SLACK IN THE SYSTEM: THE ECONOMIC COST OF UNDER-EMPLOYMENT

A PER CAPITA DISCUSSION PAPER

TIME SHEET

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MATTHEW LLOYD-CAPE
MAY 2020
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About Per Capita

Per Capita is an independent progressive think tank, dedicated to fighting inequality in Australia. We work to build a new vision for Australia based on fairness, shared prosperity, community and social justice.

Our research is rigorous, evidence-based and long-term in its outlook. We consider the national challenges of the next decade rather than the next election cycle. We ask original questions and offer fresh solutions, drawing on new thinking in social science, economics and public policy.

Our audience is the interested public, not just experts and policy makers. We engage all Australians who want to see rigorous thinking and evidence-based analysis applied to the issues facing our country’s future.

About the author

Matthew Lloyd-Cape is a Research Economist in Per Capita’s Progressive Economics program. He has more than a decade’s experience working on social and economic issues in international NGOs, trade unions and academia, with a focus on livelihoods and employment. His most recent role was as International Officer with the Australian Council of Trade Unions.

Matthew is an innovative researcher, with a passion for, and proven knowledge of, research on micro and macro social and economic issues.
Introduction


The month on month figures are sobering: the youth unemployment rate jumped to 13.8%, the underutilisation rate increased by 5.9 points to 19.9%, and the number of Australians abandoning the labour market rose an unprecedented 2.4% - that is almost half a million people who are not only out of work, but have stopped looking for a job altogether.

Given that we are only weeks into the biggest economic shock Australia has ever experienced, such carnage in the labour market is unsurprising, and certainly not confined to our shores. The April data, however, provides only part of the picture: for example, it remains to be seen how many furloughed workers, kept attached to the labour force by the JobKeeper package and thus excluded from unemployment figures, will return to the jobs they had before the pandemic.

Perhaps more importantly, a snapshot of the sudden, inevitable collapse in hours worked across our economy during a shut-down of unprecedented scale reveals little about the structural weaknesses in our labour market into which the COVID-19 shockwave has crashed. Yet these weaknesses, decades in the making and rapidly intensified in the years since the Global Financial Crisis (GFC), are significant fault-lines in our economy upon which it may prove impossible to rebuild.

Well before this pandemic hit, Australia’s unemployment rate was significantly higher than those of comparable nations such as the UK, the USA, Germany, and New Zealand, while our underemployment rate – the proportion of those workers who would like to work more hours than they are able to find – was amongst the highest in the OECD.¹

The truth is, Australia has been suffering a crisis in underemployment, particularly youth underemployment, for at least a decade. The long-term drift toward underemployment is not unique to Australia; indeed, it is a problem in many developed economies. However, following both the 1991 recession and the GFC, underemployment levels in Australia increased and have been allowed to persist, leading to lasting effects on the economy and on individual workers.

Such lasting effects are known as ‘economic scarring’: persistent and pernicious damage to wellbeing, long after the event itself has subsided. Recessions typically cause deep scarring: for example, the incomes of low-income earners in the USA fell by 20% during the 1980-82 recession and did not return to their pre-recession level until the late 1990s (Violante et al., 2010).

Economic scarring not only affects employment status, incomes, and economic security, it has significant implications for health and wellbeing. Levels of mental ill health increase during recessions, and mental health problems persist for workers who emerge from a recession with long-term reduced hours and income.

The economic impact of underemployment on individual workers can be life changing. We calculate that a retail worker experiencing typical underemployment for two years will be $40,000 worse off, and their superannuation balance around $4000 lower, than if they were optimally employed. Over their career, this lost superannuation would have compounded to over $46,000.

Considering that most underemployed people are young, the implications for their long-term future, in terms of lost career opportunities, lower savings, and reduced security in retirement cannot be ignored.

The implications for the wider economy are also troubling. The cost of total underemployment to Australia prior to COVID-19 was equivalent to $24 billion in lost wages per year, which would have created $4.3 billion in income tax receipts.

Beyond the obvious issue of reduced income, though, underemployment has more pernicious effects on our labour market. It reduces worker bargaining power, meaning that wages stay low. Underemployment experts David Bell and David Blanchflower find that "underemployment replaces unemployment as the main influence on wages in the years since the Great Recession" in Europe and the United States (Bell & Blanchflower, 2018). ABS data in 2019 indicated that this is also the case for Australia (Marin-Guzman, 2019).

Wage stagnation in Australia has reduced the impetus for firms to make capital investments: Treasury research has shown that low growth in wages and productivity in Australia over recent years is partly due to a lack of job switching by employees (Quinn, 2019). This reluctance to change jobs in pursuit of higher wages is indicative of significant uncertainty and income stress within the Australian workforce, much of which is due to the increasing prevalence of jobs with insufficient hours.

As we begin to emerge from the economic shutdown caused by COVID-19, it is imperative to remember that however external and unexpected the cause of the economic crisis we now face, we retain control over our response to it. Just how long this recession lasts, and how deeply the jobs losses scar a generation of Australia workers, depends entirely on the measures we take to restore our economy. Following WWII, policies to restructure the economy and invest in job creation led to decades of high growth, strong wages, very low unemployment, and high productivity.

More recent history has shown us that the alternative route – that of cutting public spending and expecting a smashed private sector to invest in job creation without government support – only exacerbates already existing problems such as underemployment, financial insecurity, and economic inequality.

Identifying and addressing the problems within our economic system that pre-date the COVID-19 pandemic will be vital for our economic recovery. High and growing underemployment was a significant factor in holding down wages and contributing to a frightening lack of productivity growth in the decade or so before this crisis hit; recognising it as particularly damaging to young workers is vital in reaching a post-COVID-19 social settlement.
What is underemployment?

Underemployment takes on several forms, but the most commonly used metric is time-related underemployment. Alternative measures include skill-related underemployment, income-related underemployment, and excessive working hours, all of which contribute to “inadequate employment” (see R Wilkins & Wooden, 2011).

For the sake of simplicity and consistency with ABS and international data, this paper will refer to time-related underemployment unless otherwise stated. Time-related underemployment measures the number of extra hours people would like to work but are unable to due to economic reasons.

Figure 1: ABS framework for defining of underemployment

The ABS defines underemployed people as workers aged 15 years and over, who want, and are available to work, more hours than they currently have. This includes:

- part-time workers who wanted to work more hours and could start additional hours either in the reference week or in the subsequent four weeks; and
- full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed these people wanted to work full-time and would have done so, had the work been available (ABS, 2018).

Underemployment and unemployment combined is often termed ‘underutilisation’. While this is a useful measure to a certain degree, many statistical agencies around the world produce far broader measures of underutilisation which capture a broader spectrum of people excluded partially or fully from the workforce. The US Bureau of Labor Statistics, for example, produces six alternative measures for underutilisation,
which allow observers to understand different impacts on the labour market. These are particularly useful in times of rapid and deep economic upheaval, such as the current crisis.

Figure 2: alternative measures of underutilisation

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<td>U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force</td>
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<td>U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force</td>
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<td>U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate)</td>
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<td>U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers</td>
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<td>U-5 Total unemployed, plus discouraged workers, plus all other persons marginally attached to the labor force, as a percent of the civilian labor force plus all persons marginally attached to the labor force</td>
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<tr>
<td>U-6 Total unemployed, plus all persons marginally attached to the labor force, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all persons marginally attached to the labor force</td>
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Source: (Bureau of Labor Statistics, 2020)

The alternative measures above give a far broader set of metrics from which to understand the impact of the crisis on the US labour force. For example, the U-6 measure includes the number of people forced to work part time, plus the number of people temporarily laid off, which is particularly relevant to the current crisis. This measure produces an underutilisation rate of 22.8%, which is far higher than the unemployment rate of 14.7%, but also shows a shift away from the normal relationship between unemployment and underemployment.

This is equally the case for Australia, where the number of people exiting the labour market has supressed the figures for unemployment and underemployment in the ABS April figures.
Underemployment in Australia: an international comparison

Despite the relative success of the Australian government response to the GFC, underemployment has grown at a pace exceeding that of nearly every other comparable country in the years since.

Figure 3 below shows the rate of male, female and total underemployment of selected countries. Australia has the fourth highest level of underemployment, over double the rate of the G7 countries.

Figure 3

[Graph showing underemployment rates by country]

Source: ILO data [https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/]

Australia fares almost as badly when it comes to youth underemployment. In the country of the fair go, we are increasingly abandoning our responsibility to ensure that the generations that come after us will enjoy the same, or better, standards of living as we have had.

Given Australia’s record-breaking streak of economic growth until the onset of the COVID-19 crisis, the fact that younger generations remain locked out of secure, adequate employment points to a failure of public policy. Just over a decade after escaping the worst of the GFC, we find ourselves ranked next to Eurozone countries which were effectively bankrupted by that economic shock when it comes to the opportunities provided to our young people.
Warnings have been sounded for years about the long-term impact of this state of affairs by observers such as the ACTU and the Brotherhood of St Laurence, but, as with persistent calls to action from the OECD (2016), the response from our political leaders has been silence.

Indeed, when questioned directly about the need for a different approach to tackle the long-standing lack of adequate employment for young people in the wake of the COVID-19 pandemic, the Prime Minister last week replied that he “rejected the premise of the question” and claimed that Australia’s rates of youth un- and under-employment were declining due to some “very successful” programs his government had put in place before the lock-down. Needless to say, the evidence belies this claim.

Some may question whether there is simply an inevitable trend toward greater underemployment, particularly youth underemployment; they may argue that these are phenomena that many advanced countries continue to grapple with and seem to be part of contemporary capitalism. Per Capita rejects this claim outright. Firstly, it shows a lack of ambition and courage, and a dereliction of responsibility particularly toward our young workers. Secondly, it ignores the fact that many other countries have dealt effectively with underemployment.

Many countries in Europe and Asia have reduced or suppressed underemployment. These countries range widely from the Nordic economies to Japan. Despite being markedly different in terms of demographic,
economic and social structure, many of them have used similar policies to ensure young workers are streamlined from education into employment. The Nordic countries first instituted youth guarantees as part of their active labour market policies in the 1980s and 1990s. These countries have sought to ensure better labour market integration of young workers through a variety of means, from apprenticeships (Denmark) to better educational trajectories for full employment (Finland, Norway, and Sweden).

Across countries with the ‘dual system’ of education, in which on-the-job training is combined with formal vocational schooling, youth underemployment rates have remained relatively stable, or have been brought down after a spike. These countries include Germany, The Netherlands, Austria, and Switzerland. Under these systems, high school students can apply to firms for temporary paid positions; once accepted, they split their time between work and mastering a curriculum that has been specifically designed with the input of employers to meet industry demands.

In Germany the program lasts between two and four years and encompasses hundreds of career paths that require specialised skills, from automotive engineering and finance to computer science. Due to the specialised nature of the training and high level of investment by the companies, a high proportion of participants are engaged in full-time employment upon completion. The high level of cooperation between employers and trade unions also helps to coordinate the industrial relations requirements of employers and employees.

**Figure 5**

Source: ILO data [https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/](https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/)
Underemployment in Australia: then and now

The historical trend

The trend of rising underemployment had been underway since at least the late 1970s. The rate jumped dramatically to 7% in the early 1990s as Australia grappled with a recession and structural economic reform. Following the recession, underemployment never recovered and remained above 6% apart from a couple of short-term dips.

The same occurred after the GFC: the economic shock, although relatively mild in Australia compared to most advanced economies, had the effect of exacerbating higher underemployment. Following the GFC, a ‘new normal’ of around 7% underemployment was reached, until another spike sent the rate closer to 9% in 2014.

*Figure 6: Unemployment and underemployment trends 1979-2018*

In 1985 when the ABS began the underemployment series, underemployment was a relatively marginal issue. The rate was 3.4%, less than half that of the unemployment rate at the time. In 1985, 88% of underemployed workers were part-time workers. Currently the rate is more like 94%. The average duration of underemployment was 30.7 weeks in 1985, compared to the eyewatering 86.5 weeks in 2019 (Australian Bureau of Statistics, 2019). Currently, 45.9% of underemployed part-time workers have been underemployed a year or more. The increasing incidence of underemployment is often commented on but the increase in duration is equally important in understanding the changes over time.

*Source: Australian Bureau of Statistics, 2018a*
The impact of the COVID-19 crisis: one month in

The impact of the COVID-19 crisis on the labour market was laid bare in just one month of ABS data: unemployment increased by a full percentage point from 5.2% to 6.2%.

As startling as this seems, it significantly underestimates the total unemployment impact of COVID-19. It neither incorporates the enormous number of people exiting the labour market altogether, nor those nominally employed under the JobKeeper scheme but not actively working.

The rise in underemployment is equally dramatic. The month-on-month increase to April was 50% - over 600,000 people. This means that just under 15% of the Australian workforce is now underemployed.

In order to get a realistic picture of the true state of the labour market, it is necessary to examine participation rates, unemployment and underemployment rates.

**Figure 7**

Unemployment and underemployment rate one month into the COVID-19 crisis

*Source: Australian Bureau of Statistics, 6202.0 multiple releases*
As in previous economic shocks, a high number of people stop working or looking for work altogether – they cease participating in the labour market. This may be because they do not feel they can find suitable employment given the collapse in jobs, or for other reasons such as the need to take on additional family responsibilities.

The 1990s recession saw a prolonged decline in the participation rate, but the rate of that decline was gradual compared to the plunge we have just seen.

During the 1990s recession, the largest single month change in the participation rate saw a decline of 1.7%, while the overall impact on the participation rate spanned between December 1990 and August 1993. The rate fell 64.6% to 61.7%, a 2.9% shift over more than two and a half years.

*Figure 8*

Between March and April this year around 536,000 people left the labour market, representing a 2.54% drop in the participation rate in just one month. This is extraordinary by comparison to any previous economic crisis, and, if incorporated into the official figures, would raise the unemployment rate to 10.2%.

The crisis has again shown just how much more vulnerable young workers are to underemployment. As shown in Figure 9 below, the rate of increase during the COVID-19 crisis for youth underemployment is slightly higher than for the population as a whole (5.8% vs 5.4%) but the absolute number is significant – over a quarter of all young people are captured by the underemployment figures despite a large proportion of people exiting the labour market.
Figure 9

COVID-19 related underemployment and youth underemployment rates

Source: Australian Bureau of Statistics, 6202.0 multiple releases
Who is underemployed in Australia?

Underemployment by industry

Underemployment most significantly affects workers in retail, accommodation and food services, and healthcare and social assistance. These three industries account for just over 50% of all underemployment.

Figure 10

Underemployment share by industry

Source: ABS, Diagram 3c. Underemployment by Industry (ANZSIC 06), Feb 2019

Underemployment by age group

Young workers are increasingly required to enter the labour market with far higher levels of education than were previous generations. Furthermore, they are then often required to work in positions which do not utilise their skills or provide an adequate number of hours.

This so-called “waiting room effect” (Batenburg & de Witte, 2001) has become particularly pronounced in the past decade, with youth underemployment rocketing to three times higher than any other demographic group, despite growth in total underemployment.
Part-time workers in Australia are more deeply affected by underemployment. Some research suggests that up to 94% of all underemployment is experienced by part time workers (Kifle et al., 2019), up from 88% in 1985.

Prior to the 1991 recession, roughly 15% of part timers sought extra hours. This rose steeply to 30% during the 1991 recession and slowly diminished to just over 20% in 2008. Following the GFC this rate rose again to a high of around 27.5% and has since hovered between 26 and 27%.

The average number of hours sought has fallen from over 16 hours per week in 1997 to an average of 15 hours per week today. This means that as part time work has become more pervasive, there has been a broadening of underemployment, albeit with a small downturn in the number of extra hours sought. As of February 2019, 42.6% of part-time workers were looking for more work preferred to work more part-time hours, while 57.4% preferred to work full-time.

This evidence refutes the optimistic view that the increase in part-time work is in response to a demand from workers for more flexible arrangements.
Underemployment by gender

Since part time workers in Australia are far more likely to be female, underemployment has a distinct gender bias. This can be seen in Figure 12 below. Whereas 7.3% of men in the workforce experienced underemployment in March 2020, the rate was over 50% higher for women, at 11.5%.

Figure 12

Source: ABS 6202.0 - Labour Force, Australia, March 2020

The gender makeup of youth underemployment, however, is somewhat different. As Figure 13 shows, young men and women experience underemployment more similarly than do men and women in the general population.

At several periods, the male rate has almost closed the gap with female underemployment – during the early 1990s recession, at several points around the millennium, when the GFC hit and in 2016. Young women have experienced 38% greater underemployment over the last decade on average, whereas for women aged 15-65, the underemployment rate is 65% higher than that of men.

This may be due to the ‘motherhood penalty’, with women in the 15-24 age bracket less likely to have taken time out of the workforce, or moved to part time work, due to childcare responsibilities. It could also be due to the trend of general worsening conditions for young people, in which their labour market conditions are increasingly determined by age rather than educational attainment or gender.
Youth (aged 15-24) underemployment rate by gender

Source: ABS 6202.0 - Labour Force, Australia, April 2020
The economic cost of underemployment

The impact of underemployment on individuals

The financial implications of underemployment for individuals consist of the lost opportunity of wages, the associated loss of superannuation savings, and potentially lost wage growth due to reduced experience and opportunity to advance along career paths.

Table 1 below shows earnings lost due to underemployment, based on industry median wages.

**Table 1: Typical earning implications by industry**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Median hourly rate</th>
<th>15 hours per week income loss</th>
<th>Annual income loss</th>
<th>Annual superannuation loss</th>
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<tr>
<td>Retail trade</td>
<td>$25.00</td>
<td>$375</td>
<td>$19,500</td>
<td>$1,852</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>$22.37</td>
<td>$335</td>
<td>$17,448</td>
<td>$1,657</td>
</tr>
<tr>
<td>Healthcare and social assistance</td>
<td>$32.70</td>
<td>$490</td>
<td>$25,503</td>
<td>$2,422</td>
</tr>
<tr>
<td>Education and training</td>
<td>$39.04</td>
<td>$585</td>
<td>$30,447</td>
<td>$2,892</td>
</tr>
<tr>
<td>Construction</td>
<td>$32.00</td>
<td>$480</td>
<td>$24,960</td>
<td>$2,371</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>$28.00</td>
<td>$420</td>
<td>$21,840</td>
<td>$2,074</td>
</tr>
<tr>
<td>Prof, scientific and technical services</td>
<td>$40.00</td>
<td>$600</td>
<td>$31,200</td>
<td>$2,964</td>
</tr>
<tr>
<td>Transport, postal and warehousing</td>
<td>$31.05</td>
<td>$465</td>
<td>$24,219</td>
<td>$2,300</td>
</tr>
<tr>
<td>Arts and rec services</td>
<td>$27.00</td>
<td>$405</td>
<td>$21,060</td>
<td>$2,000</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>$41.15</td>
<td>$617</td>
<td>$32,094</td>
<td>$3,048</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>$30.34</td>
<td>$455</td>
<td>$23,667</td>
<td>$2,248</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>$25.00</td>
<td>$375</td>
<td>$19,500</td>
<td>$1,852</td>
</tr>
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While the average preferred number of extra hours inevitably varies across industries, such data is not available. As such the table below shows the average preferred number of additional hours of all workers, which is currently 15 hours per week.

The lost earning potential of a 15 hour per week employment shortfall is significant. For a retail worker, underemployment by 15 hours per week leads to a loss of $375, or $19,500 per year. For a healthcare worker, underemployment of 15 hours leads to a $490 weekly loss, and over $25,500 per year. For most workers these are life-changing amounts of income.

Beyond foregone income there are serious implications for reduced superannuation savings and lack of career progression. Superannuation losses at average underemployment rates range between $1,852.50 and $3,048.99 per year. For workers in the least protected sectors of the economy – those with insecure and low-paid jobs, whose ability to accumulate sufficient superannuation savings across their working lives is already compromised by the nature of their employment – the impact of these losses on eventual retirement incomes is significant.
Evidence from the HILDA (2018) survey shows that after one year of underemployment, 36% are still underemployed, 49% are fully employed and 14% have left the labour market, despite most of these people (9%) still wanting to work.

Of the 49% of underemployed who a year later consider themselves to be fully employed, only around half are so because they have increased their hours. The rest are no longer underemployed because they have given up getting more hours.

Even for the most fortunate of people, who gain full time hours after experiencing underemployment, the consequences are still life changing. Just two years of underemployment for a median wage healthcare worker leads to a loss of superannuation of $4,845. For a 20-year-old, this amount would compound to $46,208 of superannuation by the end of their career based on average industry super fund performance of 8.3% minus CPI inflation of 2.5%. Three years of typical underemployment at the start of a career leads to a loss of just under $70,000 of superannuation at retirement.

Career progression is by definition limited by underemployment. Workers who cannot gain enough experience will not be able to progress in their career. Underemployed workers are also unable to fully utilise their knowledge and skills. This can lead to the erosion of training and education which is costly to both the individual and society at large.

Underemployment also significantly weakens the bargaining power of workers, exacerbating downward pressure on wage growth. According to the RBA, underemployed workers are less likely to ask for a pay increase for fear of losing their jobs, or may be more willing to trade wage increases for more hours at work (Bishop & Cassidy, 2017).

Beyond the financial implications of underemployment, there is a large body of evidence that highlights the social and health consequences of failing to find enough work. Underemployment is widely acknowledged to contribute to mental ill health and is correlated with rates of suicide and self-harm in Australia. As young people, particularly men, experienced underemployment in an increasingly casualised labour market in the 1990s, concomitant suicide rates for that cohort increased (Page et al., 2013).

Studies of the UK and USA labour market have shown a significant increase in anxiety and depression among underemployed workers, who have lower scores compared to workers with their desired amount of hours in surveys of happiness, life satisfaction, whether life is worthwhile, and incidences of anxiety and depression (Bell & Blanchflower, 2019; Dooley et al., 2000).

The macro-economic costs of underemployment

In economic terms, a ‘deadweight loss’ describes the social cost generated by the inefficient allocation of resources in the economy.

The underemployment crisis in Australia is just that: a failure to properly value the skills, knowledge and time of workers, and an inability to rectify the supply and demand mismatch in the labour market. The scale of this failure can be viewed not just in terms of the impact on individuals, but as a cost to society as a whole.
The deadweight loss of underemployment to the Australian economy is considerable, and results from significant losses of household income and consumption, lost superannuation savings, and lost tax revenue. There are also lost multiplier effects which, if labour market capacity was fully utilised, would result in expansive effects throughout the economy.

We model the aggregate cost to the economy in lost wages by multiplying the average preferred number of additional hours by median wages in each industry.

The total number of hours lost through underemployment is equal to 15 hours per week for 1.1 million people. This results in an economy-wide loss of over 15.5 million hours of work per week, equivalent to over 411,000 full time jobs.

Note that these figures use the preferred number of additional hours of underemployed workers before the impact of COVID-19, which saw a 50% increase in underemployment, as revealed in the March Labour Force Data from the ABS.

By allocating industry median wages to the proportion of underemployment that each industry accounts for, we can approximate the value of these unused hours. We note that this is a counterfactual model with inherent limitations, and that eliminating underemployment entirely is likely not possible. If all workers were fully employed, wages, production, consumption and related measures would all change. However, the exercise provides useful metrics for fully understanding the cost of underemployment.

The table below gives the aggregate total of hours per sector, and the value of those hours in median wages, superannuation contributions and tax revenue, if all underemployed workers received the average desired hours within their industry.

We find that wages lost due to underemployment across the Australian economy total over $24 billion a year. Superannuation contributions for these wages would equal just under $2.3 billion at 9.5%, and they would generate income taxes of at least $4.35 billion, based on the ATO income tax calculator.

That is, the rate of underemployment in Australia before this economic crisis was already costing the Australian economy more than $30 billion a year in lost wages (and hence consumption), savings and tax receipts.

Note that these calculations are done using 2018 median wages rather than average wages; a calculation done on average wages would increase these figures considerably.
### Table 2: Industry share of underemployed hours

<table>
<thead>
<tr>
<th>Industry</th>
<th>Volume share underemployed hours per week</th>
<th>Gross value of hours at median hourly rates per week</th>
<th>Superannuation at 9.5% per week</th>
<th>FT jobs equivalent</th>
<th>Tax revenue foregone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail trade</td>
<td>3,233,571</td>
<td>$80,839,296</td>
<td>$7,679,733</td>
<td>85,094</td>
<td>$646,884,555</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>2,468,136</td>
<td>$55,212,223</td>
<td>$5,245,161</td>
<td>64,950</td>
<td>$384,053,152</td>
</tr>
<tr>
<td>Healthcare and social assistance</td>
<td>2,155,714</td>
<td>$70,485,398</td>
<td>$6,696,112</td>
<td>56,729</td>
<td>$711,664,913</td>
</tr>
<tr>
<td>Education and training</td>
<td>1,249,689</td>
<td>$48,781,633</td>
<td>$4,634,255</td>
<td>32,886</td>
<td>$546,417,569</td>
</tr>
<tr>
<td>Construction</td>
<td>921,646</td>
<td>$29,492,674</td>
<td>$2,801,804</td>
<td>24,253</td>
<td>$293,408,454</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>890,403</td>
<td>$24,931,307</td>
<td>$2,368,474</td>
<td>23,431</td>
<td>$223,271,106</td>
</tr>
<tr>
<td>Prof, scientific and technical services</td>
<td>765,434</td>
<td>$30,617,395</td>
<td>$2,908,652</td>
<td>20,143</td>
<td>$347,165,004</td>
</tr>
<tr>
<td>Transport, postal and warehousing</td>
<td>624,844</td>
<td>$19,401,431</td>
<td>$1,843,135</td>
<td>16,443</td>
<td>$188,890,089</td>
</tr>
<tr>
<td>Arts and rec services</td>
<td>624,844</td>
<td>$16,870,809</td>
<td>$1,602,726</td>
<td>16,443</td>
<td>$146,121,600</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>468,633</td>
<td>$19,282,866</td>
<td>$1,831,872</td>
<td>12,332</td>
<td>$221,632,245</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>468,633</td>
<td>$14,219,749</td>
<td>$1,350,876</td>
<td>12,332</td>
<td>$136,068,382</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>218,695</td>
<td>$5,467,392</td>
<td>$519,402</td>
<td>5,755</td>
<td>$43,750,646</td>
</tr>
<tr>
<td>Other (a)</td>
<td>1,530,869</td>
<td>$47,975,417</td>
<td>$4,557,664</td>
<td>40,286</td>
<td>$470,243,709</td>
</tr>
<tr>
<td>Total</td>
<td>15,621,120</td>
<td>$463,577,595</td>
<td>$44,039,871</td>
<td>411,082</td>
<td>$4,359,571,430</td>
</tr>
<tr>
<td>Annual</td>
<td>$24,106,034,960</td>
<td>$2,290,073,321</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Underemployment in Australia after COVID-19

While the ABS industry-level data on underemployment is not yet released for April 2020, it is possible to provide a rough estimate of the total cost to the economy, based on the rise in underemployment numbers and applying the above industry shares and wage ratios.

While these estimates will be unrepresentative of actual underemployment given how much more widespread it now is across the economy, we can nevertheless get a low-end estimate, given that structural underemployment affects low wage industries most severely. These are tentative numbers, but instructive.

The number of underemployed persons rose from 1,212,800 to 1,816,100 between March and April, an increase of 603,300. This is a 33.2% increase which, if applied to the annual cost of underemployment, would equate to over $32 billion in lost wages, and over $3 billion in lost superannuation. This equates to a wages loss of $2.7 billion for April 2020 alone.

Given our failure to reduce underemployment after previous economic downturns, policy makers must recognise and engage with the economic cost of failing again during the COVID-19 recession. If this new level of underemployment is allowed to normalise, as has happened consistently after every economic downturn since the 1980s, the annual cost to individuals, particularly women and the young, will be catastrophic, and the loss to the economy as a whole equivalent to our entire annual federal defence budget (Australian Government, 2019).
Solutions to underemployment

Underemployment is complex and has become a structural feature of our economy. However, the economic dormancy brought about by COVID-19 provides a window for structural reforms.

So what can be done to capture the value of our workforce more effectively? How can we utilise the vast pool of productive capacity that lays stagnant in underemployment?

Despite its pervasiveness in many countries, underemployment should not be seen as inevitable. Placing it into the ‘too hard basket’ is a dereliction of responsibility for our young, female, and low-income workers.

We suggest that this is an opportune moment to address underemployment with the following policy measures:

1) Industrial relations reforms, particularly within high underemployment sectors

Generally, industries that have a large proportion of part-time workers have a higher rate of underemployed workers. These industries also tend to be dominated by women and by younger workers.

Underemployment is most commonly experienced in retail, healthcare and social assistance, accommodation and food services, and education and training. Many of the jobs involved in keeping our economy afloat during corona virus fall within these sectors, and there is now, more than ever, a moral imperative to bring about a restoration of bargaining rights and sector-wide bargaining. Sector-wide bargaining would specifically help to protect the atomised and feminised workforces in small businesses that dominate the social care and retail sectors, enabling them to bargain more effectively for more suitable workloads.

2) Providing a Youth Guarantee

A Youth Guarantee was introduced by law across the European Union between 2014 and 2016 and has been experimented with in different forms by member states. The European Youth Guarantee is a commitment by Member States to guarantee that all young people under the age of 25 receive, within four months of becoming unemployed or leaving formal education, a good quality work offer to match their skills and experience; or the chance to continue their studies or undertake an apprenticeship or professional traineeship (Escudero & Mourelo, 2018). Per Capita is currently undertaking applied policy research to assess what models might work best under Australian conditions.

3) A recommitment to TAFE

Binding young workers to the labour market through non-university educational paths appears to be one of the most effective ways to reduce underemployment. The introduction of a profit motive into the skills training and vocational education system has led to extremely poor outcomes for our skills market and to the individuals caught up with unscrupulous VET providers. A revamped TAFE system, brought back into
the state education system, would enable a coordinated response to the underemployment crisis, and re-establish the value of vocational training for employers and students.

4) Sharing the training burden

A commitment to ensure workers have relevant jobs cannot only come through the TAFE system. Australia also needs to find a better means to ensure industry participation and cost sharing. While we cannot recreate the Germanic model of on the job training outright, we must ensure that a greater share of the costs and responsibilities of training workers with the right skills for contemporary work lies with employers. Such a system would ensure greater relevance of skills for employers, meaning there would be a productivity incentive for employers to engage.

5) Lifelong learning accounts

Skills training should not stop at any particular age. In our 2018 report The Future of the Fair Go we proposed that 2.5 per cent of gross income could be contributed by employers to lifelong learning accounts for all workers. As with existing skills investments, contributions could be tax deductible for employers. This would allow workers to engage in skills upgrading in response to changing economic or personal conditions.

6) Support for workforces in transitional industries

The changes already underway in information technologies, AI, big data, and machine learning are contributing to the increase in marginally attached workers. This disruptive economic trend means that state and federal government will need to play far greater roles in the labour market, and we suggest that this includes direct government employment schemes. Powerful economic forces will push for the state to absorb the costs and risks of Uber-esque models, which rely on marginally attached and isolated workers. However, firms that seek to profit from atomising their workforce and increasing state liabilities for the associated costs must be appropriately taxed and must also be regulated through the industrial relations system.
Conclusion

Our research highlights the enormous waste of resources that underemployment causes at the individual and aggregate level. The cost to individuals both now and in the future limits their capacity to progress their careers, affects their mental health, and is likely to make them more risk-averse, which limits job switching and pay bargaining (Keating, 2020).

It certainly affects their short-term earnings and spending power, as well as their long-term economic security, as our calculations have shown. The macro-economic impact is potentially enormous, with pre-crisis lost wages of over $24 billion per year. The immediate spike in underemployment under COVID-19 must not be allowed to become entrenched as has happened after previous recessions. Such economic scarring is corrosive to the Australian labour market and represents a failure of commitment to the principle of the fair go.

Underutilised labour is frequently called ‘spare capacity’ by institutions such as the RBA, newspapers, and academics. We argue that, given the scale of unnecessary suffering of Australians, this language needs to be reconsidered. Underemployment is not like having machines sit idle. It is not like having more space in the garage than you need. We are discussing the mental and economic wellbeing of Australians, and a failure to provide enough high-quality work.

While we recognise that underemployment is a complex issue, tackling it is one of the most pressing economic, social and intergenerational imperatives of our time. As we consider the measures needed to rebuild our economy and restore jobs after the greatest economic shock in our history, we must take this unprecedented opportunity to fix the faults that existed in the system before. Removing entrenched barriers to full employment, and ensuring all workers are given the opportunity to maximise their potential and earning power, is a good place to start.
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