
POSSIBILITIES FOR A REGIONAL GREEN JOB GUARANTEE

Prepared by the Australian Unemployed Workers Union.¹



¹ The submission was drafted by Connor Jolley (RMIT University), Prof Rob Watts (RMIT University) on behalf of the AUWU and approved by the AUWU National Coordinator.

PREAMBLE

The Australian Unemployed Workers Union (AUWU) welcomes the opportunity to make a submission to the Parliamentary Inquiry into regional employment. The AUWU is a national union representing unemployed and underemployed Australians. The AUWU formed in early 2014 with the primary aim of fighting for the rights and dignity of unemployed workers and has over 15,000 members and active branches in Melbourne, Sydney, Brisbane, Adelaide, Canberra, Hobart and in many regional areas. The AUWU has no political affiliations and is run entirely by volunteers and is funded entirely from donations.

All too often, the voices of underemployed and unemployed workers are excluded from debates supposedly engaging the community. The AUWU firmly believes underemployed and unemployed workers should have a seat at the table when decisions that affect them are being made. The AUWU is committed the principle of equal access to employment for all workers and its members have democratically mandated the AUWU to advocate for secure and full employment, backed by government-run job guarantee programmes.

EXECUTIVE SUMMARY

The AUWU submits that the federal government should embrace a commitment to a Green Jobs Guarantee for immediate implementation in rural and regional Australia over the next decade.

The submission rest on the empirically well-established premise that fundamentally the persistence of unemployment and underemployment reflects the fact that not enough good quality jobs have been or are being generated. Having cut public employment and expenditure to restore an unemployed pool as an industrial relations weapon in the late 1970s, successive governments have inflicted a pernicious welfare compliance regime on the unemployed to:

- heighten the fear of the sack and thus the industrial disempowerment of working people.
- suppress an electoral backlash for unemployment by ascribing its causation to deficits of character and skill among the unemployed.

This approach has produced widespread hardship and suffering and massive wastage of economic and human resources for four decades or more.

This submission recognises several important factors. These include:

- **current patterns of poverty and disadvantage in rural and regional Australia.** Poverty in rural and regional Australia has a particular set of characteristics, including generally lower incomes, something exacerbated by reduced access to services such as health, education and public transport, and declining employment opportunities, all factors amplified by distance and isolation.
- **digital disruption which poses challenges including increased unemployment (and underemployment) in rural and regional Australia.** Regional cities have the greatest proportion of jobs that are considered highly vulnerable to automation. Regional cities have diverse economies and often provide support services to metropolitan areas. As such, there is a large proportion of people working in clerical and administrative jobs, technical and trade jobs, as well as jobs in retail, health, education and government services all of which are highly vulnerable to automation. This consideration alone suggests the value of having a strategy in place to deal with digital disruption in regional Australia.
- **climate disruption and the disproportionate impact on regional workers.** Global warming poses a global existential threat and the Australian government needs to move away from the use of fossil fuels as fast as possible to avert a planetary disaster triggered by uncontrolled global warming. To date, the market has not provided an adequate response to the threat of global warming, while also leaving an increasing proportion of workers in precarious conditions and at risk of underemployment and unemployment. Addressing these two market failures is an opportunity to create much needed permanent and secure jobs, geared towards climate change adaptation and mitigation, providing well paid employment opportunities for workers in regional Australia and beyond.

To address these problems this submission argues for an integrated approach which it calls a Green Job Guarantee (GJG). The central value proposition made here is that the Australian government should become the employer of last resort by rolling out a well-funded GJG in the regions enabling local government authorities, local communities and enterprises to develop a range of sustainable jobs that move Australia away from fossil fuel use as fast as is possible, while building social and community-based enterprise in an equitable and sustainable way. It should be based on a permanent independent community engagement service that can survey local community needs for services and industries.

To meet the skills demands of a rapidly transforming society, our chronically low national skill formation capacity can be enhanced by a well-designed GJG that incorporates a decentralised vocational education system to deliver place-based technical and further education and training to communities across Australia. The program should be administered by a public employment service whose functions would include:

- collaborating with representative community bodies to negotiate the establishment of GJG projects and activities.
- locating mainstream employment opportunities for GJG workers and facilitating recruitment by mainstream employers.
- ensuring skills required in the regional economy are nurtured through the design of the GJG jobs and integrated vocational training.

A GJG should target key sectors in the Australian economy to leverage existing job creation opportunities, while creating new opportunities in areas currently neglected by the market. These include:

- **Care and Regenerative Economies** – the health and social assistance sector is already the largest industry by employment and requires significant investment to provide for the care and regenerative work necessary to mitigate and adapt to climate change. Most of this work is chronically undervalued, with workers either being poorly compensated for their labour or providing labour on a voluntary or unwaged basis. By revaluing the work performed within this sphere of the economy, we can ensure that the services provided are of the highest quality while bringing dignity and meaning to the work performed by people otherwise neglected by the market.
- **Electricity** – the decarbonisation of the electricity sector is one of the single most important means of mitigating climate change impacts. While it has been long recognised as a technically feasible challenge, to date the politics has been intractable. Recently, however, a shift in the perceived legitimacy of greater intervention in energy markets presents an opportunity for governments to take advantage of cheap borrowing rates to invest in renewable infrastructure projects linked to job creation for underemployed and unemployed workers.
- **Agriculture** – the agricultural sector consists of the largest land-use in Australia and is a significant contributor to greenhouse gas emissions. As productivity in agriculture has increased, its share of employment has declined, impacting rural communities and regional centres alike. The seasonally variable nature of agricultural work means farm operators often struggle to meet labour demand. A GJG could utilise flexible public-sector employment to provide stable employment to the seasonal agricultural workforce and others in rural areas to eliminate chronic labour-underutilisation. In addition, publicly funded research, development and extension (RD&E) programs for improving sustainable farming and land use practices could be tied to a GJG, creating public sector agricultural extension jobs that contribute to climate change mitigation and adaptation through land and biodiversity regeneration.
- **Construction** – Australia is amidst a housing affordability crisis that has been brought about by market and regulatory failures. Governments can respond to these failures by new investments in social housing. Previous efforts in tackling housing affordability through market mechanisms have resulted in multi-billion-dollar subsidies to property developers with no discernible benefit. By using social

infrastructure financing to build a million new social houses, not only can governments ensure that workers who depend on renting can reduce their exposure to rapacious property markets, they can also stimulate a construction boom that would generate thousands of direct and indirect construction jobs.

The AUWU argues that only by designing and implementing an integrated response can we avoid the dire effect of failing to address these challenges, while moving towards a more socially and environmentally just community. The GJG is ideally suited to addressing the needs of regional Australia while also enabling the testing of core elements of a GJG.

TABLE OF CONTENTS

Preamble	2
Executive Summary	2
1. RURAL AND REGIONAL AUSTRALIA: SITES OF DISADVANTAGE	7
1.1 Depopulation in rural and regional Australia?	7
1.2 Poverty in rural and regional Australia	9
1.3 The problem of unemployment and underemployment	10
1.4 Unemployment and underemployment in regional Australia	11
2. DIGITAL DISRUPTION	13
3. CLIMATE DISRUPTION	14
4. THE GREEN JOB GUARANTEE.....	17
4.1 A rights-based model of full-employment.....	17
4.2 Funding a Green Job Guarantee	19
4.3 Designing the Green Job Guarantee	23
4.4 Investing in local community wealth.....	23
4.5 Targeting key sectors	25
4.5.1 <i>Care and Regenerative Economies</i>	25
4.5.2 <i>Electricity</i>	26
4.5.3 <i>Agriculture</i>	27
4.5.4 <i>Housing Construction</i>	28

1. RURAL AND REGIONAL AUSTRALIA: SITES OF DISADVANTAGE

Rural and regional Australia encompasses most of the land mass of Australia but less than a third of its total population of 25.4 million. That said, the eight million people who live outside Australian capital cities are not a negligible figure, because rural and regional Australians play a major role in our collective life.

Rural and regional Australia contributes a significant proportion of national income to the national economy, through activities like agriculture, mining and other resources industries. In 2016, our agriculture, forestry and fishing and mining industries (predominantly located in regional Australia) made up 57 per cent of the value of Australia's merchandise exports.

However, it relies on a small and shrinking number of workers to generate this national income. For example, in 2016, agriculture, forestry and fishing employed 215,601 workers. The reality is that far more people living in rural and regional Australia work in health care and social assistance (445,087 jobs), retail (341,190), construction (292,279), education and training (291,902) and accommodation and food services (253,501).

1.1 DEPOPULATION IN RURAL AND REGIONAL AUSTRALIA?

While it is over dramatic to suggest that people are constantly leaving regional and rural Australia for the big cities, there is no doubt that growth is uneven. Major metropolitan areas grew by 10.5 per cent (2011-2016) which was a good deal higher than regional areas. Regional places near the major metropolitan cities grew by 9.3 per cent 2010-16 while other regional cities grew at a rate of 7.8 per cent. Mid-sized towns that act as industry and service hubs grew by 3.3 per cent, and even across the more isolated heartland regions populations grew by 1.6 per cent. (Regional Australia Institute 2019: 3).

Jack Archer et al. (2019) have carried out a substantial research project which suggests – assuming a business as-usual model – that Australia is on track for substantial population growth in the coming decades, with the Australian Bureau of Statistics (ABS) forecasting growth of up to 19 million additional people by 2056 – a 75 per cent increase. Much of that growth will occur in the big cities. From a sustainability perspective the prospects of

Sydney and Melbourne becoming megacities, with populations of 9.3 million and 10.2 million, might be thought to merely compound the looming environmental catastrophe.

The research explored likely growth scenarios for four big cities (Melbourne, Sydney, Brisbane and Perth) and associated regional areas. In NSW, this included, greater Newcastle, Shoalhaven, Wagga Wagga, Canberra, Port Macquarie. In Victoria this included Geelong, Ballarat, Bendigo, Shepparton, Warrnambool and Albury-Wodonga

Indicative growth data suggested, that while Melbourne would become a megacity by 2056 the major regional cities in Victoria would see only modest growth in the same period:

City	2016	2056
Greater Melbourne	4.58m	10.1m
Geelong	233,349	440,491
Ballarat	103,249	215,528
Bendigo	110,446	233,805
Shepparton	63,828	91,884
Albury-Wodonga	91,448	152,256

[Source: Archer et al. 2019: 37]

On the premise that most of Australia's future population growth will occur in the major capital cities, the regional areas will experience only modest levels of growth at best. These patterns reflect well established structural dispositions like continuing employment growth in city-based service industries (Archer et al. 2019).

Archer et al. (2019) also rely on the premise that there are limits to the benefits of growth. Agglomeration economies refer to the benefits when large numbers of workers and firms cluster together (Archer et al. 2019:4). The results of their research suggest that there are rapidly diminishing returns for agglomeration benefits as Australia's cities get very large. Simply put, this is because the costs of being big – e.g. increased congestion and high costs of living – undermine the benefits of having additional people (Archer et al. 2019:4).

These effects are reduced to four factors, i.e. the likely impact on the patterns of growth on:

- on overall average household incomes
- effects on employment and unemployment,
- effect on house prices (contributing to housing affordability) house values
- the effect on commute times

In Victoria, for example, if a good deal of the growth in population to 2056 occurs in regional areas, the benefits are far greater than simply allowing the growth to go on in Greater Melbourne. On that scenario, a redistribution of population growth to the regions contributes to those people living in those regions:

- an increase in average real (inflation adjusted) annual incomes of around 4.6 per cent (\$2,800),
- contributes 0.4 percentage points to unemployment,
- an increase in average house costs of 10 per cent (\$34,000),
- and no real change in commute distance (Archer et al 2019:9)

Archer et al. (2019) make a good case for diverting as much potential growth away from the big cities and towards various regional centres in NSW, Victoria, Queensland and Western Australia.

It is also notable that over the last decade many of Australia's rural areas have experienced crippling and destructive cycles of drought. Some areas face chronic labour shortages and population decline, and significant disadvantage.

1.2 POVERTY IN RURAL AND REGIONAL AUSTRALIA

Poverty in rural and regional Australia has a particular set of characteristics, including:

- generally lower incomes of people living in these regions;
- reduced access to services such as health, education and public transport;
- declining employment opportunities; and
- distance and isolation.

A national report by Tony Vinson (2007) identified the most disadvantaged areas in Australia and reported that they included a number in rural and remote areas, including Bowraville in NSW, Mt Morgan in Queensland, and the Break O'Day and Southern Midlands areas of Tasmania. An earlier Parliamentary inquiry concluded that the evidence it had heard:

...pointed to the problem of poverty and disadvantage in many rural and regional areas across Australia. The evidence pointed to the generally lower incomes of those living in these regions; reduced access to services such as health, education and transport, and declining employment opportunities. These factors are compounded by the problems of distance and isolation (Senate Standing Committee on Community Affairs, 2004).

The National Rural Health Alliance (2013) noted that allowing for the costs of housing, poverty was slightly worse in rural, regional and remote areas (13.1 per cent 'outside

capital cities') compared with capital cities (12.6 per cent). When housing costs are accounted for, as they are in these data, state poverty rates in 2009-10 varied from 11.8 per cent in Victoria to 14.3 per cent in New South Wales. When housing costs (which are higher in capital cities) were discounted that difference became more visible. (National Rural Health Alliance 2013).

Some of this disadvantage reflects the impact of unemployment and underemployment.

1.3 THE PROBLEM OF UNEMPLOYMENT AND UNDEREMPLOYMENT

In July 2019 ABS data suggested that the number of employed persons increased 24,600 to 12,915,200 persons. Of these, some 8,849,500 persons (or 65.5%) were employed as full-time workers while part-time employment increased 9,600 to 4,065,700 persons (34.5%). Unemployment increased 6,600 to 715,600 persons or 5.3 per cent of the labour force. However, when you add underemployment which stood at 8.4 per cent underutilisation rate remained steady at 13.6 per cent (ABS 6202.0 - Labour Force, Australia, July 2019). The total under utilisation rate highlights that over two million Australians are currently either unemployed, underemployed, working multiple 'gig' jobs, or only marginally connected to the labour market.

In a simple sense, this reflects a stark fact: there are more unemployed people than there are jobs. This in turn reflects the failure or the refusal on the part of those with the capacity to create and offer jobs to do so.

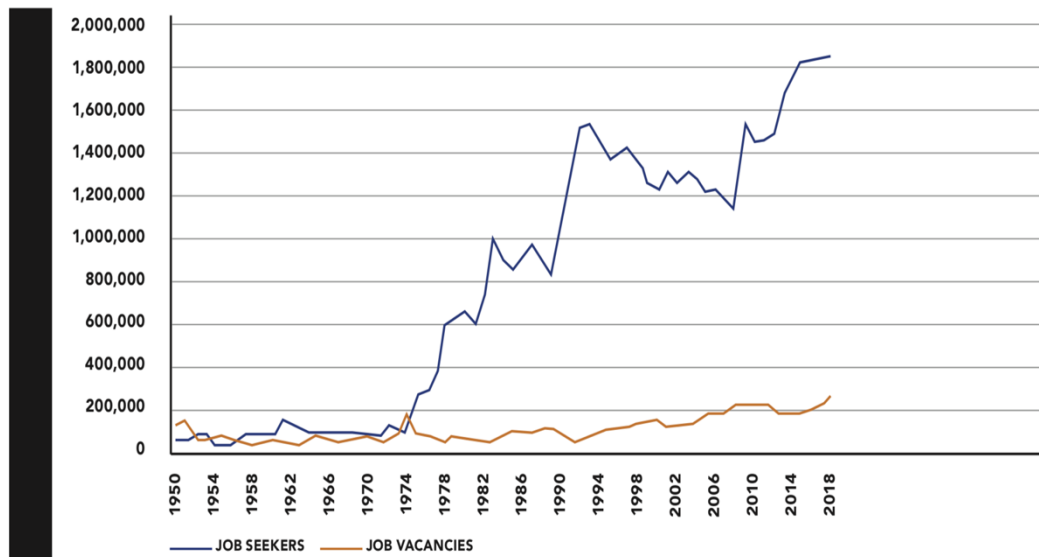
Historically, the Australian government promoted what it called a Full Employment policy. This was a major policy commitment between 1945-1970s. Until the 1970s, successive governments were committed to providing every person, mostly men, with full-time, meaningful work. This was achieved through a mixture of levels of public investment, substantial immigration and high tariffs which powered industrial expansion.

From the late 1970s, the Fraser, Hawke and Keating governments embraced a neoliberal 'reform' program and abandoned its commitment to full employment, cutting public employment and expenditure, cutting tariffs, abandoning key manufacturing industries, selling off valuable public assets including banks, in a general project of deregulation and privatisation. In 1997 Australia became the first OECD nation to completely privatise its public employment services.

Beginning in the mid-1970s Australia also began to experience a significant increase in unemployment which far outstripped the number of jobs. This fact is starkly captured in the following table (Figure 1):

FIGURE 1.

**THE NUMBER OF JOB SEEKERS AND JOB VACANCIES (MARGINALLY ATTACHED NOT INCLUDED)
1950-2018.** Source: ABS and CES.³⁵



Governments avoided the anticipated electoral backlash for restoring unemployment as a means of disempowering the labour movement, by attributing it to the 'laziness' and 'job snobbery' of the unemployed. Research had indicated the public would accept higher levels of unemployment the more they believed it to be voluntary (Arndt, 1973). This framing of the issue also justified the pernicious welfare compliance regime, which enhances the intended 'labour disciplining' effect by increasing the fear of the sack.

1.4 UNEMPLOYMENT AND UNDEREMPLOYMENT IN REGIONAL AUSTRALIA

Some parts of regional Australia have been affected by high rates of unemployment and under-employment with limited job markets for service industry workers and reduced professional career opportunities

The unemployment rate outside the capital city in most states is higher than in the capital city, especially in Queensland and Tasmania. Unemployment in rural areas is often higher than in major cities, while 18 of the 20 electorates in Australia with the lowest household income are outside the capital cities (National Rural Health Alliance 2013). Despite relatively low official unemployment rates, there are large numbers of people who are out of work or have only a few hours of paid employment per week and people performing more than an hour of unpaid work on a family farm are counted as

'employed'. They must rely mainly on social security payments for their income. Areas of high unemployment tend to be areas of high income poverty.

The problem of insufficient jobs may be compounded by the fact that the lack of jobs for young people in rural and remote communities denies them opportunities for on-the-job skill formation. A significant proportion of Aboriginal and Torres Strait Islander people live outside the capital cities and for those living on low income the experience is exacerbated by specific cultural, language and life experience issues (National Rural Health Alliance 2013).

The experience of declining employment opportunities also sits alongside worker shortage: since mid-2018 there has been evidence of worker shortages in many parts of regional Australia. While there are some variations in the types of skills needed, competition between regions for workers in many professional and trade fields is increasing. For example, job vacancy growth in the regions is outstripping the growth experienced in cities. According to Regional Australia Institute data, job vacancies in regions have grown by about 20 per cent since 2016 – compared to just 10 per cent large cities. A variety of occupations are in demand, from low skilled and entry level roles through to health and personal care, trades and professional occupations (Australian Small Business and Family Enterprise Ombudsman, 2019).

On the matter of unemployment and job vacancies in regions, in January 2019 there were around 42,000 job vacancies advertised outside of the mainland state capital cities. The trend is now up for regional Australia, with the average over the 12 months to January 2017 increasing by 16 per cent on the average for the 12 months to January 2019. Vacancies in Metropolitan Areas only went up 9 per cent over the same period (Houghton 2019, p. 23)

WHERE JOBLESS RATE IS HIGHEST

State	Year to April 2018 (average) SA4 regions	%
VIC	Melbourne - West	6.5
SA	Barossa - Yorke - Mid North	6.5
QLD	Ipswich	6.6
NSW	Sydney - Parramatta	6.6
WA	Perth - South West	6.7
WA	Perth - North East	7.0
WA	Perth - South East	7.1
WA	Western Australia - Outback	7.1
SA	Adelaide - North	7.4
QLD	Wide Bay	7.4
QLD	Townsville	7.8
QLD	Logan - Beaudesert	7.9
NSW	Coffs Harbour - Grafton	8.2
QLD	Moreton Bay - North	9.4
QLD	Queensland - Outback	14.0

Source: ABS, CommSec. Jobless rates are annual averages.

To the current problem of unemployment and under employment we also need to factor in the effect of the process of digital disruption on jobs in the next few decades.

2. DIGITAL DISRUPTION

Digital disruption is already underway. It involves the very rapid transformation of our existing ways of working, producing and living occasioned by the advancement of digital technologies. Those technologies include everything from broadband, smartphones, social media, cloud-based platforms, crowdsourcing, through to various kinds of robotics (involving, for example, manufacturing and medical applications) to the ability to analyse complex data sets, and AI-based robotic processing.

International research over the last decade, including from the United States, the United Kingdom and Australia, suggests that almost half (47 per cent) of all current jobs are at risk of automation. In Australia, reports have estimated around 40 per cent to 44 per cent of jobs being highly susceptible to automation (Frey and Osborne 2013; Durrant Whyte et al. 2015).

A report produced by the South Australian Government and Deloitte (2014) distinguished between four kinds of effects for different industries. This has obvious implications for regional rural Australia and the concentration of industries which appear to be facing a long-term major impact from digital disruption:

- **short fuse, big bang effect:** retail; finance, real estate, ICT and media
- **long fuse, big bang:** education, agriculture, transport, health, utilities, government services
- **long fuse, small bang:** manufacturing, mining
- **short fuse small bang:** accommodation and food services, construction

[Source: South Australian Government and Deloitte 2014:5]

As this report makes clear, some 67 per cent of South Australian workers are working in 'big bang industries'.

More generally regional cities have the greatest proportion of jobs that are considered highly vulnerable to automation (28.1%), which is more than the Australian average (26.5%). Regional cities in particular have diverse economies and often provide support services to metropolitan areas. As such, there is a large proportion of people working in clerical and administrative jobs, technical and trade jobs, as well as jobs in retail, health, education and government services all of which are highly vulnerable to automation.

This consideration alone suggests the value of having a strategy in place to deal with digital disruption in regional Australia and how to create permanent, secure and well-paying jobs into the future. In this respect, the impending climate disruption represents not just a threat to regional Australia's wellbeing but also a significant opportunity for future job growth. Whereas automation can, if we choose, displace human workers from existing areas of service and goods production, it can also be used to retain and enhance the capacity of the workforce to extend the range and extent of services and supports in the community.

3. CLIMATE DISRUPTION

Australians along with the rest of humanity face an existential threat posed by uncontrolled global warming.

The World Health Organization (WHO) has declared that climate change is the greatest threat to global health in the twenty first century. The Intergovernmental Panel on Climate Change report released in November 2018, warned the governments of the world that global emissions of greenhouse gases must drop by 45 per cent from their 2010 levels and do so by 2030 if we are to avoid exposing hundreds of millions of people to serious climate-related hazards. A growing body of mainstream climate science says that we need to achieve much larger targets earlier if we are to avoid catastrophic climate change.

The Climate Council (Steffen et al. 2019) has warned recently that Australia's greenhouse gas emissions have been rising for four years and that Australia is not on track to meet its quite weak 2030 emissions reduction target. In November 2018, the Intergovernmental Panel on Climate Change issued a special report that advised governments that to limit warming to 1.5 degrees Celsius above pre-industrial levels – and thereby avoid many climate change impacts – the world needs to reach net-zero emissions of carbon dioxide within 30 years, i.e. by 2050. Australia's greenhouse gas emissions have increased for the past three years, reaching 556.4 MtCO_{2e} in the year to December 2017. Eight of Australia's major industrial sectors are responsible for Australia's rising emissions. These sectors are electricity, transport, stationary energy, agriculture, fugitive emissions, industrial processes, waste and land use. The relative contribution of each are as follows:

- Electricity =35%
- Stationary energy =18%
- Transport=19%
- Fugitive emissions =10%
- Industry =7%
- Agriculture=13%
- Waste = 2%
- Land use and forestry= -4%

[Source: Steffen et al. 2019]

Australia's 26-28 per cent emissions reduction target for 2030 on a 2005 baseline is not adequate to meet the Paris Climate Agreement targets. If other countries were to adopt climate policies similar to Australia's then global average temperature rise could reach over 3°C and up to 4°C. A four-degree world would present serious challenges for human survival, placing billions of lives at risk.

The primary climate change goal is to reach 'net-zero' greenhouse emissions by 2030. The reference to 'net zero' means that after adding up all the greenhouse gases that are released and subtracting those that are removed or buried, there is no net addition to the atmosphere. This goal is slightly less ambitious than calling for no greenhouse gas emissions at all.

Climate change will impact rural and regional Australia heavily. In a recent report Steffen et al. (2019) warned that macroeconomic shocks from climate change will include reduced agricultural yields, damage to property and infrastructure and commodity price increases. That report noted a number of basic problems:

- On current trends, the accumulated loss of wealth due to reduced agricultural productivity and labour productivity as a result of climate change is projected to exceed \$19 billion by 2030, \$211 billion by 2050 and \$4 trillion by 2100.

- By 2050, climate change is projected to halve the irrigated agricultural output of the Murray-Darling Basin region, which currently accounts for 50% of Australia's irrigated agricultural output by value (about \$7.2 billion per year).
- By 2090, wheat yields on the 4,200 family farms in WA that produce half of Australia's wheat are projected to fall by 41-49% if greenhouse gas emissions remain high.
- Previous severe droughts have reduced Australia's Gross Domestic Product by around 1%; estimates suggest that increasing drought frequency and impacts in the future may reduce GDP by 1% every year.

[Source: Steffen et al. 2019]

To this can be added the likelihood that climate change and extreme weather are projected to reduce property values by \$571 billion by 2030, \$611 billion by 2050 and \$770 billion by 2100.

The inescapable conclusion is that the Federal Government must implement credible climate policies that will enable Australia to achieve net zero emissions well before 2050. It also needs to address persistent issues of disadvantage and poverty in rural and regional Australia as well as mitigate the worst effects of digital disruption on employment in the regions. Dealing with these three problems provides the rationale for proposing a GJG.

4. THE GREEN JOB GUARANTEE

To do this the AUWU proposes that the Australian government embrace a GJG policy to be rolled out initially in rural and regional Australia. This will be a federally funded but locally administered and designed program. It is ideally suited for implementation in regional and rural Australia

4.1 A RIGHTS-BASED MODEL OF FULL-EMPLOYMENT

The AUWU is strongly committed to a rights-based model of full-employment. It is grounded in an idea of basic social economic cultural rights of the kind outlined in the *International Covenant on Economic, Social and Cultural Rights (ICESCR)* (1966).

Australia signed the ICESCR in 1972, which was ratified in 1975 and came into effect the following year. It thereby undertook as per Article 6 (1) to 'recognize the right to work, which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts, and will take appropriate steps to safeguard this right'.² Australia has been in continuous and persistent breach of this treaty since 1976. It is time to insist that this right be upheld.

Secondly, and mindful of the need to avert the looming global warming catastrophe, we believe that by linking the objective of full employment via a Job Guarantee to the urgent task of preventing catastrophic global warming is an absolute imperative: A Green Job Guarantee does this.

The GJG involves committing to the conjoint idea of giving effect to the right to employment and economic security for all, and the imperative to save the planet.

² At Article 7 the ICESCR recognises the right of everyone to the enjoyment of just and favourable conditions of work which ensure, in particular:

- That (a) Remuneration which provides all workers, as a minimum, with:
- Fair wages and equal remuneration for work of equal value without distinction of any kind, in particular women being guaranteed conditions of work not inferior to those enjoyed by men, with equal pay for equal work;
- A decent living for themselves and their families in accordance with the provisions of the present Covenant;
- Safe and healthy working conditions;
- Equal opportunity for everyone to be promoted in his employment to an appropriate higher level, subject to no considerations other than those of seniority and competence;
- Rest, leisure and reasonable limitation of working hours and periodic holidays with pay, as well as remuneration for public holidays

Alongside a formal legislative commitment by the Australian government to investing in a full employment program based on a right to employment and security we need a properly funded program designed to enable Australia to achieve low emission targets for greenhouse gases (like carbon dioxide and methane) by 2030 across all major industry sectors.

The key principles or elements include a formal commitment by all levels of Australian government to:

- Achieve net-zero greenhouse gas emissions through a fair and just transition away from fossil fuels for all communities and workers
- Create millions of good, high-wage jobs and ensure prosperity and economic security for all citizens
- Invest in Australia's infrastructure and industry to ensure fundamental sustainability
- Secure for all Australians and for generations to come: clean air and water; a stable and resilient climate; healthy food; access to nature; and a sustainable environment
- Promote justice and equity by stopping current, preventing future, and repairing historic oppression of indigenous peoples, migrant communities, deindustrialized communities, depopulated rural communities, the poor, low-income workers, women, the elderly, homeless people and people with disabilities, and young people.

The primary economic goal is to restore full employment and do it by tackling the problem of transitioning away from fossil fuel use.

The key goals include creating plenty of good, socially valuable jobs and ensure prosperity and economic security for all citizens. The Australian economist Bill Mitchell has developed a workable model of what a GJG would look like. Mitchell (2013) argues that as a first step to introducing a rights-based commitment to full employment the Australian government needs to introduce an open-ended public employment program. This would create a buffer stock of available jobs, into which workers would be shed when the mainstream labour market contracts, and from which they would be drawn when there is growth in employment demand.

This is in addition to an expansion of mainstream public-sector employment where a permanent workforce is required, bringing the quantum of employed people closer to full employment.

Wage system stabilisation is achieved by the GJG buffer stock jobs paying a wage fixed at the Federal Minimum Award rate, to reinforce compliance with minimum standards among employers generally, and to preserve an incentive for workers to leave the GJG when opportunities in mainstream employment arise. Only mainstream employment can offer a prospective worker a potential future pay rise.

That Australia has a well-defined minimum wage setting structure makes it a relatively simple exercise to implement this principle

This would also mean as Mitchell argues that that the Green Job Guarantee jobs would 'hire off the bottom', in the sense that minimum wages are not in competition with the market-sector wage structure (Mitchell 2013). By not competing for workers with the private market, the Job Guarantee would avoid the inflationary tendencies of old-fashioned Keynesianism, which attempted to maintain full capacity utilisation by 'hiring off the top' (i.e. making purchases at market prices and competing for resources with all other demand elements). Green Job Guarantee workers would enjoy stable incomes, and their increased spending would boost confidence throughout the economy and underpin a private-spending recovery.

4.2 FUNDING A GREEN JOB GUARANTEE

In 2013, Mitchell estimated that the total government investment in job creation required to soak up existing unemployment would mean create 594.3 thousand jobs at a cost of \$A22.0 billion (net) over a full year. This would bring the official unemployment rate down to 2 per cent of the available labour force and eliminate hidden unemployment. Not much has changed since then: in 2019 Australia had about 716,000+ unemployed. So, a target of 600,000+ new jobs remain a salient goal while the notional amount of investment would be in the order of \$22-28 billion dollars.

Those calling for a Job Guarantee have frequently relied on a heterodox body of economic theory referred to as modern monetary theory (e.g. Mitchell et al. 2019; Wray 2015). Modern monetary theory identifies the Commonwealth as the source of Australian currency denominated financial assets, and thus concludes that it is not constrained in its spending capacity by the extent of its prior taxing and charging. While we accept the empirical evidence and coherence of this framework, in order to frame the case for a GJG for those still operating on the assumption that Commonwealth spending is constrained by its taxing and charging capacity, just as household expenditure is constrained by its income, we argue for a reduction in taxation expenditures. While we do not see this as a necessary measure to fund the GJG, we offer this as an orthodox financing strategy for those that require one.

In conventional terms, revenue can be raised by drawing down on taxation expenditure, which would have no effect on the existing structure of income taxation per se for most Australians. To the extent that such an approach withdraws financial assets from the non-government sector, and thus reduces aggregate demand, the greater will be the need

for direct job creation. This would be mitigated by targeting high income earners who have a lower propensity to spend than the poor.

Taxation expenditure is a significant measure of the extent to which governments subsidises companies and wealthy individuals and families. Reforming taxation expenditure would have the merit of making Australia a fairer society

Taxation expenditure refers to the billions of dollars in revenue which is forgone each year due to exemptions and concessions provided lawfully by our taxation system. A tax expenditure arises where the tax treatment of an activity or class of taxpayer differs from the standard tax treatment that applies to similar taxpayers or types of activity. Tax expenditures typically involve tax exemptions, deductions or offsets, concessional tax rates and deferrals of tax liability.

Some of the largest tax expenditures in the Tax Expenditure Statement 2017-18 are in relation to the concessional tax treatment of superannuation. In 2017-18 the tax expenditures for the concessional taxation of superannuation entity earnings (C4) and employer superannuation contributions (C2) are estimated to be the third and fourth largest tax expenditures respectively. The revenue foregone is estimated at \$9.4 billion in 2017-18 rising to 13.4 billion in 2020-21. Another example is negative gearing.

It is difficult to measure tax expenditures. Usually they are expressed as a cost to revenue, compared with the 'normal' tax treatment. Tax expenditures are less transparent than program spending. They do not require annual appropriation and are not reported in portfolio budget statements. Their target groups are often less clearly defined, and the government has less control over the cost. They are generally not established with a 'sunset' date and are not regularly reviewed. In 2017 there were 289 tax expenditure schemes

- incentives to companies to do R&D, make films or invests in infrastructure
- tax write-offs for legal loss making and advertising
- capital gains tax writes offs for the 'family home' and the concessional treatment of superannuation.³

Australia provides a very high level of taxation subsidy to investors and speculators who set out to lose money to simultaneously reduce their total income tax liabilities and to

³ Tax expenditures and tax concessions relate to a large number of taxes including income tax (personal and business), including capital gains tax (CGT) and income tax paid on retirement income; fringe benefits tax (FBT); the goods and services tax (GST); excise duties; customs duty (including tariffs); wine equalisation tax; luxury car tax; petroleum resource rent tax; minerals resource rent tax; crude oil excise; other indirect taxes; and the carbon pricing mechanism.

reap taxpayer funded subsidies as they accrete capital growth in their property investments. Tax expenditures and tax concessions relate to a large number of taxes including income tax (personal and business), including capital gains tax (CGT) and income tax paid on retirement income; fringe benefits tax (FBT); the goods and services tax (GST); excise duties; customs duty (including tariffs); wine equalisation tax; luxury car tax; petroleum resource rent tax; minerals resource rent tax; crude oil excise; other indirect taxes; and the carbon pricing mechanism

In 2016-17 capital gains tax exemption on family homes cost \$61.5 billion in 2016-17, well exceeding the \$33 billion lost to superannuation tax concessions and part of the total value of taxation expenditures worth \$150 billion. In 2017-18 total measured tax expenditures were estimated at \$164+ billion.

Table: Large measured tax expenditures in 2017-18

Tax expenditure	Estimate \$m	
	Revenue forgone	Revenue gain
Large positive tax expenditures		
E6 Main residence exemption - discount component	40,500	n/a
E5 Main residence exemption	33,500	n/a
C4 Concessional taxation of superannuation entity earnings	19,250	18,300
C2 Concessional taxation of employer superannuation contributions	16,900	16,300
E13 Discount for individuals and trusts	10,270	n/a
H27 Food	7,100	6,900
H15 Education	4,550	4,100
H18 Health - medical and health services	4,100	4,050
H2 Financial supplies - input taxed treatment	3,400	3,400
A24 Concessional taxation of non-superannuation termination benefits	2,400	2,400
C6 Deductibility of life and total permanent disability insurance premiums provided inside of superannuation	2,370	n/a
B2 Local government bodies income tax exemption	2,210	n/a
A41 Exemption of Family Tax Benefit payments	2,070	2,070
B12 Exemption from interest withholding tax on certain securities	2,010	1,430

A19	Medicare levy exemption for residents with taxable income below the low-income thresholds	1,940	n/a
D14	Exemption for public benevolent institutions (excluding hospitals)	1,650	n/a
D10	Exemption for public and not-for-profit hospitals and public ambulance services	1,650	n/a
A17	Exemption of the Private Health Insurance Rebate	1,520	n/a
A27	Exemption of Child Care Assistance payments	1,520	n/a
H5	Child care services	1,420	n/a
C1	Concessional taxation of capital gains for superannuation funds	1,350	n/a
A57	Philanthropy - deduction for gifts to deductible gift recipients	1,300	n/a
B49	Lower company tax rate	1,300	n/a
F6	Concessional rate of excise levied on aviation gasoline and aviation turbine fuel	1,280	n/a
B77	Small business simplified depreciation rules	1,200	n/a
H19	Health - residential care, community care and other care services	1,130	n/a
B71	Capital works expenditure deduction	1,040	n/a
A33	Seniors and pensioners tax offset	1,000	n/a
Large negative tax expenditures			
F10	Higher rate of excise levied on cigarettes not exceeding 0.8 grams of tobacco	-2,360	n/a
F21	Customs duty	-1,260	-1,260

4.3 DESIGNING THE GREEN JOB GUARANTEE

The design of GJG jobs will ideally entail roles for:

The Commonwealth:

- as the funding source and auditor of GJG enterprises and projects.
- as the operator of the public employment service.
- as the operator of regional labour market analysis and planning units.
- as the responsible authority for ensuring regional skills in demand are identified and tasks that require them are included in the design of GJG jobs.
- as the authority charged with ensuring GJG jobs do not displace existing mainstream employment.

Local government:

- as the final approver and arbiter of the appropriateness of GJG projects in its area.
- as overseer of a permanent community consultation process that generates proposals, holds the GJG organisation locally accountable.

Community groups and organisations:

- to design and submit proposals for GJG work.
- to support the tailoring of GJG positions to accommodate people otherwise excluded from employment participation.

4.4 INVESTING IN LOCAL COMMUNITY WEALTH

The first principle is that the investment by the Australian government should target local communities in rural regions to promote community wealth development.

As Thomas Hanna et al. (2018) point out, 'community wealth development' is a local economic development strategy focused on building collaborative, inclusive, sustainable, and democratically controlled local economies:

Instead of traditional economic development through public-private partnerships and private finance initiatives, which waste billions to subsidize the extraction of profits by footloose corporations with no loyalty to local communities, community wealth building supports democratic collective ownership of—and participation in—the economy through a range of institutional forms and initiatives (Hanna et al 2018).

There are working examples of what this transformative model looks like in the Mondragon cooperative in the Basque country, the Evergreen Cooperative in Cleveland, Ohio and in the city of Preston in the UK.

The 'Preston Model' e.g. encompasses a string of 'public sector anchors' like hospitals, welfare agencies, schools and colleges, across Preston and Lancashire, to which has been added public pension fund investment, affordable housing, an energy company and a community bank (Bastiani 2019).

In effect community wealth development is a form of municipal protectionism in which local worker owned businesses are favoured over multinational and large-scale corporations (Bastiani 2019). The Preston Model involves much more than just developing the local economy through shifts in spending and procurement. It is about alternative forms of ownership that not only enrich the lives and livelihoods of residents and workers, but also give them the opportunity to actively participate in the economic decisions that affect their lives and the future of their city.

Commitment to the principle of local procurement ensures that the investment stays in the region and is not simply ripped off by rapacious globalised corporates.

A second key principle is a commitment to Universal Basic Services. This refers to basic services like health, education, renewable energy, housing and transport based on targeted and persistent investment in social care (health, education community services). This recognises that there are basic human goods at stake when people can access high quality education, enjoy the affordances of democracy and accessible legal services, have high quality and affordable housing, nutritious and healthy food, can travel on accessible and quality transport and have access to the information they need.

Identifying which key aspects of a model of Universal Basic Services is needed in any given region can be worked out at the local level. It may involve, for example, setting objectives like free public transport or free or low-cost health care and developing the Job Guarantee aspect of the policy at the local level.

The same decentralised approach to designing a Job Guarantee at the local level is also to be applied to the commitment to a GJG. This will need to consider the local circumstances and the national imperatives about how best and how quickly Australia can decarbonise.

4.5 TARGETING KEY SECTORS

A GJG should target key sectors in the Australian economy to leverage existing job creation opportunities, while creating new opportunities in areas currently neglected by the market

4.5.1 CARE AND REGENERATIVE ECONOMIES

The health care and social assistance sector is already the largest industry by employment, providing 445,087 jobs in rural and regional Australia and over 1.3 million jobs Australia-wide (ID Community 2017). However, much of the care work performed in Australia occurs outside wage labour system and its economic value is not captured by traditional measures of productivity, this despite reproductive labour being valued \$205 billion per year in Victoria alone (Deloitte Access Economics 2018). Similarly, the environmental benefit provided to the economy in the form of ecosystem services, valued at between \$125-\$145 trillion globally (Costanza et al. 2014), is not captured by traditional economic measures and is at threat from the twin ecological crises of climate change and biodiversity loss.

Traditionally, issues addressed by the health care and social assistance sector, such as disadvantage and inequality, have been perceived as purely 'social', while issues addressed by the environmental sector, such as ecosystem degradation, have been perceived as existing outside of the social in the sphere of 'the environment'. However, the distribution of environmental risks and benefits has a clear impact on health and social disadvantage that is increasingly recognised by service providers. Jesuit Social Services (2018), in recognising the role of the community sector in preparing for climate resilience and addressing issues of environmental inequality, now operates within a framework of ecological justice that foregrounds the interrelated nature of social and environmental factors. While, most recently, the Australian Medical Association (2019), in recognising the impacts on health and wellbeing, has declared climate change as a health emergency. These are just two examples of the growing awareness within the health and social assistance sector that climate change

There is a great potential for job creation in both the social and environmental sectors. However, much of the work is not considered productive by the market and is either left undone or is performed by unwaged labour. In terms of job creation, there is considerable scope for government investment to create much needed jobs as part of a GJG programme and perform critical services that currently the market is unable or

unwilling to provide, especially in regional and rural areas. These might include (but by no means limited to):

- Restructuring existing programmes, such as the Green Army, to provide fair, living wages for people of all ages to participate in environmental regeneration projects.
- Reinstating a 'green' Community Development Employment Project (CDEP), potentially based on a payment for ecosystem services (PES) model, that provides (at a minimum) a living wage for Indigenous people living on country to undertake important activities that lead to carbon abatement, biodiversity conservation, restoration and feral animal control.
- Loosening restrictions on government benefits such as carers pension – pegged to a living wage – to ensure that people taking time out of the labour market to provide care for sick and elderly community members can be duly compensated and not forced into poverty traps.

4.5.2 *ELECTRICITY*

The electricity sector is the biggest polluter, accounting for 33 per cent of our emissions. Meeting power demand in Australia through 100 per cent clean, renewable, and zero-emission energy sources is an ambitious but entirely achievable goal. It will require dramatically expanding and upgrading renewable power sources, re-engineering the national energy grid and deploying new capacity. Numerous studies have consistently found there are no technical barriers to Australia achieving secure, reliable power from a very high proportion of renewable electricity (Finkel 2017)

It is also clear as the Steffen et al. (2019) argue that sectors, like electricity and transport, already have more affordable, readily available technologies that can be used to transition away from reliance on fossil fuels and reduce emissions. It would be more cost-effective to reduce emissions in these sectors by more than their pro-rata share of 26-28 per cent. This would reduce the burden on other sectors, particularly agriculture, stationary energy and industrial processes, where solutions are either more expensive or will require further technological development.

However, while the market has been effective at financing and rolling out renewable capacity, there is an increasing trend towards government intervention in energy markets. Whether at the national level, with investment in the "Snowy 2.0" pumped hydro scheme, or even the mooted plans to underwrite new coal fired power stations, or government regulation of electricity prices at the state level, it is increasingly clear that governments are no longer willing or able to simply leave energy policy to market forces.

This shift in perception around the role of governments in energy markets provides a significant opportunity to invest in job creation. In Victoria, where the Andrews' government has taken advantage of cheap bond rates to borrow and invest in intergenerational infrastructure projects, there has been a significant growth in employment, with an additional 450,000 jobs created, 66,000 of which have been in regional areas, since 2014 (Victorian Government, 2019). This model of public investment could be applied to a GJG program, through which large-scale renewable projects at federal and state levels are explicitly linked to jobs creation and underemployed and unemployed workers be given the opportunity to be trained in the construction and maintenance of renewable energy infrastructure.

4.5.3 AGRICULTURE

Agriculture accounts for over fifty per cent of Australia land-use and accounts for around fifteen per cent of greenhouse gas emissions (Jackson, Hatfield-Dodds and Zammit, 2019).

While agriculture remains a profitable industry sector, in terms of employment it has been declining for several decades as farm operators have benefited from increasing productivity and automation (Productivity Commission 2017). While this has benefited the shrinking number of farm operators, it has contributed to the long-term decline of farming communities and the consolidation of population and services to regional centres (Productivity Commission 2017). At the same time, the seasonal nature of agricultural labour means many farms struggle to find workers when they most need them. A GJG could entail the creation of flexible public-sector employment to provide stable employment to the seasonal agricultural workforce and others in rural areas to eliminate chronic labour-underutilisation, retain local labour forces, and stabilise demand for local commercial operators, with jobs entailing provision of tailored social infrastructure and improvements in public amenity (to improve quality of life and support local tourism).

A recent report advocating for a national agricultural climate strategy by the Farm Institute of Australia has identified the importance of agriculture in the provisioning of ecological conservation (McRobert et al. 2019). With half of Australian land-use under the stewardship of farmers, there are important economic and societal obligations on the industry to care for natural capital. However, the current model of ecological conservation practiced by farmers and land managers is voluntary and incremental, what is instead required is a systemic approach that not only compensates primary

producers for regenerative work but also provides the necessary labour for such work to be expanded. This provides an opportunity for research, development and extension (RD&E) investments in sustainable farming and land regeneration practices tied to a GJG, whereby public sector agricultural extension workers can be trained and employed to provide public good regenerative services on private farming land.

4.5.4 HOUSING CONSTRUCTION

There is a crisis of housing affordability in Australia. Fewer people are able to buy homes and the proportion of Australian households that rent has increased markedly over recent years, with households that rent paying the highest proportion of their weekly income in housing costs (ABS 2019). This is particularly true of rural and regional Australia, where home ownership density tends to be lower than in metropolitan regions (ABS 2013). Australia needs more homes that are not only affordable and accessible but energy efficient and able to withstand the increase in extreme conditions that are forecast under climate change scenarios. Households that rent are more vulnerable to the impacts of climate change, with there being very little in the way of incentives for landlords to retrofit existing housing stock, which exacerbates inequality in the form energy poverty and increased housing costs (Pape, 2013). However, due at least in part to distortions like negative gearing and low rates of capital gains tax, the market has failed in being able to provide affordable and sustainable housing options for growing numbers of people.

A recent study by Julie Lawson et al. (2018) estimated that to simply meet the backlog in demand for social housing requires building over 700,000 new social dwellings over the next 20 years. The study found that, rather than overly complex private financing innovations, such as the Rudd government's National Rental Affordability Scheme, which achieved little more than to transfer \$1 billion of wealth to property developers (Coates and Horder-Geraghty 2019), the most cost effective and efficient mechanism for financing construction of new social housing stock is to treat it like other social infrastructure investments, such as schools, hospitals and prisons, which can then be maintained as capital assets over time. A large-scale social housing construction project, directly financed by the federal government, would not only provide secure, affordable housing for people in regional Australia, it could be tied to a GJG that trains and provisions employment for thousands of construction workers around the country.

REFERENCES:

- ABS (2013). Perspectives on Regional Australia: Housing Arrangements - Home Ownership in Local Government Areas, 2011. Available at: <<https://www.abs.gov.au/ausstats/abs@.nsf/0/ED90106B41679C4CCA257BB700148475?Opendocument>>
- ABS (2019). Housing Occupancy and Costs, 2017-18. Available at: <<https://www.abs.gov.au/ausstats/abs@.nsf/0/88BF225497426920CA257F5C000989A8?Opendocument>>
- Australian Medical Association (2019). *Climate Change is a Health Emergency*, 3 September. Available at: <<https://ama.com.au/media/climate-change-health-emergency>>
- Archer J., Houghton K., and Vonthehoff B. (2019). *Regional Population Growth – Are We Ready? The economics of alternative Australian settlement patterns*, Regional Australia Institute, Canberra.
- Arndt, H.W. (1973) 'Inflation: New Policy Prescriptions', *The Australian Economic Review*, 3rd Quarter.
- Australian Small Business and Family Enterprise Ombudsman, 2019, *The workforce challenges of rural and regional Australia*, 20 February. Available at: <<https://www.asbfeo.gov.au/news/news-articles/workforce-challenges-rural-and-regional-australia>>
- Bastiani, A. (2019). *Fully Automated Luxury Communism*, London: Verso.
- Coates, B. and Horder-Geraghty, J. (2019). *Learning from past mistakes: lessons from the National Rental Affordability Scheme*. Grattan Blog. Available at: <<https://blog.grattan.edu.au/2019/09/learning-from-past-mistakes-lessons-from-the-national-rental-affordability-scheme/>>
- Costanza, R., de Groot, R., Sutton, P., Ploeg, S., Anderson, S.J., Kubiszewski, I., Farber, S. and Turner, K. (2014). Changes in the global value of ecosystem services. *Global Environmental Change*, 26: 152-158.
- Cook, B., Mitchell, B., Quirk, V., and Watts, M. (2008). *Creating Effective Local Labour Markets: A New Framework for Regional Employment Policy*. Centre of Full Employment and Equity, University of Newcastle.
- Deloitte and South Australian Government (2014). *South Australia: Digital disruption, Digital opportunities*. A co-production between Deloitte and the Office of the Chief Information Officer, Adelaide. Available at: <<https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Building%20Lucky%20Country/deloitte-au-sa-digital-opportunities-2015.pdf>>
- Deloitte Access Economics (2018). *Modelling the value of unpaid work and care*. Report commissioned for the Office for Women, Department of Health and Human Services, Government of Victoria, Melbourne.

- Durrant-Whyte, H., McCalman, L., O'Callaghan, S., Reid, A. and Steinberg, D. (2015). The impact of computerisation and automation on future employment. In *Australia's future workforce?* Committee for Economic Development of Australia, Melbourne.
- Frey, C.B. and Osborne, M. (2013). *The future of employment: How susceptible are jobs to computerisation?* Oxford Martin School Working Paper, Oxford University. Available at http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf
- Hanna, T., Guinan, J., and Bilsborough, J. (2018). 'The 'Preston Model' and the modern politics of municipal socialism'. *Open Democracy*, 12 June. Available at: <https://neweconomics.opendemocracy.net/preston-model-modern-politics-municipal-socialism/>
- Houghton K. (2019). *The future of regional jobs*. Shared Inquiry Programme. The Regional Australia Institute, Canberra. Available at: http://www.regionalaustralia.org.au/home/wp-content/uploads/2019/04/RAI_SIP-2018-2-1-2_FutureRegionalJobs_Booklet_Print_3.pdf
- ID Community (2017). Regional Australia: Industry sector of employment. Available at: <https://profile.id.com.au/australia/industries?EndYear=2006&DataType=UR&WebID=245>
- Jackson, T., Hatfield-Dodds, S. and Zammit, K. (2019). *Snapshot of Australian Agriculture*, ABARES. Available at: <http://www.agriculture.gov.au/abares/publications/insights/snapshot-of-australian-agriculture>
- Jesuit Social Services (2018). *Ecological justice: Expanding the Conversation*. Available at: <http://jss.org.au/wp-content/uploads/2018/02/Ecological-Justice-Expanding-the-Conversation.pdf>
- Lawson, J., Pawson, H., Troy, L., van den Nouwelant, R. and Hamilton, C. (2018) *Social housing as infrastructure: an investment pathway*, AHURI Final Report No. 306, Australian Housing and Urban Research Institute Limited, Melbourne. Available at: <https://www.ahuri.edu.au/research/final-reports/306, doi:10.18408/ahuri-5314301>
- Marston, G., Zhang, J., Peterie, M., Ramia, G., Roger Patulny, R. and Cooke E. (2019). To move or not to move: mobility decision-making in the context of welfare conditionality and paid employment'. *Mobilities*. Available at: <https://doi.org/10.1080/17450101.2019.1611016>
- McRobert, K., Admassau, S., Fox, T. and Heath, R. (2019). *Change in the air: defining the need for an Australian agricultural climate strategy*. Research report. Australian Farm Institute, Surry Hills. Available at: https://d3n8a8pro7vhmx.cloudfront.net/farmersforclimateaction/pages/1408/attachments/original/1563431026/FCA_layout_20190717_web.pdf?1563431026

- Mitchell, W. (2013). *Investing in a Job Guarantee – how much?* Modern Monetary Theory: Macroeconomic research, teaching and advocacy. Available at: <<http://bilbo.economicoutlook.net/blog/?p=23728>>
- Mitchell, W., Wray, L.R. and Watts M. (2019). *Macroeconomics*. Palgrave MacMillan, London.
- National Rural Health Alliance (2013) *A snapshot of poverty in rural and regional Australia*. Joint Report with ACOSS. Canberra. Available at: <https://www.ruralhealth.org.au/documents/publicseminars/2013_Sep/Joint-report.pdf>
- Pape, A. (2013). *Energy Efficiency & People on Low Incomes*. Australian Council of Social Services report. ACOSS, Strawberry Hills, NSW.
- Productivity Commission (2017). *Transitioning Regional Economies*. Study Report. Available at: <<https://www.pc.gov.au/inquiries/completed/transitioning-regions/report>>
- PwC Australia (2015). *A Smart move: Future-proofing Australia's workforce by growing skills in science, technology, engineering and maths*. Available at: <<https://www.pwc.com.au/pdf/a-smart-move-pwc-stem-report-april-2015.pdf>>
- Regional Australia Institute (2019). *National Population Policy for Regional Australia*. Canberra. Available at: <http://www.regionalaustralia.org.au/home/wp-content/uploads/2019/02/2019_RAI_NationalPopulationPlanForRegionalAustralia_Final.pdf>
- Senate Standing Committee on Community Affairs, 2004. *A hand up not a hand out: Renewing the fight against poverty*. Report on poverty and financial hardship. Canberra. Available at: <https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Completed_inquiries/2002-04/poverty/report/index>
- Steffen, W., Kompas, T., Dean, A., and Rice, M., (2019) *Compound Costs: How climate change is damaging Australia's economy*. Climate Council of Australia: Canberra. Available at: <<https://www.climatecouncil.org.au/wp-content/uploads/2019/05/Costs-of-climate-change-report.pdf>>
- Tchnerva, P. (2018) "The Job Guarantee: Design, Jobs, Implementation", Levy Economics Institute, Working Paper 902. Bard College. Available at: <<http://www.levyinstitute.org/publications/the-job-guarantee-design-jobs-and-implementation>>
- Tcherneva, P. and Wray, R. (2008). *Is Jefes de Hogar an Employer of Last Resort program? An assessment of Argentina's ability to deliver the promise of full-employment and price stability*. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1009618>
- Tcherneva, P. (2012). *Beyond Full Employment: The Employer of Last Resort as an Institution for Change*. Levy Institute Working Paper No. 732. Bard College. Available at: <http://www.levyinstitute.org/pubs/wp_732.pdf>

Tcherneva, P. (2014). The social enterprise model for a job guarantee in the united states. Levy Institute Policy Note 2014/1. Bard College. Available at:
<<http://www.levyinstitute.org/publications/the-social-enterprise-model-for-a-job-guarantee-in-the-united-states>>

Victorian Government (2019). Budget papers: 2019/20 State Budget papers. Department of Treasury and Finance Victoria, Melbourne. Available at:
<<https://budget.vic.gov.au/budget-papers>>

Vinson, T. (2007). *Dropping off the edge: the distribution of disadvantage in Australia*. Jesuit Social Services: Sydney. Available at:
<<https://www.voced.edu.au/content/ngv%3A17005>>

Wray, R. (2015). *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*. Springer. New York.