

# The mining construction boom and regional jobs in Queensland

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*The mining construction boom did not result in a regional jobs boom in Queensland. Unprecedented investment saw regional jobs growth stagnate and fall. While the boom created some jobs directly, it also undermined other industries.*

Discussion paper

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September 2016

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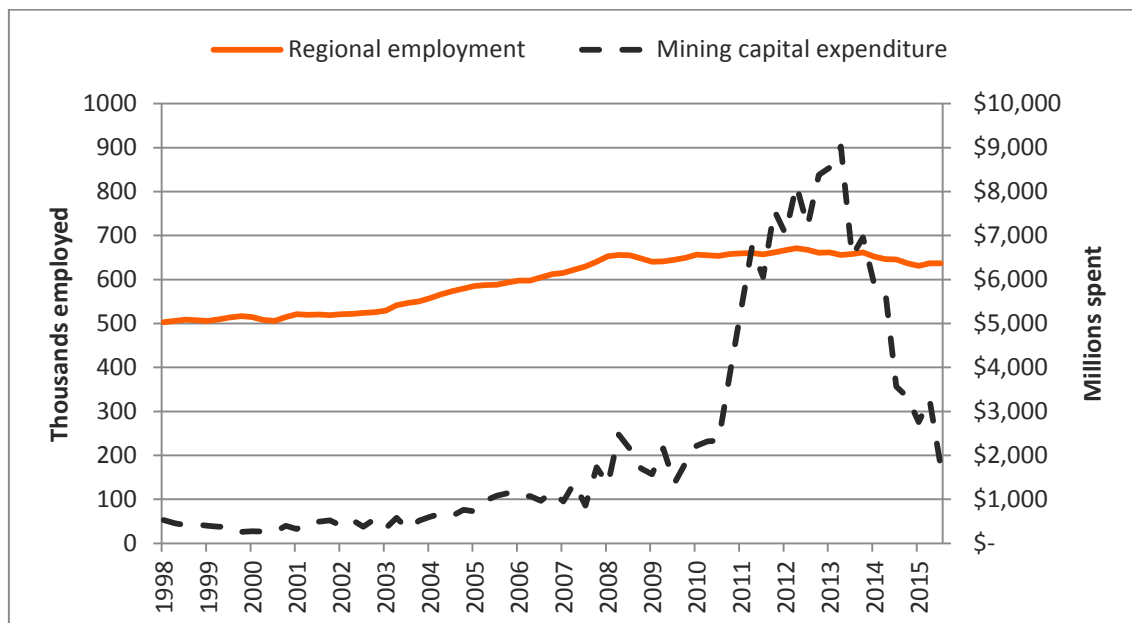
# Summary

This report analyses the impact of the mining construction boom on employment in the regions of Queensland, outside of the south-east corner.

During the mining construction boom, a period of enormous mining capital expenditure in Queensland, there was no jobs boom in regional Queensland. Despite a brief rise in employment in a small number of regions, overall employment remained flat and then declined across regional Queensland. Unemployment is now higher after the boom than it was before the boom.

The 'mining construction boom' is the period of increased mining construction that started in Queensland in 2010. While there was increased mining activity and some construction in Queensland before 2010, in the three years to 2013 mining capital expenditure more than quadrupled; it subsequently fell between 2013 and 2016.

## Queensland regional employment vs mining capital expenditure



Source: trend, Conus (2016) *QLD Regions Jobs data – Conus Trend* (derived from ABS original); ABS Cat no. 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

As mining investment increased by 400 percent from 2010 to 2013, total employment in regional Queensland rose by around 4 percent, roughly in line with the population increase. From 2013 to 2015, as mining capital expenditure fell by around two thirds, employment in regional Queensland fell by around 6 percent to below 2010 levels.

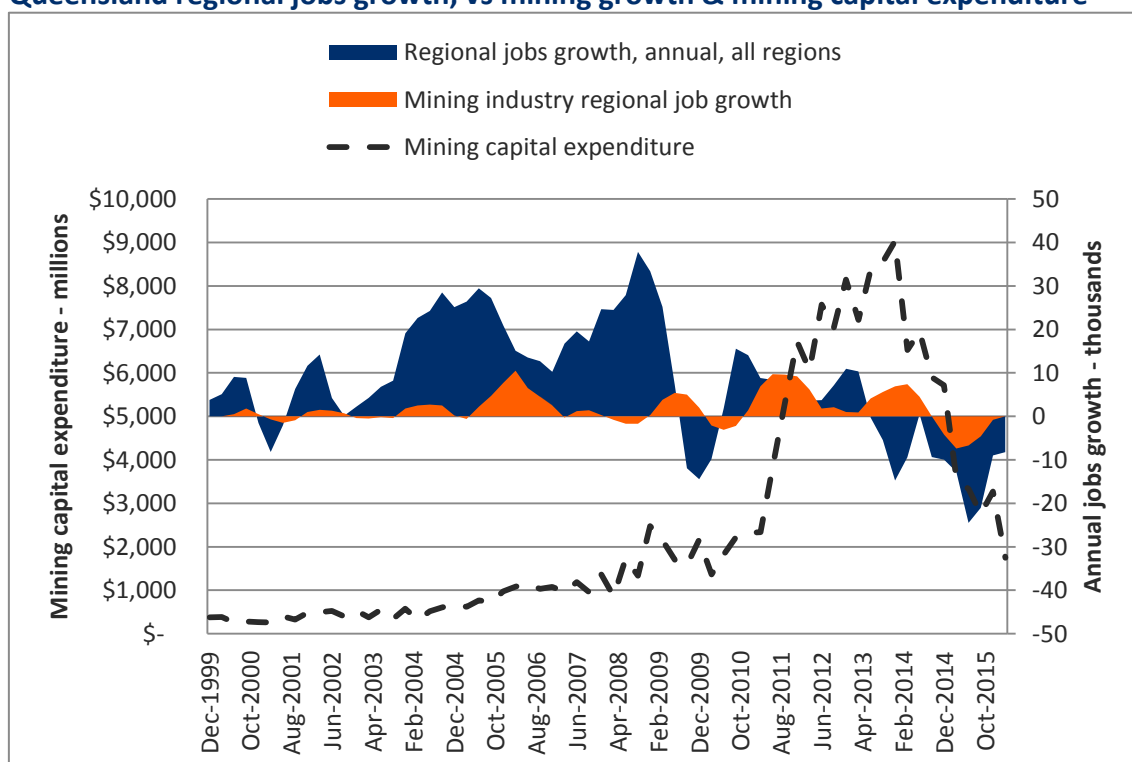
Mining is highly capital intensive and employs a relatively modest proportion of the workforce across Queensland. Across the state mining provides less than three percent of jobs. Outside of Greater Brisbane, about four percent of jobs are in mining.

In the regions that are the focus of this report, mining provides seven percent of jobs. This includes some of the most mining intensive regions of Australia. Mining contributes more than one in twenty jobs in only three regions - Mackay, Outback Queensland and Fitzroy. Regional Queensland, like the rest of Queensland and Australia overall, has a diverse, modern economy, with two in three jobs in services.

Perhaps surprisingly, more than a third of all mining workers in Queensland live in the south-east metropolitan corner of Queensland. During the construction boom, nearly half of all Queensland mining employment growth occurred outside of the regions.

The boom did increase employment in mining in regional Queensland; however losses in other industries resulted in low overall growth and then declines. From 2014 onwards, though mining employment increased, overall regional employment decreased. Over the past two years, falls in mining jobs have contributed to overall falls in regional employment.

### Queensland regional jobs growth, vs mining growth & mining capital expenditure

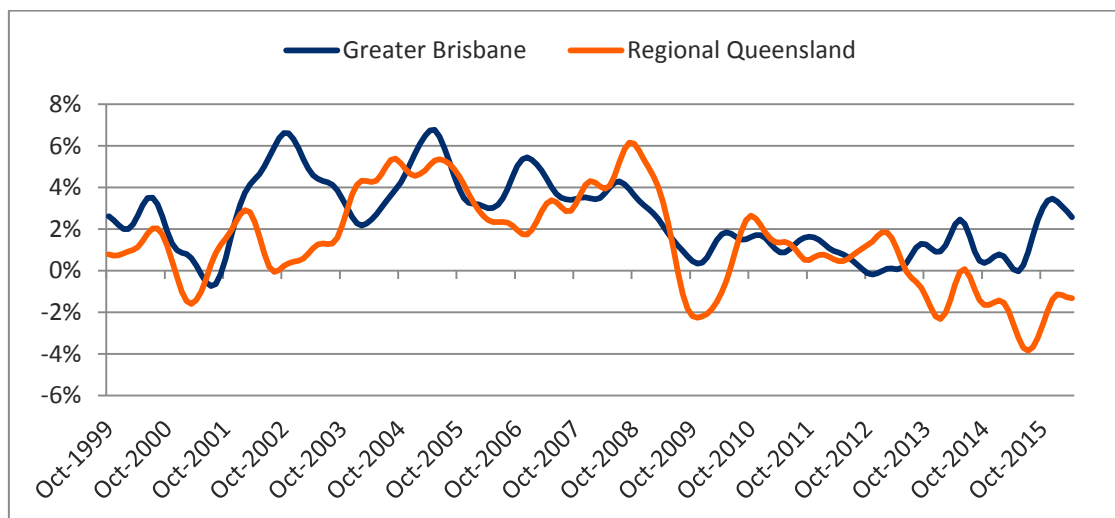


Source: trend, Conus (2016) *QLD Regions Jobs data – Conus Trend* (derived from ABS original); year averages, ABS Cat no. 6291.0.55.003, *Labour Force, Australia, Detailed, Quarterly*; current prices, ABS Cat no. 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

Regional jobs growth was far stronger prior to the construction boom than during the construction boom. While mining increased during the pre-construction phase of the boom, mining jobs remained a small share of overall regional job growth. The boost in mining growth from 2005 preceded a slowing of overall growth.

Pre-construction boom, prior to the GFC, was a period of strong growth across the state, nation and globally. Jobs growth in regional Queensland was similar to growth in Greater Brisbane over the early years of the boom:

### Employment growth in Regional Queensland and Greater Brisbane



Source: trend, Conus (2016) *QLD Regions Jobs data – Conus Trend* (derived from ABS original);

Mining activity requires inputs from other industries, in particular construction, manufacturing and professional services. Yet regional jobs in these industries did not boom over the construction boom. Regional construction jobs increased only slightly and have since fallen; most of the increase over the decade was associated with housing and commercial construction, not mining. Regional manufacturing declined and professional services continued a slow long term growth trend.

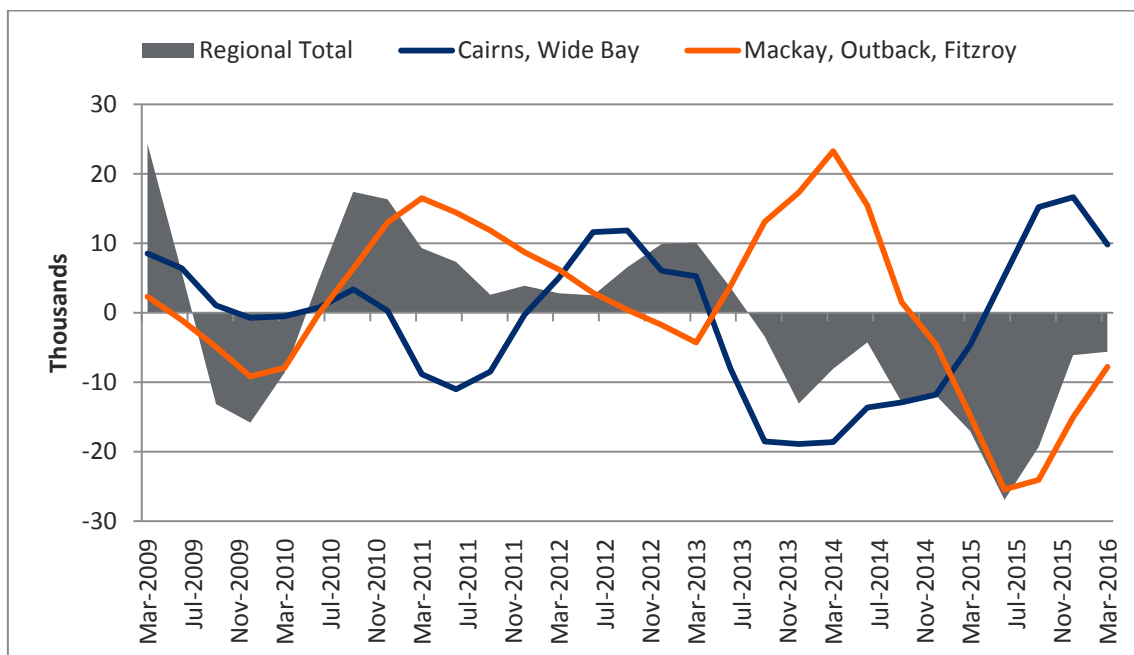
Where the boom created new jobs in regional Queensland they were not always additional to the existing workforce. While mining workers in ‘hi vis’ were highly visible, the jobs they displaced were less visible, except in the statistics.

Increased mining activity and employment created a number of economic pressures, which limited or reversed jobs growth in other industries. These pressures are generally known as the ‘resource curse’. The mining boom increased interest rates and increased exchange rates, and high mining wages drew skilled workers from businesses in other industries. These businesses often choose not to replace skilled

workers lost to the resource industry due to difficulties in recruiting and retaining staff and having to compete with high mining wages.

Over the mining boom, employment increased in the three regions where mining contributes the largest share of employment (Mackay, Outback and Fitzroy), yet it decreased by a similar amount in neighbouring regions where mining is below the state average (Cairns and Wide Bay). Conversely, as the mining construction boom ended and mining regions saw employment fall, employment growth picked up in non-mining regions.

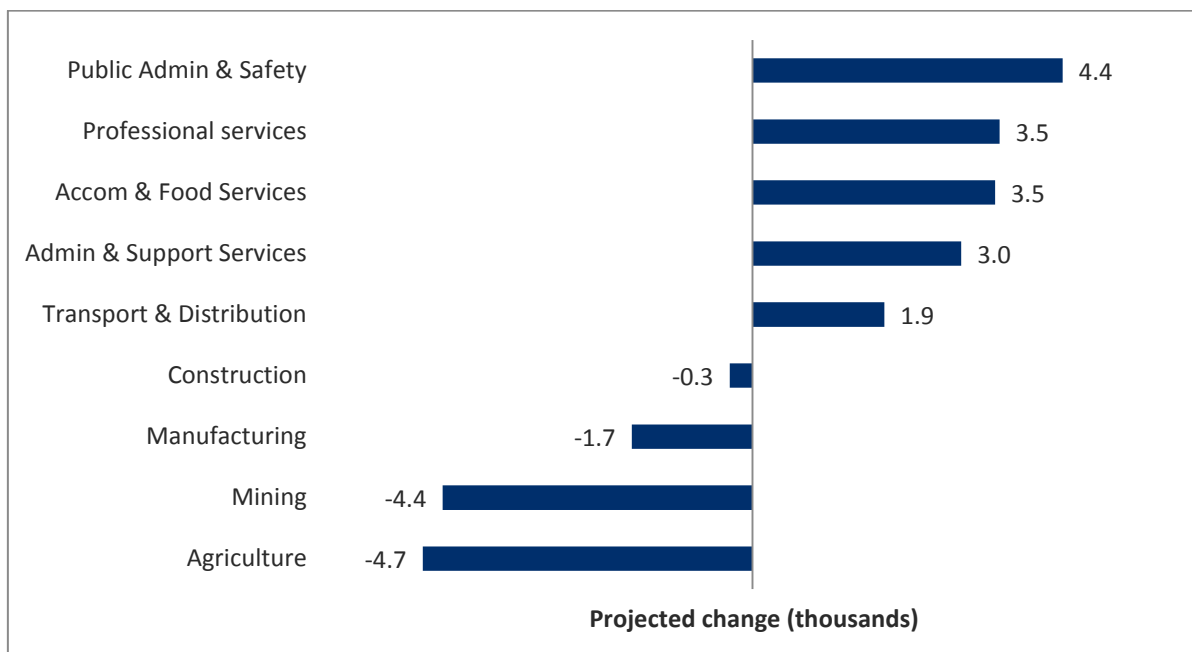
### Queensland jobs growth in high mining vs low mining regions – year on year



Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); note Regional Total also includes Townsville and Darling Downs - Maranoa

Jobs growth is projected to improve across regional Queensland in the next five years, according to the Commonwealth Department of Employment. While lower than the state-wide rate, the projected regional growth is a marked improvement on the declines seen in recent years. Overall growth is projected despite continued declines in mining and in some other industries. The projected growth is driven by services industries, in particular health, education, professional services and tourism related services. Declines in construction in many regions are offset by a large increase in Cairns.

## Projected jobs growth in regional Queensland, five years to Nov 2020



Source: LMIP (2016) *Regional Employment Projections*

Governments that wish to support conditions for employment growth through industry assistance must consider where best to direct their limited resources.

There are currently calls for governments to support the mining industry as a source of jobs growth, including through supporting otherwise uncommercial projects. These calls draw on the common perception that the mining construction boom was associated with regional jobs. But this perception is not supported by the data on regional employment over this period.

The evidence presented in this report suggests that industry assistance and policy aimed at employment growth is unlikely to be well targeted if it is aimed at artificially stimulating otherwise un-commercial construction projects in the mining industry.

Industry policies and assistance aimed at employment growth should be directed to industries that have real prospects of growth and that provide long-term sustainable employment.

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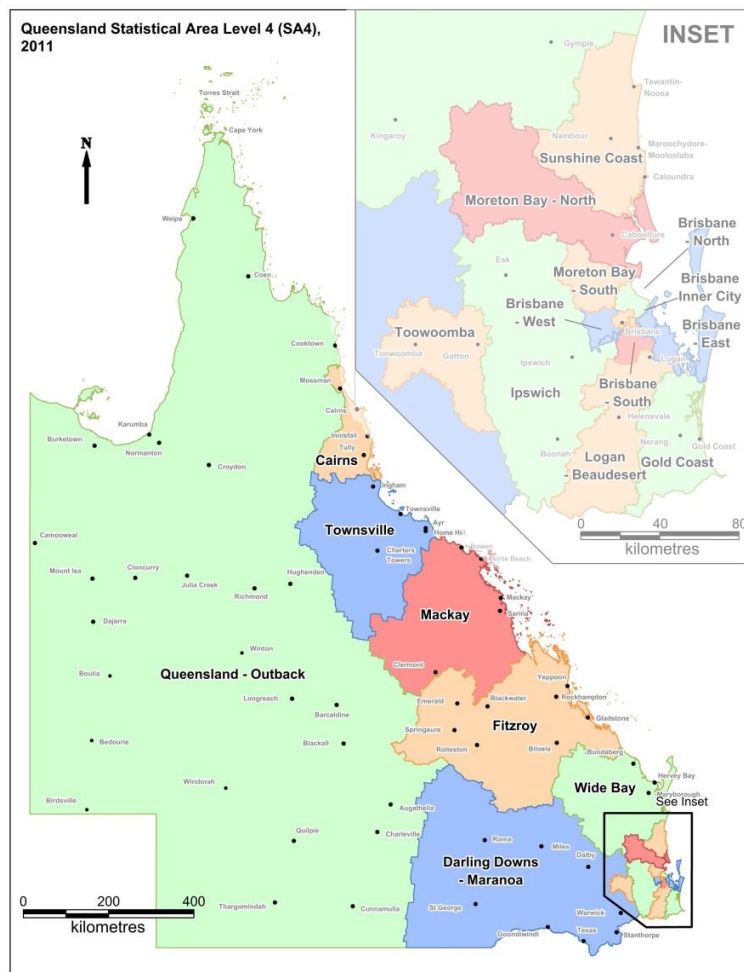
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# Introduction

This report examines the impact of Queensland’s mining construction boom on employment in regional Queensland. Most of Queensland’s mining activity occurs in regional Queensland, outside of the south-east metropolitan corner. The regions of Outback, Cairns, Townsville, Mackay, Fitzroy, Wide bay and Darling Downs-Maranoa are shown in Figure 1 and are the focus of this report.

**Figure 1 – Regional Queensland - regions discussed in this report**



Source: modified from Queensland Treasury (2016) *Queensland Statistical Area 4 2011*

In recent years, many of these regions have experienced falling employment and high levels of unemployment. In response to these challenges, some commentators and interest groups have urged governments to focus on supporting new mining construction.

Such proposals draw on a common perception that the mining construction boom, an enormous and sudden increase in mining investment, was associated with substantial growth in regional employment. However, this perception is not supported by data from the Australian Bureau of Statistics (ABS).<sup>1</sup>

During the mining construction boom, there was no jobs boom in regional Queensland. In fact, during this period regional jobs growth stagnated and as investment peaked, employment started declining. Jobs growth in the regions was far stronger before the mining construction boom.

During the construction boom, the number of mining workers across the state roughly doubled. Queensland's mining workforce peaked at around three percent of the state's workforce in 2013, then declining quickly to around 2.7 percent in 2015. As mining jobs declined, four other services industries each created more jobs than were lost in mining.<sup>2</sup>

Mining is a more significant employer in regional Queensland than in Brisbane and the Southeast. Yet there are only three regions of Queensland where mining employs more than 1 in 20 people. Regional Queensland, much like the state as a whole, has a diverse modern economy. 93 percent of regional Queensland jobs are not in mining. Two thirds are in services. Many are in industries that were negatively impacted by the boom.

The increase in mining jobs did not translate to an increase in overall regional employment. To some extent new jobs in mining came at the expense of other jobs, as economic pressures were created in other industries. The boom pushed up interest rates and exchange rates, and drew workers out of other industries.

Images of workers in 'hi-vis' clothing were highly visible indications of the boom, but the mining boom's negative impacts on jobs growth in other industries like agriculture and manufacturing were less visible. A farm worker from the Darling Downs who goes to work in a coal mine in Emerald is not necessarily replaced on the farm, particularly when farming businesses have to compete with high mining wages.

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<sup>1</sup> Data used in this report comes from the ABS. Data on regional labour force status are generally taken from Conus (2016) *QLD Regions Jobs data – Conus Trend*, which derives trend figures from original ABS figures. ABS presents regional industry employment figures as four quarter averages of original figures. The Commonwealth Department of Employment derives regional trend figures as the basis for projections in LMIP (2016).

<sup>2</sup> See discussion in Swann, T, Ogge, M, Campbell, R, (2016) *Jobs Growth in Queensland Trends and Prospects*, The Australia Institute, <http://www.tai.org.au/sites/default/files/Ogge%20Swann%202016%20QLD%20Jobs%20Growth%20FINAL%20w%20Cover%20v2.pdf>

There was a similar situation with indirect employment. The industries often cited as experiencing flow on jobs from mining, such as construction, manufacturing and professional services, did not experience large growth in regional Queensland during the construction boom.

The gas industry-funded Gas Industry Social and Environmental Research Alliance (GISERA) found that additional gas jobs in Queensland's gas fields did not create any spill-over jobs outside the gas industry.<sup>3</sup> A subsequent report by the same authors found that for every ten new gas jobs, eighteen farming jobs were lost.<sup>4</sup> Modelling for the Reserve Bank of Australia found that jobs created in mining, and temporary increases in construction, were offset by job losses in agriculture and manufacturing.<sup>5</sup>

Governments seeking to support job creation must decide where to focus their limited resources. As Queensland Treasury noted in a submission to the Commonwealth Grants Commission at the peak of the boom, "spending on mining related infrastructure means less infrastructure spending in other areas, including social infrastructure such as hospitals and schools".<sup>6</sup>

Proposals to pump-prime otherwise un-commercial resource projects with taxpayer funded subsidises can lead to counterproductive outcomes. The recent history of the construction boom does not support the assumption that even a very large increase in resource industry construction translates to substantial overall growth in employment.

The Commonwealth Government projects ongoing declines in regional mining employment, but improved growth in regional jobs overall, driven by health, education and other services. Industry policy and assistance should focus on areas where there are prospects for sustained growth.

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<sup>3</sup> Fleming, D, Measham, T. (2013) *Local economic impacts of an unconventional energy boom: the coal seam gas industry in Australia*. Report to the Gas Industry Social and Environmental Research Alliance (GISERA). June 2013. CSIRO, Canberra. <http://www.aph.gov.au/DocumentStore.ashx?id=3e2fe114-0b43-460e-8e7d-da726002e2e4&subId=410955>

<sup>4</sup> Office of the Chief Economist (2015) *Review of the socioeconomic impacts of coal seam gas in Queensland*. <http://www.industry.gov.au/Office-of-the-Chief-Economist/Publications/Documents/coal-seam-gas/Socioeconomic-impacts-of-coal-seam-gas-in-Queensland.pdf> page 29

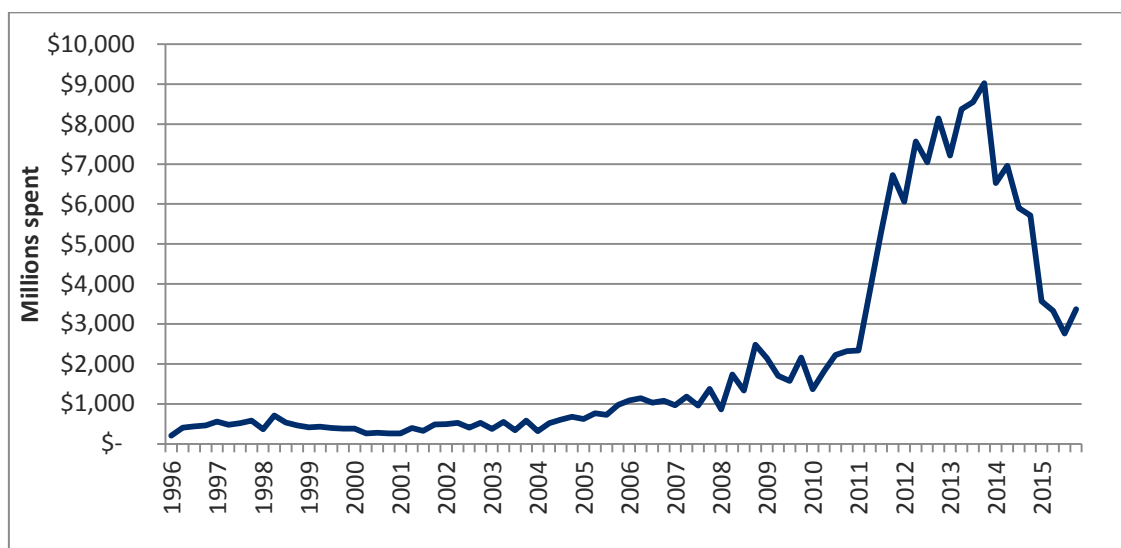
<sup>5</sup> Downes, P, Hanslow, K, Tulip, P, (2014) *The Effect of the Mining Boom on the Australian Economy*, Reserve Bank of Australia, Research Discussion Paper, <http://www.rba.gov.au/publications/rdp/2014/pdf/rdp2014-08.pdf>

<sup>6</sup> QLD Treasury (2013) *Submission to Commonwealth Grants Commission*, page 15 [https://cgc.gov.au/index.php?option=com\\_attachments&task=download&id=1727](https://cgc.gov.au/index.php?option=com_attachments&task=download&id=1727)

# Queensland's mining construction boom

From the early 2000s onwards the value of Australian resource exports increased dramatically. High demand from Asia saw commodities prices triple.<sup>7</sup> Mining companies expanded production and there was some new construction prior to the GFC. However the construction boom took off after 2010, as shown in Figure 2.

**Figure 2 – Private New Capital Expenditure, Mining, Queensland**



Source: Current prices, ABS Cat no. 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

From the beginning of the boom around 2003, mining company capital expenditure increased to around \$2 billion a quarter in 2009. Following a decline during the GFC, mining investment quadrupled in just three years, reaching the unprecedented level of \$9 billion per quarter in 2013. It has since fallen to around \$3 billion per quarter.

This spike in private capital expenditure is Queensland's mining construction boom, and is the focus of this report.

As well as private investment, the construction boom also involved substantial public spending on the mining industry. Queensland state government spent \$9.5 billion assisting the mining industry over six years to 2014, in particular on infrastructure used

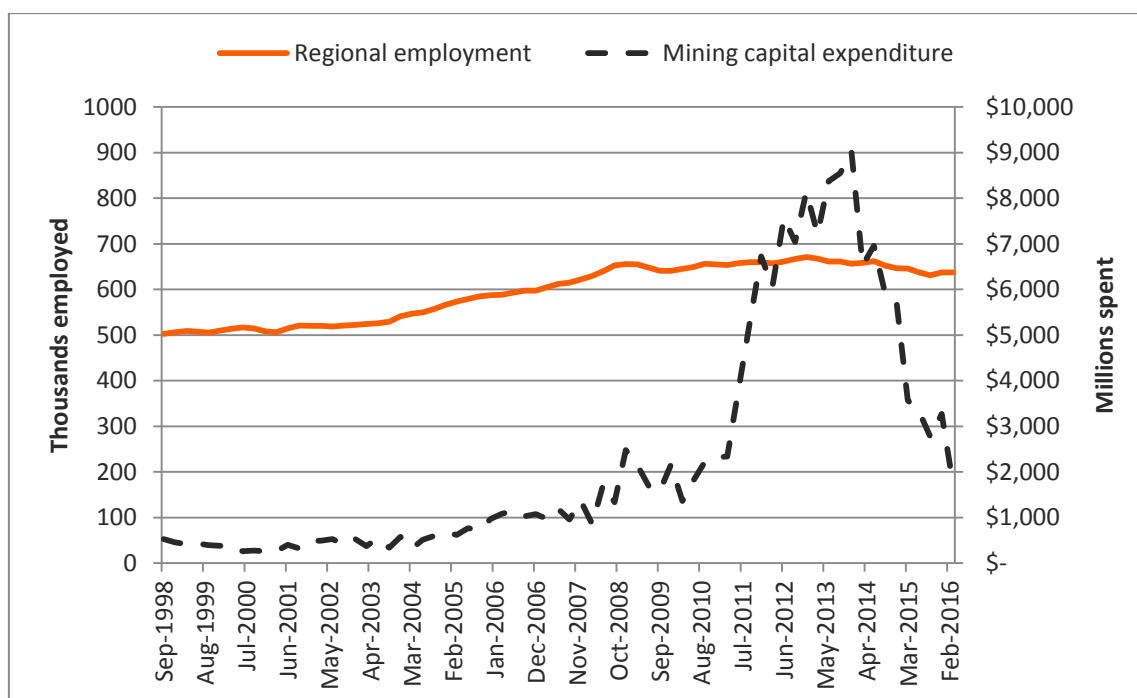
<sup>7</sup> RBA (2016) *Index of Commodity Prices - May 2016*  
<http://www.rba.gov.au/statistics/frequency/commodity-prices/2016/icp-0516.html>

in part or primarily by the mining industry such as rail and ports.<sup>8</sup> This spending is not included in the analysis below.

## THERE WAS NO REGIONAL JOBS BOOM

Despite the unprecedented levels of mining construction investment in Queensland between 2010 and 2014, regional employment growth stagnated and then fell during this period. This is shown in Figure 3.

**Figure 3 - Regional employment compared to mining capital expenditure**



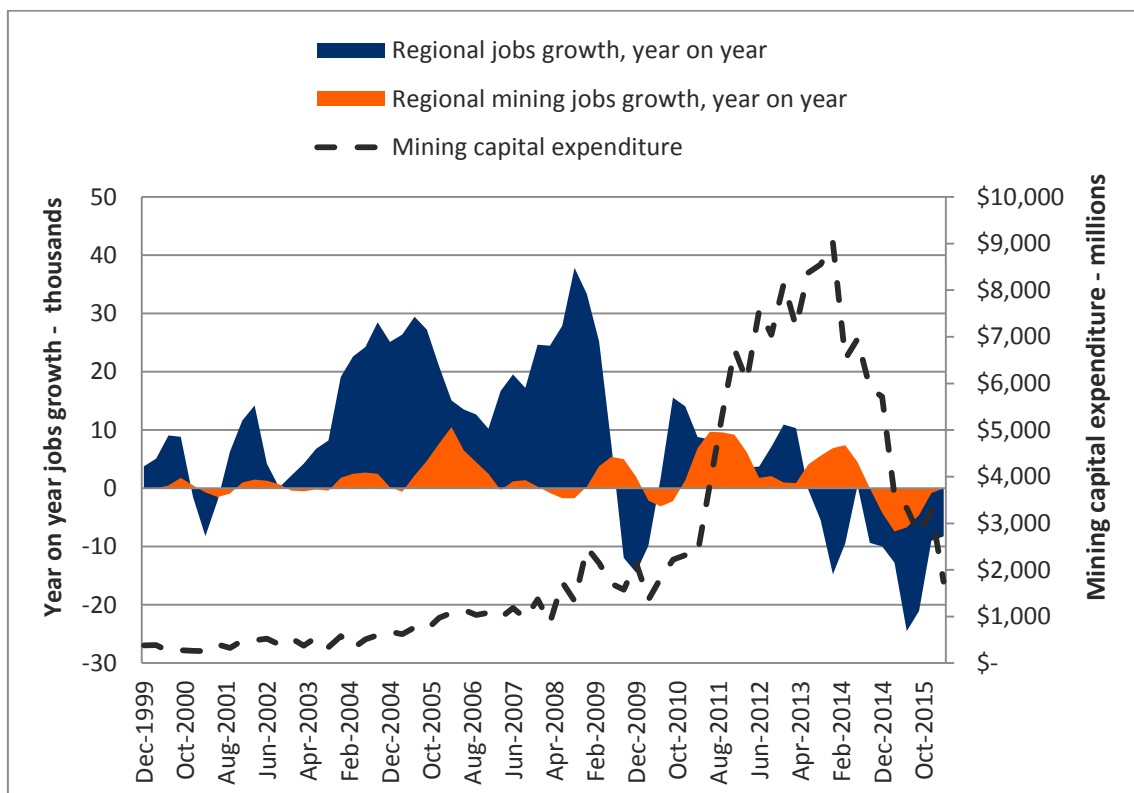
Source: trend, Conus (2016) *QLD Regions Jobs data* (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure and Expected Expenditure, Australia

From 2011 to mid-2013, during the initial surge in mining capital expenditure, regional Queensland experienced low jobs growth, roughly in line with population growth. Employment then declined until 2015: as mining capital expenditure collapsed by around two thirds, regional employment fell by around 6 percent. After the boom, regional employment has ended up below levels experienced pre-boom.

Figure 4 shows the year on year growth in regional mining jobs compared with overall employment growth.

<sup>8</sup> Peel, M, Campbell, R, Denniss, R (2014) *Mining the Age of Entitlement* The Australia Institute, <http://www.tai.org.au/content/mining-age-entitlement>

**Figure 4 – Regional jobs growth, vs mining jobs growth, mining capital expenditure**



Source: derived from trend, Conus (2016) *QLD Regions Jobs data – Conus Trend*; yearly average, ABS Cat no 6291.0.55.003, *Labour Force, Australia, Detailed, Quarterly*; current prices, ABS Cat no 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

Mining employment increased during the construction boom, as mining investment ramped up from 2010. Yet overall employment growth remained far below pre-construction boom levels. As discussed below, increases in mining intensive regions were offset by declines in other regions, likely impacted by pressures created by the boom.

From 2013 onwards, as mining investment reached its peak, overall employment declined; from 2015, as mining employment declined, overall employment fell further still.

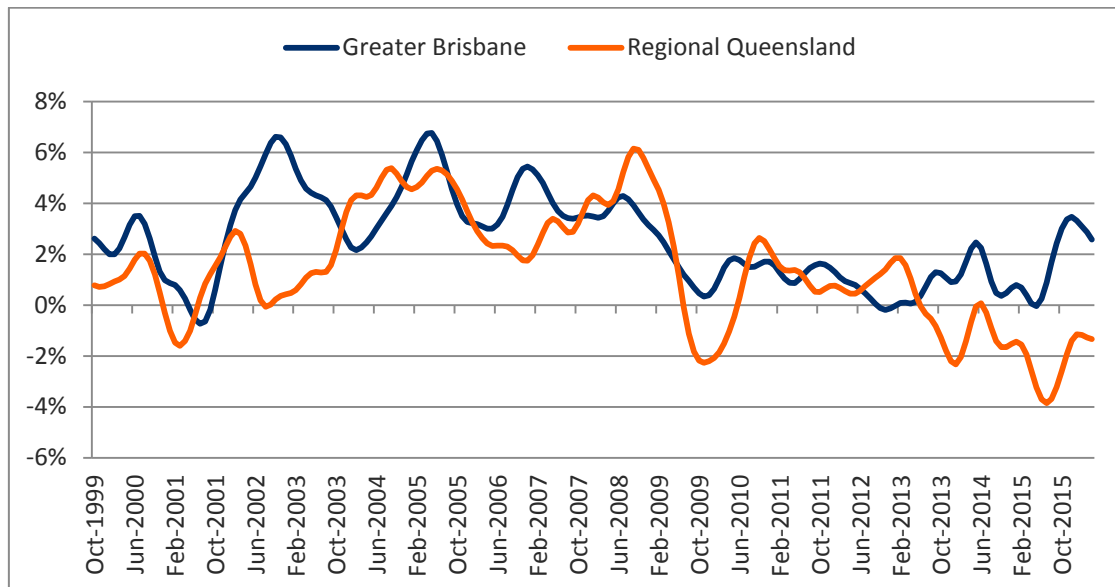
## CONDITIONS BEFORE THE BOOM

Employment growth in regional Queensland was far stronger before the construction boom than during the boom. While there was some growth in regional mining employment before the construction boom, this represented just 9 percent of overall growth. Moreover, as shown in Figure 4 above, there was not a strong relationship

between growth in mining and overall growth. At the point where mining growth peaked in 2005, overall regional employment growth dropped by more than half.

The overall jobs growth before the construction boom appears less correlated with mining jobs than with broader economic growth trends during the pre-GFC period, as shown in Figure 5.

**Figure 5 – Employment growth year on year, Regional Qld and Greater Brisbane**



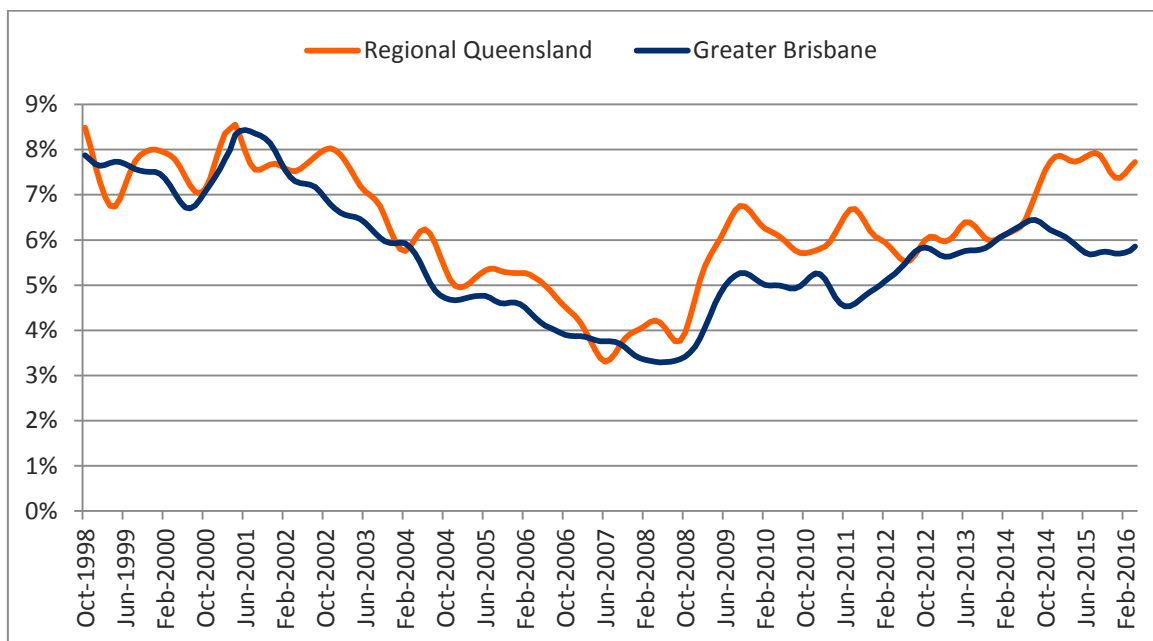
Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original);

Regional growth for most of the last fifteen years mirrored trends in Brisbane area. However, as the construction boom peaked in 2013, employment in regional Queensland went into reverse, while growth in Brisbane picked up, reaching a seven year high.

## INCREASING REGIONAL UNEMPLOYMENT

Unemployment statistics tell a similar story. The construction boom did not result in falling regional unemployment. Unemployment in the regions has moved broadly with unemployment in Brisbane, shown in Figure 6.

**Figure 6 – Unemployment rate, Regional Queensland and Greater Brisbane**



Source: derived from trend, Conus (2016) *QLD Regions Jobs data – Conus Trend*

In the lead up to the Global Financial Crisis (GFC), unemployment fell in regional Queensland; following the GFC, as the construction boom took off, regional unemployment increased. The same trend is clear in Brisbane.

Regional unemployment has increased in recent years following the end of the mining construction boom. At the same time unemployment has fallen in Brisbane. The divergence is now the largest it has been in more than fifteen years. Unemployment in regional Queensland is now higher after the boom than it was before it.

## SUMMARY

While mining employment increased in regional Queensland through the mining construction boom, there was no boom in jobs during that period. In fact, employment conditions in regional Queensland deteriorated. Employment growth was much stronger before the mining construction boom, and mining jobs were a small share of this earlier growth.

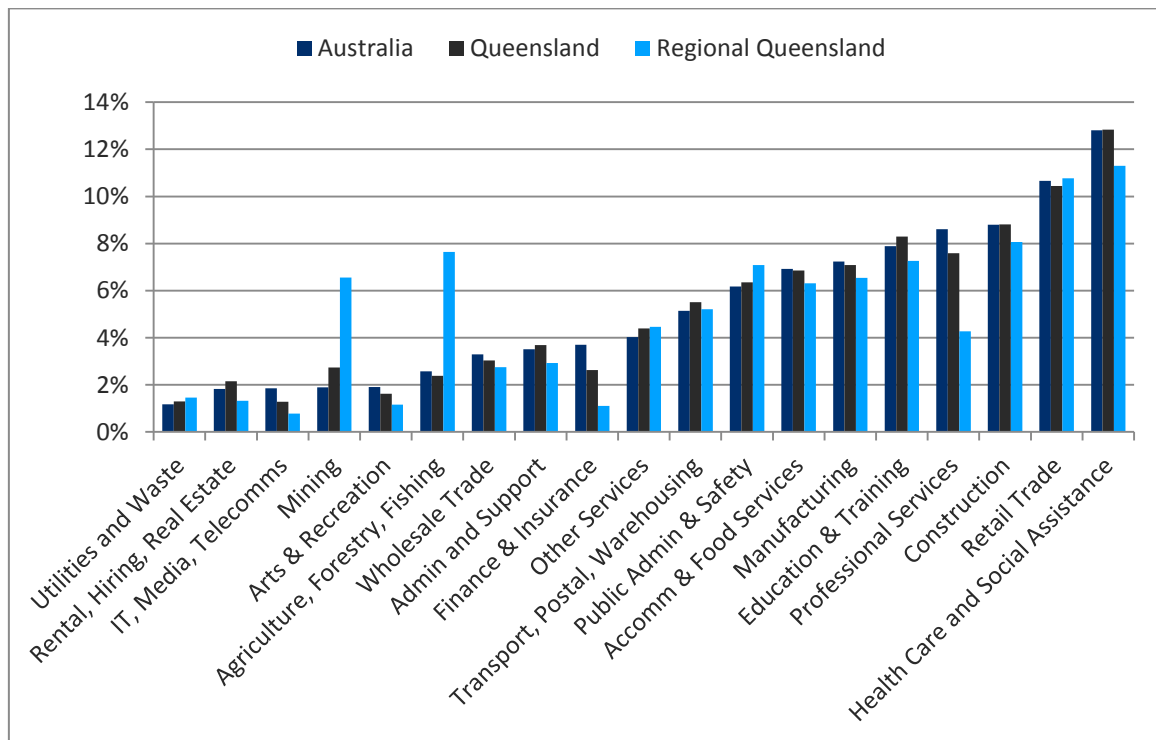
Following the peak of the boom, regional employment has declined. High levels of regional unemployment create understandable concern about where future jobs will come from. The above data shows that subsidising or focusing on mining construction is not likely to produce employment growth.



# Queensland mining employment in context

Much like Queensland as a whole and the rest of Australia, regional Queensland has a modern, diverse economy. The share of employment in different is similar in the regions as it is across the state and the country, as show in Figure 7.

**Figure 7 – Industry share of employment – Regional Qld, Qld, National**



Source: Nov 2015 trend figures, LMIP (2016) *Regional Employment Projections*

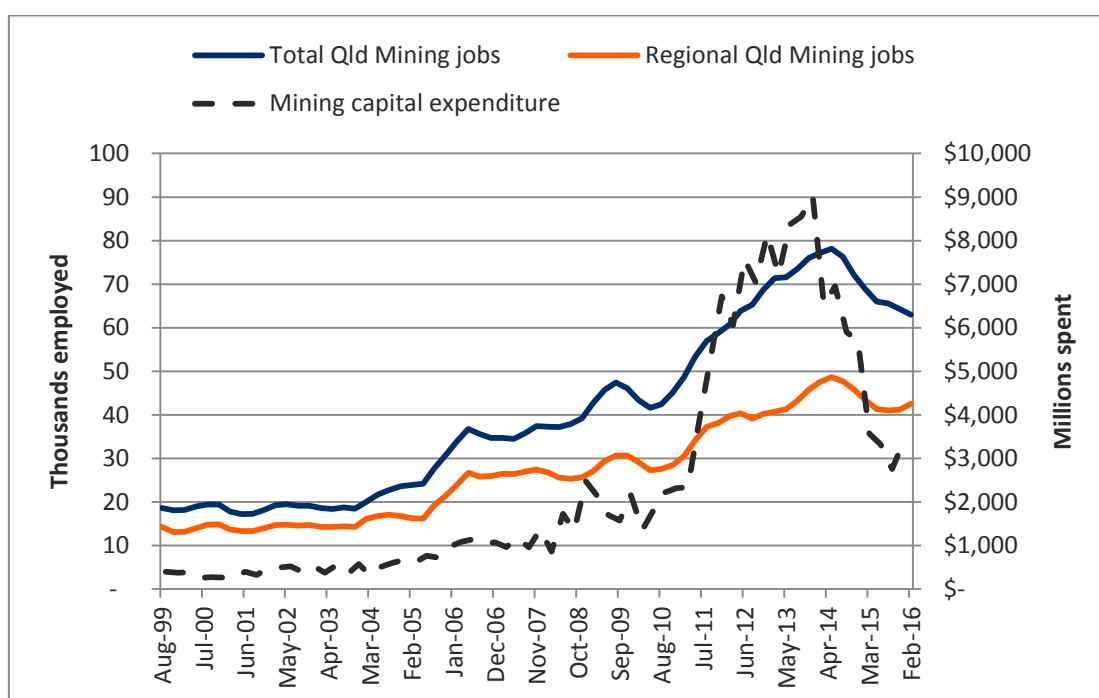
There are notable differences. Regional Queenslanders are more likely to be employed in agriculture or mining, and less likely to be employed in professional services or finance. Manufacturing and construction make up 7 and 8 percent of the regional workforce respectively. Services providing two thirds of regional jobs and these are the growth industries, as discussed below.

While mining employment increased over the boom, it remains a modest contributor to regional employment. Outside of Greater Brisbane mining contributes four percent of employment. In the large regions outside of the south-east metropolitan corner it

contributes seven percent. This includes some of the most mining intensive regions of Australia.

Significant numbers of Queensland mining jobs are *not* in regional Queensland. Different datasets put the share of mining jobs in Brisbane and the Southeast at between a third<sup>9</sup> and nearly half.<sup>10</sup> This reflects ‘fly in fly out’ workers and office-based mining employment. During the construction boom, mining employment in the Southeast of Queensland increased faster than in regional Queensland, as shown in Figure 8. Nearly half of the growth in mining jobs from 2010 to 2015 was in Brisbane and the Southeast.

**Figure 8 – Mining employment grew faster outside of the regions**



Source: yearly average, ABS Cat no 6291.0.55.003, *Labour Force, Australia, Detailed, Quarterly*; ABS Cat no 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

Even as regional mining employment grew over the boom, there was no overall increase in regional employment. One reason is that the boom placed pressures on other industries, hindering growth and causing job losses.

<sup>9</sup> Four quarter average to February 2016, down from 43 percent in February 2013. ABS Cat no. 6291.0.55.003 - *Labour Force, Australia, Detailed, Quarterly*

<sup>10</sup> Department of Employment trend figures for Nov 2015, LMIP (2016) *Regional Employment Projections*

# Indirect job creation in other industries

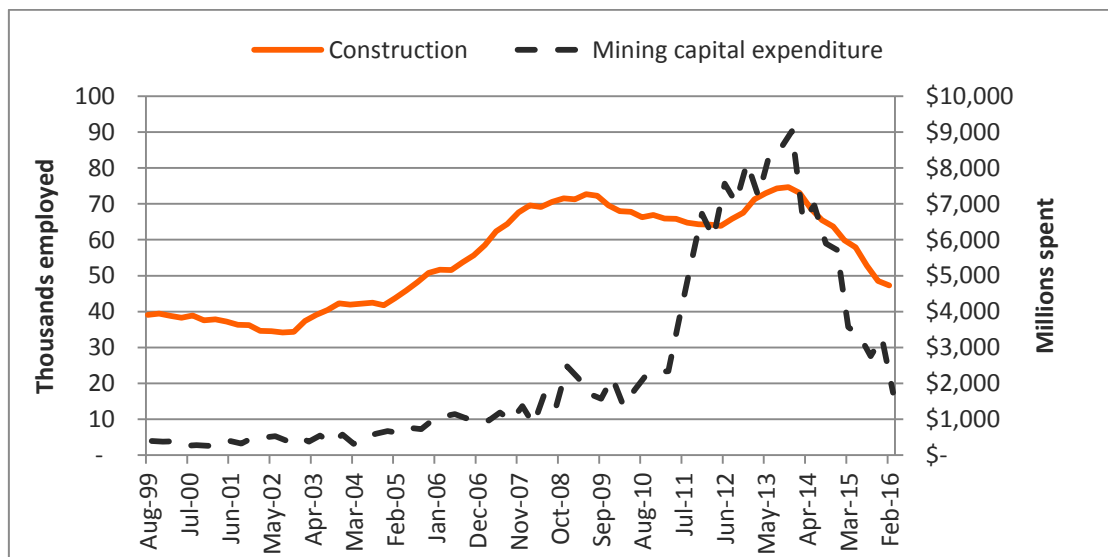
Mining companies and industry representatives frequently claim their projects will create large numbers of jobs in other industries. Some of these claims have involved ‘job multipliers’ of up to nine new jobs outside of mining created for every mining job created.<sup>11</sup>

While the mining construction boom did not in fact result in an increase in overall regional employment, nor did regional employment boom in the specific industries most closely associated with mining.

## CONSTRUCTION

The industry most likely to benefit from spill-over jobs during the mining construction boom is the construction industry. The boom had at most a modest impact on overall construction employment in regional Queensland, as shown in Figure 9.

**Figure 9 - Construction employment in regional Qld vs mining capital expenditure**



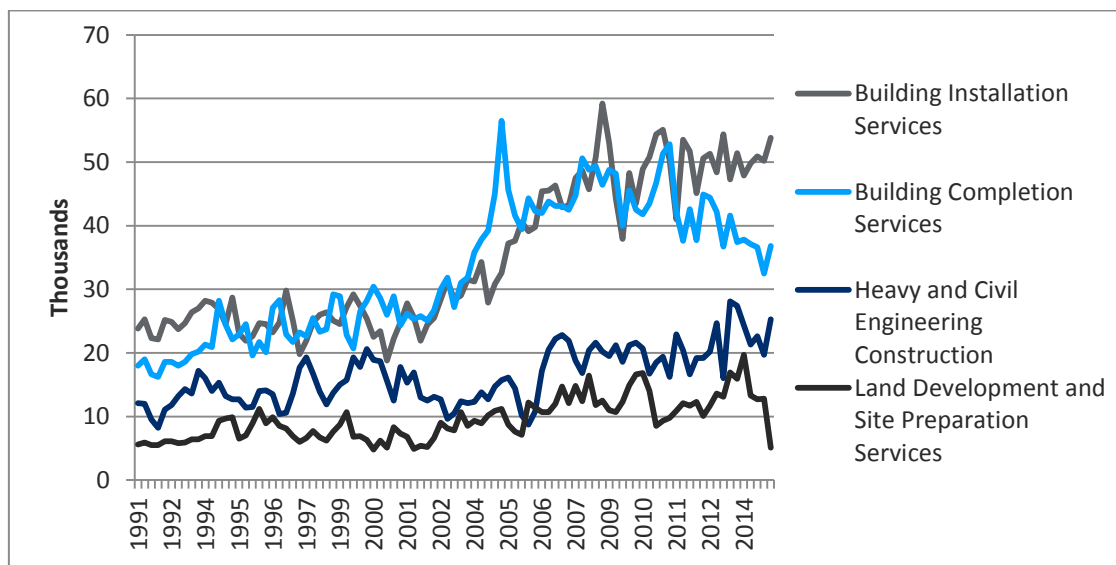
Source: ABS Cat no. 6291.0.55.003, *Labour Force, Australia, Detailed, Quarterly Current prices*, ABS Cat no. 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

<sup>11</sup> Campbell R, (2014) *The Mouse that Roars – Coal in the Queensland Economy*, The Australia Institute, <http://www.tai.org.au/content/mouse-roars-coal-queensland-economy>

The construction workforce of regional Queensland increased to 2009, in line with the growth across the state. Construction jobs then declined to 2011. With the quadrupling of mining investment we see a small increase in the construction workforce from 2012 to 2013, followed by larger fall from mid-2013 to the present. There was a large decline in regional construction employment from 2013 onwards.

Industry subdivision breakdowns are available for Queensland as a whole. The strong increase in construction employment preceded the construction boom and was dominated Building Installation and Completion Services, shown in Figure 10. These subdivisions are associated with residential and commercial construction, not mining.<sup>12</sup>

**Figure 10: Construction employment in Queensland by sub sector**



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

Heavy and Civil Engineering Construction saw sharp increases through 2006-07, but remained steady since then. Land Development and Site Preparation Services, which includes earthmoving and removal of overburden, also increased over the last 15 years, with recent sharp falls. However, growth in these subdivisions was dwarfed by construction jobs related to housing and commercial buildings.

<sup>12</sup> This includes 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.

See Grudnoff M (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,

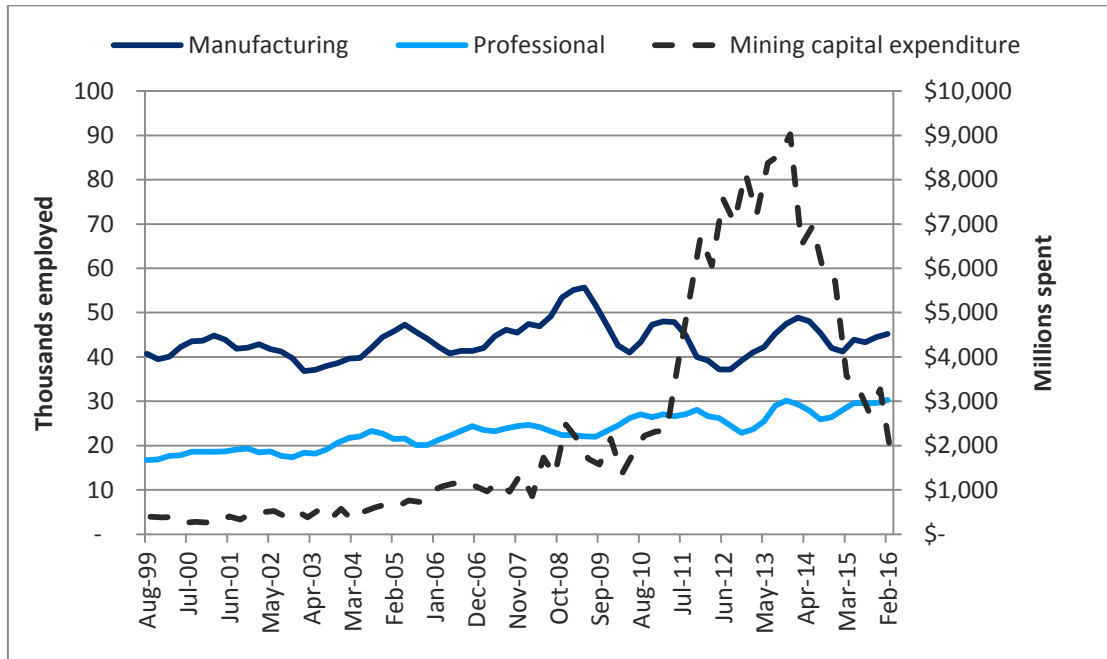
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# MANUFACTURING AND PROFESSIONAL SERVICES

Other industries claimed to benefit from increased employment during the boom are manufacturing and professional services. Regional employment in these industries did not experience a spike during the construction boom, as shown in Figure 11.

**Figure 11 – Manufacturing & professional services employment in regional Qld vs mining capital expenditure**



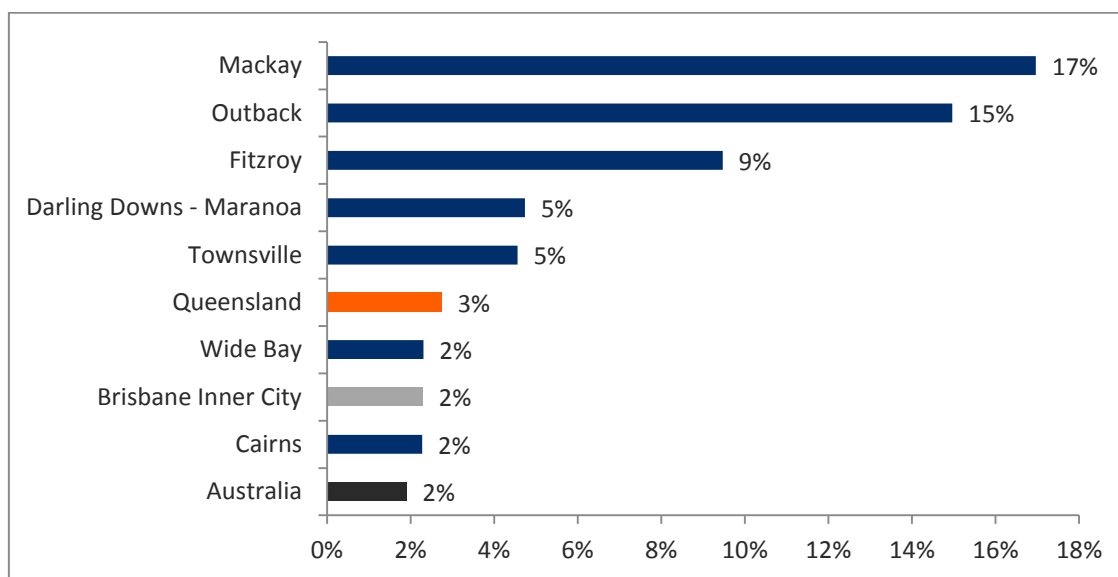
Source: ABS Cat no. 6291.0.55.003, *Labour Force, Australia, Detailed, Quarterly Current prices*, ABS Cat no. 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

Manufacturing employment decreased from the GFC onwards, through the first years of the construction boom in 2012. It did increase again, although did not reach levels pre-boom. Professional services continued a steady, slow growth trend seen earlier in the decade.

# Regional impacts in detail

The economies in different regions of Queensland differ not only from the metropolitan area in and around Brisbane, but also from each other. Mining is a much bigger employer in some regions than others, as shown in Figure 12. As a result, each of Queensland's regions had a different experience of the boom.

**Figure 12 – Mining share of employment in regional Queensland, Nov 2015**



Source: Nov 2015 trend figures, LMIP (2016) *Regional Employment Projections*

(A table outlining employment by industry by region is shown in the appendix.)

Mining is a larger than average employer in five regions of Queensland. It is the largest employer in just two regions – Mackay and the vast Outback region – and is a substantial employer in Fitzroy. These regions are ranked second, third and fifth most mining intensive regions in Australia, in terms of mining's contribution to employment.<sup>13</sup>

Mining makes a more modest contribution to employment in Darling Downs and Townsville. Wide Bay and Cairns are below the state average, level with Brisbane Inner City.

During the construction boom there were increases in employment in the three regions where mining is a larger employer. In two of these regions employment fell

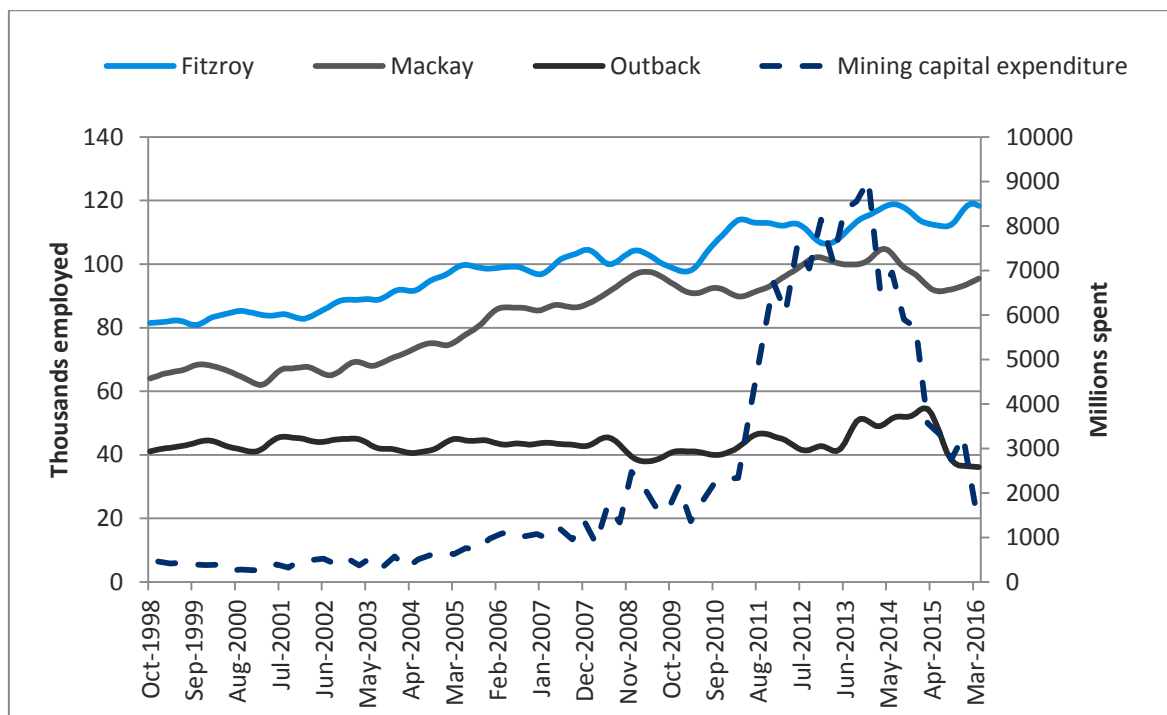
<sup>13</sup> Western Australia Outback and Hunter Valley (NSW) rank first and fourth at November 2015. Source: LMIP (2015) *2016 regional projections to November 2020*.

quickly after mining investment eased. But in other regions, employment fell during the construction boom.

## MINING INTENSIVE REGIONS

The regions where mining provides the largest share of employment did see employment growth during the construction boom. This is shown in Figure 13.

**Figure 13 – Employment in mining intensive regions vs mining capital expenditure**



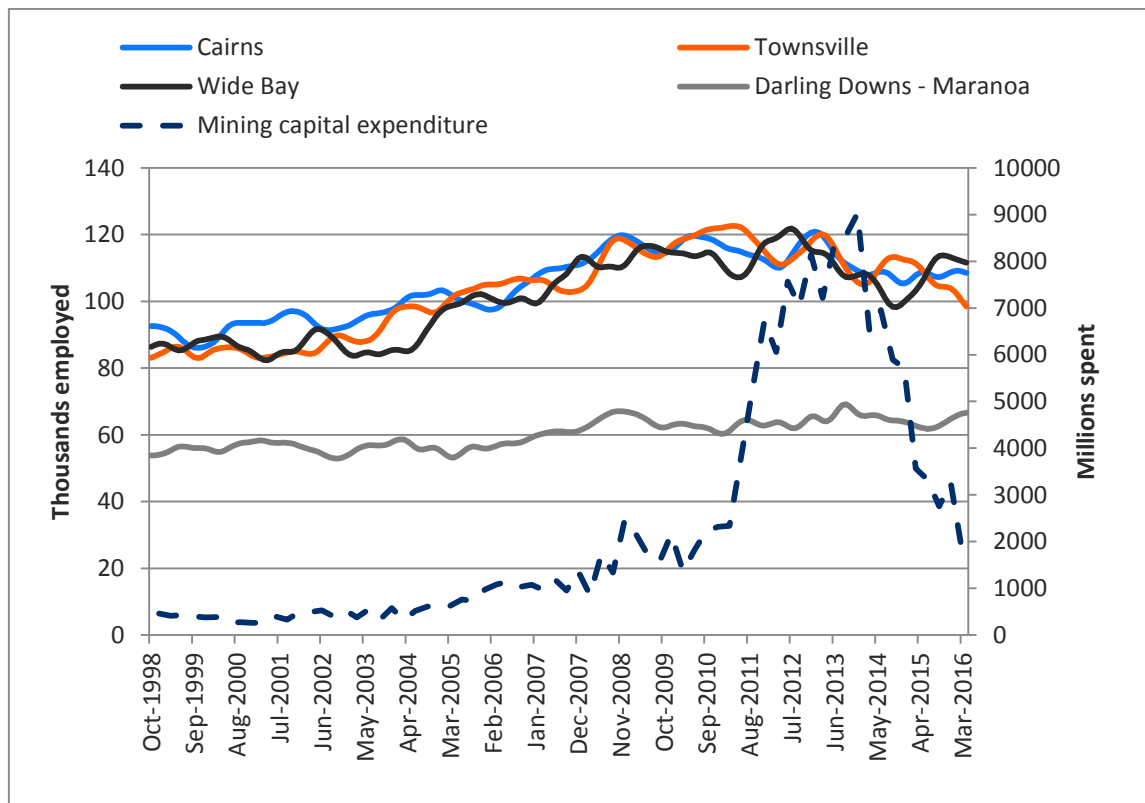
Source: trend, Conus (2016) *QLD Regions Jobs data – Conus Trend* (derived from ABS original); Current prices, ABS Cat no. 5625.0 *Private New Capital Expenditure and Expected Expenditure, Australia*

During first phase of the mining boom, prior to the construction boom, there was strong growth in employment in Mackay, and slower growth in Fitzroy, while employment remained flat in the large Outback region. Over the mining construction boom, employment increased in all regions, in total by around 40,000, or 17 percent in four years. It then fell by around 25,000 in a year. The fall in employment has occurred mostly in Mackay and the Outback.

## OTHER REGIONS

While there was some increase in total employment in regions with relatively large mining workforces, employment fell significantly in adjacent regions including Cairns, Townsville and Wide Bay. This is shown in Figure 14.

**Figure 14 - Employment in selected regions, vs mining capital expenditure**



Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure and Expected Expenditure, Australia

Figure 14 shows that employment in Cairns, Wide Bay and Townsville each followed a similar overall path: growth from the early 2000s, then decline over the mining construction boom. Townsville’s employment dropped the most and is now over 20,000 below the pre-boom peak. In the last 18 months, employment in Cairns and Wide Bay has stabilised and increased. Employment grew at a slower rate in Darling Downs over the last two decades, continuing through the construction boom.

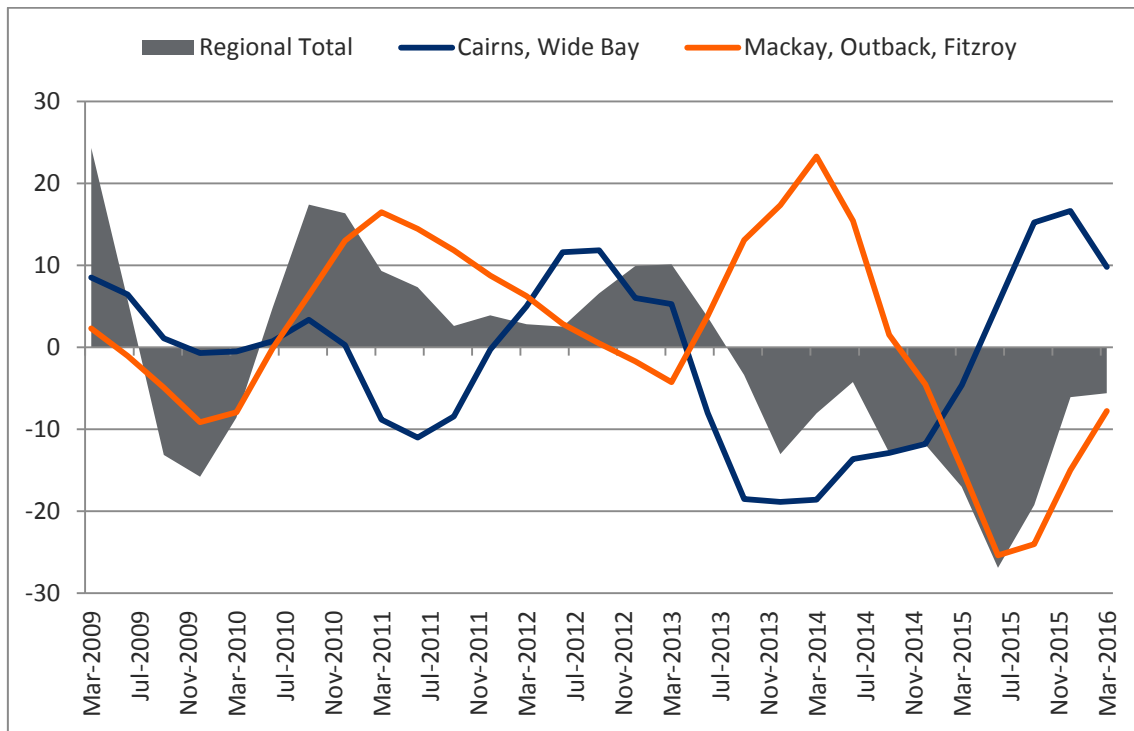
In summary, while there was jobs growth in regions with relatively large mining workforces, following the boom there was a decline. Conversely, employment fell



significantly over the mining construction boom in adjacent regions including Cairns and Wide Bay, but has since started to improve in some of these regions.

Figure 15 looks more closely at growth in mining intensive regions, compared with the regions with below state average mining employment.

**Figure 15 - Jobs growth in mining intensive vs less intensive regions**



Note: Regional Total includes Townsville and Darling Downs.

Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original);

During the construction boom, there was an inverse relationship between jobs growth in mining intensive regions and non-mining intensive regions. This data is consistent with the pressures created by the mining boom, which created in jobs displacement between the mining industry and other industries.

# The ‘Resource Curse’

Historically mining booms have been a mixed blessing. While mining booms create activity and generate some mining employment, they often “crowd out” activity and employment in other industries. These impacts are often referred to as the “resource curse”.

Some of these impacts occurred across Australia’s economy. As summarised by Shane Oliver, the Chief Economist for AMP Capital:

[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.<sup>14</sup>

Other pressures were more local, for example the sudden increase in demand for skilled labour that displaced jobs in other industries.

## DRIVING UP INTEREST RATES & EXCHANGE RATES

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Higher commodity prices and the increase in mining investment put upward pressure on the currency. In 2014 a paper for the Reserve Bank of Australia (RBA) estimated that “the real exchange rate is estimated to be 44 per cent higher in 2013 than it would have been in the absence of the boom”.<sup>15</sup>

As a result, Australia’s non-mining export industries – chiefly agriculture, manufacturing, education and tourism-related services – suffered a reduction in export income. Another impact was that manufacturers, farmers and tourism operators had to compete with imported goods and services that became cheaper than they otherwise would have been. These pressures hindered jobs growth.

Similarly, the mining construction boom pushed up interest rates. The Reserve Bank of Australia kept Australian interest rates higher than they would otherwise have been to

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<sup>14</sup> On ABC RN, 24 February 2016, <http://www.abc.net.au/radionational/programs/breakfast/australian-business-better-off-without-a-mining/7194792>

<sup>15</sup> Downs, Hanslow and Tulip (2014) *The Effect of the Mining Boom on the Australian Economy* page 12

free up labour and capital to ‘make room’ for the mining boom. The RBA paper argued interest rates would be 2 percentage points lower without the boom.<sup>16</sup>

Higher interest rates made it more expensive for non-resource industries to borrow money. Farmers, manufacturers and other non-mining businesses invested less. More of ordinary Australian’s household income was spent on meeting their mortgage repayments than would otherwise have been the case, and as a result, people spent less in other parts of the economy. The net effect was to hinder employment growth in the non-mining parts of the economy.

## LABOUR MARKET JOB DISPLACEMENT

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The scale and speed of increased demand for labour from large resource projects can have a disruptive effect in the relatively small workforces of regional communities. When these projects do employ people from the local community, they are likely to be skilled people who already work in existing businesses attracted by higher wages rather than local unemployed people.

Local businesses often spend many years training their workers, which is a considerable investment of time and resources. Losing skilled workers can be highly disruptive. Businesses may decide not to replace their skilled workers in the short term or at all. As a result, the increase in mining jobs will come to some extent at the cost of a loss in jobs in other local industries. The mining workers are highly visible in regional areas, but the lost jobs are largely invisible.

Displacement effects are often acknowledged in the economic modelling of resource projects commissioned by mining companies. The proposed China First coal project’s own Economic Impact Assessment estimated that the project would displace 2,215 manufacturing jobs in Queensland and more in other industries.<sup>17</sup> Similarly, the Arrow LNG project estimated it would displace 1,600 jobs across Australia.<sup>18</sup>

Research for the gas industry funded Gas Industry Social and Environmental Research Alliance looked at whether “spill over jobs” were created by coal seam gas (CSG) development in Queensland. They found that while there was an increase in short-term jobs (construction and professional services) in the Surat Basin, the site of major CSG development, “job spill-overs into non-mining employment are negligible.” The authors say “This result is at least intriguing considering that the same sample shows

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<sup>16</sup> Downs, Hanslow and Tulip (2014) *The Effect of the Mining Boom on the Australian Economy* page 14

<sup>17</sup> Waratah Coal 2010. *Economic Impact Assessment for the China First Project EIS - Final Report*. page xvi

<sup>18</sup> Arrow Energy (2012a) *Arrow LNG Plant Environmental Impact Statement, Appendix 21: Economic Impact Assessment*

the highest growth in mining employment.”<sup>19</sup> A subsequent report by the same authors found that for every ten people employed in CSG, eighteen agricultural jobs were lost.<sup>20</sup>

## MODELLING THE NET IMPACTS

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A discussion paper for the Reserve Bank of Australia (RBA) used a macroeconomic model to assess the impact of the boom, including employment impacts in different industries. It found a significant reduction in agriculture and manufacturing as a result of the boom.<sup>21</sup>

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<sup>19</sup> Fleming, D. and Measham, T. (2013) “Local economic impacts of an unconventional energy boom: the coal seam gas industry in Australia.” *Report to the Gas Industry Social and Environmental Research Alliance (GISERA)*. June 2013. CSIRO, Canberra.

<sup>20</sup> Fleming D and Measham T (2015a) “Local economic impacts of an unconventional energy boom; The coal seam gas industry in Australia” *The Australian Journal of Agricultural and Resource Economics* 59(1) pp 78-94

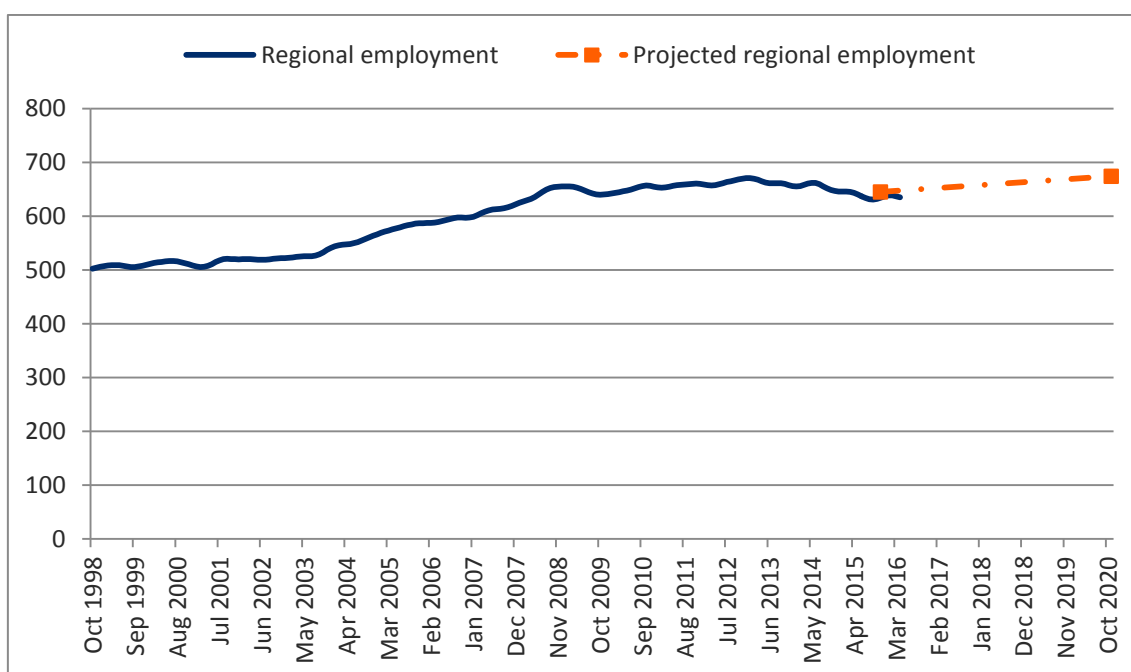
<sup>21</sup> Downes, P, Hanslow, K, Tulip, P, (2014) *The Effect of the Mining Boom on the Australian Economy*,

# Projections: regional jobs growth to improve

With the mining construction boom now over, the pressures created by the boom have now eased, creating conditions that should help other industries to expand.

The Commonwealth Department of Employment makes projections of employment in different regions and industries. According to these projections jobs growth in regional Queensland is likely to improve over the next five years, as shown in Figure 16.

**Figure 16 – Regional employment – time series and projection**

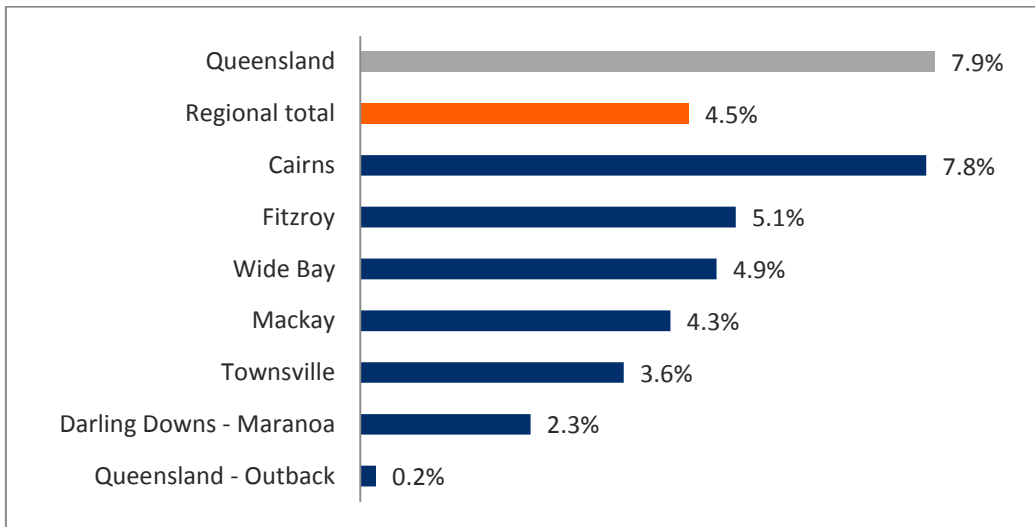


Note: Figures for Nov 2015 vary between the two series due to method of trend derivation.

Source: trend, Conus (2016) *QLD Regions Jobs data – Conus Trend* (derived from ABS original); LMIP (2016) *Regional Employment Projections*.

Regional employment is projected to increase by 29,000 over the five years to November 2020, or 4.5 percent. This is lower than elsewhere in the state: the state-wide growth projection is 7.9 percent. However, it is marked improvement on growth during the mining construction boom, which saw little and then negative regional job growth. The number of people employed is projected to grow in nearly every region, shown in Figure 17. The exception is the Outback Region, where employment remains flat. Cairns, on the other hand, is projected to grow at the state-wide average.

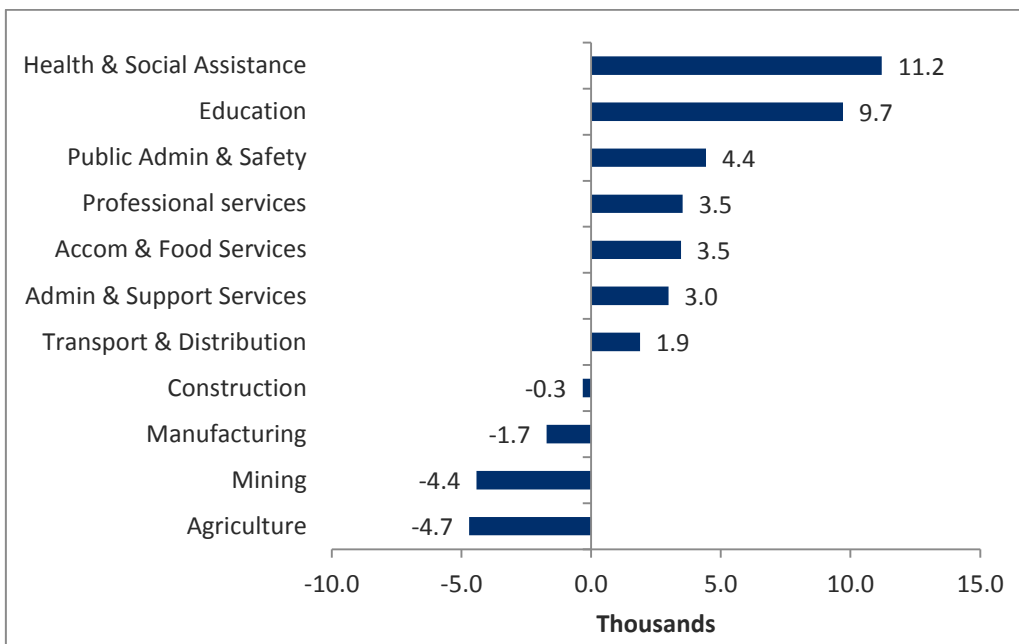
**Figure 17 – Projected employment growth by region to Nov 2020**



Source: LMIP (2016) *Regional Employment Projections*

Figure 18 shows projected growth or declines in key industries. The Appendix shows more detail on industries and regions.

**Figure 18 – Projected regional jobs growth by selected industry, to Nov 2020**



Source: LMIP (2016) *Regional Employment Projections*

As with Queensland and Australia as a whole, the strongest employment growth in regional Queensland projected for service industries, particularly Health and Education. There are also increases in Professional Services, and tourism related services like Accommodation and Food Services, and Transport.

Construction increases in Cairns but declines in Townsville and Fitzroy, and remains steady in other regions. Overall, construction employment remains steady. A downturn in mining construction should free up resources for construction activity in other industries including tourism, which is a major employer in Cairns.

Mining declines in all regions, most in Mackay and the Outback. Agriculture declines the most in Darling Down – Maranoa and Wide Bay.

# Conclusion

The enormous increase in capital investment in mining on Queensland from 2010-2015 was not accompanied by a significant increase employment or fall in unemployment in regional Queensland. In fact, total employment fell from 2010 to levels below where they were before the boom.

Pressures created by the construction boom mean that increases in mining employment have been offset by stalled growth and job losses in non-mining industries. The gains in mining jobs have been highly visible, while the losses from tourism, agriculture and local manufacturing have been largely invisible.

Job gains in the more mining intensive regions of Mackay, Outback Queensland and Fitzroy were largely offset by falls Cairns, Townsville and Wide bay. As mining employment fell in the more mining intensive regions, conditions improved in other regions.

There are currently calls to use taxpayers money to be used to subsidise large resource projects that would otherwise be un-commercial, and for governments to reduce environmental protections to reduce costs to the mining industry.

The lesson for regions that have become dependent on mining is to prioritise the long-term non-mining industries rather than tolerating collateral damage to these industries in a headlong rush to profit from temporary mining booms. Mining booms are by definition short term, and it is the long-term industries that are displaced by excessive mining that continue to employ the vast bulk of people from these regions.

Even the most mining dependent regions including Mackay, Townsville and Fitzroy are modern, diverse service based economies with a wealth of natural assets and industries with growth prospects unrelated to mining.

Outback Queensland has major challenges, particularly in the face of persistent drought and climate change, but is a unique, vast and diverse region. A few large resource projects are unlikely to provide viable long-term solutions to its challenges.

Hoping to revive the resource sector in the face a huge global oversupply of coal and gas is of course futile. But even if it were possible, recent experience has shown that while this may result in more mining jobs, these jobs will come largely at the expense of other industries in regional Queensland



# Appendix - Detailed regional data

This Appendix includes key employment data for the following regions of Queensland:

- Cairns
- Townsville
- Mackay
- Fitzroy
- Darling Downs-Maranoa
- Outback Queensland
- Wide Bay

For each region, the appendix outlines:

- unemployment rate time series from October 1998 – February 2016 (from Conus, derived from ABS original time series).<sup>22</sup>
- total employment time series from May 2003 to November 2015 and projected employment growth to November 2020 (Commonwealth Department of Employment, trend time series data derived from ABS time series).<sup>23</sup>
- projected employment growth by industry to November 2020<sup>24</sup>

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<sup>22</sup> Conus (2016) *QLD Regions Jobs data – Conus Trend Apr 2016* <http://www.conus.com.au/reports/>

<sup>23</sup> LMIP (2016) *Regional Employment Projections*  
<http://lmip.gov.au/default.aspx?LMIP/EmploymentProjections>

<sup>24</sup> Ibid.

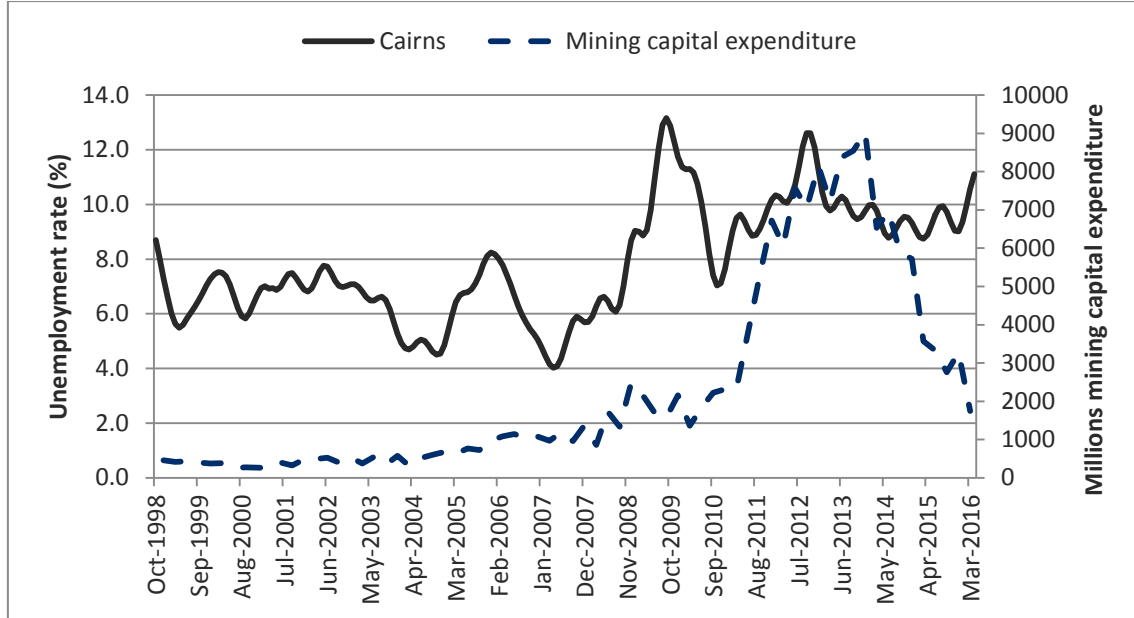
**Table 1 – Regional employment by industry at Nov 2015**

	Cairns	Darling Downs-Maranoa	Fitzroy	Mackay	Outback	Townsville	Wide Bay	Regional Total	Qld	Australia
<b>Accomm &amp; Food Services</b>	9%	5%	7%	6%	4%	6%	6%	7%	7%	7%
<b>Admin &amp; Support</b>	6%	1%	4%	4%	2%	3%	2%	3%	4%	4%
<b>Agriculture, Forestry, Fishing</b>	4%	13%	6%	5%	15%	3%	8%	7%	2%	3%
<b>Arts &amp; Recreation</b>	2%	1%	1%	1%	1%	1%	1%	1%	2%	2%
<b>Construction</b>	10%	7%	12%	9%	7%	8%	8%	9%	9%	9%
<b>Education &amp; Training</b>	9%	6%	8%	6%	0%	8%	10%	7%	8%	8%
<b>Utilities &amp; Waste</b>	2%	2%	3%	1%	2%	1%	2%	2%	1%	1%
<b>Finance &amp; Insurance</b>	2%	0%	1%	1%	2%	1%	1%	1%	3%	4%
<b>Health &amp; Social Assistance</b>	11%	9%	10%	7%	9%	14%	17%	11%	13%	13%
<b>IT, Media, Telecomms</b>	1%	0%	1%	0%	1%	2%	1%	1%	1%	2%
<b>Manufacturing</b>	6%	7%	7%	7%	3%	6%	8%	7%	7%	7%
<b>Mining</b>	2%	5%	9%	17%	15%	5%	2%	7%	3%	2%
<b>Other Services</b>	4%	5%	4%	7%	2%	4%	4%	4%	4%	4%
<b>Professional Services</b>	5%	3%	4%	6%	2%	5%	4%	4%	8%	9%
<b>Public Admin &amp; Safety</b>	7%	8%	6%	4%	15%	7%	6%	7%	6%	6%
<b>Rental, Hiring, Real Estate</b>	2%	2%	2%	1%	0%	2%	1%	1%	2%	2%
<b>Retail Trade</b>	12%	9%	10%	10%	9%	13%	12%	11%	10%	11%
<b>Transport, Post, Warehousing</b>	6%	6%	6%	6%	3%	5%	4%	5%	6%	5%
<b>Wholesale Trade</b>	2%	4%	2%	4%	1%	3%	2%	3%	3%	3%

Source: LMIP (2016) Regional Employment Projections

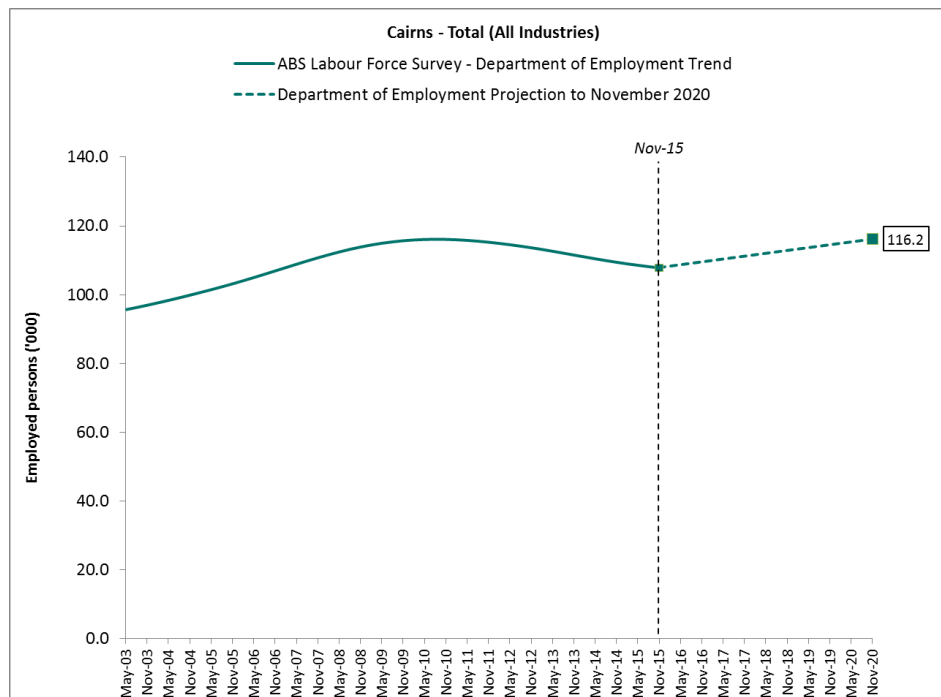
# CAIRNS

**Figure 19 - Unemployment rate - Cairns**



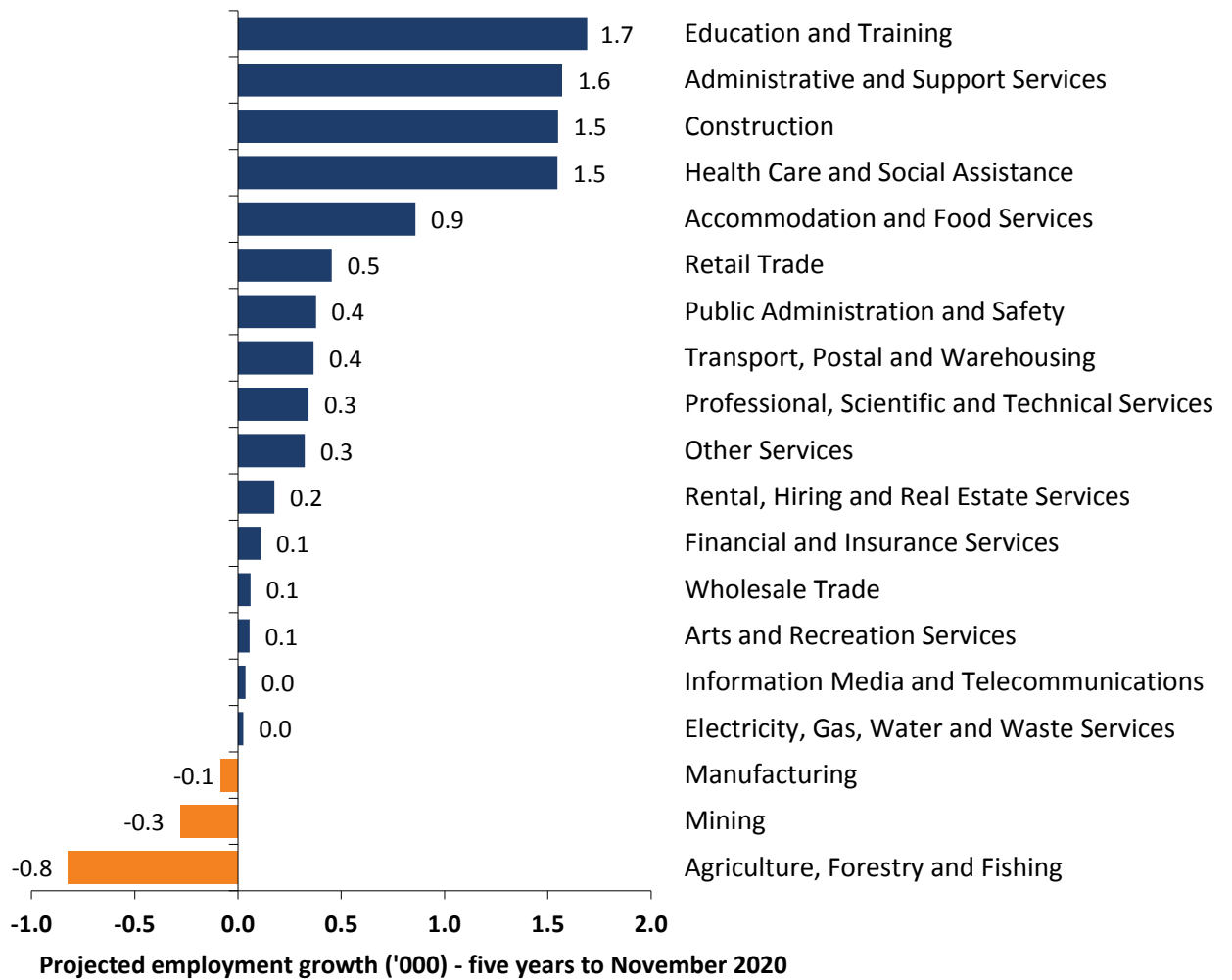
Source: trend, Conus (2016) *QLD Regions Jobs data – Conus Trend* (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure & Expected Expenditure,

**Figure 20 – Total employment, historical and projected - Cairns**



Source: LMIP (2016) *Regional Employment Projections*

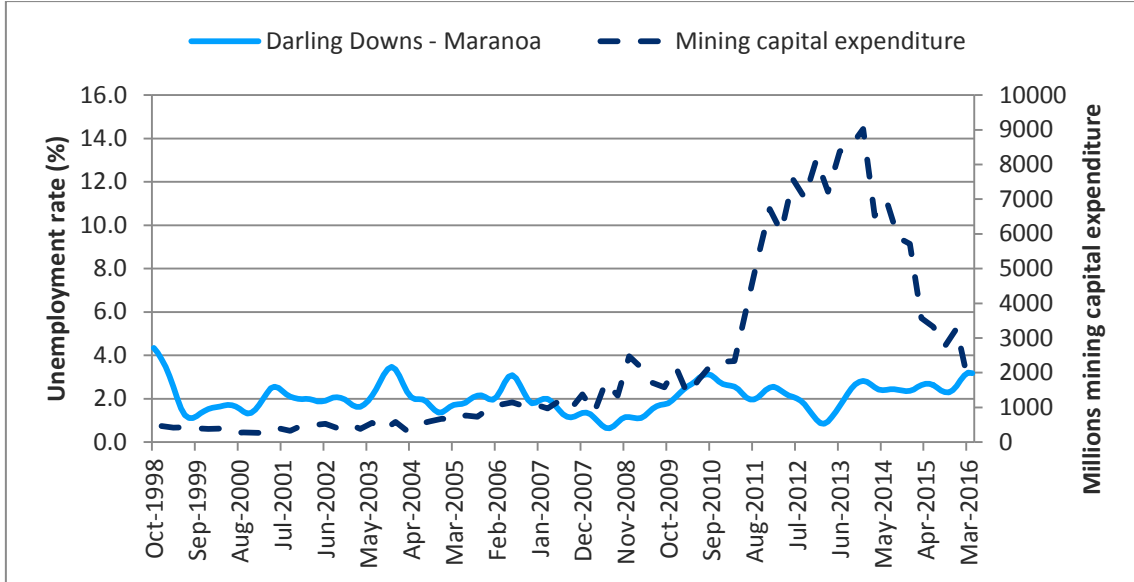
**Figure 21 – Cairns projected employment growth (thousands) by industry to Nov 2020**



Source: LMIP 2016 Regional Employment Projections

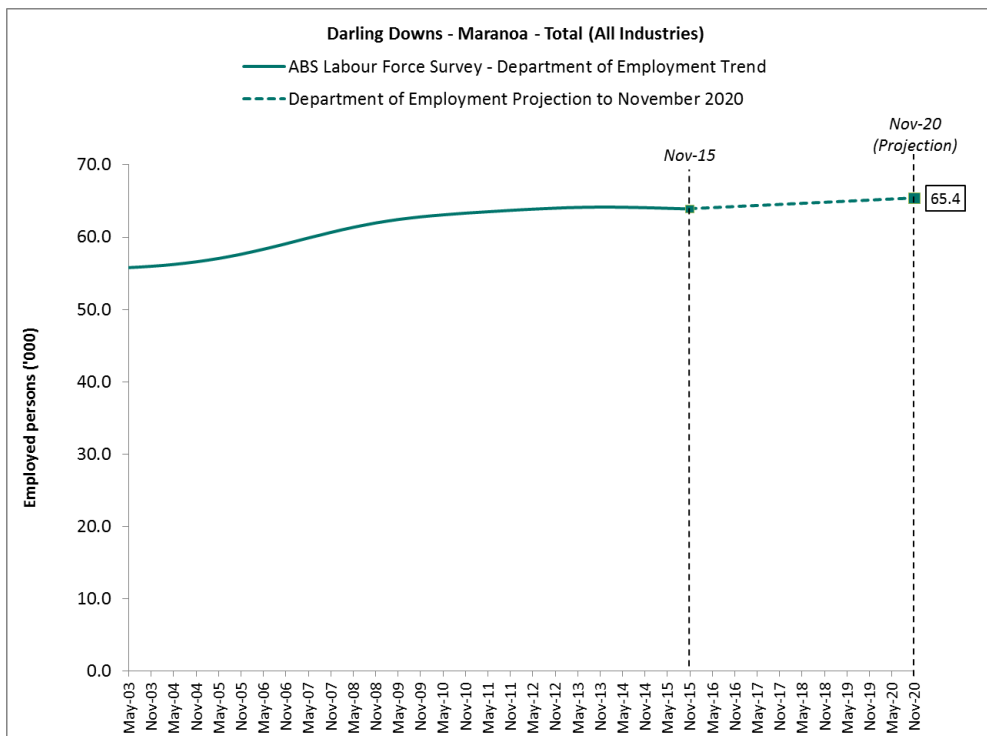
# DARLING DOWNS - MARANOA

Figure 22 - Unemployment rate - Darling Downs- Maranoa



Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure & Expected Expenditure,

Figure 23 – Total employment, historical and projected - Darling Downs- Maranoa



Source: LMIP (2016) Regional Employment Projections

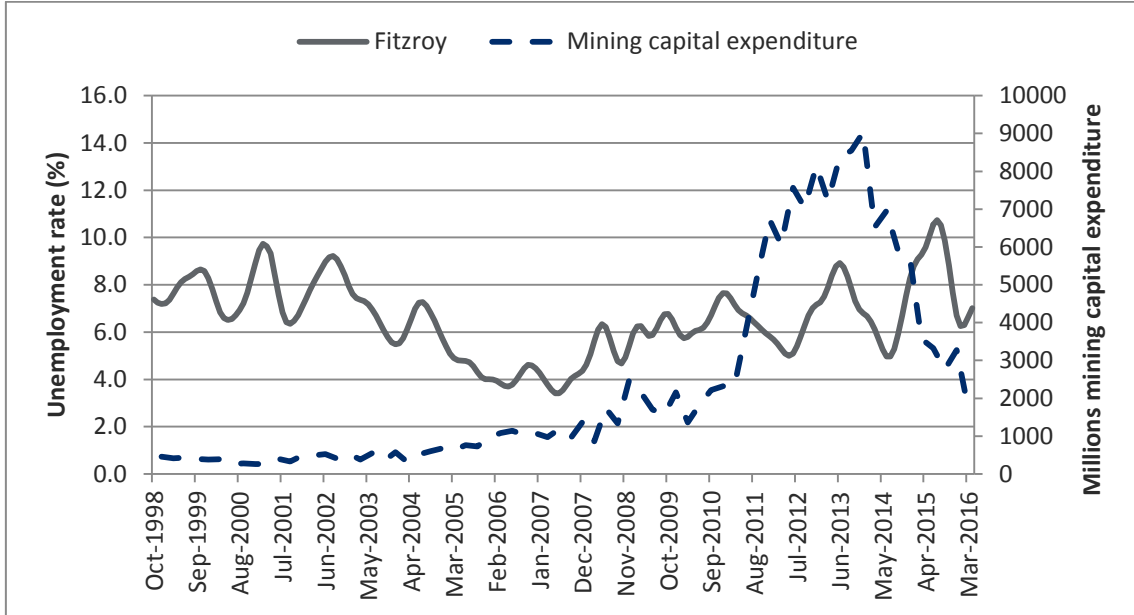
**Figure 24 - Projected employment growth by industry (000s) to Nov 2020 - Darling Downs- Maranoa**



Source: LMIP (2016) *Regional Employment Projections*

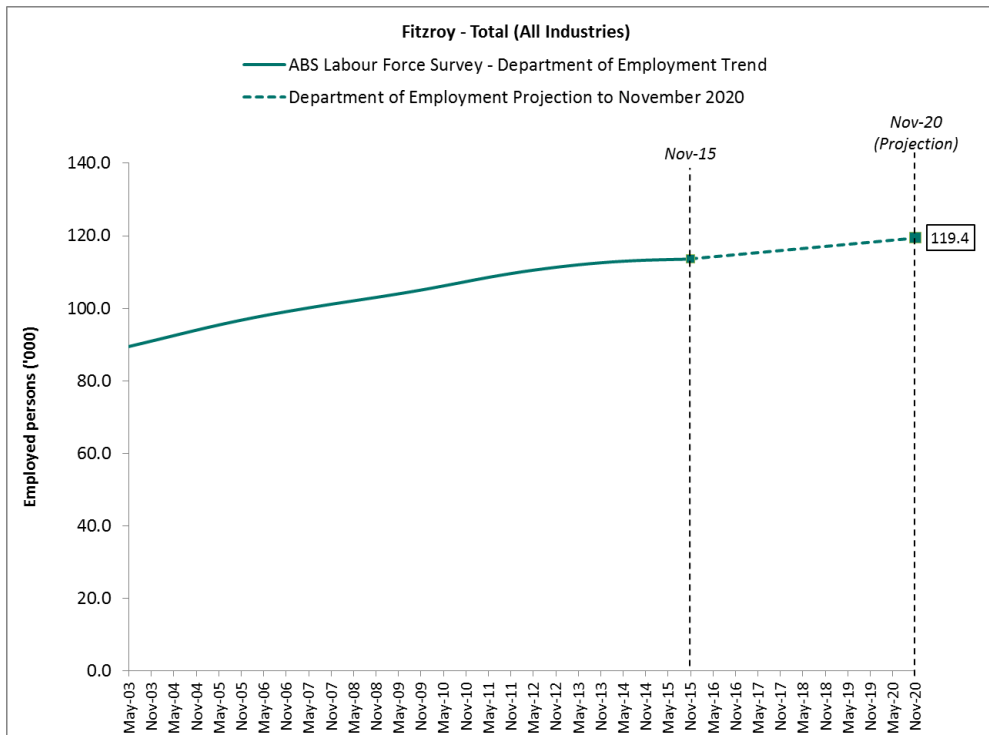
# FITZROY

Figure 25 - Unemployment rate - Fitzroy



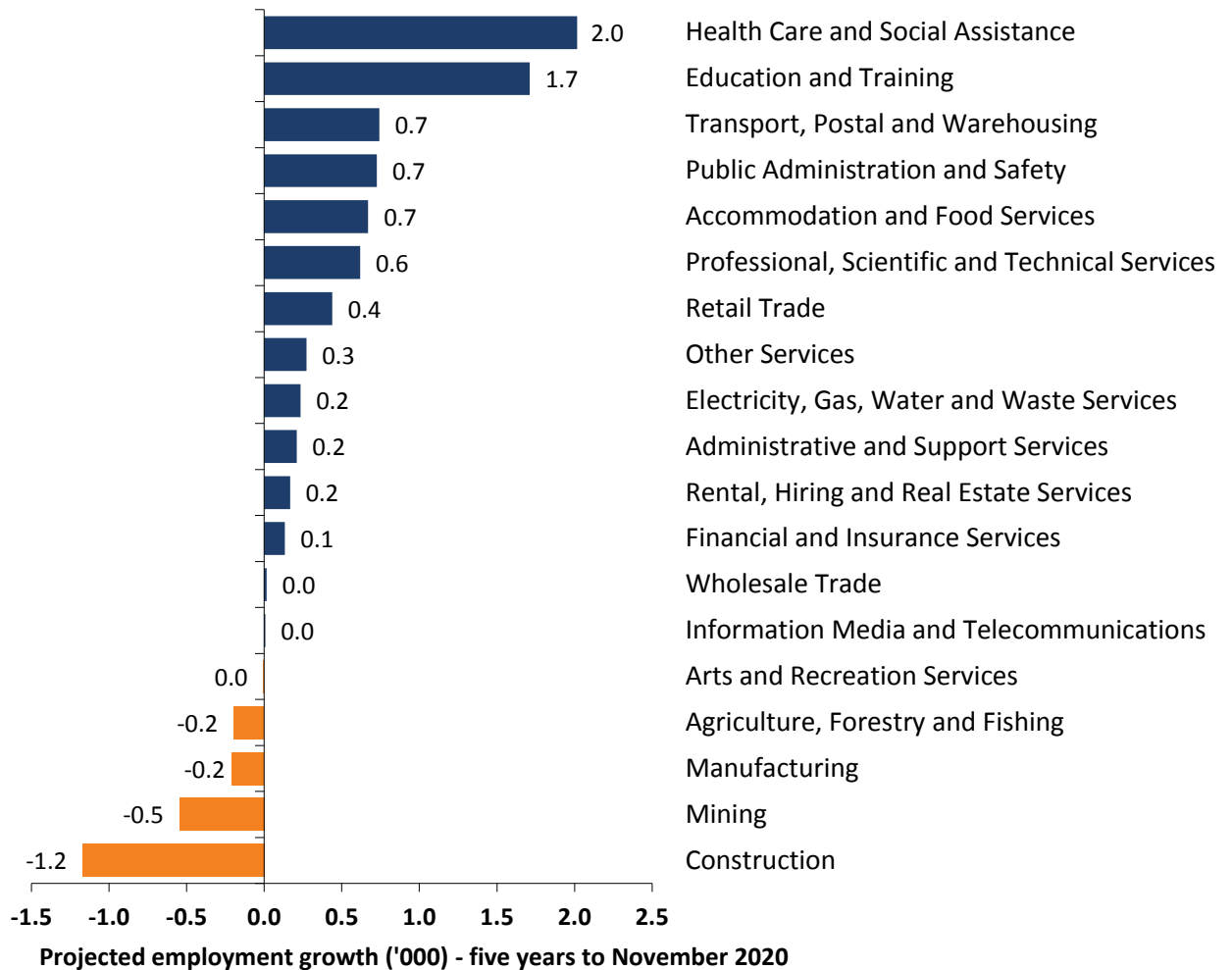
Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure & Expected Expenditure,

Figure 26 – Total employment, historical and projected - Fitzroy



Source: LMIP (2016) Regional Employment Projections

**Figure 27 - Projected employment growth by industry (000s) to Nov 2020 - Fitzroy**

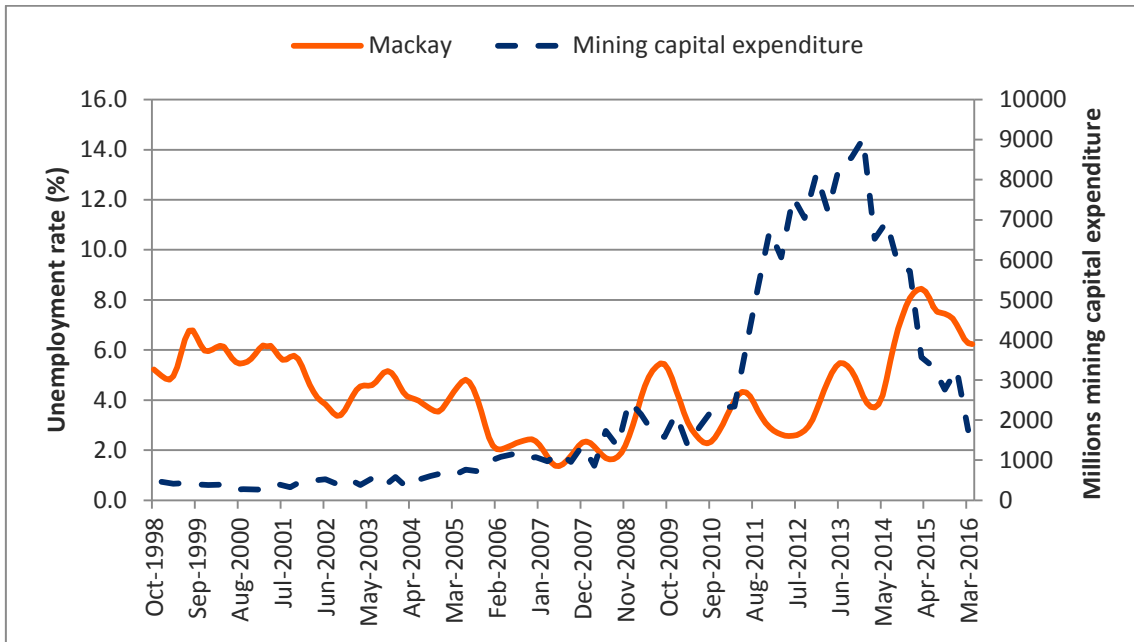


Source: LMIP (2016) *Regional Employment Projections*



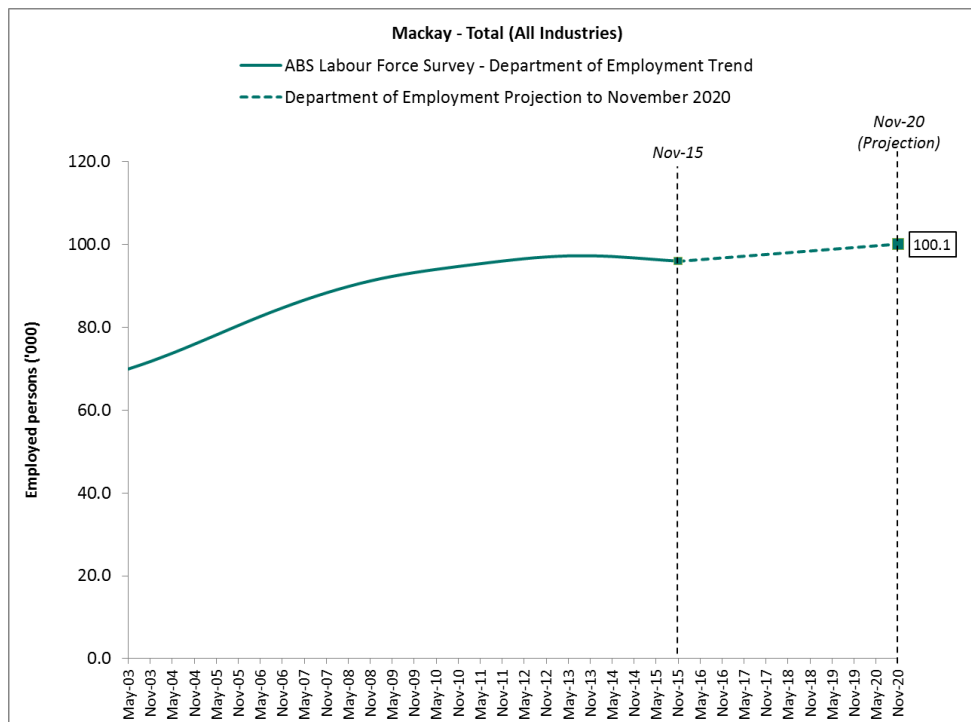
# MACKAY

Figure 28 - Unemployment rate - Mackay Region



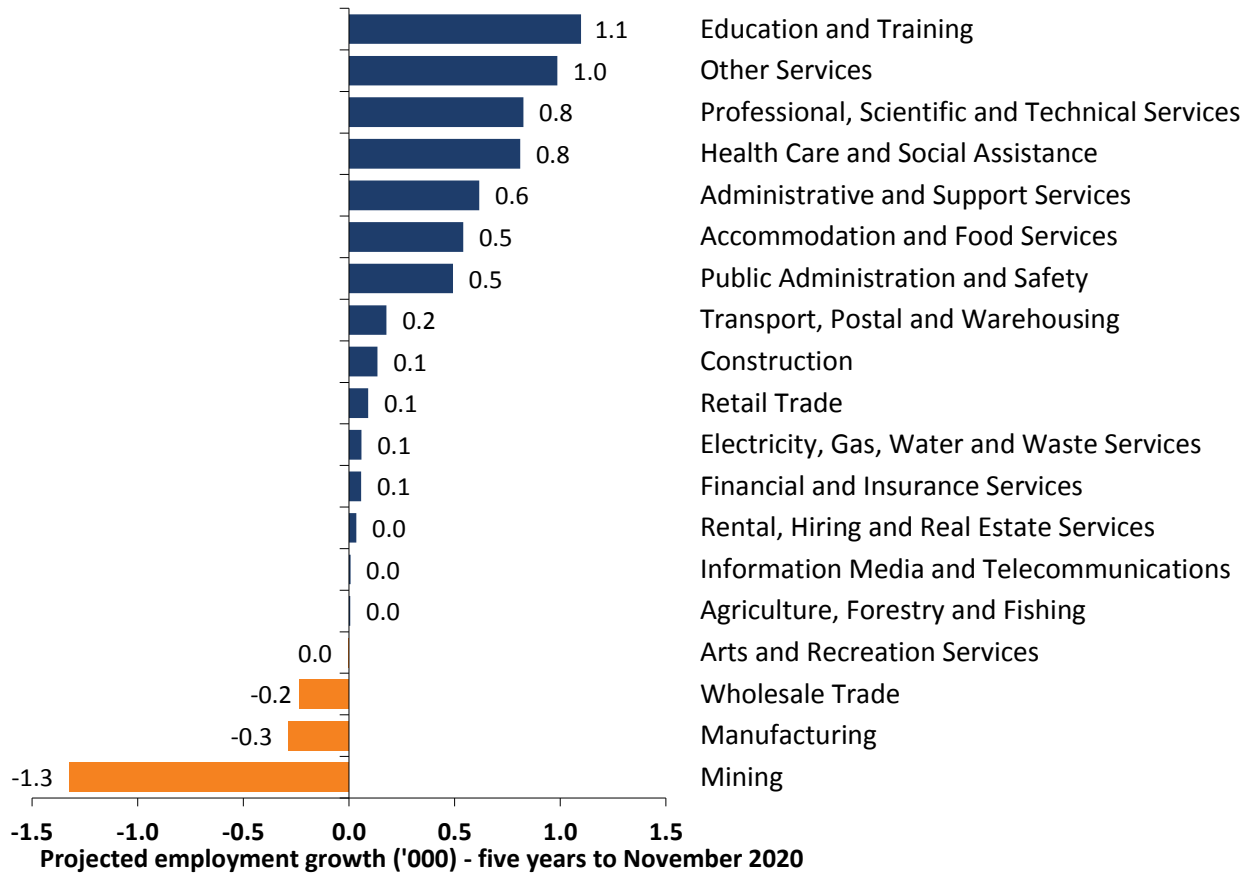
Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure & Expected Expenditure,

Figure 29 – Total employment, historical and projected - Mackay



Source: LMIP (2016) Regional Employment Projections

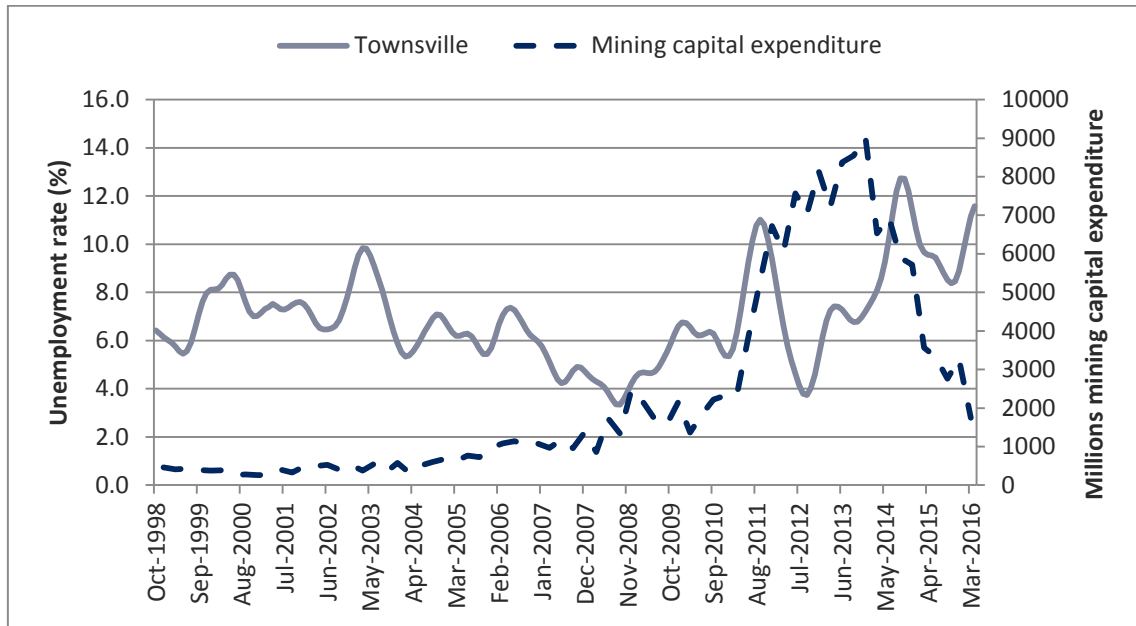
**Figure 30 - Projected employment growth by industry (000s) to Nov 2020 - Mackay**



Source: LMIP (2016) *Regional Employment Projections*

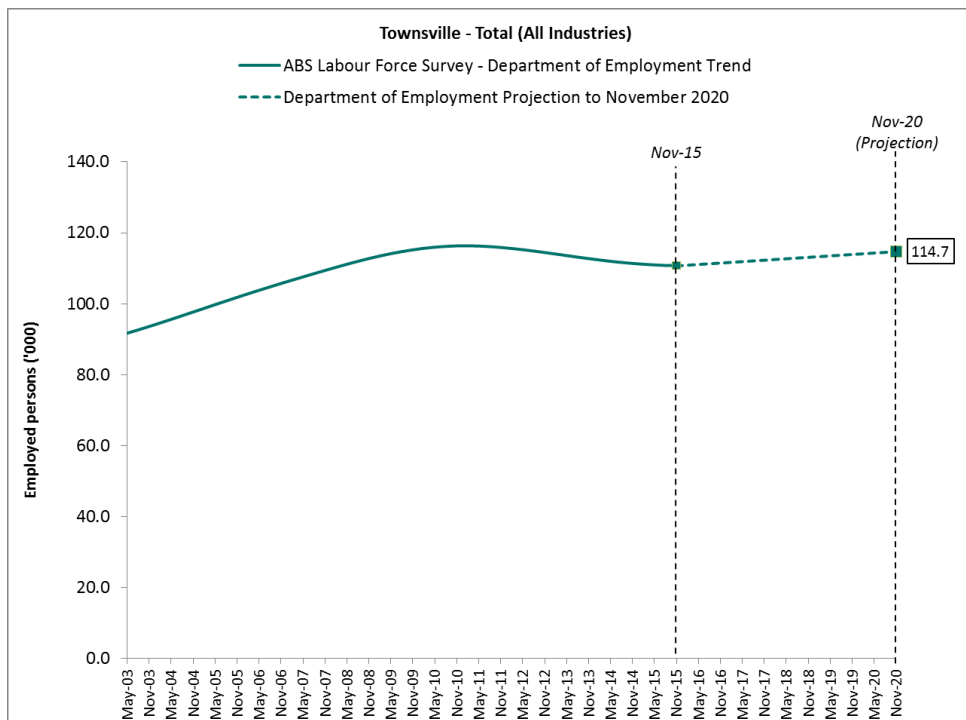
# TOWNSVILLE

Figure 31 – Unemployment rate - Townsville



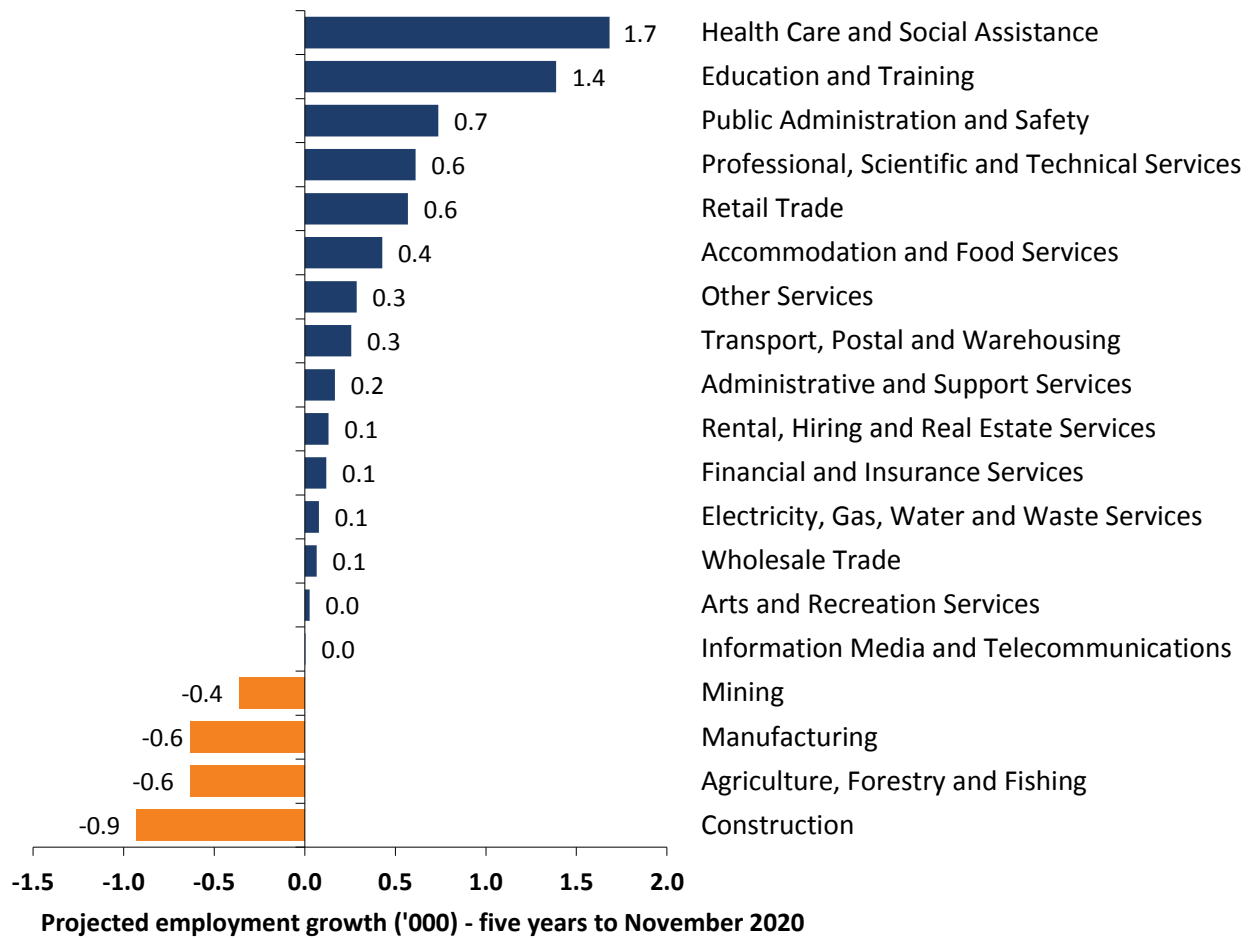
Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure & Expected Expenditure,

Figure 32 – Total employment, historical and projected - Townsville



Source: LMIP (2016) Regional Employment Projections

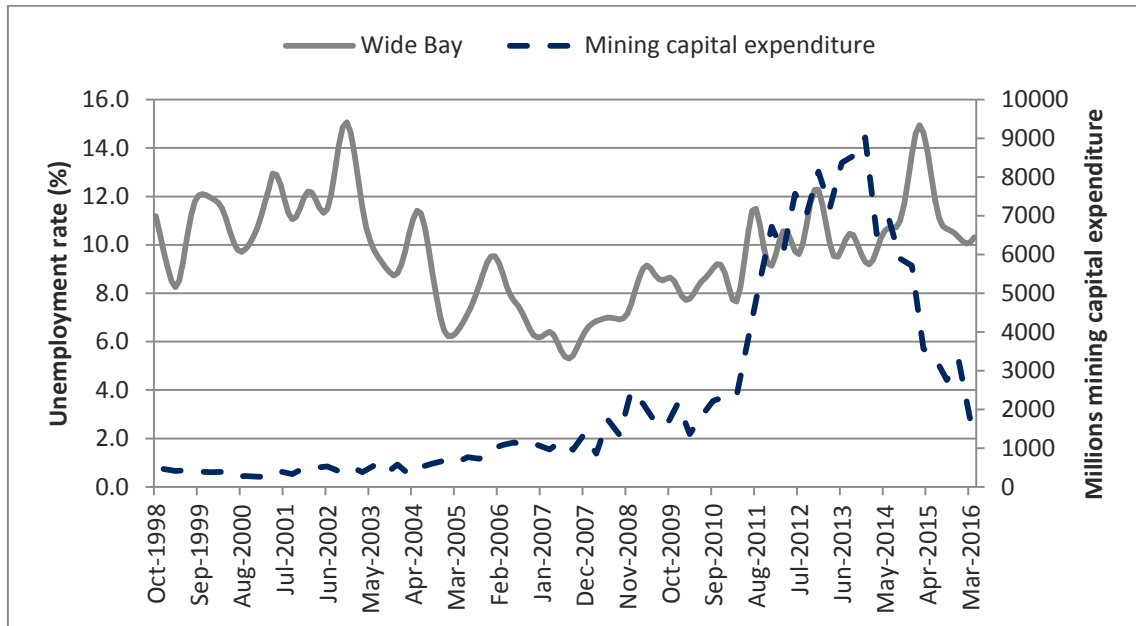
**Figure 33 - Projected employment growth by industry (000s) to Nov 2020 - Townsville**



Source: LMIP (2016) *Regional Employment Projections*

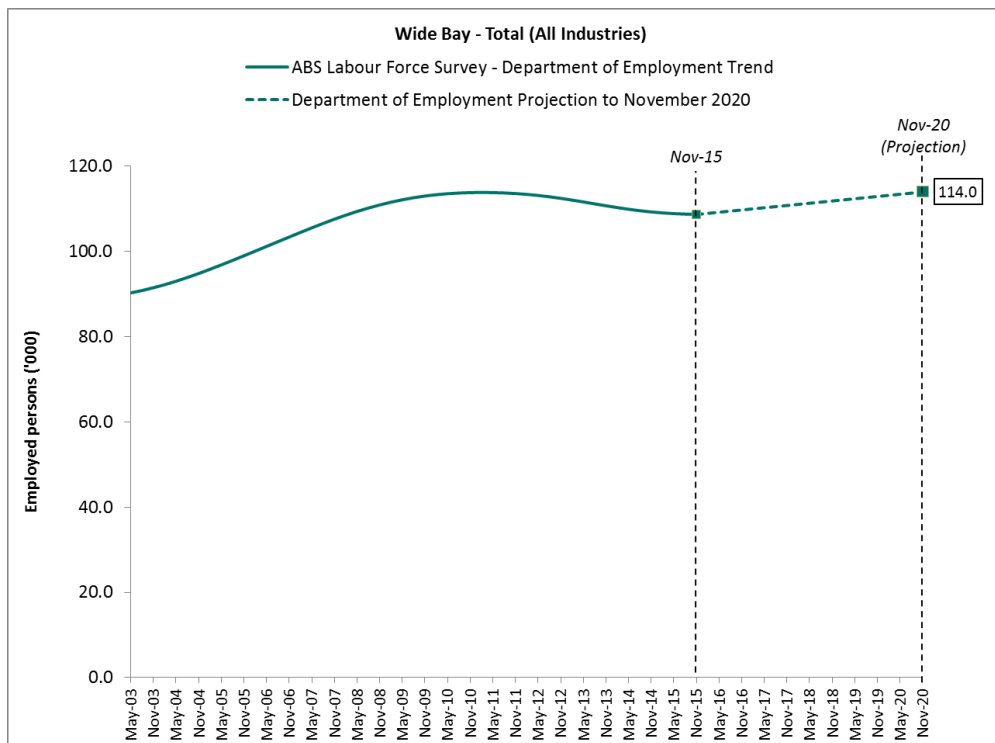
# WIDE BAY

Figure 34 - Unemployment rate - Wide Bay



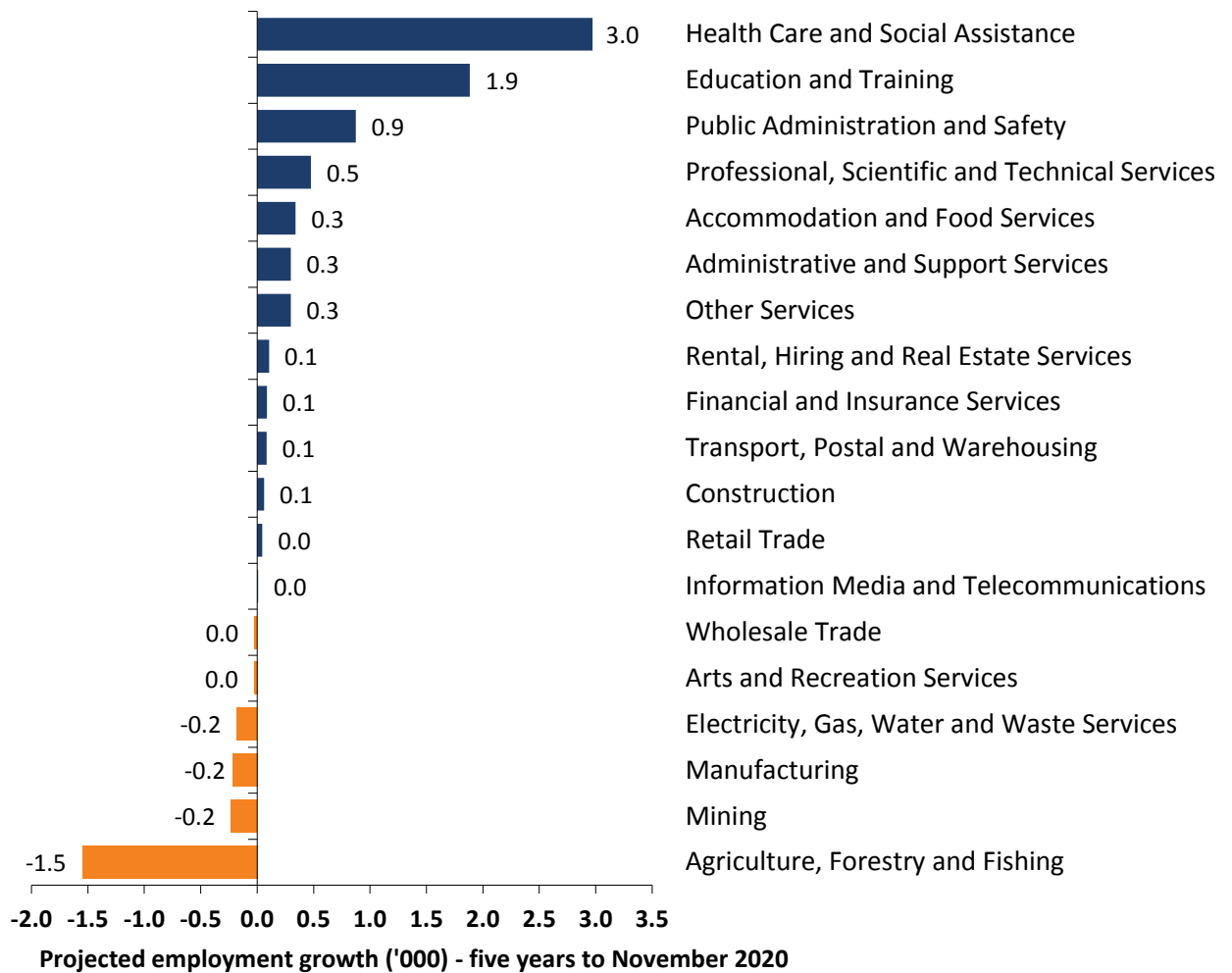
Source: trend, Conus (2016) QLD Regions Jobs data – Conus Trend (derived from ABS original); Current prices, ABS Cat no. 5625.0 Private New Capital Expenditure & Expected Expenditure,

Figure 35 – Total employment, historical and projected - Wide Bay



Source: LMIP (2016) Regional Employment Projections

**Figure 36 - Projected employment growth by industry (000s) to Nov 2020 -Wide Bay**



Source: LMIP (2016) *Regional Employment Projections*