providing sustained employment growth over the next decade, and the first step is to understand which industries are, and will continue to be the real drivers of jobs growth.

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