



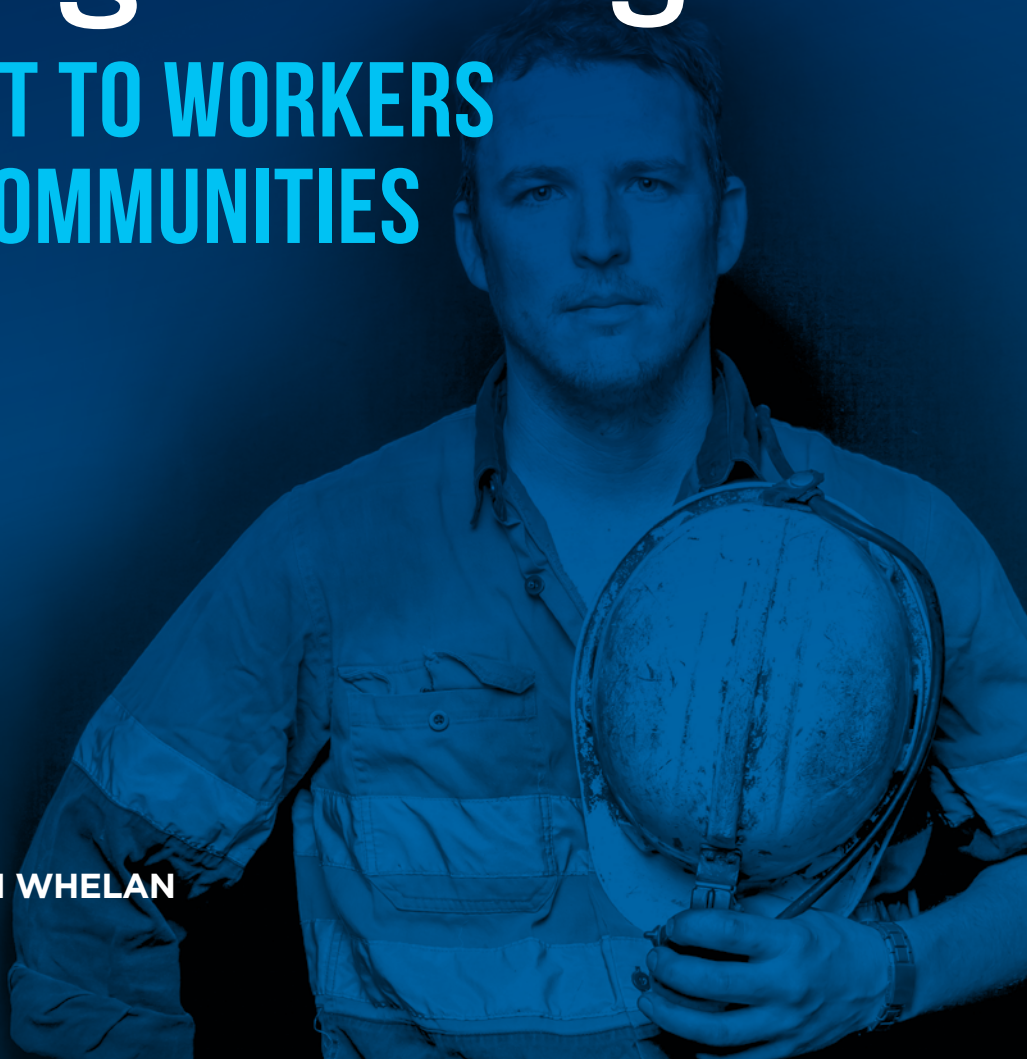
THE MCKELL INSTITUTE

Wage-cutting Strategies **in the** Mining Industry

THE COST TO WORKERS
and **COMMUNITIES**

BY DR. STEPHEN WHELAN

MARCH 2020



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T H E M C K E L L I N S T I T U T E

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M A R C H 2 0 2 0

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FOREWORD

Australia's resource sector is vital to our national prosperity, fuelling our export economy and providing jobs for almost a quarter of a million Australians.

Importantly, the resource sector plays a key economic role in regional and rural Australia, often providing well paid jobs on which regional communities and local economies depend.

But the resource sector is not immune to some of the trends emerging throughout the modern labour market. Increasingly, workers across Australia are being subjected to fewer rights in the workplace, poorer conditions, and employment arrangements that diminish their access to superannuation and paid leave, as well as reducing job security.

This phenomenon might sometimes be perceived an urban one – a trend proliferating in our cities, exemplified by the rise of ride-sharing or gig-economy platforms. But increasingly, such cost-cutting strategies are being seen in the resources sector, and across regional Australia.

This report explores that trend, and its cost on communities reliant on the employment of those in the mining industry.

It shines the light on three regional communities across Queensland and New South Wales which are seeing high-paying, well-conditioned jobs being supplanted with

insecure alternatives as major employers increasingly rely on casualisation and labour-hire to minimise overheads.

The flow on effects of this strategy are considerable. In the three mining-dependent communities highlighted in this report, a hit to local economies of up to \$825 million is identified as its consequence.

Australia's resources sector will continue to play a role in regional economies for years to come: this should be welcomed. But the impact of cost-cutting strategies on regional economies is too big a cost to ignore.



FOREWORD

This report looks at how the trend towards replacing direct permanent employment with casual labour hire employment in mining affects wages and flow-on economic benefits to mining communities.

Over the past ten years there has been a substantial increase in the use of labour hire contractors by mining companies. These workers sometimes perform specialist roles. However, in most cases they do the same work on the same rosters as permanent employees but with lower wages and on a casual basis with no paid leave or job security.

Instead of earning more to make up for the lack of entitlements, casual mineworkers usually earn at least a third less than permanents, even with their casual 'loading'. This is because labour hire companies – at the direction of mine owners – set pay rates at just above the Black Coal Industry Award minimum, whilst the rates under enterprise agreements that apply to permanent employees are reflective of multiple rounds of collective bargaining as well as the tough working conditions in coal mining.



In a new twist on this model, BHP has set up a fully-owned subsidiary with a view to bringing its outsourced labour hire workforce in-house. While the jobs are promoted as 'BHP' jobs, they are paid at rates in line with labour hire contractors, not direct employees.

While these lower wages clearly have a direct impact on the workers whose remuneration is reduced, and their families, the widespread use of lower-paid labour hire workers has spill-over effects that are felt more widely in the local community.

This report considers the experience of workers in the coal sector in the Hunter region in New South Wales and the Bowen Basin in Central Queensland.

In just three areas that correspond to major coal mining regions – but do not include all coal mining – the estimated losses to the regions range from \$468 million to \$825 million a year.

The modelled scenarios in this report of 30 per cent to 40 per cent casual labour hire in coal mining are conservative estimates. The most relevant statistics from Coal Services Pty Ltd which surveys employment in the NSW coal mining industry show that nearly four in 10 coal miners are contractors rather than direct employees. Similar data is not available in Queensland, however the CFMEU's observation is that rates of casualisation are higher in the Queensland coal industry. At some coal mines in both NSW and Queensland more than half the workforce is employed on a casual labour hire basis.

If we consider that the use of labour hire is also entrenched in other coal mining regions such as NSW's Illawarra and Central West, we can

extrapolate that the loss to communities from the coal industry is up to \$1 billion a year.

This is a major hit to regions that rely heavily on coal mining paying good wages.

The mining industry's social license to operate is built substantially on the promise of well-paid jobs and economic benefits to those communities that host mining operations.

It is a weakness in our current workplace laws that mining companies can use outsourcing strategies to bypass union-negotiated enterprise agreements with good pay and conditions won over many years, effectively taking money out of family pay packets and regional communities and funnelling it back into company profits.

Any political representative that claims to stand up for coal mining jobs and coal mining communities should stand up for the principle of 'same job same pay' for coal mineworkers and commit to stamping out mining companies' exploitative wage-cutting strategies.

I thank Stephen Whelan and the McKell Institute for this important analysis.



EXECUTIVE SUMMARY

Australia's economy has long been buoyed by its extractive industries. As a continent richly endowed with natural resources, mining has played a pivotal role in the economic trajectory of the country, and a particularly important role for the communities that neighbour mining precincts.

Importantly, the mining industry provides significant employment opportunities for regional Australians. But increasingly, the sector is relying on fly-in-fly-out (FIFO), or drive-in-drive-out (DIDO) workforces, as well as contractual or casual labour – often procured through third party labour-hire firms – to staff their facilities. It is this trend, and its impact on local economies, that this report explores.

This report begins by providing a brief introduction to Australia's mining economy. Australia's mining sector employs over 230,000 Australians, and is thought to indirectly contribute over one million Australian jobs. As a proportion of GDP, mining is around 8 per cent of the Australian economy.

Part two then explores the important role mining plays in regional communities. Mining sector jobs typically pay higher than average paying jobs in the economy, delivering important economic dividends to the communities in which mining industry workers reside. Both during construction and development, and throughout the lifetime of a project, mining can contribute significantly to local economies. However, the trends identified in this report such as the increased rate of casualisation in the mining workforce, and the increasing reliance on FIFO and DIDO workforces is negating some of this economic contribution.

Part two also details the nature of labour-cost reduction strategies within the mining sector. An increasing reliance on casual workers and labour-hire has created a situation where many workers in Australia's mining sector are missing out on basic workplace entitlements, such as sick or family leave. Because of these labour-cost reduction strategies, job insecurity has risen in the mining sector, undermining the sector's value to individual workers, as well as the regional economies dependent on mining activity.

This report then identifies the value of mining to the regions. For every job in mining, 1.4 jobs are typically created in regional communities. However, the more remote mining operations are located, the more diminished this economic dividend is, as mining workers are typically FIFO or DIDO commuting from major cities or regional hubs.

In Part four, this report explores the economic impact of labour cost reduction strategies on two key mining regions: the Hunter region in NSW and the Bowen Basin in central Queensland. Collectively, it identifies a negative economic impact of up to \$825 million in these two regions alone as a result of an increase in casualisation and labour hire in the mining sectors.





PART ONE:

INTRODUCTION TO MINING IN THE AUSTRALIAN ECONOMY

The Australian economy has undergone several changes in the methods of employment with casualisation, contract work and labour hire playing a more prominent role today than in the past. This phenomenon has been increasingly evident in the mining industry, with cost-cutting strategies employed by global mining companies in their Australian operations. Out-sourced labour hire has been widely used by the large mining firms as a way of minimising wages paid to save costs.

The broader context in which these changes have occurred is one in which the Australian economy has experienced a large positive terms of trade shock as the price of key resource exports increased rapidly from the mid-2000s.¹ The rise in the price of mineral products, especially iron ore and coal, was driven by a significant increase in global demand from countries such as China and India.

Accompanying that change has been a rapid expansion of the minerals and energy sector in Australia. For example, between 2005 and 2019 direct employment in the resources sector more than doubled from 104,000 to 234,000. Employment in mining peaked in 2012 with around 274,000 individuals employed in the sector, though a subsequent decline saw this figure fall to around 213,000 in late 2015. Since 2016 employment in mining has increased by around 10 per cent to 234,000 in August 2019.²

The inclusion of services associated with mining means that upwards of one million Australians are employed as a result of mining and related activities. The mining boom was associated with a significant increase in the importance of mining to the Australian economy in general. As a proportion of GDP, the resources sector increased from around 5 per cent in 2005 to over 8 per cent in 2017.³

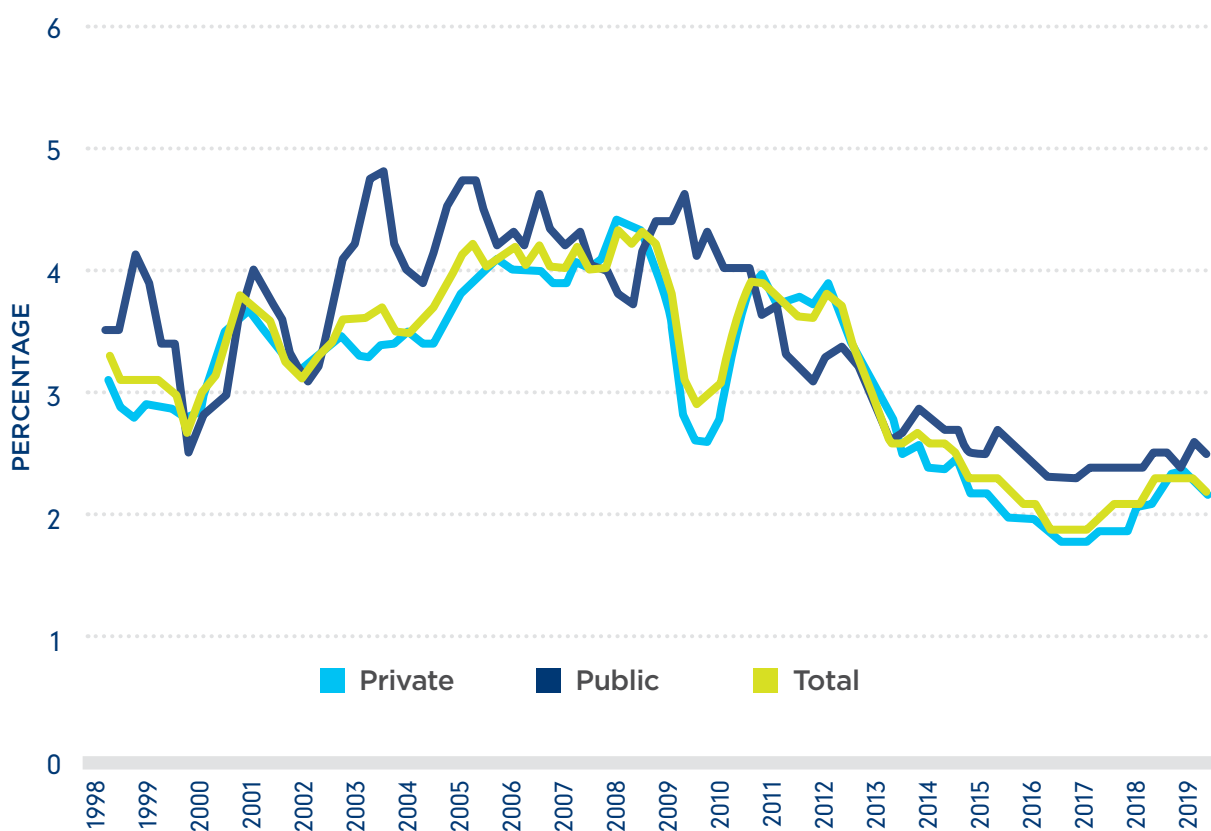
While the peak of the mining boom appears to have passed, it nonetheless delivered a large boost to national income and the welfare of many Australian households. One estimate suggests that by 2013 overall living standards were around 13 per cent higher than they would have been had the boom not occurred. It is also estimated that real wages had increased by approximately 6 per cent over the same period as a result of the effect of the mining boom on the broader economy.⁴



Wages in the resource sector are generally high and more than double the average wage across the rest of the economy.⁵ Since 2012, however, wage growth across the economy has been low. While it is challenging to capture how wages change using a single measure, the

Treasury reports that in the year ending June 2017 aggregate wage growth was below 2 per cent across the economy, the lowest since at least 1997.⁶ While wage growth appears to have picked up in the past two years, it remains low by historical standards.

FIGURE 1.1 WAGE PRICE INDEX TREND⁷





PART TWO:

THE ROLE OF MINING IN REGIONAL COMMUNITIES

Trends in income for workers in the sector

Earnings for workers engaged in coal mining are generally higher than that of the 'average' worker. As of May 2019, the Australian Bureau of Statistics reports that persons employed in the resources sector received the highest weekly earning amongst all Australian industries – more than double the average earnings across all industries. Moreover, average earnings in the resources sector are 35 per cent higher than the industry with the second highest earnings.⁸ These patterns reflect a range of considerations including skill and compensating differentials which reflect the demanding nature of mining and mining related work.⁹

Shifts for workers often exceed 12 hours in duration to allow for hot-seat changeovers to minimise disruption to production. Generally speaking, the physical environment in which mining is conducted is harsh and the pattern of shifts mean that many miners are employed as FIFO (Fly-In-Fly-Out) or DIDO (Drive-In-Drive-Out) workers, necessitating long spells away from home.

Recently, however, there has been a marked shift in the nature and quantum of earnings received by some individuals engaged in mining. This reflects a shift from full time direct employees being engaged by mining enterprises and replaced by workers employed indirectly through labour hire firms, usually as casuals. While the overall rate of casualisation has been relatively stable over time, there has been a marked increase in some industries over recent years. Calculations using the ABS Characteristics of Employment Survey indicates that growth in casualisation in the mining industry at over 59 per cent in the period 2014-2018 exceeds that for all other industries.¹⁰

The analysis in this report suggests that the net impact on local economies from changes in the manner in which workers are engaged, from full time direct employees to casual labour hire employees is significant.

Mining plays a major role in regional communities

Mining activities have significant impacts on local economies.¹¹ In particular, mining booms, where the discovery of previously unknown mineralogical resources or technological innovations that facilitate the extraction of resources, has led to the rapid development of mining and associated industries.¹² Such developments often have significant localised effects, especially during the development and construction phase, which requires high amounts of labour and capital investment. Such developments generally have effects outside the immediate region where the mining activity occurs. This may reflect an insufficient quantity of locally available resources such as labour but also other business services, or a lack of specialised resources in what are often isolated communities.

CHANGING EMPLOYMENT METHODS HAVE ADVERSE EFFECTS ON REGIONAL COMMUNITIES

After mines are constructed, the effect of mining activities is shaped by a variety of considerations. In the 1960s and 70s, the development of mining industries was often accompanied by the development of mining towns in which companies invested in housing and other amenities.¹³ More recently, remote mining developments for metal ores have been characterised by the development of FIFO/ DIDO workforces. The use of DIDO workers is particularly important in coal mining. Consider, for example, the Bowen basin in central Queensland which contained 44 active coal mining operations in mid-2018. With more than 18,400 non-resident workers, predominantly FIFO and DIDO workers, these workers represented around 20 per cent of the full-time equivalent population in the region.¹⁴

The increasing significance of DIDO and FIFO operations have led to a concern that the benefits of mining activities do not materialise for local communities.¹⁵ This reflects, in part, the loss of the direct economic benefit from salaries and other expenditures that do not remain in the local

economy but rather are expended in the home locale of the FIFO/ DIDO worker. Moreover, there is evidence that local communities experience a loss of social capital as itinerant workers do not invest in the social capital of the community in which the mine is located.¹⁶

The benefits of the mining sector extend to the entire local community

Where mining does not rely on FIFO arrangements, mining activity contributes both directly and indirectly to the local economy.¹⁷ Direct benefits to communities accrue through a range of mechanisms including:

- Expenditures on contractors and employee wages or salaries for the extraction, development and refining activities. Where those employees and contractors reside in the local region, mining activity is likely to support the local economy through expenditure of income and engagement in activities in the local community by workers and contractors.
- Expenditures on contractors and suppliers associated with the extraction, development and exploration activities. That is, mining firms purchase a range of business services that support local businesses, which in turn increase income and employment in the local region.
- The voluntary expenditure of companies on community infrastructure.
- Dividends that accrue to owners of companies that are then used to purchase goods and services. That is, the owners or shareholders of mining companies receive the income generated by mining activities through dividend payments that represent income in the hands of owners. It is generally assumed that such income, like employment income, supports local economic activity through expenditure on goods and services. It is important to note that the effects of

such expenditures are likely to be muted when ownership of mining companies lie with residents of other countries. For example, Yancoal is one of Australia's three biggest coal producers and operates mines in New South Wales, Queensland and Western Australia. Its majority owner is Yanzhou Coal Mining Company Limited, a Chinese based firm.

- Higher royalty payments and taxes that are paid to governments. Mining companies generally pay resources taxes in the form of royalties directly to state governments, along with company profit taxes to the Commonwealth government. Those contributions are significant over recent years, with estimates that over \$12 billion dollars in company taxes and \$11 billion in royalties being paid by the minerals sector in 2016-17.¹⁸

THERE ARE DIRECT AND INDIRECT EFFECTS ON LOCAL COMMUNITIES

The expenditures identified above accrue directly to individuals and businesses in the local region. They represent the first round or direct boost to income that is derived from the activity of mining and mining companies. The total benefits of mining activity are generally assumed to extend beyond those direct effects as the first round of expenditures 'ripple' through the economy.¹⁹ In effect, the first round of expenditures on wages or salaries, or for the payment of business services, generates additional income and economic activity when spent. Those indirect effects or flow-on effects from the mining activity include:

- Flow-on effects of business expenditures that are induced by the initial round of expenditure by the mining company. That is, as recipients of those expenditures use other business services or hire additional employees, there is a second-round effect as the expenditure of that income generates additional demand for goods and services.

- The flow-on effect of consumption expenditures by employees and contractors into the local economy. Recipients of wages and salaries make expenditures on consumption goods within a local community that support additional expenditures by those individuals who receive an income via the first round of expenditures.

- The expenditure of governments on goods and services in the local community and the economy more broadly.

A key issue for understanding how important changes are to the remuneration of mine workers and the impact on the local economy is to understand the size of the direct and indirect effects of expenditures by mining companies. From an empirical perspective, understanding the impact of the indirect effects is particularly challenging and is likely to depend on a number of considerations including:

- The availability of local labour and business suppliers of the goods and services required to undertake the mining activity. In general, one would expect that the greater the quantity and diversity of local services the larger would be the direct benefit to the local community. Intuitively, mining companies would be able to access the goods, services and skills locally rather than from outside the immediate region so that leakages from the local economy are lower.
- The remoteness of the community and the potential for expenditures that are remitted into a local community to 'leak' into neighbouring or other communities. Local communities that are more distant from neighbouring communities are likely to have more pronounced indirect effects as it is more costly to make expenditures outside the local region. At the same time, when a local economy is less diverse and consumption opportunities are more limited, leakages outside of the local region are likely to be greater.

CASE STUDY

BHP CUTS WAGES BY “OUTSOURCING” TO ITSELF

BHP is one of the biggest coal producers in Australia. The world’s largest publicly-listed mining company owns and operates Mount Arthur Coal, a large thermal coal mine at Muswellbrook in NSW’s Hunter Valley. BHP also manages nine Bowen Basin mines producing export metallurgical coal: Goonyella Riverside, Broadmeadow, Daunia, Peak Downs, Saraji, Blackwater, Caval Ridge, Poitrel and South Walker Creek.

BHP’s 2019 sustainability report showing 56 per cent of jobs in its Australian operations were contractors and not directly employed.

Across its nine Queensland mines, there are about 12,800 workers. As at September 2019, fewer than 3,000 were employed under site enterprise agreements.

While up to another 30 per cent are likely to be professional and admin staff in direct permanent employment, that leaves nearly half the workforce employed on a range of labour hire and other contract arrangements, with substantially worse pay and conditions and without job security. Some 16 contracting firms are operating on the sites, ranging from small specialist contractors to major labour hire firms including WorkPac, One Key, Chandler Macleod and Hays.

In response to community disquiet over the epidemic of casualisation at its pits, BHP’s latest wage-cutting strategy has been to “outsource” employment to its own subsidiary, Operations Services Pty Ltd.

In 2018, BHP created two \$1 shelf companies to act as employing entities, including Operations Services (OS). These entities submitted two proposed non-union enterprise agreements to the Fair Work Commission, with pay rates of \$30,000 to \$50,000 a year less than current site agreements, and no pay rise over their four-year term among a host of inferior conditions. The agreements are being challenged by unions

in the Fair Work Commission.

Meanwhile, BHP is deploying hundreds of OS workers in Queensland and New South Wales coal mines on common law contracts and is recruiting heavily.

At Mount Arthur, Operations Services workers are being paid \$106,000, compared to the rate in the union agreement of \$159,200. This pay discrepancy is similar at other mines where OS has been deployed. Operations Services marketing has focused on the jobs being permanent, not casual like most contract labour hire, and therefore attracting annual leave.

Nevertheless, the jobs attract substantially worse conditions in a number of other areas including no accident pay, incentive bonuses that are prohibitively difficult to attain and no payment for transport including FIFO flights (which are a huge cost).

BHP Chief Executive Andrew Mackenzie told an investor briefing in August 2019 that Operations Services was BHP’s own ‘contracting organisation’ designed to cut costs while addressing high turnover among casuals.

“There are labour cost pressures ... we have addressed this via our Operations Services model, where we are actually steadily converting a lot of our more permanently contracted workforce and some not so permanent to our own contracting organisation for the whole of Australia.”





PART THREE:

CALCULATING THE VALUE OF MINING TO COMMUNITIES

Economic multipliers are useful in calculating the value of mining activity

The total direct and indirect effect of economic activity is often captured through the use of multipliers, which can be used to estimate the number of jobs created or other dimensions of economic activity. In the case of employment, mining activity might create 100 jobs directly in a local community and additional jobs as businesses increase employment and those employed initially expend income which creates new jobs for those engaged in non-mining related activities. For example, in a study focused on Australia's mining sector, Fleming and Measham (2014) estimate that for each new job in mining, 1.4 additional jobs are created in the local region where mining activity occurs. Those additional jobs are created in a range of industries. While some industries may suffer a decrease in jobs as mining expands, this is typically offset by the creation of new jobs in other sectors.

The key empirical challenge is to identify the total direct and indirect effects of activities by mining companies, that is, to identify the size of the multiplier. The literature identifies a number of means by which such effects can be measured and these different methods are detailed in Appendix A. In the following section we discuss the approach taken in this study to estimate the local economic impact of the lower remuneration associated with increasing casualisation in mining communities across New South Wales and Queensland.







Empirical research has identified the value of mining in Australia

Studies have sought to identify job creation, income and economic activity multipliers for mining activity in Australia and internationally. Those studies provide a wide range of estimates reflecting the diverse methodological approaches and the unique nature of any given mining activity.

Rolfe et al (2010, 2011) report on a series of studies which have sought to identify the direct and indirect impact of mining on local communities in the United States. For example, one study that focussed on 27 local regions in Kentucky and Indiana identified an economic multiplier of 7.93 for coal liquefaction projects. That is, for every dollar of new income generated by the projects directly an additional US\$6.93 of new income would be generated elsewhere in the county. For the petroleum industry in North Dakota, estimates of economic multipliers were significantly lower at 1.63, so that each additional dollar of direct expenditure led to an additional increase of US\$0.63 in business activity. For copper projects in Arizona, one study estimated that the indirect economic impacts were approximately two times higher than the direct effect.

A number of studies that have assessed the direct and indirect impact of mining on local or regional economies in Australia. A study undertaken by ACIL Tasman in 2007 drew on 2004-05 data and

identified a direct impact of mineral and mineral processing on the Queensland economy of over \$15 billion, or around 9.7 per cent of Gross State Product. In addition to the 50,000 people directly employed in those industries, total employment from the direct and indirect effects exceeded 215,000 individuals. Updated analysis that considered the full resources sector identified an overall impact on the Queensland economy of over 240,000 jobs.²⁰

Ivanova and Rolfe (2011) report on IO (input-output) analysis of a 25 per cent increase in coal mining activity in selected Queensland communities at a regional and sub-regional level. Though the effects were substantial, the authors note the challenge of undertaking analysis for smaller areas, and accounting for leakages across regions which may occur. At the regional level, they found that a 25 per cent increase in mining activity would lead to an approximately 8 per cent increase in overall output in the region and a 10 per cent increase in regional income.

Econometric analysis of coal seam gas developments in Queensland by Fleming and Measham (2014) found positive impacts on both jobs and incomes in regions where development occurred, though it is important to note that the estimates vary across the regions examined. Importantly, the increase in employment in regions where mines are located (1.4 additional jobs for every new mining job created) is substantially smaller than the overall impact (seven new jobs created for every mining job created across the economy). Similarly, a



statistical or econometric study of coal seam gas development in southern Queensland over the period 2001-11 indicated that both employment and household income grew more rapidly in those areas in which development of the industry occurred. Blackwell and Dollery (2014) focussed on remote areas and the analysis suggests that the benefits that accrue for local communities when mines are located in what are characterised as remote regions are substantially lower, in part because of the greater use of FIFO workers.

THE APPROACH TAKEN FOR THE FINDINGS IN THIS REPORT

The study by Rolfe et al (2010) will provide the basis for the estimates derived in this report.

That study provides estimates of the multiplier effect associated with the minerals and resource sector at a relatively disaggregated level through the use of regional input-output models. While not a one-to-one match for the regions examined in this report, the analysis provides relatively robust parameters by which to estimate the direct and indirect local impacts of mining activity and changes in the wages and salaries paid to mining workers.

The analysis reported in Rolfe et al (2010) provides estimates at the Statistical Division level for Queensland in 2009-10.²¹ As discussed previously, the impact of that economic activity is captured through first round or direct effects associated with expenditure on the labour force, and, business goods and services.

This leads to increased income directly for business services and labour. Indirect effects accrue through the expenditure by business services on other business suppliers. The estimates of the multipliers used in this report are a mid-point of the estimates for various Statistical Divisions reported in Rolfe et al. (2010).

The approach adopted in this report represents a relatively conservative approach reflecting the nature of the regions considered and the likely impact of mining activity, and the wages paid, on the local communities.

Detailed analyses of the mining communities in NSW and QLD

In the discussion below the regions are those determined by the Australian Bureau of Statistics at the SA4 level. Statistical Areas Level 4 are the largest sub-State regions in the ABS geographical areas classification and are designed to reflect the nature of labour markets within each state.

SA4 – HUNTER VALLEY EXCLUDING NEWCASTLE

Located approximately 200 kilometres north-west of Sydney, the Hunter Valley excluding Newcastle incorporates a number of major towns including Muswellbrook (population 12,075), Singleton (population 22,987) and Cessnock (population 76,641). In 2016 the SA4

was home to approximately 269,000 people, an increase of around 10,000 since 2013. In 2016 median employee income equalled \$48,211 compared to a value of \$48,413 for Australia.

Mining employs 9.2 (9.0) per cent of employed individuals 2016 (2018) and in 2016 the number of people employed in mining was equal to 8,947. By employment, mining was the third largest industry of employment. The region contains largely thermal and semi-soft coking coal. Mines near the eastern edge of the basin are spread along the Hunter Valley from Newcastle in the south to Muswellbrook in the north; many of these mines are open cut. Further north mining also occurs at Yarrowonga near Gunnedah. Mines such as Ulan and Springvale in the Western Coalfield and Mandalong and Westside in the Newcastle Coalfield produce mainly thermal coal. In the Hunter Valley Coalfield both semi-soft coking and thermal coal products are produced from mines such as Hunter Valley Operations and Bulga.^{22,23}

SA4 – MACKAY-ISAAC-WHITSUNDAY

Located approximately 950 kilometres north of Brisbane, the Mackay-Isaac-Whitsunday SA4 region in Queensland incorporates the town of Mackay and smaller inland towns like Moranbah. In 2016 the region was home to approximately 173,300 people, a decrease of around 3,000 since 2013. In 2016 median employee income equalled \$51,445 compared to a value of \$48,413 for Australia.

Mining employs 14.4 per cent of employed individuals in 2016, a proportion that is unchanged since 2011. At a sub-regional level mining is even more important. The Isaac region within the SA4 contains the Bowen Basin which includes the largest coal mining deposits in Australia. In the Bowen Basin, 27.3 per cent of all employment is engaged in mining.²⁴ In 2016 the number of people employed in mining at the SA4 level was equal to 8,676, a decline of approximately 25 per cent since 2013. By employment, mining was the largest industry of employment.

Mackay is widely recognised as the gateway to the Bowen Basin coal mining reserves of Central Queensland. It is the single largest coal reserve

in Australia, with 34 operational coal mines extracting more than 100 million tonnes annually. The majority of Queensland's prime coking coal reserves are mined here. The vast majority of coking coal is exported. That which is used domestically is mostly sourced from the Illawarra region in New South Wales, feeding steelworks in New South Wales and South Australia. Japan and China are the largest export recipients for Australian coal.²⁵

SA4 – CENTRAL QUEENSLAND

The SA4 of Central Queensland contains the regional centres of Rockhampton (population 76,985), Emerald (population 13,532) and Gladstone (population 33,418). In 2016 the SA4 was home to approximately 225,500 people, a decrease of around 1,000 since 2013. In 2016 median employee income equalled \$52,728 compared to a value of \$48,413 for Australia.

Mining employs 8.7 per cent of employed individuals in 2016, a proportion that is unchanged since 2011. In 2016 the number of people employed in mining at the SA4 level was equal to 8,287, a decline of approximately 15 per cent since 2013. By employment, mining was the third largest industry of employment in the region.²⁶

It is important to note that the level of coal mining activity varies significantly over time, driven by a range of factors including global shifts in demand. The Queensland government reports that production of saleable coal rose from around 229 million tonnes in 2013-14, increasing rapidly to over 243 million tonnes in 2014-15. Production subsequently fell, reaching a low point in 2016-17 before increasing to over 248 million tonnes in 2017-18. Such patterns provide important context when considering the impact on local economies of the wage strategies adopted by mining firms. Focussing on the period 2016 when statistics are available will likely to provide a lower bound of the impact of any strategy that reduces take-home pay for workers.







PART FOUR: THE FINDINGS

Economics impacts of contracting out, labour hire and casualisation

Overleaf we present the economic impact of wage-cutting strategies across three SA4 regions, namely the Hunter Valley (excluding Newcastle), Mackay-Isaac-Whitsunday, and Central Queensland. The estimates presented are based on employment levels reported in the 2016 Census. The indirect effects of reductions in salaries and wages are estimated using a multiplier of 0.4. The analysis in Rolfe et al (2010) identified a median (mean) multiplier effect of 1.45 (1.43) so that every additional dollar of income resulting from mining activity had a direct and indirect impact on additional income of 0.43 to 0.45. Hence, the estimates reported are likely to be conservative.

The analysis indicates that the effects of wage cutting strategies are substantial across the SA4 regions examined, with total income in the region reduced by between 2 and 5 per cent as a result of the reduction in wages paid to workers as a result of the increasing use of lower-paid casualised workers.

For the local economy, the consequences are likely to be substantial. The first case study, The Hunter Valley excluding Newcastle, identifies an impact of between \$158 million and \$283 million as a result of labour cost reductions in the mining industry. In the Bowen Basin region of Mackay-Isaac-Whitsunday, a loss of between \$169 million and \$297 million is identified. In the SA4 Central Queensland region, this report identifies an economic cost of between \$140 million and \$245 million as a result of labour cost reductions in the mining sector. Collectively, labour cost reductions in the three case study regions are expected to be costing these communities between \$485 million and \$851 million in economic activity annually.

The Hunter Valley excluding Newcastle

HUNTER VALLEY (EXCLUDING NEWCASTLE, SA4)

Total number workers SA4	125,335	
No. mining workers (2016)	8,688	
Employee wage per year	\$133,444	
Contractor remuneration per year	\$90,024	
Employee wage based on average of Glencore (Liddell) employee		
Contractor wage based on average of One Key (Liddell) employee		
Low Estimate – assumes casual employees take no unpaid leave		
Rate of casualisation – two cases	30%	40%
Reduction total employee income per year (\$m)	113.17	150.89
Direct & indirect impact per year (\$m)	158.44	211.25
High Estimate – assumes casual employees take unpaid leave to match paid annual leave of permanent employees		
Rate of casualisation – two cases	30%	40%
Reduction total employee income per year (\$m)	151.43	201.90
Direct & indirect impact per year (\$m)	212.00	282.67

Mackay-Isaac-Whitsunday

MACKAY-ISAAC-WHITSUNDAY SA4

Total number workers SA4	90,045	
No. mining workers (2016)	12,545 (see note)	
Employee wage per year	\$160,514	
Contractor remuneration per year	\$114,086	
Employee wage based on average of BHP production employees at Goonyella Riverside mine		
Contractor wage based on average of Workpac PL employee employed as an operator at Goonyella Riverside Mine		
Low Estimate – assumes casual employees take no unpaid leave		
Rate of casualisation – two cases	30%	40%
Reduction total employee income per year (\$m)	121.01	161.35
Direct & indirect impact per year (\$m)	169.41	225.89
High Estimate – assumes casual employees take unpaid leave to match paid annual leave of permanent employees		
Rate of casualisation – two cases	30%	40%
Reduction total employee income (\$m)	159.08	212.11
Direct & indirect impact (\$m)	222.71	296.95

Central Queensland

CENTRAL QUEENSLAND SA4

Total number workers SA4	111,818	
No. mining workers (2016)	7,191 (see note)	
Employee wage per year	\$160,514	
Contractor remuneration per year	\$114,086	
Employee wage based on average of BHP production employee at Goonyella Riverside Mine		
Contractor wage based on average of Workpac PL employee employed as an operator at Goonyella Riverside Mine		
Low Estimate – assumes casual employees take no unpaid leave		
Rate of casualisation – two cases	30%	40%
Reduction total employee income (\$m)	100.16	133.55
Direct & indirect impact (\$m)	140.22	186.96
High Estimate – assumes casual employees take unpaid leave to match paid annual leave of permanent employees		
Rate of casualisation – two cases	30%	40%
Reduction total employee income (\$m)	131.67	175.56
Direct & indirect impact (\$m)	184.34	245.79

The above estimates are likely to be conservative given that employment in coal mining in 2016 represented the nadir of the current cycle. The local impact of wage-cutting strategies is likely to be more pronounced given the recent growth in employment across the regions considered.

The multiplier effects are derived from I-O models which have been discussed in Section 3. In such models it is implicitly assumed that there is no input substitution that follow from the changes in the relative price of factor inputs. This is likely to be the case in the short run, especially where mining has been associated with the receipt of large positive economic profits.

Further, it is assumed that any increase in wages would not lead to a reduction in mining activity in the regions analysed and hence the level of employment in that industry. That is, this effectively rules out the likelihood that mining activity crowds out other economic activity.

While such a criticism is often associated with the use of multipliers derived from I-O analysis, it is not likely to be as pertinent a consideration in the current analysis where the mining activity from a new project would divert resources from other productive uses in the economy. Rather, any change in wages would represent a change in the returns to a specific factor at the local level.

CONCLUSION

This report has analysed the impact of wage-cutting strategies in the minerals and energy sector and how the trends in employment have progressed in the recent past. It has shown that apart from the direct consequences of lower wages on employees and their families, there are spill-over effects to the broader communities these workers are a part of. This is especially significant in rural and regional communities of Australia where mining employment is a major employer and affects the whole economy.

In particular, the report considered the experience of workers in the coal sector in the Hunter region in New South Wales and the Bowen Basin in Central Queensland.

As various research has pointed out, labour hire, outsourcing and subcontracting leads to a situation where the workers are less like to be employed by the economic decision maker and their wages are vulnerable to being undercut by labour-hire firms which reduce their take-home pay relative to that received under union negotiated agreements.²⁷

The wage-cutting strategies have resulted in up to \$825 million being removed from local economies in just two mining regions. As well as directly hurting the workers concerned, the flow-on impacts reduce the social and economic benefits that mining brings to a number of major regions.

Mining companies play an important role in regional Australia. However, it is to the detriment of regional Australia – and the sector itself in the long-run – when major resource firms remove themselves from the role of employer at their mines by over-utilising labour hire and other wage-cutting strategies.





APPENDIX A

(i) Input-output (IO) analysis –This approach attempts to model an economy and the linkages between sectors within that economy. Using a simple framework, at an aggregate level the economy can be characterised as consisting of a household sector and a business sector. The household sector ‘sells’ labour services to the business sector in exchange for wages and salaries. Within the business sector some firms supply intermediate inputs, such as equipment maintenance and catering services to mining camps, while other businesses produce and sell final goods using labour services and inputs purchased from businesses in the intermediate sector. The household sector in turn purchases goods and services from the business sector. The economy can be modelled as an interconnected set of households and firms clustered within different sectors. In turn it is possible to characterise an economy as one in which goods, services and factor payments (such as wages) flow within and across sectors.²⁸

Input-output analysis provides a means by which to measure how changes in the size of one sector of the economy, such as mining activity, impacts on other sectors and therefore overall economic activity. Input-output analysis can take on various degrees of sophistication which reflects a number of considerations including the degree to which the economy is disaggregated into more finely defined sectors. While a useful approach to identifying how a change in one sector of the economy affects other sectors and the economy overall, input-output analysis has a number of limitations from a methodological standpoint. In particular the following assumptions are generally made when undertaking such an analysis:

- The prices of goods and services do not change in response to changes in demand or supply.
- Technology is fixed and each step in the production process requires a set of inputs in specified ratios.
- The share of resources imported is fixed.

- Labour productivity does not change.
- There are no constraints on the supply of factor inputs such as labour.

It is important to note that care should be exercised when applying multipliers derived from IO analysis as they may not account for crowding out along with price changes induced by variation in economic activity (Gretton 2013). For example, an increase in factor payments to an input may induce substitution away from that input. With those caveats in mind, IO analysis has nonetheless been used in a range of studies to identify how mining activity affects the mining industry and related sectors. Developing input-output models at the regional or sub-regional level requires specifying relationships, in terms of linkages between regions, appropriately. While challenging such models have been developed in the Australian and international settings.²⁹

- (ii) Computable General Equilibrium analysis (CGE) models, like IO analysis, describe the economic linkages between ‘actors’ in the economy, namely firms, households and government. While more flexible, including incorporating the effect of relative prices into the model, Fleming et al (2015) note that CGE models are challenging to develop and apply in a regional context. Such models potentially provide a richer insight into the economy than IO analysis but are substantially more demanding from a modelling perspective.
- (iii) Econometric analysis – this approach requires the use of econometric or statistical models to compare regions that have experienced mining activity (the treated region) and those that have not (the control region). If appropriate factors are included in the statistical model to control for other differences across regions, then it is possible to identify the impact of mining activity on outcomes such as total employment, income and economic output. Such approaches have been used in studies of job multipliers in Sweden amongst others (Moritz et al 2017).

APPENDIX B

NOTES TO THE FINDINGS IN PART 4

- (i) Total number of workers based on geographic census data 2016 Census.³⁰
- (ii) The number of mining workers is derived from the 2016 Census.³¹ Note this is calculated using the number of individuals in the SA4 employed in mining, excluding those who are classified as managers, professionals, clerical and administrative workers and sales workers. Table 12 in the Working Population Profile.
- (iii) Employee wage based on average of Glencore (Liddell) employee as provided by CFMMEU. Note that the wage figures provided by the CFMMEU are for 2018 though the Census reflects the number of mining workers in 2016. An annual wage increase of 2 per cent has been assumed for the years 2016 and 2018.
- (iv) Contractor wage based on average of One Key (Liddell) employee as provided by CFMMEU. Note that the wage figures provided by the CFMMEU are for 2018 though the Census reflects the number of mining workers in 2016. An annual wage increase of 2 per cent has been assumed for the years 2016 and 2018.
- (v) Contractor wage based on average of Workpac PL employee employed as an operator at Goonyella Riverside Mine as provided by CFMMEU. Note that the wage figures provided by the CFMMEU are for 2018 though the Census reflects the number of mining workers in 2016. An annual wage increase of 2 per cent has been assumed for the years 2016 and 2018.
- (vi) Contractor wage based on average of Workpac PL employee employed as an operator at Goonyella Riverside Mine as provided by CFMMEU. Note that the wage figures provided by the CFMMEU are for 2018 though the Census reflects the number of mining workers in 2016. An annual wage increase of 2 per cent has been assumed for the years 2016 and 2018.
- (vii) Low estimate is based on the discrepancy in salary/ wages received by employees and non-employees of the mining company excluding provision for annual leave. The assumption has been made that casual contractors would NOT take unpaid leave that is equal to 6 weeks of paid leave that permanent employees receive.
- (viii) The high estimate is based on the discrepancy in salary/ wages received by employees and non-employees of the mining company assuming that casual employees take unpaid annual leave equal to the paid leave received by direct permanent employees
- (ix) Rates of casualisation are set at 30 per cent and 40 per cent as per the data provided by the CFMMEU.
- (x) The reduction in total employee income represents the direct impact of casualisation on worker earnings in the local region measures as \$m per annum.
- (xi) The direct and indirect impact captures for the flow on effect. The estimates reflect the multiplier identified in the analysis reported in Rolfe et al. (2010). That analysis drew on input-output models that estimated the additional consumption effects associated with the wages and salaries paid to workers and contractors engaged in mining. A multiplier of 1.4 has been used.

FOOTNOTES

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