



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

**Submission to the Senate Education and
Employment Committee into the Fair Work
Amendment (Equal Pay for Equal Work) Bill 2022**

August 2022

Dear Secretariate,

The McKell Institute thanks the Senate Standing Committee on Education and Employment for the opportunity to make a submission regarding the Fair Work Amendment (Equal Pay for Equal Work) Bill 2022 (hereafter **The Bill**).

The McKell Institute is an independent, progressive, not-for-profit, public policy research institute dedicated to delivering innovative public policy solutions to contemporary challenges.

We have produced extensive research to support the principal of equal pay for equal work and to provide equal access to employment, particularly for women. While flexible employment arrangements have been pursued over recent decades, it has become increasingly clear that different employers and subcontracting can undermine the principal of equal pay for equal work.

We commend the committee for examining this important issue and believe that strong action is needed. We thank the Senate for their urgency, but also note the importance to ensure the policy is effective and acts as intended.

While the McKell Institute is best placed to discuss the issues of ‘same work for same pay’ consultation with academic fellows and legal experts leaves us with a view that further consultation is needed. In particular we’re concerned around the limited circumstances in which the provisions would apply (Black Coal Mining Industry Award, Aircraft Cabin Crew Award and limited other Awards).

Wage cutting in the Mining Industry

In 2020 the McKell Institute published “Wage-cutting Strategies in the Mining Industry: The cost to workers and communities.” An update was subsequently published in May 2022.

The reports examined five Federal Electorates to measure the economic cost of wage cutting strategies. It found that \$989 million was lost in economic activity across these electorates alone:

- Wage cutting strategies in the mining sector within the Federal Electorates of Hunter and Paterson, NSW, cost the community between \$130 and \$235.85 million in localised economic activity per year.

- Wage cutting strategies in the mining sector within the Federal Electorate of Flynn, Queensland, cost the community between \$218 and \$357.5 million in localised economic activity per year.
- Wage cutting strategies in the mining sector within the Federal Electorates of Capricornia and Dawson, Queensland, cost the community between \$223.1 and \$395.9 million in localised economic activity per year.

Contractor remuneration was typically 24 per cent lower than employee wages across six mines examined.

In many regional communities mining is a significant employer and generator of wealth. Benefits flow from employees across the communities generally through consumption. Given the remoteness of communities, expenditure often remains in the community, amplifying the economic benefits of each dollar spent.

The two reports have been attached to this submission for your reference.

Employment arrangements designed to allow for flexibility should never be misused as a method to undercut wages and conditions.

The principal of equal pay for equal work is important to stop a race to the bottom on wages. The prevalence of wage-cutting in this way is surprising and should be stopped.

However, this method of wage-cutting is not unique to the mining industry. Efforts to enshrine 'same pay for same work' should be robust and properly scrutinised.

your consideration of this submission is appreciated.

Yours sincerely

Michael Buckland



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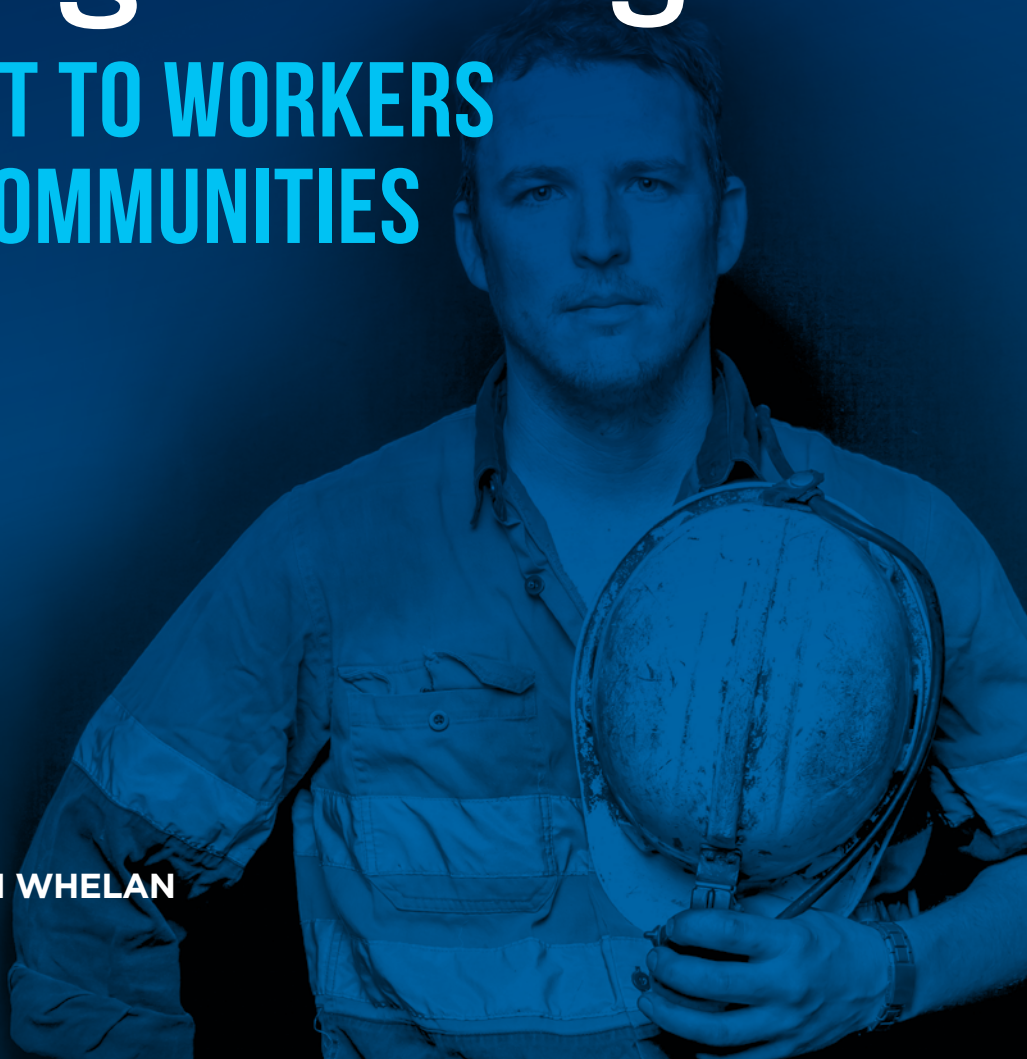
T H E M C K E L L I N S T I T U T E

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

THE COST TO WORKERS
and **COMMUNITIES**

BY DR. STEPHEN WHELAN

MARCH 2020



ABOUT THE MCKELL INSTITUTE

The McKell Institute is an independent, not-for-profit, public policy institute dedicated to developing practical policy ideas and contributing to public debate.

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This report has been commissioned by the CFMEU Mining and Energy Division.

The opinions in this report are those of the author and do not necessarily represent the views of the McKell Institute's members, affiliates, individual board members or research committee members. Any remaining errors or omissions are the responsibility of the authors.





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

Wage-cutting Strategies in the Mining Industry

THE COST TO WORKERS
and COMMUNITIES

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

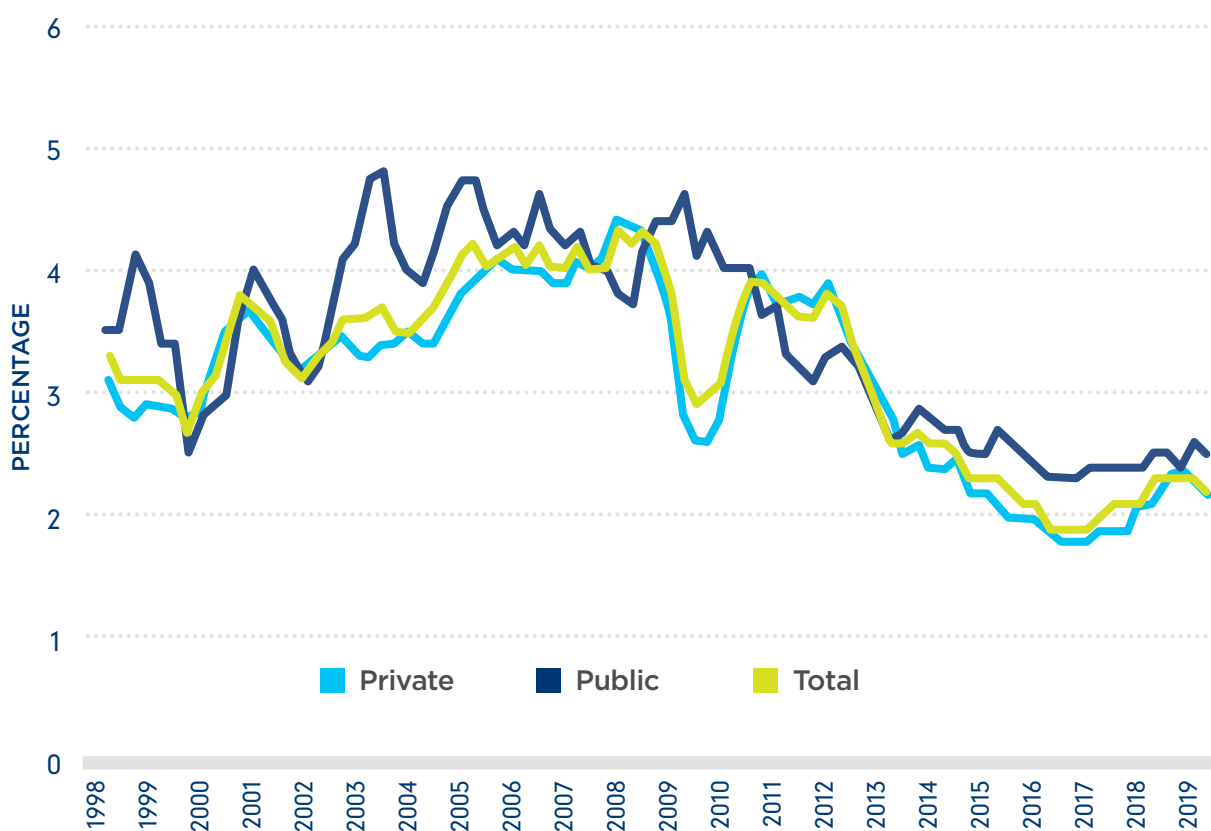
While the peak of the mining boom appears to have passed, it nonetheless delivered a large boost to national income and the welfare of many Australian households. One estimate suggests that by 2013 overall living standards were around 13 per cent higher than they would have been had the boom not occurred. 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

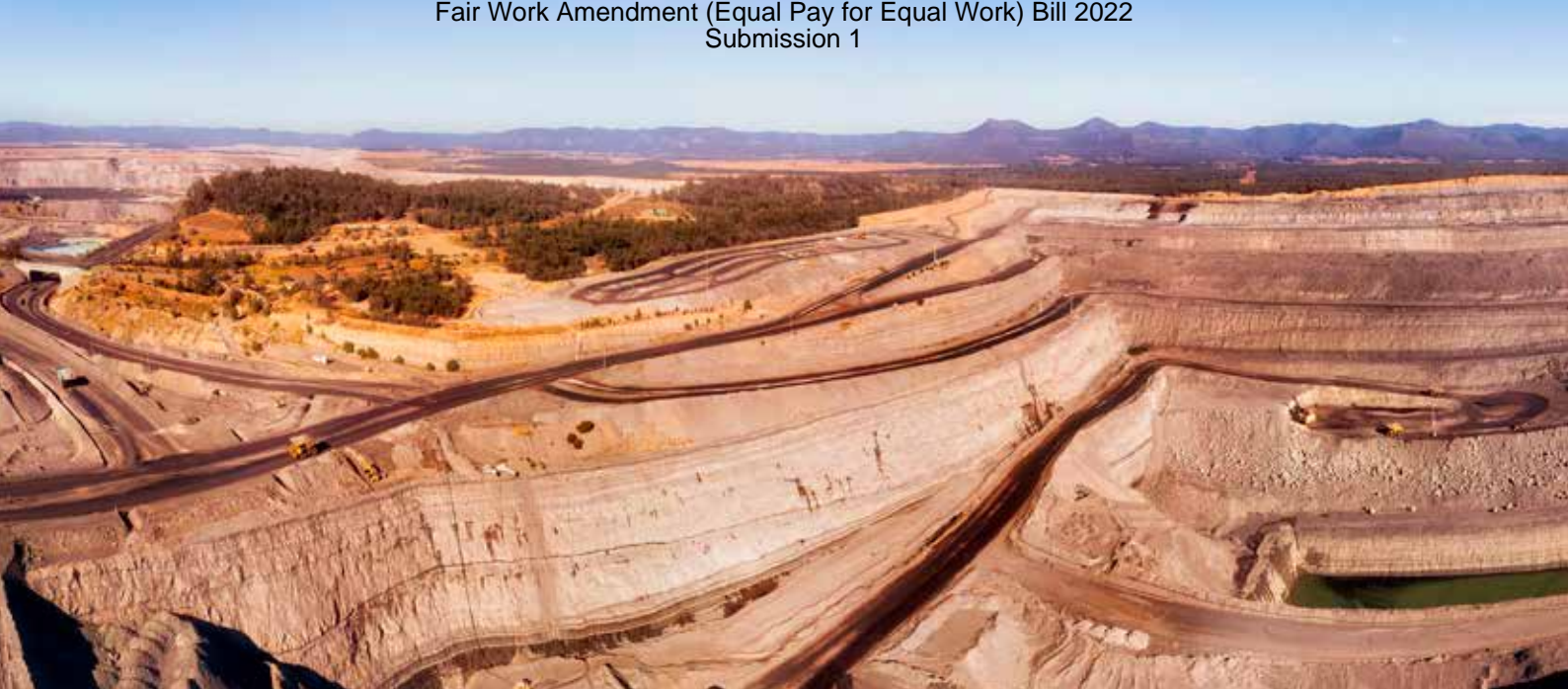
Economic multipliers are useful in calculating the value of mining activity

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

1. Kent, C. 2016. 'After the Boom', Reserve Bank of Australia, 2016. Accessed online: <https://www.rba.gov.au/speeches/2016/sp-ag-2016-09-13.html>
2. The Australian Bureau of Statistics, 2019. 'Labour Force, Australia, Detailed, Quarterly', Catalogue 6291.0.55.003.
3. Department of Industry, Innovation and Science, 'The Australian resources sector- significance and opportunities', Accessed online: <https://www.industry.gov.au/data-and-publications/australias-national-resources-statement/the-australian-resources-sector-significance-and-opportunities>.
4. Downes, P., K. Hanslow & P. Tulip (2014), 'The effect of the mining boom on the Australian economy', RDP2014-8, Reserve Bank of Australia. Accessed online: <https://rba.gov.au/publications/rdp/2014/pdf/rdp2014-08.pdf>.
5. Department of Industry, Innovation and Science, 'Australia's National Resources Statement', Accessed online: <https://www.industry.gov.au/data-and-publications/australias-national-resources-statement/the-australian-resources-sector-significance-and-opportunities>.
6. The Australian Government The Treasury, 2017. 'Analysis of Wage Growth'. Accessed online: <https://treasury.gov.au/publication/p2017-t237966>
7. Business Insider, 2019, 'Australian wage growth remains sluggish and that's unlikely to change anytime soon', Accessed online: <https://www.businessinsider.com.au/australia-average-wages-q1-rba-cash-rate-2019-5>.
8. Department of Industry, Innovation and Science, 'Australia's National Resources Statement', Accessed online: <https://www.industry.gov.au/data-and-publications/australias-national-resources-statement/the-australian-resources-sector-significance-and-opportunities>
9. Meredith, V., P. Rush, & E. Robinson, E., 2014. 'Fly-in fly-out workforce practices in Australia' Australian Institute of family Studies, Melbourne. Accessed online: www3.aifs.gov.au/cfca/publications/fly-flyout-workforce-practices-australia; Commonwealth of Australia, 2013. 'Cancer of the Bush or salvation for our cities? Fly-in, fly-out and drive-in, drive-out workforce practices in Regional Australia'. House of Representatives Standing Committee on Regional Australia. Accessed online: https://www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=ra/fifodido/report.htm
10. Calculations using the CoE survey August 2018 and August 2014 - measured by number of workers without paid leave entitlements.
11. Moretti 2010; Moritz et al. 2017; Fleming and Measham 2014, 2015.
12. The rapid expansion of shale oil resources has led to a number of studies in the United States (Fleming, Komarek, Partridge and Measham 2015). In Australia, coal-seam gas similarly has been associated with very rapid development with important local implications (Fleming and Measham 2015).
13. Carrington, K. & M. Pereira 2011. 'Assessing the social impacts of the resources boom on rural communities', Rural Society 21(1), pp. 2-20.
14. Queensland Government 2018. 'Bowen Basin Population Report', Queensland Government's Statistician's Office, Brisbane, Accessed online: <http://archive.qgso.qld.gov.au/products/reports/bowen-basin-pop-report/index.php>.
15. Commonwealth of Australia, 2013. 'Cancer of the Bush or salvation for our cities? Fly-in, fly-out and drive-in, drive-out workforce practices in Regional Australia'. House of Representatives Standing Committee on Regional Australia. Accessed online: https://www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=ra/fifodido/report.htm
16. Carrington, K. and M. Pereira (2011), 'Assessing the social impacts of the resources boom on rural communities', Rural Society 21(1), pp. 2-20. Note that it is difficult to ascertain the exact number of workers defined as FIFO. A 2013 inquiry by the Commonwealth Parliament noted the lack of detailed information on the FIFO workforce. In that report, it was estimated that in 2005 around 47 per cent of all mining employees in Western Australia were employed on a FIFO basis. The proportion is likely to have grown since that report was completed.
17. Rolfe et al. 2010, 2011.
18. Commonwealth of Australia 2019. 'National Resource Statement', Canberra. Accessed online: <https://www.industry.gov.au/data-and-publications/australias-national-resources-statement>, p. 9.
19. Rolfe et al. 2010, 2011
20. Rolfe et al, 2010.
21. The Australian Bureau of Statistics notes that "Statistical Divisions represent relatively homogeneous regions characterised by identifiable social and economic links between the inhabitants and between the economic units within the region, under the unifying influence of one or more major towns or cities". In 2010-11, Queensland consisted of 13 Statistical Divisions. Beginning 2016, the ABS has used a different geographical classification. The largest geographic areas within States are now termed SA4 or Statistical Area 4. Queensland consists of nineteen SA4s, [https://www.abs.gov.au/websitedbs/D3110124.NSF/f5c7b8fb229cf017ca256973001fec53bbe9630b24d6f4ca256c3a000475b8!OpenDocument#Statistical%20Division%20\(SD\)](https://www.abs.gov.au/websitedbs/D3110124.NSF/f5c7b8fb229cf017ca256973001fec53bbe9630b24d6f4ca256c3a000475b8!OpenDocument#Statistical%20Division%20(SD)).
22. Bowen Basin & Hunter Valley Open Cut Geotechnical Society, 2019. 'Bowen Basin and Hunter Valley Coal Mines'. Accessed online: <https://bohogs.org.au/bowen-basin-and-hunter-valley-coal-mines/>

REFERENCES

23. Australian Bureau of Statistics, 2018. 'Hunter Valley excl. Newcastle'. Accessed online: https://itt.abs.gov.au/itt/r.jsp?RegionSummary®ion=106&dataset=ABS_REGIONAL_ASGS2016&geoconcept=ASGS_2016&measure=MEASURE&datasetASGS=ABS_REGIONAL_ASGS2016&datasetLGA=ABS_REGIONAL_LGA2018®ionLGA=LGA_2018®ionASGS=ASGS_2016.
24. The Bowen Basin represents an SA3 contained within the Mackay-Issac-Whitsunday SA4. The ABS defines a SA3 as a geographical region of between approximately 30,000 people and 130,000 people. The boundaries are defined to reflect a combination of widely recognised informal regions as well as existing administrative regions such as State Government Regions in rural areas. SA3 boundaries fit within whole Statistical Area Level 4 (SA4) boundaries.
25. Australian Bureau of Statistics, 2018. 'Mackay-Isaac-Whitsunday'. Access online: https://itt.abs.gov.au/itt/r.jsp?RegionSummary®ion=312&dataset=ABS_REGIONAL_ASGS2016&geoconcept=ASGS_2016&measure=MEASURE&datasetASGS=ABS_REGIONAL_ASGS2016&datasetLGA=ABS_REGIONAL_LGA2018®ionLGA=LGA_2018®ionASGS=ASGS_2016.
26. Australian Bureau of Statistics, 2018. 'Gladstone'. Accessed online: https://itt.abs.gov.au/itt/r.jsp?RegionSummary®ion=30805&dataset=ABS_REGIONAL_ASGS2016&geoconcept=ASGS_2016&measure=MEASURE&datasetASGS=ABS_REGIONAL_ASGS2016&datasetLGA=ABS_REGIONAL_LGA2018®ionLGA=LGA_2018®ionASGS=ASGS_2016.
27. The Guardian, 2018, 'Labor urges crackdown on companies outsourcing work to drive down wages', Accessed online: <https://www.theguardian.com/australia-news/2018/dec/12/labor-urges-crackdown-on-companies-outsourcing-work-to-drive-down-wages>.
28. Ivanova and Rolfe (2011).
29. Ivanova and Rolfe (2011); Rolfe et al. 2010, 2011.
30. Australian Bureau of Statistics, 2018. 'Hunter Valley excl. Newcastle'. Accessed online: https://itt.abs.gov.au/itt/r.jsp?RegionSummary®ion=106&dataset=ABS_REGIONAL_ASGS2016&geoconcept=ASGS_2016&measure=MEASURE&datasetASGS=ABS_REGIONAL_ASGS2016&datasetLGA=ABS_REGIONAL_LGA2018®ionLGA=LGA_2018®ionASGS=ASGS_2016.
31. Australian Bureau of Statistics, 2016. '016 Census Community Profiles: Hunter Valley exc Newcastle'. Accessed online: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/communityprofile/106?opendocument.
- Blackwell, D. and Dollery, B., 2014. The impact of mining expenditure on remote communities in Australia: The ranger uranium mine and the Tanami gold mine in the Northern Territory. *Australasian Journal of Regional Studies* 20(1), p.68.
- Fleming, D., Komarek, T., Partridge, M. and Measham, T., 2015. The booming socioeconomic impacts of shale: A review of findings and methods in the empirical literature.
- Fleming, D.A. and Measham, T.G., 2014. Local job multipliers of mining. *Resources Policy*, 41, pp.9-15.
- Fleming, D.A. and Measham, T.G., 2015. Local economic impacts of an unconventional energy boom: the coal seam gas industry in Australia. *Australian Journal of Agricultural and Resource Economics*, 59(1), pp.78-94.
- Gretton, P. 2013 *On input-output tables: uses and abuses*, Staff Research Note, Productivity Commission, Canberra
- Ivanova, G. and Rolfe, J., 2011. Using input-output analysis to estimate the impact of a coal industry expansion on regional and local economies. *Impact Assessment and Project Appraisal*, 29(4), pp.277-288.
- Marchand, J. and Weber, J., 2018. Local labor markets and natural resources: A synthesis of the literature. *Journal of Economic Surveys*, 32(2), pp.469-490.
- Moretti, E., 2010. Local multipliers. *American Economic Review*, 100(2), pp.373-77.
- Moritz, T., Ejdemo, T., Söderholm, P. and Wårell, L., 2017. The local employment impacts of mining: an econometric analysis of job multipliers in northern Sweden. *Mineral Economics*, 30(1), pp.53-65.
- Perry, M. and Rowe, J.E., 2015. Fly-in, fly-out, drive-in, drive-out: The Australian mining boom and its impacts on the local economy. *Local Economy*, 30(1), pp.139-148.
- Rolfe, J., Gregg, D., Ivanova, G., Lawrence, R. and Rynne, D., 2011. The economic contribution of the resources sector by regional areas in Queensland. *Economic Analysis & Policy*, 41(1).
- Rolfe, J., Lawrence, R., Gregg, D., Moorish, F. and Ivanova, G., 2010. Mineral and Energy Resources Sector in Queensland Economic impact Study, EIDOS Institute Ltd. .
- Weinstein, A.L., Partridge, M.D. and Tsvetkova, A., 2018. Follow the money: Aggregate, sectoral and spatial effects of an energy boom on local earnings. *Resources Policy*, 55, pp.196-209.





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BY DR. STEPHEN WHELAN

MAY 2022



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Acknowledgment of country

This report was written on the lands of the Darug and the Eora Nations. The McKell Institute acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country throughout Australia and their continuing connection to both their land and seas.

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Foreword

As this report is finalised, government forecasts show export earnings from coal surpassing \$100 billion a year for the first time.

The industry is booming and in many areas mine operators are struggling to find enough workers to dig coal fast enough to capitalise on the phenomenal prices. It simply cannot be argued that coal companies can't afford to provide well-paid secure, permanent jobs to coal mineworkers.

It's true that resource prices are volatile and current sky-high prices won't last. The only certainty ahead is that there will be change in the global economy affecting our coal exports. But the fact that the current super profits won't last forever is even more reason why coal companies must be held to account for providing good, secure jobs now.

For more than a decade, coal companies have been at the forefront of outsourcing permanent jobs to labour hire companies. Despite full-time hours and rosters extending up to a year in advance, labour hire mining jobs are often casual and always on rates minimally above the Award. This cost-saving on wages underpins the business model.

Outsourcing jobs to labour hire companies is a way for mining companies to get around Enterprise Agreements that have been negotiated by unionised workforces over decades, containing wide-ranging conditions and pay rates in the vicinity of 30 to 40% above the Award. It's also a way to avoid paying workers redundancy entitlements when jobs are no longer required.

Coal miners speak extensively of the toxic divisions in the workforce, as permanent crew members are replaced over time by labour hire workers doing the same work with the same skills but being paid less and treated worse.

We were pleased to work with the McKell Institute to update this report in the context of the upcoming Federal Election, identifying the cost of wage-cutting through labour hire to communities in those electorates with the highest proportion of coal mining jobs.

The loss in economic activity is substantial across mining communities. In the Federal electorates of Hunter and Paterson, that loss ranges between \$130 and \$236 million annually; in the electorate of Flynn between \$218 and \$358 million; and, in the electorates of Capricornia and Dawson between \$223 and \$396 million. Across those communities, the loss is close to \$1 billion annually.

While these electorates have the highest proportion of coal mineworkers in Australia, there are other coal regions impacted by this employment model including NSW's Central West and Illawarra regions pushing the cost to communities even higher.

There are those that seek to downplay the importance of coal mining jobs in our economy. But in our coal regions, mining jobs are the backbone of the local economy with high wages and job opportunities driving economic activity. And as this report illustrates, these communities are being ripped off.

Our Union has worked tirelessly through the courts to expose and end the casual labour hire rort undermining wages and conditions in our industry. However, when we had big court wins that would have delivered some justice to labour hire workers, the Morrison Government simply overturned them – bowing to the intense lobbying of big mining and labour hire companies.

It's clear to us that we need a political solution to the wage-cutting rort hurting mining communities. That's why this Federal Election, our union has been campaigning heavily for 'Same Job Same Pay' laws which would mean that labour hire workers doing the same work as direct employees can't be paid less than the terms of a site Enterprise Agreement.

Same Job Same Pay laws proposed by Federal Labor would support the sensible position that there is a role for labour hire to meet genuine peaks and troughs in production; but labour hire should not be used to undercut Enterprise Bargaining, drive down pay and rob regions of the economic activity they deserve as host communities.

Earlier this year, we lost a stalwart of our union – coal miner and activist Fred Moore who died aged 99. After a lifetime of experience working and organising workers in the coal mines, Fred described multinational mining companies like this:

"They're predators, they roam the earth to take all the mineral resources and sympathetic governments give it to them – in the process of that they give them the people's lives as well. They'll try and take every bit of conditions that the miners have won and the Australian people only get the holes in the ground."

Our coal workers and communities deserve so much more than the holes in the ground. They deserve prosperity, secure jobs and their fair share of the rivers of gold the industry generates. They also deserve political representatives that will stand up to the mining companies on their behalf and not just exploit them for photo opportunities and culture wars.

There is a solution to the billion-dollar shortfall in economic activity in our coal communities. It's 'Same Job Same Pay' and I urge everyone with an interest in our great coal regions to vote for it this election.

Tony Maher
General President
Mining and Energy Union

Executive Summary

In 2020, The McKell Institute published *Wage Cutting Strategies in the Mining Sector*, a report which calculated the economic impacts of labour-hire and casualisation in Australia's mining sector. That report identified that, routinely, major mining sector employers were utilising labour-hire firms to minimise wage costs. The 2020 report noted that, while it was the individual workers who suffered most directly from such cost cutting, the communities long-reliant on a vibrant mining sector were impacted, too.

Two years on this report examines the most recently available data to update McKell's 2020 report.

Part 1 of the report outlines the current state of Australia's mining industry, and the impact that the COVID-19 pandemic has had this key sector. In recent years, the mining sector has seen record-breaking profits, an increase in exploration work, and increasing export volumes of ores. Further, while most industries were suffering due to the pandemics and unpredictable lockdown measures, over the course of 2019-2020, the mining industry accounted for over 10 per cent of the GDP. And during that same time, resources and energy exports reached \$221.2 billion in value. This report notes that, while this recent success is certainly welcome, it also creates an obligation upon the sector to ensure those working on its frontlines are adequately remunerated.

Part 2 of this report then details how wage costs are minimised in the mining sector. It notes that excessive use of contractors and labour-hire firms impacts the wages of those in the mining industry, in addition to the communities that rely on those mines.

Part 3 of the report reiterates the findings from McKell's 2020 report. In that report, it was noted that the labour cost reductions associated with workforce casualisation and the increased use of labour-hire firms would cost neighbouring communities between \$485 million and \$851 million in economic activity.

Finally, in Part 4, the report tables the ongoing costs of wage cutting in the mining sector activity located in five Federal Electorates heavily dependent on mining income: Flynn, Capricornia and Dawson in Queensland, and Hunter and Paterson in New South Wales. The estimates in this report indicate that the use of labour hire firms cost neighbouring communities between \$571 million and \$989 million in economic activity. Those estimates are likely to understate the true impact of the strategies employed by mining firms given that large numbers of casual mineworkers are classified by their employers and the Australian Bureau of Statistics as not being in the mining industry.

Key Findings

Finding 1: Wage cutting strategies in the mining sector within the **Federal Electorates of Hunter and Paterson, NSW**, cost the community between \$130 and \$235.85 million in localised economic activity per year.

Finding 2: Wage cutting strategies in the mining sector within the **Federal Electorate of Flynn, Queensland**, cost the community between \$218 and \$357.5 million in localised economic activity per year.

Finding 3: Wage cutting strategies in the mining sector within the **Federal Electorates of Capricornia and Dawson, Queensland**, cost the community between \$223.1 and \$395.9 million in localised economic activity per year.

Finding 4: Across all five electorates, up to \$989million per year is lost in local economic activity due to wage cutting strategies utilised by the mining sector. This represents a significant economic loss to regional communities across Australia.

Part 1: Australia's mining sector during the pandemic

Since the discovery of coal in New South Wales (NSW) in the late 18th century, mining has become a corner stone of the Australian economy. Using data for the November 2021 quarter from the ABS, today, the mining industry directly employs 271,300 people¹, which accounts for 2.1 per cent of the total Australian workforce. Over the past five years, employment in the industry has increased by 22.5 per cent², with median weekly earnings sitting around \$2,656.30 per week at the end of 2021.³

Employment in the mining industry peaked in August 2012, during the mining boom, with the subsequent slowdown in demand negatively impacting employment after the boom ended.⁴ However, work in the industry has remained strong and in February 2020, the level of mining employment was 186.4 per cent above the level recorded in February 2000.⁵ Moreover, the share of total employment in the mining industry almost doubled from one per cent in February 2000, to 1.9 per cent in February 2020.⁶

Even through the uncertain times that the pandemic has wrought, mining has remained one of Australia's largest sectors, a monument to its stability and profitability. Australia's first case of COVID was identified on January 25, 2020, and on January 29 mining was classified as an essential industry. Throughout 2019-2020, the mining industry accounted for over 10 per cent of the GDP.⁷ Over the same period, resources and energy exports reached an astounding \$221.2 billion in value.⁸

Additionally, expansive exploration work that began prior to the pandemic uncovered several new mineral deposits, for example, in the Beta Hunt gold mine in Western Australia in 2018, which amassed approximately \$15 million in value in just four days.⁹

The industry's robustness and promise of sustained future profitability has led to mining contributing 0.2 per cent to Australia's economic growth from June 2021 to September 2021 despite an overall contraction in the size of the economy.¹⁰ The mining sector was one of only two sectors to record positive contributions to growth in GDP during this time, the other being the Financial and Insurance Services sector.¹¹

With the pandemic impacting global supply chains and exports around the world, Australia has emerged as the world's largest iron exporter over the past several years. This is evidenced by the fact that exports of metalliferous ores reached a record \$20.5 billion in June 2021, making up almost half of Australia's total export that month alone.¹²

Despite recent figures showing decline in the value of metalliferous ores driven by a fall in demand for iron ore from China, export of metal ores and minerals rose by 12 per cent (\$1,356 million) from November 2021 to December 2021 (seasonally adjusted).¹³ The most recent Resources and Energy Quarterly (March 2022) published by the Department of Industry,

Science, Energy and Resources states that they expect Australia's resource and energy export earnings are expected to reach a record \$425 billion in 2021-22.¹⁴ More specifically, after falling more than 60 per cent through the second half of 2022, iron prices have rebounded in early 2022. Further, Australian export volumes are expected to grow steadily from 897 million tonnes in 2021-22, to 1044 million tonnes by 2026-27.¹⁵

The Federal Government's 2021-2022 Mid-Year Economic and Fiscal Outlook report states that mining investment is expected to grow by four percent in 2021-2022, and by eight per cent in 2022-23.¹⁶ These figures and conditions suggest that Australia's mining industry is experiencing similar circumstances that lead to the boom of 2010, with record-breaking exploration spending and capital raising.¹⁷ Total exploration hit a record \$974 million in the fourth quarter of 2021, while capital raising also broke records with an increase of more than 70 percent.¹⁸

Three of the ASX top 10 companies are miners, Rio Tinto, Fortescue Metals Group, and BHP.¹⁹ With BHP delisting from the London Stock Exchange in early 2022 to have its shares exclusively listed in Australia, the mining giant is set to tilt Australia's stock market toward mining. BHP is currently the biggest company on the ASX, with Rio Tinto the third biggest, and Fortescue being the tenth biggest stock.²⁰

Notwithstanding the profitability and growth of the mining sector/firms over this period, there continues to be strategies adopted by mining companies that erode the pay and conditions of those who form the backbone of the industry and indirectly impact on the local communities that they are part of. One way to address this would be to standardise the rate of pay for similar or like jobs, regardless of the hiring mechanism used to employ the worker.

Part 2: The effect of labour-hire practices on miners' wages

The term 'labour-hire' began to come to prominence in the 1990s and early 2000s, although the practice and use of agencies and companies specialising in the supply and provision of workers to client organisations has been around since the 1950s.²¹

The current form of labour hire in Australia can be traced to several main forerunners: the traditional agency employment industry, the recruitment industry, and the 'pure' labour hire industry. In the late 1980s, specialist firms began to emerge and offer contract labour as a replacement for, or supplement to, existing employees in several highly unionised and dispute-prone industries such as construction.²²

Labour hire can be defined as an arrangement whereby a labour hire company or agency provides individual workers to a client or host with the labour hire company being ultimately responsible for the worker's remuneration.²³ Labour hire may be problematic for individual workers and labour markets more generally by circumventing negotiated agreements that define wages and working conditions.

For workers, there are three main issues. Firstly, labour hire workers tend to be engaged as either casual employees or dependent contractors. With these kinds of employment arrangements, conditions tend to be characterised by insecurity, precariousness, the absence of career paths, low or below award pay, and substandard conditions. Secondly, labour hire tends to be associated with limited training and skills development, where labour hire workers receive less on the job training and much less portable training skills and development than permanent employees. Thirdly, labour hire is frequently associated with limited industrial protection afforded by awards, enterprise bargaining arrangements, and union coverage.²⁴

Over time, successive Australian Governments have drawn on the rhetoric and discourse of choice, flexibility, and freedom to enable a casualised and contingent workforce. However, the construction of such 'flexible/independent' workforces fosters and enables economic and social inequality and employment insecurity and precarity.²⁵ The reality of this 'flexibility', however, remains firmly and considerably grounded in employer-related flexibility.

Policies associated with deregulation and privatisation, may be accompanied by an increase in insecure labour. For example, there has been a sharp rise in casual, on-call, temporary, and contract employment in Western economies, often associated with the creation of a more flexible workforce.²⁶ In this context, economic and labour market restructuring has resulted in the proliferation of insecure work and working conditions, shifting economic risks associated with labour markets from states and corporations, onto individual workers.²⁷

While labour hire arrangements and workforce casualisation has been on the rise recently, it has been particularly prevalent throughout the COVID-19 outbreak. Short-termism, flexibility, and fluidity have been normalised within current employment market realities.²⁸ And the uncertainty that has thus far characterised and underpinned the pandemic has aggravated workforce passivity and driven down wages and entitlements. One obvious way that COVID has exacerbated the precarity of work has been in the impact of widespread restrictions and lockdowns on the workforce, where employers have found a quick and easy solution to financial woes by dismissing insecurely employed workers across the economy.

Yet even before pandemic, casualisation was pervasive, with one in four Australians being employed in casual work. Compared to other OECD countries, Australia's rate of casualisation is one of the highest.²⁹ The increase in the proportion of casual employees is mirrored by the steady decline in the proportion of full-time equivalent employees to the total employment population from 84 per cent in 1979 to 68 percent in 2018.³⁰

This casualisation is also related to what is colloquially referred to as the 'gig economy'. The gig economy refers to the technology-driven, digitally enabled transformation of work organisation and is related to broader labour market trends including a rise in precarity, the decoupling of paid work from employment, and the increasing fragmentation of tasks and responsibilities within both supply chains and jobs in general.³¹

The growth of the gig economy, characterised by a deepening reliance on online platforms and isolated independent workers, poses a fundamental challenge to traditional models for regulating work and setting minimum standards. In some cases, evading traditional regulations (such as employment benefits and award payments) appears to have been a key rationale for establishing these jobs in the form that they take.³²

In the context of mining, casualisation has meant that many workers engaging in what would traditionally be considered as 'mining' are classified otherwise. In particular, major labour hire providers do not have their casualised employees counted as being in the mining industry. Instead these firms are classified in the reports of the Australian Bureau of Statistics as being in the "Administrative and Support Services" industry. The consequence of this is that many thousands of casual employees are effectively removed from from the mining industry.³³

Part 3: Findings of McKell's Previous Report

In March 2020, the McKell Institute released *Wage-cutting Strategies in the Mining Industry: the cost to workers and communities*. This report analysed the endemic issues of casualisation and related labour hire strategies within the mining industry, and discussed the overall social and economic impact and importance of the sector to Australia's regional communities.

Mining plays a major role in regional communities. The employment it offers – historically good paying, ongoing jobs – has long provided a beneficial spill-over effect into neighbouring communities. This spill-over is both direct and indirect and includes boosts to local economies and infrastructure as well as positive social outcomes. Fleming and Measham (2014) found that for every job created in mining, 1.4 additional jobs are created in the local region where the mining occurs.

Ivanana and Rolfe (2011) found that at a regional level, 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.³⁴ Further, every additional dollar of income that results from mining activity has a direct and indirect impact on additional income of 0.43 to 0.45.³⁵

Many miners are employed as fly-in-fly-out (FIFO) or drive-in-drive-out (DIDO) workers, owing to the nature of the work and the long shifts that are par for the course in the industry (shifts that often exceed 12 hours).³⁶ However, it was found that there has been a marked change in the nature and earnings for some individuals, which subsequently reflects a shift from full time direct employees being engaged by mining companies directly to the hiring of workers who are employed indirectly through labour hire firms, usually as casuals.³⁷ This casualisation of the mining workforce has significant detrimental impacts on wages and flow-on benefits to mining communities.

McKell's 2020 study found cost-cutting hurt communities

In *Wage Cutting in the Mining Sector*, McKell chose three SA4 level regions (as defined by the Australian Bureau of Statistics) as case studies, with the SA4s representing the largest sub-State regions in the ABS geographical areas classification and designed to reflect the nature of labour markets within each state.

In NSW, the Hunter Valley (excluding Newcastle) was examined, as it contains largely thermal and semi-soft coking coal. In 2016, mining employed 9.2 per cent of employed individuals, which was roughly equivalent to 8,947 workers. Further, mining was the third largest industry of employment.

In 2016 in the Mackay-Isaac-Whitsunday SA4 region, mining employed 14.4 per cent of the overall workforce, a proportion 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. In 2016 the number of people working in the mining industry at the SA4 level was equal to 8,676 workers, a decline of approximately 25 per cent since 2013. That said, by employment, mining was still the largest industry of employment.

Finally, in Central QLD, mining employed 8.7 per cent of employed individuals, again, a proportion that has remained 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. Much like the Hunter region, mining was the third largest industry of employment in the region.

With so many individuals reliant on the industry in these SA4 regions, not only do wage-cutting strategies undermine the quality of life for those in the sector, the negative flow-on impacts also extend to the entire local communities that support the mines. The report found that within these three major mining regions across NSW and QLD, every year, the labour cost reductions associated with workforce casualisation and the increased use of labour-hire firms would cost the communities between \$485 million and \$851 million in economic activity.³⁸

Part 4: Updated numbers and continued impacts on regional communities

Updated figures for the impact on the economic activity of the wage cutting strategies adopted by mining companies are presented in Tables 1-3. The assumption underlying each of the calculations are made explicit in the accompanying footnotes to the the Tables. The estimates reported are based on the ABS SA4 statistical regions and the Federal electorates that those SA4s traverse are identified.

In 2021, the direct and indirect economic impact across regions is calculated to range between \$571 and \$989 million dollars.

It is important to stress that the total impacts reported in Table 1-3 are conservative and the true impact of the strategies adopted by mining companies is likely to be higher. The economic impacts reported are based on an assumption regarding casualisation that leaves some workers engaged in mining activity being identified by the ABS as being incorrectly identified. There is evidence that labour-hire providers classify workers as being in the “admin and support services” industry, so these workers don’t appear in mining at all. This has the implication that the total number of workers reported to be employed in mining by the ABS is actually an underestimate of the true count of mining workers. In turn, this implies that the estimate of casualisation would be a higher number too, and therefore the financial impact larger.

TABLE 1: The Hunter Valley excluding Newcastle (federal electorates of Hunter and Paterson)

Hunter Valley (exc Newcastle, SA4)		
<i>No. resident mining workers (2021)</i>	8,569	
	Mt Arthur Coal Mine	Bulga Open Cut
Employee wage per year	146,694 (a)	151,547 (b)
Contractor remuneration per year	110,729 (c)	115,293 (d)
(a) Based on wage of Mt Arthur Coal Mine employee (mineworker), EA Mt Arthur Coal Enterprise Agreement 2019 - AG2019/5198		
(b) Based on wage of Bulga Open Cut employee, Bulga Open Cut Enterprise Agreement 2021 - AG2021/6320		
(c) Based on Level 3 mineworker employed by Skilled Workforce Solutions (NSW) Pty Ltd, Skilled Workforce Solutions (NSW) Pty Ltd Enterprise Agreement 2019 - AG2019/517		
(d) Based on wage of mineworker level 3 (trades), employed by TESA Group Pty Ltd, TESA Group – Enterprise Agreement 2018 AG2018/36		
Low Estimate, assumes casual employees take no unpaid leave		
<i>Rate of Casualisation – two cases</i>	30%	40%
<i>Reduction total employee inc. per yr (\$m)</i>	92.83	123.77
<i>Direct & indirect impact per year (\$m)</i>	129.96	173.28
High Estimate - assumes casual employees take unpaid leave to match paid annual leave of permanent employees		
<i>Rate of Casualisation – two cases</i>	30%	40%
<i>Reduction total employee inc. per yr (\$m)</i>	126.35	168.46
<i>Direct & indirect impact per year (\$m)</i>	176.89	235.85

TABLE 2: Mackay-Isaac-Whitsunday (federal electorates of Dawson and Capricornia)

Mackay-Isaac-Whitsunday (SA4)		
<i>No. resident mining workers (2021)</i>	12,736	
	Goonyella Riverside	Carborough Downs
Employee wage per year	158,140 (a)	164,432 (b)
Contractor remuneration per year	119,574 (c)	119,574 (d)
(a) based on production employee employed at Goonyella Riverside, EA BMA Enterprise Agreement 2018 - AG2018/1385		
(b) based on experienced underground mineworker and tradesperson employed at Carborough Downs Coal mine, EA Carborough Downs Coal Mine Enterprise Agreement 2020 - AG2020/3143		
(c) based on CMW Mineworker 3 employed under WorkPac Coal Mining Agreement 2019 - AG2019/1335		
(d) based on CMW Mineworker 3 employed under WorkPac Coal Mining Agreement 2019 - AG2019/1335		
Low Estimate, assumes casual employees take no unpaid leave		
<i>Rate of Casualisation – two cases</i>	30%	40%
<i>Reduction total employee inc. per yr (\$m)</i>	159.37	212.50
<i>Direct & indirect impact per year (\$m)</i>	223.12	297.50
High Estimate - assumes casual employees take unpaid leave to match paid annual leave of permanent employees		
<i>Rate of Casualisation – two cases</i>	30%	40%
<i>Reduction total employee inc. per yr (\$m)</i>	212.09	282.79
<i>Direct & indirect impact per year (\$m)</i>	296.92	395.90

TABLE 3: Central Queensland (federal electorate of Flynn)

Central Queensland (SA4)		
<i>No. resident mining workers (2021)</i>	9,803	
	Dawson mine	Blackwater mine
Employee wage per year	159,500 (a)	157,492 (b)
Contractor remuneration per year	104,395 (c)	106,732 (d)
(a) based on wage of level 2 employee employed under Dawson Mines Collective Enterprise Agreement 2021 - AG2021/6521		
(b) based on Blackwater employee employed under BMA Enterprise Agreement 2018 - AG2018/1385		
(c) based on Mineworker level 3 employed under Corestaff QLD Black Coal Mining Enterprise Agreement 2020 - AG2020/673		
(d) based on Mineworker level 3 employed under Chandler MacLeod Queensland Black Coal Mining Agreement 2020		
Low Estimate, assumes casual employees take no unpaid leave		
<i>Rate of Casualisation – two cases</i>	30%	40%
<i>Reduction total employee inc. per yr (\$m)</i>	155.67	207.56
<i>Direct & indirect impact per year (\$m)</i>	217.94	290.58
High Estimate - assumes casual employees take unpaid leave to match paid annual leave of permanent employees		
<i>Rate of Casualisation – two cases</i>	30%	40%
<i>Reduction total employee inc. per yr (\$m)</i>	191.49	255.32
<i>Direct & indirect impact per year (\$m)</i>	268.09	357.45

- (i) Total number of workers based on ABS Labour Force Survey, November 2021. The number of mining workers is identified by excluding- managers, professionals, clerical and administrative workers and sales workers from the total number of workers employed in mining. The proportion of such workers is based on data from the 2016 Census.³⁹. Table 12 in the Working Population Profile.
- (ii) Low estimate is based on the discrepancy in salary/ wages received by employees and non-employees of the mining company. Calculations are based on the mean value of wages reported by mine employees and contractors at each mine site for a given SA4 region at each of the two mines listed across SA4 regions Where available the salary of contractors are based on the “flat rate casual for 52 weeks” figure provided by the MEU.
- (iii) High estimate is based on the discrepancy in salary/ wages received by employees and non-employees of the mining company assuming that contractors take six weeks unpaid leave annually. Calculations are based on the mean value of wages reported by mine employees and contractors at each mine site for a given SA4 region at each of the two mines listed across SA4 regions. Where available the salary of contractors are based on the “flat rate casual for 52 weeks” figure provided by the MEU.
- (iv) Rates of casualisation are set at 30% and 40% as per the data provided by the MEU. See endnote 33
- (v) The reduction in total employee income represents the direct impact of casualisation on worker earnings in the local region measures as \$m per annum.
- (vi) 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 (I-O) 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.
- (vii) The multiplier effects are derived from I-O models such as in Rolfe et al. (2010). 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 input-output analysis, it is not likely to be as pertinent a consideration in the current analysis if 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.

Endnotes

- ¹ Australian Bureau of Statistics (2022), 'Labour Force, Australia, Detailed – Table 4, Mining seasonally adjusted'. Accessed online: <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/dec-2021#industry-occupation-and-sector>
- ² Labour Market Insights (2021), 'Mining'. Accessed online: <https://labourmarketinsights.gov.au/industries/industry-details?industryCode=B>
- ³ Australian Bureau of Statistics (2021), 'Average Weekly Earnings, Australia'. *ABS*. Accessed online: <https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/average-weekly-earnings-australia/nov-2021>
- ⁴ National Skills Commission (2021), 'The state of Australia's skills 2021'. Accessed online: <https://www.nationalskillscommission.gov.au/sites/default/files/2021-12/2021%20State%20of%20Australia%27s%20Skills.pdf>
- ⁵ National Skills Commission (2021), 'The state of Australia's skills 2021'. Accessed online: <https://www.nationalskillscommission.gov.au/sites/default/files/2021-12/2021%20State%20of%20Australia%27s%20Skills.pdf>
- ⁶ National Skills Commission (2021), 'The state of Australia's skills 2021'. Accessed online: <https://www.nationalskillscommission.gov.au/sites/default/files/2021-12/2021%20State%20of%20Australia%27s%20Skills.pdf>
- ⁷ Casey, JP (2021), 'In numbers: how mining came to be Australia's most profitable sector', *Mining Technology*. Accessed online: <https://www.mining-technology.com/features/in-numbers-how-mining-came-to-be-australias-most-profitable-sector/>
- ⁸ Casey, JP (2021), 'In numbers: how mining came to be Australia's most profitable sector', *Mining Technology*. Accessed online: <https://www.mining-technology.com/features/in-numbers-how-mining-came-to-be-australias-most-profitable-sector/>
- ⁹ Lucas, J. (2018), 'Gold 'mother lode' unearthed underground in Kambalda delivers \$15 million in just four days'. *ABC*. Accessed online: <https://www.abc.net.au/news/2018-09-10/rich-gold-seam-half-a-kilometre-deep-in-kambalda/10219576>
- ¹⁰ Australian Bureau of Statistics (2021), 'Australian National Accounts: National Income, Expenditure and Product'. *ABS*. Accessed online: <https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/sep-2021>
- ¹¹ Australian Bureau of Statistics (2021), 'Australian National Accounts: National Income, Expenditure and Product'. *ABS*. Accessed online: <https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/sep-2021>
- ¹² Australian Bureau of Statistics (2021), 'International Merchandise Trade, Preliminary, Australia'. *ABS*. Accessed online: <https://www.abs.gov.au/statistics/economy/international-trade/international-merchandise-trade-preliminary-australia/jun-2021>
- ¹³ Australian Bureau of Statistics (2022), 'International Trade in Goods and Services, Australia'. *ABS*. Accessed online: <https://www.abs.gov.au/statistics/economy/international-trade/international-trade-goods-and-services-australia/dec-2021#goods-and-services-credits-exports-seasonally-adjusted>
- ¹⁴ Thurtell, D., et al. (2022), 'Resources and Energy Quarterly', *Department of Industry, Science, Energy and Resources*. Accessed online: <https://publications.industry.gov.au/publications/resourcesandenergyquarterlymarch2022/documents/Resources-and-Energy-Quarterly-March-2022.pdf>
- ¹⁵ Thurtell, D., et al. (2022), 'Resources and Energy Quarterly', *Department of Industry, Science, Energy and Resources*. Accessed online: <https://publications.industry.gov.au/publications/resourcesandenergyquarterlymarch2022/documents/Resources-and-Energy-Quarterly-March-2022.pdf>
- ¹⁶ Federal Government (2021), 'Mid-Year Economic and Fiscal Outlook 2021-22'. *The Commonwealth of Australia*. Accessed online: <https://budget.gov.au/2021-22/content/myefo/download/myefo-2021-22.pdf>
- ¹⁷ Stanley, M. (2022), 'Mining boom could be on the way for Australia, with record-breaking exploration spend', *ABC*. Accessed online: <https://www.abc.net.au/news/rural/2022-02-14/pilbara-mining-boom-conditions-return-for-2022/100824564>
- ¹⁸ Stanley, M. (2022), 'Mining boom could be on the way for Australia, with record-breaking exploration spend', *ABC*. Accessed online: <https://www.abc.net.au/news/rural/2022-02-14/pilbara-mining-boom-conditions-return-for-2022/100824564>
- ¹⁹ Ziffer, D. (2022), 'BHP, the 'Big Australian', is about to get bigger and more Australian'. *ABC*. Accessed online: <https://www.abc.net.au/news/2022-01-13/bhp-the-big-australian-to-get-bigger-and-more-australian/100751314>

- ²⁰ Ziffer, D. (2022), 'BHP, the 'Big Australian', is about to get bigger and more Australian'. *ABC*. Accessed online: <https://www.abc.net.au/news/2022-01-13/bhp-the-big-australian-to-get-bigger-and-more-australian/100751314>
- ²¹ Hall, R. (2002), 'Labour hire in Australia: motivation, dynamics and prospects', *Australian Centre for Industrial Relations Research and Training*. Accessed online: <https://ses.library.usyd.edu.au/bitstream/handle/2123/13407/WP76.pdf?sequence=1>
- ²² Hall, R. (2002), 'Labour hire in Australia: motivation, dynamics and prospects', *Australian Centre for Industrial Relations Research and Training*. Accessed online: <https://ses.library.usyd.edu.au/bitstream/handle/2123/13407/WP76.pdf?sequence=1>
- ²³ ACTU (2000), 'Submission to the Labour Hire Task Force, NSW Department of Industrial Relations', *Australian Council for Trade Unions*. Accessed online: <https://www.actu.org.au/media/299458/index.rtf>
- ²⁴ Hall, R. (2002), 'Labour hire in Australia: motivation, dynamics and prospects', *Australian Centre for Industrial Relations Research and Training*. Accessed online: <https://ses.library.usyd.edu.au/bitstream/handle/2123/13407/WP76.pdf?sequence=1>
- ²⁵ O'Keeffe, P., & Papadopoulos, A. (2021), 'The Australian Government's business-friendly employment response to COVID-19: A critical discourse analysis', *The Economic and Labour Relations Review*, 32(3), 453-471. Accessed online: <https://journals.sagepub.com/doi/pdf/10.1177/1035304621997891>
- ²⁶ Campbell, I. (2018), 'On-call and related forms of casual work in New Zealand and Australia', *International Labour Office, Inclusive Labour Markets, Labour Relations and Working Conditions Branch*. Accessed online: <http://www.labourlawresearch.net/sites/default/files/papers/IainILO.pdf>
- ²⁷ O'Keeffe, P., Johnson, B., & Daley, K., (2021), 'Continuing the precedent: Financially disadvantaging young people in "unprecedented" COVID-19 times', *Australian Journal of Social Issues*. Accessed online: <https://onlinelibrary.wiley.com/doi/pdf/10.1002/ajs4.152>
- ²⁸ Walsh, L., & Gleeson, J., (2021), 'Theorising and preparing students for precarity: how can leaders and educators better prepare students to enter an increasingly insecure workforce?', *Journal of Educational Administration and History*, 1-13. Accessed online: www.tandfonline.com/doi/pdf/10.1080/00220620.2020.1868981
- ²⁹ Walsh, L., & Gleeson, J., (2021), 'Theorising and preparing students for precarity: how can leaders and educators better prepare students to enter an increasingly insecure workforce?', *Journal of Educational Administration and History*, 1-13. Accessed online: www.tandfonline.com/doi/pdf/10.1080/00220620.2020.1868981 ; Organization for Economic Co-operation and Development (OECD), (2019), *The Future of Work: How Does AUSTRALIA Compare? OECD Employment Outlook 2019*. Paris: OECD.
- ³⁰ Dawson, N. J., (2021), *Changing Labour Market Dynamics in Australia: Skill Shortages, Job Transitions, and Artificial Intelligence Technology Adoption* (Doctoral dissertation), *University of Technology Sydney*. Accessed online: <https://opus.lib.uts.edu.au/bitstream/10453/150972/2/02whole.pdf>
- ³¹ Smith, B., Goods, C., Barratt, T., & Veen, A. (2021), 'Consumer 'app-etite' for workers' rights in the Australian 'gig' economy', *Journal of choice modelling*, 38, 100254. Accessed online: <https://pdf.sciencedirectassets.com/286731/1-s2.0-S175534520X00054/1-s2.0-S175534520300518/main.pdf>
- ³² Smith, B., Goods, C., Barratt, T., & Veen, A. (2021), 'Consumer 'app-etite' for workers' rights in the Australian 'gig' economy', *Journal of choice modelling*, 38, 100254. Accessed online: <https://pdf.sciencedirectassets.com/286731/1-s2.0-S175534520X00054/1-s2.0-S175534520300518/main.pdf>
- ³³ Mining and Energy Union (2021), "Why is it so hard to get true data on casuals in mining?" The particular examples given are Ready Workforce (a Division of Chandler McLeod) Pty Ltd, with over 20,000 employees, almost all casual, and Workpac Pty Ltd, with 10,000 "field team members", of whom over 80% are casual. Data extracted from 2020 reports to the Workplace Gender Equality Agency.
- ³⁴ Whelan, S. (2020), 'Wage-cutting Strategies in the Mining Industry: the cost to workers and communities', *The McKell Institute*. Accessed online: <https://mckellinstitute.org.au/wp-content/uploads/McKell-Wage-Cutting-in-the-Mining-Industry.pdf>
- ³⁵ Whelan, S. (2020), 'Wage-cutting Strategies in the Mining Industry: the cost to workers and communities', *The McKell Institute*. Accessed online: <https://mckellinstitute.org.au/wp-content/uploads/McKell-Wage-Cutting-in-the-Mining-Industry.pdf>
- ³⁶ Whelan, S. (2020), 'Wage-cutting Strategies in the Mining Industry: the cost to workers and communities', *The McKell Institute*. Accessed online: <https://mckellinstitute.org.au/wp-content/uploads/McKell-Wage-Cutting-in-the-Mining-Industry.pdf>
- ³⁷ Whelan, S. (2020), 'Wage-cutting Strategies in the Mining Industry: the cost to workers and communities', *The McKell Institute*. Accessed online: <https://mckellinstitute.org.au/wp-content/uploads/McKell-Wage-Cutting-in-the-Mining-Industry.pdf>

³⁸ Whelan, S. (2020), 'Wage-cutting Strategies in the Mining Industry: the cost to workers and communities', *The Mckell Institute*. Accessed online: <https://mckellinstitute.org.au/wp-content/uploads/McKell-Wage-Cutting-in-the-Mining-Industry.pdf>

³⁹ https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/communityprofile/106?opendocument).