# Gippsland Regional Labour Force Participation Report

**FULL REPORT** 



This report was prepared by the Institute of Innovation, Science and Sustainability, Federation University Australia on behalf of the Latrobe Valley Authority.

#### Report Authors:

- Professor Philip Taylor
- Doctor Corey Carter
- Professor Andrew O'Loughlin

#### ISBN 978-0-6455715-1-6

Latrobe Valley Authority
131 Princes Drive Morwell VIC 3840

Telephone: 1800 136 762 Email: contact@lva.vic.gov.au







## **Table of Contents**

Ex	xecutive Summary	
	Key findings	;
	Recommendations	İ۷
1	Introduction	1 1
	1.2 Research Aims and Objectives	1
	1.3 Structure of the Report	1
2	Methodology	2
	2.1 Data Collection and Analysis	2
3		3
	<ul><li>3.1 Defining Key Terms</li><li>3.2 Determinants of Labour Force Participation</li></ul>	5
	3.3 Significant Events Impacting the Gippsland Region	13
	3.4 Case Studies	16
	3.5 Conclusion	20
4	Interviews	
	4.1 The Nature of Work and Employment Participation in Gippsland 4.2 Geographical factors	21 23
	<ul><li>4.2 Geographical factors</li><li>4.3 Cultural factors</li></ul>	24
	4.4 Demographic Factors	25
	4.5 Educational factors	27
	4.6 Informal Economy	29
	4.7 Policy Implications 4.8 Conclusion	30 31
5		32
5	5.1 Understanding the Data	32
	5.2 Statistical Snapshot of Gippsland	32
	5.3 Rates of Labour Force Participation, Employment, Unemployment and not in the Labour Force	
	<ul><li>5.4 Income Distribution and Employment Type</li><li>5.5 Welfare Payments</li></ul>	45 50
	5.6 Addressing Issues of Data Collection	52
	5.7 Conclusion	53
6	Conclusions	54
	6.1 Summary of Key Findings	54
	6.2 Recommendations 6.3 Need for Future Research	56 57
	6.4 Concluding Remarks	57
7	References	58
R	Annendix	64

## **Executive Summary**

This report details the findings of research that considered issues of low labour force participation in the Latrobe-Gippsland Statistical Area Level 4 (SA4), from here on simplified to 'Gippsland'. The project commenced in June 2021 and was completed in June 2022.

It comprised a review of academic and 'grey' literature, analysis of a range of existing national, State, and local quantitative datasets and was supplemented by primary qualitative research. The objectives were to understand the factors influencing labour force participation and to make recommendations as to interventions that will raise this for specific groups.

In synthesising data from a range of sources, and in collecting data from and engaging in a dialogue with community stakeholders the study also contributed to capacity building at the local level.

The project had **four** main elements:

#### 1. A review of relevant literature

A review of the international academic and policy literature concerned with factors that influence levels of labour force participation in local economies and how to enhance these.

#### 2. Analysis of existing datasets

This analysis aimed to identify the nature of employment in the Gippsland region and characteristics of participants and non-participants in the labour force, including comparisons across a range of dimensions e.g., age, gender, socio-economic status, and skill level, the changing industry mix and its relationship with levels of employment.

#### 3. Key informant interviews

Key informant interviews in the Gippsland region among major employers and employer representative bodies, employment service providers, trade unions, RTOs and education providers, and community groups aimed at eliciting views concerning the nature and extent of barriers to labour force participation and potential remedies.

#### 4. A community consultation event

A community event at which findings of the study and recommendations were presented, with input from key stakeholders solicited and implemented to refine the final report.

## Key findings

The broad-ranging focus of this research resulted in several findings related to issues of labour force participation in the region. The key findings are as follows:

- 1. The labour force participation rate in Gippsland (51.4%) sits well below that of Victoria as a whole (64.6%) (as of September 2021 when the data were collated) and is lower than other parts of regional Victoria, and markedly so in some cases. Participation in Gippsland declined significantly during the pandemic.
- 2. In Gippsland rates of participation among men and women increased until approximately 2010, before gradually declining thereafter. Men's participation peaked at approximately 75 per cent in 2010 while women's peaked at approximately 63 per cent in 2011. While men's participation continues to exceed that of women, there has been a convergence since 2010.
- 3. Rates of labour force participation vary markedly by age group across Gippsland. The region's workforce is increasingly an older one. Regarding men, participation of those in the 55-64 age group sits below those of the 35-44 and 45-54 age groups but has seen a marked increase over the last two decades, from approximately 40 per cent in March 1999 to 70 per cent by September 2021. The participation of men aged 65 plus also shows a gradual and marked increase over time, from approximately five per cent in March 1999 to over 20 per cent in September 2021. As with men, the participation of women in the 55-64 age group has increased markedly, from below 30 per cent in March 1999 to almost 80 per cent by September 2021. The participation of women aged 65 plus also shows a gradual increase over time, reaching just under 20 per cent in September 2021.

- 4. By comparison with the older age groups the participation of those men aged 15-24 and 25-34 has declined in recent years. Patterns of participation among the 15-24 age group are uneven but compared with a recent peak of over 80 per cent in March 2016 stood at just over 50 per cent in September 2021. After sitting well above 80 per cent for much of the last two decades the participation of men aged 25-34 declined recently, reaching just under 70 per cent by September 2021. Such trends are not observed in terms of younger women's participation, although participation among those aged 15-25 fell during the pandemic. More generally, it is also important to note that women's participation broadly sits below that for men across age groups.
- 5. It is apparent that issues of participation are heterogeneous across the region. The local government areas of Baw Baw and South Gippsland possess low rates of unemployment, while Bass Coast, East Gippsland, and Wellington have rates consistent with the range of the Victoria State average. However, Latrobe City possesses an unemployment rate substantially higher than all other local government areas and the State average. It experienced an unemployment rate between 5.8 per cent and 10.6 per cent over the last decade.
- 6. Evidence concerning those classified as not in the labour force who are neither employed nor unemployed in a particular reference period shows that this is an increasingly important phenomenon in the region. Except for Geelong, the incidence of those classified as not in the labour force sets Gippsland apart from the rest of regional Victoria. While it is unsurprising that this phenomenon is particularly observed among both men and women aged 65+ due to this classification including those self-defining as retired it should be noted that numbers have seen a dramatic increase since 2010. This may explain declining levels of labour force participation in Gippsland. Also, noteworthy has been recent growth (albeit from a relatively low base) in the numbers of young men classified as not in the labour force.
- 7. The project brief also involved consideration of issues of Indigenous Australians' labour force participation in Gippsland. Data that allowed such a degree of specificity were not identified. However, national surveys indicate that the labour force participation of Indigenous Australians compares poorly with those classified as non-Indigenous. It is estimated that approximately 60 per cent of Indigenous Australians of working age (aged 15–64) are participating in the labour force, of which 49 per cent are employed. By comparison, among non-Indigenous Australians, 80 per cent of the working-age population are in the labour force, of which 76 per cent are employed. Labour force participation among Indigenous Australians aged 55-64 is particularly low. Levels of Indigenous persons' employment decrease and levels of unemployment and not being in the labour force increase from inner regional to outer regional locations.
- 8. The study findings indicate that labour force participation should be a critical area of concern for regional stakeholders. Alongside the general fall in participation in Gippsland, that of younger men over several years prior to the pandemic is of particular concern as is that for women observed during the pandemic, from both an economic and social perspective. But alongside this, markedly higher levels of unemployment among both younger women and men continue to be a concern, underlining the need for ongoing efforts that have a particular youth focus. That unemployment in Latrobe City is substantially higher than all other local government areas also indicates that policies targeted at reducing unemployment should be specifically tailored to this locality. It can be inferred from the evidence that a lack of participation in the labour force generally and high levels of unemployment among Indigenous Australian also necessitates ongoing specific attention.
- 9. This picture contrasts with growth in older people's labour force participation. While this should be viewed positively from both an economic and social perspective it raises the question, against the backdrop of an ageing population, of what more could be done to maintain older workers' connections with the labour market, as well as local business' capacity to respond well to the needs and aspirations of an age diverse workforce. Of particular concern is that those classified as not in the labour force have seen a sharp increase in Gippsland in the last decade and these are disproportionately men and women aged 65 plus. This would indicate a need for a major focus on retaining or drawing a proportion of such people back into the workforce, considering such issues as job service support, skills training, employment arrangements, employer awareness raising and health and wellbeing.
- 10. More broadly, the findings concerning younger and older age groups raise the question of how to construct an employment narrative for the region that does not position younger and older workers as being in competition for jobs; the so-called 'lump of labour' fallacy. The evidence is clear that younger and older workers are complementary and that businesses benefit from a wide range of skills,

- knowledge, and experience that an age-diverse workforce brings. A focus on the participation of both young and old will potentially benefit both.
- 11. In this regard, worker transfer schemes will have diminishing returns in the long run as the power industry transitions, and offerings of early retirement are contradictory to Commonwealth policies aimed at prolonging working lives due to demographic shifts. This necessitates a long-term strategy focused on labour force participation and preventing skilled labour migration from Gippsland. On the other hand, while evidence drawn from Australian and international case studies indicates that it is possible to provide job training and investment in supporting new industries and create replacement jobs that reabsorb displaced labour within a region, like does not necessarily replace like, with job quality a factor requiring attention.
- 12. There is an entrenched culture of intergenerational joblessness and welfare in some parts of Gippsland. Analysis of welfare allocation rates indicates that the number of people on unemployment and other payments has remained relatively steady on a year-by-year basis, indicating that this cohort is neither shrinking nor growing substantially. Addressing this cultural issue will require not only the provision of jobs, but career pathways capable of fostering a sense of independence, self-reliance, and aspiration in communities where this is absent.
- 13. There is a changing culture regarding attitudes towards work and increasing desire among employees to maintain a stronger work-life balance. A shift towards more flexible working arrangements is indicative of the changing 'psychological contract' that employees have with their employers, which is not yet fully understood. It is important that employers respond to this emerging paradigm. Alongside this was evidence of a shift in the nature of employment contracts being offered, raising questions regarding the preservation of job quality in the region, an issue worthy of particular attention if it is to stave off competition from employers in metropolitan Melbourne who might be able to offer better terms and conditions.
- 14. The Gippsland economy is becoming knowledge based and ensuring its population has the requisite capabilities will be critical to maintaining an adequate supply of labour. Sectors such as agriculture are becoming increasingly technology-oriented, with growing demand for skilled workers sitting alongside an unmet need for low skill workers. This shift from what was once a predominantly low skill industry needs to be addressed to ensure it can access the workers it needs. This issue is especially pertinent given the identification of food and fibre as an area of specialisation for the region into the future.
- 15. Also identified was how disproportionately high rates of domestic violence in parts of the region might undermine women's labour force participation. A lack of the stability required to be able to transition into work effectively may result in long-term joblessness, particularly in circumstances where dependent children are involved. Experiences of abuse may also affect how people engage with employers and employment services.
- 16. The availability of public transport was identified as a critical impediment to finding and holding down a job, with smaller or remote communities and industries based outside of community centres disproportionately impacted by fewer public options. Transport schedules also predominantly cater to a traditional '9 to 5' work schedule, limiting options for employees whose workplaces operate outside this usual window.

#### Recommendations

While this research has produced important findings regarding participation in Gippsland this represents the beginning of a process as opposed to an end. Nevertheless, this report provides a foundation upon which future projects can build. Considering the above findings, the following recommendations can be made:

- 1. Gippsland could position itself as being at the forefront of what a post-carbon labour market should look like. There is a need for a focused long-term and multi-agency labour market strategy for Gippsland, which emphasises proactive planning for the managed transition of traditional industries and the conditions necessary for the emergence of new ones. To respond effectively to future labour demand, policy should emphasise the participation of workers and solutions should focus on growing and maintaining labour supply. For example, the use of early retirement schemes, while offering short-term expediency, often results in a permanent loss of skilled workers, sends the wrong message to both industry and the workforce about effective labour market management, and runs counter to national efforts aimed at raising levels of employment among older workers against a backdrop of population ageing.
- 2. Tackling the problem of low labour force participation is a major undertaking, having significant resourcing implications. It will necessitate a culture shift and a significant expansion of services well beyond those designed to assist people classified as unemployed. While the needs of non-labour force participants and the unemployed will overlap to an extent, the level of resourcing for existing services will need to increase substantially and new services will be needed, given the nature and scale of the participation gap. More broadly there sits a need to increase local industry's capability in terms of workforce management and planning and understanding of their local labour market. Within the community it is also important to encourage and incentivise work, help people reskill and identify pathways to sustainable employment. This will include changing attitudes to work and increasing understanding of the modern workplace. That such issues are being faced by other parts of regional Australia suggests that Gippsland could be used as a testbed for innovation around issues of labour supply, identifying solutions that could be applied elsewhere. Given numerous examples of somewhat similar regions in transition elsewhere in Australia and internationally some of which were described in this report, lessons could be learned from deep analysis of these that could inform actions in Gippsland.
- 3. The region's specific circumstances will potentially require the piloting of innovative labour market solutions. State and Commonwealth Government agencies will play a central role here in a range of areas such as:
  - Redesigning and expanding the labour market eco-system, particularly regarding aligning careers, skills and education offerings with the needs of future industries.
  - Supporting a range of focused initiatives targeting the participation of specific groups e.g.,
    those classified as not in the labour force including young people who have dropped out of or
    never engaged with work and the retired, those in poor health or with a disability, Indigenous
    Australians, women generally and specifically women experiencing domestic violence, CALD
    groups and older workers.
  - Addressing transportation needs.
  - Educational activities among local business focused on identifying and implementing effective labour supply strategies.
  - The provision of quality labour market analysis that can inform policymaking and aid in evaluating program success.
- 4. A new labour market eco-system will necessitate the establishment of an entity to develop and coordinate services. Evidence from this study points to some confusion regarding the respective roles of the labour market actors, even among senior community representatives. A revised and expanded suite of labour market services will require the oversight of a local body representing key stakeholders. In conjunction with Commonwealth and State actors there would also be potential merit in drawing on local capability in co-designing this new eco-system to increase community buy-in and understanding.
- 5. There is a need to consider labour force participation in the context of dynamic changes in work and the characteristics of workers. Translational activities that raise awareness about the implications of these changes and engage business with emerging best practices in areas such as

- skills, job quality, flexible working, and labour sourcing, and the reconfiguring of human resource management capability to make it more responsive to future-oriented business needs will be required. This will require universities and TAFE working with local industry and regional stakeholders in developing and promulgating contemporary models of work that position Gippsland as being at the leading edge of such developments if they are to attract high quality candidates and retain workers. At a time of a historically tight national labour market Gippsland's future competitiveness will depend on the ability of its businesses to maintain and grow their labour supply. This may also involve much greater cooperation among local businesses to prevent the leakage of workers outside of the region.
- 6. There is a need for more accessible, accurate and timely data alongside greater local capability in the synthesis and analysis of such data to inform policy and program design to improve labour force participation. This research has identified important emerging labour market trends, but knowledge gaps are also apparent. While much relevant data exist, they were not always readily available to the research team to utilise, with difficulties in obtaining permissions and confidentiality encountered. Local capability would ensure that the data requirements of new projects are considered and addressed during the planning and implementation stages. A detailed breakdown of the issues faced by this research and the way a data management strategy has the potential to produce better outcomes is provided. There is also potential value in exploring innovative approaches to measuring labour force participation, reducing reliance on survey data, to obtain assessments that may be more reliable.
- 7. Alongside this is the importance of being able to collect data that can allow fine-grained analysis of issues as they pertain to relatively small but important groups. These include women running small businesses from home, young men not in the labour force, Indigenous Australians, people with a disability, CALD groups, or those experiencing domestic violence. Bespoke, small-scale research projects that provide a deep understanding of the experiences and orientations of such groups would be of value when designing labour market interventions.
- 8. Additionally, there is an opportunity to undertake co-design activities among target groups. Involving potential participants in the design of labour market interventions would provide these with a degree of authenticity and a distinctly local flavour which would potentially facilitate client and community buy-in.
- 9. Focusing public debate on labour force participation more broadly would demonstrate a progressive approach to labour market policy. There is potential value in mainstreaming discussion about work and moving beyond the unemployment rate as the lead indicator of the success of labour market management. While much stigma is still attached to being jobless, many more find themselves in poor quality jobs that are precarious and do not provide a pathway to building a career, offer too few or require too many working hours, are under threat due to economic transformation, are poorly remunerated, or do not provide opportunities for skills acquisition, each of which can have deleterious consequences for individual and community wellbeing. Against the backdrop of the recent economic upheaval arising from the pandemic that led to large scale job losses, and a future of work that will inevitably fragment a working life, many in the community are presently revising their expectations of work and retirement or want to understand what the future of their occupation or industry will be. They would be aided by an informed community dialogue concerning the changing world of work which incorporates a broader focus on participation.

#### 1 Introduction

Gippsland (Latrobe/Gippsland Statistical Area Level 4 (SA4)) is located to the east of Melbourne and consists of six Local Government Areas (LGAs), with an economy predominantly based around agriculture, forestry, dairy and pastoral production, energy production, fishing, and healthcare and social support. However, it has experienced comparatively low levels of labour force participation (LFP).

Drawing from a review of existing literature, analysis of existing local, State, and Commonwealth quantitative datasets, and deriving supplemental qualitative data, the project that was undertaken aimed to understand the factors influencing labour force participation and to make recommendations as to interventions that would raise this for specific groups. Section 1.1 will detail the purpose of the report; section 1.2 will outline the specific research aims and objectives; section 1.3 will describe the significance of this research; and section 1.4 will summarise the structure of the report.

## 1.1 Purpose of the Report

This report is focused on understanding factors associated with the relatively low LFP in Gippsland. The research was conducted with a view to identifying potential actions to assist people to engage with paid employment or transition back into work such as via skills development, that can support local businesses in meeting their workforce needs, and that can facilitate emerging industries or businesses considering relocating to Gippsland. The study aimed to contribute to capacity building by synthesising data drawn from a range of sources and collecting new data that would assist the Latrobe Valley Authority (LVA) and other agencies in terms of program design. The intention was that it would also assist policymaking at the local, State, and Commonwealth level.

## 1.2 Research Aims and Objectives

The research aimed to provide a comprehensive understanding of LFP in the Latrobe-Gippsland SA4 region with the aim of supporting strategic decision-making. The study's objectives were as follows:

- 1. To identify the dimensions of labour force participation. This included consideration where possible, of a range of factors, including gender, age, socioeconomic status, level of education, and receipt of various welfare payments and pensions.
- 2. Offer explanations supported by best available data for declining LFP.
- 3. Identify areas for policy response, including the targeting of measures, and issues of resourcing and leadership.
- 4. Engage the community in a dialogue about the utility and implications of the study findings and recommendations.

## 1.3 Structure of the Report

Based on the above objectives, this report consists of a review of relevant literature, and reports analysis of existing quantitative datasets, and findings from a series of key informant interviews undertaken in the Gippsland region among representatives of major employers and employer peak bodies, employment service providers, registered training organisations, and community groups.

A community consultation event was also conducted in which the findings and recommendations of the project were presented, tested, and subsequently refined prior to final publication of the research. The report consists of six sections, including this introduction, with Chapter 2 outlining the study methodology; Chapter 3 providing a review of the literature; Chapter 4 detailing the key informant interviews; Chapter 5 presenting the quantitative data analysis; and Chapter 6 offering recommendations and concluding remarks.

## 2 Methodology

The research adopted a mixed methods approach in addressing the issue of LFP in the Gippsland region. It coupled analysis of key informant interviews with that of a mixture of local, State, and Commonwealth statistical datasets, which are presented in Chapters 4 and 5, respectively. Section 2.1 provides details of the methodological approaches.

## 2.1 Data Collection and Analysis

The research began with a review of the literature addressing key issues of LFP, including demographic impacts, the effect of various economic shocks, and case studies of analogous regions to Gippsland. Peer-reviewed academic journals and grey literature sourced from reputable governmental and international bodies such as the OECD were collated and subjected to content analysis to identify the key themes and findings.

The findings of the literature review were used to inform a series of key informant interviews conducted with local stakeholders in Gippsland, including major employers and employer representative bodies, labour unions employment service providers, registered training organisations, and community groups. The interviews questions covered a wide range of topics focused on deriving information based on the key research aims and objectives outlined in the introduction and the findings of the literature review. Emphasis was placed on deriving findings from lived experience on-the-ground, which can be difficult to ascertain using quantitative data. The interviews were conducted from a neutral perspective and the questions were structured in a predominantly open-ended format to provide interviewees with the means of fully outlining their positions, ensuring that responses were not influenced or biased by the interviewers. Upon the completion of the interviews, the data were analysed to identify key theme.

The research also drew upon a range of quantitative datasets derived from government sources to obtain a view of LFP in Gippsland. These include data from the Australian Tax Office (ATO) detailing the tax return breakdowns of everyone who filed in the Gippsland region; Centrelink data breaking down the total number of recipients for each type of welfare payment within the Gippsland region; and LFP and unemployment rate time-series data provided by the ABS. This enabled an assessment of the nature of employment in Gippsland (e.g. occupation, industry, contractual arrangements); the characteristics of participants and non-participants in the labour force (including welfare types); comparisons among Gippsland LGAs; and the changing industry mix in Gippsland and its impact on employment. The following chapter will present the interview findings.

#### 3 Literature Review

The report begins with a review of literature regarding labour force participation, its determinants, and major events relevant to the Gippsland region. Due to the paucity of research pertaining to Gippsland specifically, the review draws more broadly on literature concerning regional Victoria and Australia. It also examines case studies from analogous regions both nationally and internationally. Section 3.1 defines key terms and explores measures of labour force participation; section 3.2 examines various determinants of labour force participation; section 3.3 examines three major events which have affected Gippsland; section 3.4 examines analogous case studies from a national and international context; and section 3.5 offers concluding remarks on the literature.

## 3.1 Defining Key Terms

Prior to examining the literature, it is pertinent to clarify some of the key terms being utilised in this review. Section 3.1.1 defines some of the key terms and measurements commonly employed in the measurement of labour force participation, while section 3.1.2 examines factors that are not captured in these metrics and explores alternative measures.

#### 3.1.1 Defining Key Measures

As per the Australian Bureau of Statistics (ABS, 2020a), the labour force consists of all employed and unemployed persons over the age of 15, exempting those who are categorised as not in the labour force (NILF). The ABS (2020a) define an employed person as anyone of working age, who, during the reference period, worked for an hour or more for some form of payment; worked for an hour or more without pay in a family business or farm; was an employee but did not attend work for various reasons; or was an owner manager but did not attend work. An unemployed person is someone of working age who is actively looking for work or waiting to start a new position but did not meet any of the aforementioned criteria during the reference period.

These are separate and distinct from those deemed NILF, who are of working age<sup>1</sup> but not actively seeking paid employment (students, retirees, volunteers, etc.). However, it should be noted that the line between employed, unemployed, and NILF can be nebulous as individuals move in and out of the workforce, sometimes without declaring this activity (Elmeskov and Pichelmann, 1993).

<sup>&</sup>lt;sup>1</sup> It should be noted that the concept of a 'working age' is similarly outdated, as increases in life expectancy are causing people to work later in life, with government policies moving towards promoting this.

As per the ABS (2020a) the LFP rate measures the proportion of the in-scope population which is in the labour force, relative to those who are not in the labour force, using the following formula:

$$LFP\ rate = \frac{lf}{p} \ x \ 100$$

Where If is the measure of all employed and unemployed persons in the population, and p is the in-scope population as a whole. The unemployment rate measures the proportion of the unemployed population in the labour force using:

unemployment rate = 
$$\frac{u}{lf} \times 100$$

Where u is the unemployed portion of the population, and If is the total labour force.

The employment to population ratio shows the proportion of the total population who are employed, relative to those who are unemployed or not in the labour force.

employment to population ratio = 
$$\frac{e}{p} \times 100$$

The employment to working age population ratio describes the number of people who are employed (aged 15-64) as a percentage of the working age population (the civilian population aged 15-64). The employment to labour force ratio, otherwise known as the employment rate, is the inverse of the unemployment rate. The employment to labour force ratio describes the number of people employed as a percentage of the labour force<sup>2</sup>.

While these are useful metrics for assessing labour market performance, the broad definition of LFP means that it encompasses everyone from those who performed a single hour of work to those in full-time employment. To address this, the review will also factor in underemployment, where individuals are engaged in some form of paid work but are seeking additional hours. As per the ABS (2020a) the underemployment rate is calculated using the following formula:

$$underemployment\ rate = \frac{ude}{lf}\ x\ 100$$

Where ude is the underemployed portion of the labour force and If is the labour force as a whole. An additional metric of note is the underutilisation rate, which combines the unemployment and underemployment rates to determine the percentage of the labour force that is seeking additional work:

$$underutilisation \ rate = \frac{u + ude}{lf} \ x \ 100$$

Where u is the unemployed portion of the labour force, ude is the underemployed portion, and If is the labour force total.

https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/A9911868BFD9C924CA257BA300137E3C?opendocument

<sup>&</sup>lt;sup>2</sup> Source

#### 3.1.2 Factors Affecting Measures of Labour Force Participation

Even factoring in additional layers of context such as the underemployment and underutilisation rates, it remains an open question as to whether traditional LFP measurements capture all relevant segments of the population. In trying to quantify the extent to which individuals are performing some form of labour in exchange for remuneration, particular attention should be paid to the existence of the informal or 'grey' economy, which consists of various enterprises that are not reported to, monitored by, or taxed by the government (Finlay, Staib, and Wakefield, 2018). While the actual labour occurring in the informal economy is itself legal, it goes unreported to avoid complying with taxation and regulatory obligations. Common examples of this phenomenon include 'cash-in-hand' jobs and retail businesses operated from within a person's place of residence.

This share of the economy is distinct from but related to another relevant sector, the black economy, which consists of activity that is illegal outright but can nevertheless be considered a form of paid employment missing from the data (Finlay, Staib, and Wakefield, 2018). Employment in the grey and black economies raises several further issues regarding LFP, including an inability to demonstrate employment history when applying for legitimate work, limited scope for career progression, absence of business-to-business engagement, and no money accrued on superannuation. For obvious reasons, it is difficult to quantify the full extent of the grey and black economies, and estimates tend to range considerably depending on methodology and data sets. Research by the Reserve Bank of Australia estimates that undisclosed cash-in-hand transfers in the grey and black economies account for between 4-8 per cent of GDP (Finlay, Staib, and Wakefield, 2018). However, these estimates are relatively conservative, with some economists putting this figure as high as 15 per cent of GDP (Bajada, 2008).

It is also worth noting that the nature of employment has changed significantly in Australia over the past few decades, with a marked decline in full-time work in favour of increasingly casual or contract-based labour. The casualisation of the Australian labour force has been a well-documented trend in the literature for decades, with Kimber (2003) arguing that this process is dividing workforces into two distinct groups: a secure core of essential workers with full-time employment and an insecure periphery of casual workers that suffer high job insecurity, low wages, and poor working conditions. Burgess (1996) notes that this transition has been driven by a wide range of supply and demand side variables, including labour market regulations driving up the relative costs of full-time employees; structural shifts towards sectors such as the service industry, where casual jobs are more common; and certain groups of workers requiring additional flexibility. More recent developments include the rise of the gig economy, which matches independent contractors with customers on an extremely short-term, payment-by-task basis (Wood, Graham, Lehdonvirta, and Hjorth, 2018). These trends, already well established prior to the outbreak of COVID-19, are likely to have been exacerbated by the pandemic (Guven, Sotirakopoulos, and Ulker, 2020), a topic explored in greater depth in section 3.4.3.

In relating these factors to LFP measurements, it is notable that the concepts outlined in section 3.1.1 do not factor in changes in job quality between different places of employment, i.e. if a person loses a high-paying full-time job with benefits and then goes on to be reemployed in insecure work on a short-term contract, this goes unacknowledged in the overall LFP rate. The measures employed by this research to address these factors were outlined in the methodology.

## 3.2 Determinants of Labour Force Participation

The determinants of participation in the labour force are as varied as the individuals that comprise it, with the academic literature covering a breadth of factors including demographic traits such as race and ethnicity, sex, and age (Hunter and Gray, 1999; Baum and Mitchell, 2008; Mavromaras and Zang, 2015); social and human capital (Liefbroer and Corijn, 1999; Wilson, 2006; Woodhouse, 2006); educational aspiration, standards, and attainment (Cuervo, Chesters, and Aberdeen, 2019); government policies and regulations (OECD, 2018a); access to resources, technology, and infrastructure (Alam and Mamun, 2017); and level of trade openness and access to outside markets (Madanizadeh and Pilvar, 2019). Section 3.2.1 will outline some of the regional location-based determinants of LFP; section 3.2.2 will explore various demographic factors, with sections

3.2.3 to 3.3.5 detailing gender, age, and Indigenous Australians, respectively; section 3.2.6 will analyse socioeconomic factors,<sup>3</sup> and section 3.2.7 will provide a summary.

#### 3.2.1 Region-Based Determinants of Labour Force Participation

According to Garnett (2018), the Australian economy has undergone significant economic, technological, and structural changes over the past three decades which have had wide-ranging implications regarding LFP in regional areas. In particular, the decline of the manufacturing sector, the growing adoption of labour-saving machinery in the mining and agricultural sectors, and increased automation in the workplace are all factors of relevance. Garnett (2018) argues that while these changes are beneficial for workers whose skills are in demand, contributing to higher wages and expanded employment opportunities, the inverse is true for unskilled and low-skilled workers, as well as those whose occupations are being supplanted by automation. Moreover, although typically blue-collar industries are the most affected by technological advancement, increasing computerisation and more specialised forms of software are causing disruptions in more whitecollar sectors. The industries that have experienced the highest job losses overall due to technological changes, such as agriculture, mining, and manufacturing, are more likely to be based in regional areas, contributing to geographical disparities in LFP. Garnett (2018) notes that educational attainment is one of the most significant determining factors in allowing workers who lost their jobs to automation to reintegrate into the labour force, allowing them to retrain and reskill in industries with a higher demand for labour. However, it should also be noted that technological advancement and educational curricula do not always keep pace, raising the risk that training schemes may become redundant and poorly suited to addressing the current requirements of industry.

As noted by Birrell and O'Connor (2000), non-metropolitan regions in Victoria lag Melbourne in terms of both job and population growth. This trend is consistent even in periods of economic growth, with employment in Melbourne increasing by 7.8 per cent from 1996 to 2000 compared to 4.6 per cent across the rest of the state across the same period. A significant portion of this gap is attributable to the exponential growth of the 'new economy,' which consists of business and financial sector jobs and related industries such as computing services, consulting, scientific and technological research-and-development, and marketing. Jobs in this sector are categorised by employees holding a professional degree or diploma within a relevant field and possessing a range of computer or other technological literacy skills. Birrell and O'Connor (2000) note that these factors are not typically reflected in regional communities, which have predominantly served as providers of administrative, retail, and government services such as health and education, as opposed to business and financial services. The consequence of this is that residents of regional communities who possess these skill sets tend to migrate into urban areas, where labour demand and job opportunities are significantly higher.

Research by Best and Burke (2019) identified a persistent lag in both regional employment and unemployment rates, leading them to determine that there is a lock-in effect across such areas that leads people to remain in or out of employment over a sustained period. Utilising labour market data for SA4 regions in Australia between 1999 and 2018, they found that the lagged effect of economic shocks in regional areas results in unemployment becoming sustained over a long period of time after the initial shock passes. Best and Burke (2019, p. 93) go so far as to argue that 'lagged regional unemployment rates have substantial explanatory power for current regional unemployment rates' and that the effect lasted over the 19-year period of their study, even after adjusting for other relevant variables. However, their research finds even higher lockin rates for LFP, indicating a considerable attachment to place associated with employment in a regional area. In explaining this phenomenon, Best and Burke (2019) note that the lock-in effect is likely symptomatic of persistent regional disadvantage, as well as challenges in labour migration caused by the cost of moving and personal attachment to the area. Additionally, the lower cost of living in regional areas may serve as a sufficient compensatory factor to those who are unemployed. A lower cost of living and the high level of amenities such as open spaces and access to nature similarly explain the high lock-in rates for LFP rates. Given the prevalence of these factors, they argue that place-based policies specifically targeted at high unemployment regions are necessary to address LFP and unemployment disparities. Best and Burke (2019) specifically cite the establishment of the Latrobe Valley Authority as an initiative aimed at encouraging firms to remain in regional areas at risk of higher levels of unemployment but note that their research does not attempt

\_

<sup>&</sup>lt;sup>3</sup> It should be noted that regional, demographic, and socioeconomic factors have significant overlap with one another. The separation of these categories should be understood as being for the purposes of structural flow only, as opposed to denoting a technical or theoretical distinction between these factors.

to determine the effectiveness of such institutions. Nevertheless, their research is indicative of the long-term persistence of challenges affecting LFP and unemployment in Gippsland.

In examining the disparities in job opportunities between urban and regional areas, Colley and Brown (2015) examined the role played by the public sector. Much like private sector jobs in the finance and service sectors, the public sector workforce is most heavily concentrated in urban areas, consistent with the fact that Federal and State governments, as well as their subordinate departments and agencies, are based in capital cities. Despite this, Colley and Brown (2015) determined that there was a relatively equitable number of public sector positions between regional and urban areas on a per-capita basis; when adjusting for population, some smaller, remoter regions even had a higher volume of public sector jobs than urban areas. However, while the total number of jobs was within the same range, Colley and Brown (2015) found that public sector workers in urban areas tended to enjoy higher salaries, higher positions, and stronger opportunities for career progression. These inequities were so substantial that they continued to persist even after the introduction of policies intended to support public sector workers in regional areas, such as remote living allowances and relocation incentives. Colley and Brown (2015) note that this has implications for regional LFP, both directly in the form of lower paying and less prestigious jobs being available, and indirectly, with the concentration of public sector agencies tending to attract capital and investment to the area, as well as creating demand for services from high paid staff.

Much of the literature cited highlights the importance of access to education as a driver of continued labour force participation, allowing workers to retrain and acquire the skills necessary to integrate into new industries (Birrell and O'Connor, 2000; Garnett, 2018). In the Gippsland context, much of the infrastructure for achieving this is already in place, with the region seeing growing investment in its university, TAFE, and other vocational training sectors, as well as industry partnerships designed to connect degrees with jobs (Wiseman, Workman, Fastenrath, and Jotzo, 2020). However, as noted by Cuervo, Chesters, and Aberdeen (2019), regional and rural students are significantly underrepresented in university populations, despite government prioritisation and investment in boosting attendance. They identify several social factors which are statistically significant determinants of attending university, including parent-, peer-, and student-derived social capital; the expectations of parents; the aspirations of friends; and engagement with extracurricular activities. Notably, Cuervo, Chesters, and Aberdeen (2019) determined that extracurricular activities that feed into further educational attainment are less widely available in regional areas than they are in cities, creating inequalities pertaining to access and engagement. Furthermore, the disparity in further education between urban and regional areas has an intergenerational impact, as students whose parents attended university are more likely to do so themselves. Finally, it must be acknowledged that many of the 'new economy' and other jobs that require additional credentials are concentrated in metropolitan areas, creating the perception that completion of a university degree may necessitate moving to acquire work (Birrell and O'Connor, 2000). As such, this may serve as a deterrent to students who would prefer to remain in their local community where they already have established roots (Best and Burke, 2019). Cuervo, Chesters, and Aberdeen (2019) note that career advisors and other educational supports helping students connect acquiring skills and education to emerging sectors in regional areas is a significant factor in driving further study or training.

## 3.2.2 Demographic Determinants of Labour Force Participation

Evans, Moore, and Rees (2019, p.94) argue that the labour force participation rate in Australia exhibits cyclical behaviour – or what they describe as 'the labour supply response to changes in the demand for labour' – as people enter or leave the workforce in response to economic performance. At a surface level, this seems to indicate that changes in the LFP rate are responses by the market to changes occurring within the market. However, Evans, Moore, and Rees (2019) noted that sensitivity to cyclical changes in the economy were heterogeneous, with the LFP rates of young people, women aged 25-54, and older men demonstrating greater responsiveness than other demographic groups. This is indicative of underlying social factors that exist outside of the broader institutional economic framework.

A significant body of literature has been dedicated to identifying the effects of various demographic, background, and lifestyle factors on LFP, although much of this research remains contested. A range of factors including, but not limited to, sex and gender, race and ethnicity, age, disability, cultural background, marital status, childcare responsibilities, socioeconomic strata, language proficiency, and geographical region have some impact on LFP. However, these variables interact and overlap with one another in so many complex ways at the individual level that it becomes difficult to isolate and quantify the extent of these impacts on their own. This is not to say that there are no specific issues that disproportionately impact the LFP of some groups more than others, or that there are no insights to be derived from this literature, but rather that these subgroups cannot be treated as homogenous blocks or their claims considered universal.

#### 3.2.3 Gender

Research describing the effect of gender on LFP is well-established within the literature, with several trends worth noting. The share of women represented within the labour force has risen steadily over the course of the past century, driven by a mixture of changing societal norms and policies specifically targeted at increasing female LFP (Austen and Seymour, 2006). Despite this, research shows that women workers are more significantly impacted than men by factors such as relationship status, parenthood, childcare access and affordability, and educational attainment (Jaumotte, 2003; Vlasblom and Schippers, 2004; Mavromaras and Zhu, 2015). The first three of these are indicative of entrenched social attitudes and the gendered division of labour, with men traditionally expected to work and women most likely to bear the brunt of child-rearing and at-home labour. The variable of educational attainment is especially interesting, given that it is a statistically significant determinant of LFP for women but has little to no influence on men (Evans, 1996; Kennedy and Hedley, 2003). This suggests that while social norms encourage men to seek employment regardless of their education level or skillset, the absence of such expectations encourages women to seek careers that they find personally rewarding and engaging or that align with their traditional caregiving roles such as domestic and commercial cleaning and housekeeping, personal care, and service professions.

While social norms are changing to encourage women's LFP, the OECD has identified a range of policy areas which disproportionately impact on women. Jaumotte (2003) notes that the flexibility of working-time arrangements, taxation polices, and levels of support for families with young children are the most statistically significant factors. In addressing these, the OECD recommends implementing policies that allow for greater flexibility without creating a segmented labour market, with a particular emphasis on removing disparities between full-time and part-time work (Jaumotte, 2003). A further recommendation is changing taxation obligations so that second earners in a two-income household are not charged at a different rate. While Australia does not maintain different rates of taxation for multiple earners within the same household, it should be noted that the additional income may result in ineligibility for various supports such as the Family Tax Benefit for children. This in turn leads to the recommendation that there be greater support for covering the cost of childcare to allow primary carers to enter the workforce, as well as providing flexible arrangements around parental leave (Jaumotte, 2003). Finally, the OECD recommends deregulation around impediments to the growth of the service industry and other sectors where women are disproportionately employed, and immigration policies (which have a flow-on effect vis-à-vis the cost of childcare) (Jaumotte, 2003).

While more flexible working arrangements have been shown to increase LFP among women workers, this has also resulted in them being disproportionately employed on a casual basis. This is especially true for women re-entering the labour market after taking a considerable time off for child-rearing, with many employers maintaining a permanent share of such workers who do not progress on to permanent, full-time positions (Watson, 2013). This has several flow-on effects for women's LFP, including underemployment as women seek additional hours, job insecurity, reduced social status, more limited ability to manage health and lifestyle outcomes, reduced attachment to the workplace, and the accrual of retirement wealth. While these issues significantly impact upon women, it should be noted that these factors are homogenous across much of the casual workforce – an area of concern for LFP given that a growing share of the labour market falls within this category.

An important factor that this report considers is the extent to which women's employment is accurately reflected within the LFP data. In the absence of accessible childcare or flexible working options, the gendered division of labour is most likely to result in women ending up underemployed, unemployed, or dropping out of the labour force entirely. However, even the latter two categories do not necessarily imply that childrearing cannot be accompanied by some form of at-home labour which results in an income. As noted by Rodriguez-Madrono (2021), a growing volume of at-home women are taking advantage of online platforms to operate their own businesses or freelance activities from home. Such businesses typically take the form of taking advantage of arbitrage opportunities for resale on eBay, the selling of homemade arts, crafts, and other products on platforms like Etsy, and projects based on commission (Rodriguez-Madrono, 2021). Such businesses fall within the parameters of what this research considers LFP, but the extent to which such businesses are reported, taxed, or reflected in the data remains an open question. Given that such businesses typically involve a single person operating from the comfort of their own home, it seems highly likely that a significant share of this practice flies under the radar and subsequently goes uncaptured in the data.

#### 3.2.4 Age

A further significant driver of LFP and unemployment rates is age, with various factors of note identifiable along different points of the age spectrum. The issue of ageing is especially pertinent in an economic context where increased life expectancy has led to a policy emphasis on working later in life, with as many as four to five generations of workers now employed together in the labour force (OECD, 2020). The share of Australians aged 65 and over expected to grow from 15.9 per cent in 2019 to 22 per cent by 2050 (OECD, 2013a; ABS, 2019). By contrast, the share of younger entrants coming into the labour market is declining (OECD, 2013a). An ageing population is likely to have a significant impact on the Gippsland region, given that the 2016 census indicated that 21.7 per cent of the population there was aged 65 and over, above both the State and Federal averages (ABS, 2016). By contrast, all demographic brackets from 20 to 49 years of age were below the State and Federal averages (ABS, 2016). A report by Aither (2019) on behalf of Infrastructure Victoria affirms this trend, indicating that Gippsland may experience an ageing population with sluggish growth over the coming decades. The implication of this is the need to retain older people in the labour market.

The ageing of the workforce presents both challenges and opportunities. The OECD (2020) estimates that sustained employment for older workers and the creation of multigenerational workforces has the potential to raise GDP per capita by as much as 19 per cent over the next three decades. This is since many older workers have skill sets that serve to complement their younger peers, to say nothing of the knowledge and practical experience derived from longer-term employment over their lifespans. Nevertheless, to take advantage of these benefits, workplaces need to find the right policy and practice frameworks to successfully integrate employees across the whole breadth of the age spectrum. The OECD (2018a) Recommendation of the Council on Ageing and Employment Policies cites several policies that should be implemented in response to the ageing population to encourage and maintain LFP. It recommends enhancing incentives to continue working at an older age; restricting the offering of early retirement schemes; discouraging or restricting mandatory retirement ages; encouraging employers to maintain an age-diverse workforce; combatting workplace age discrimination; removing age as a criterion in accessing certain forms of welfare or determining levels of employment protection; and enhancing participation in training for workers throughout their lives.

The emphasis on maintaining a multigenerational workforce that takes advantage of the complementarity between different age groups is particularly important given the state of discourse surrounding the issue. As noted by Taylor and Earl (2021), there is a widespread false advocacy that seeks to address ageism directed at older workers by promoting their perceived positives at the expense of younger workers. This is directly embodied in the so-called business case for older workers, which emphasises their ostensibly stronger loyalty, work ethic, reliability and tenure relative to younger workers. However, such stereotypes ignore significant variations in job performance at the individual level between people in the same age bracket, as well as between different brackets, suggesting a more nuanced relationship connecting age to outcomes (Taylor and Earl, 2021). The treatment of employment as a zero-sum game between older and younger workers further ignores the complementary nature of their skill sets in a multigenerational workforce, highlighting the need to reframe advocacy on this issue to avoid spreading common misconceptions and reinforcing confirmation bias among employers. As pointed out by the OECD (2013b) the very different job profiles of older and younger workers means that they are better considered as compliments rather than substitutes in employment, challenging the notion that there is a 'lump of labour' that must be equitably distributed and consequently, that older workers should make way to create vacancies for the young to fill.

In attempting to retain older workers over a longer period, one of the most significant determining factors is skills and qualifications. This is particularly pertinent given that increasing age usually leads to poorer outcomes in job permanency, with workers in casual employment either maintaining this status or falling out of work altogether (Watson, 2013). This issue has grown increasingly relevant in the modern workforce, with changes to practices, methods, and the integration and use of technology occurring at an increasingly rapid pace. As noted by Armstrong-Stassen and Templer (2005, p. 57), 'Training is an important component of retention, and the availability of training is critical for retaining older workers.' However, the OECD (2020) notes that there are significant disparities in both training offers and the rate of take-up by age. Participation in training is found to decline with age and over the course of careers, creating the risk of reduced efficiency as skills become obsolete. The reasons for this are multifarious and complex, and it is worth noting the responsiveness of older workers to the offer of training is sensitive to several factors. In a review of the extant literature on older worker training, Liu, Courtenay, and Valentine (2011) propose a model identifying the primary motivational and deterring factors to training participation. The five motivational factors found to be most influential were self-efficacy (the worker's belief in their ability to succeed in training programs); social support (encouragement from supervisors, upper management, and peers); training benefits (intrinsic and

extrinsic rewards for completing training); propensity to learn (a general inclination towards learning); and career aspiration (eagerness to advance in the company). Deterrents were broken down into workload-related and program-related barriers, with these broad categories including lack of money, time, or support; inconvenient schedules or locations; too much red tape; and perceptions of being too old to undergo training (Liu, Courtenay, and Valentine, 2011). This suggests that government and industry could provide workers with the skills necessary to maintain a longer presence in the workforce by properly incentivising training while providing the flexibility and resources necessary to promote engagement.

Despite the trend towards an ageing population, it is worth considering factors impacting youth LFP and unemployment. Young people are especially more likely to be underemployed, unemployed, or classified as NILF due a wide variety of factors, including lack of long-term job experience or workplace seniority, less skill certification or educational attainment, being supported as a dependent, and being enrolled in but not having completed schooling (Baum and Mitchell, 2008). Being on the 'bottom rung' of the labour market, unskilled or low-skilled youths are also more sensitive to changes in minimum wages, penalty rates, and other labour market regulations (Neumark and Wascher, 2004).

Baum and Mitchell (2008) note that most of the literature on youth unemployment focuses on supply-side factors, or those related to the characteristics of individual jobseekers and workers themselves. These include other demographic factors, employment history, educational credentials, and social networks, with the lattermost of these found to be a significant determinant in young people 'getting their foot in the door.' However, Mitchell and Baum (2008) argue that much of the literature ignores the important role played by demand-side factors, which relate to the labour market within a given community. Youth employment, underemployment, and unemployment were found to be highly sensitive not just to the overall number of positions available, but the specific types of work that were on offer (i.e. the quality of jobs available rather than the quantity of jobs available). These factors are particularly pertinent in the context of the Gippsland region, both in the context of an expected diminishment of the population and the concentration of certain occupations within urban locations. Added to this, Taylor and Earl (2021) have pointed to the existence of labour market age discrimination affecting younger workers.

#### 3.2.5 Indigenous Australians

To complicate matters further, identifiable determinants of LFP have different impacts across a range of demographic groupings. In a comparative analysis of LFP between Indigenous and non-Indigenous Australians, Hunter and Gray (1999) found that while region of residence, level of education, and marital status were all influential factors among the latter, their impact was negligible amongst the former. Rather, they argue that a more holistic approach is required to encourage Indigenous LFP, focusing on broader societal issues such as reducing incarceration rates, improving low self-esteem measures, and addressing inadequate health and housing outcomes. These findings are a significant contrast to the LFP and employment statistics regarding migrants, whose populations have been increasing in rural and regional areas due to several government relocation initiatives. According to Massey and Parr (2012), migrant workers in regional areas possess comparable LFP rates, unemployment rates, and median incomes to native-born Australians in the same area.

There are stark differences in participations rates among Indigenous and non-Indigenous Australians. It is estimated that nationally 60 per cent of Indigenous Australians of working age - those aged 15–64 - are participating in the labour force, of which 49 per cent are employed. By contrast among non-Indigenous Australians, 80 per cent of the working-age population are in the labour force, and 76 per cent are employed. In Victoria, the employment rate of people aged 15-64 for Indigenous and non-Indigenous people stood at 50 per cent and 77 per cent respectively (Australian Institute of Health and Welfare, 2022). While data concerning Gippsland specifically were not uncovered for the present project the evidence suggests that the proportion of Indigenous people classified as unemployed and as not participating in the labour force increases markedly from major cities to inner regional, to outer regional areas (Australian Institute of Health and Welfare, 2022).

#### 3.2.6 Socioeconomic Determinants of Labour Force Participation

For all the myriad factors influencing LFP, there is no escaping the fact that overall economic health is one of the most significant determinants. The exact impact of recessions on LFP has long been debated by economists, with two schools of thought emerging around Humphrey (1940) and Long (1958). The 'additional worker theory' proposed by Woytinsky (1940) maintains that recessions may result in a counterintuitive increase in the LFP rate, as people previously classified as NILF are forced to enter the labour force in

response to the family 'breadwinner' losing their job. By contrast, the 'discouraged worker theory' of Humphrey (1940) argues that increasing difficulty in finding work can discourage the unemployed to the point that they give up and opt out of the labour market entirely. Mincer (1966) proposed that there was sufficient evidence suggesting that both countervailing effects were experienced simultaneously, although one may be more pronounced than the other at different points due to a range of interrelated factors. Some of these factors were identified by Lenten (2020), whose analysis of the cyclical relationship between the LFP and unemployment rates affirmed the prevalence of the discouraged worker effect between 1978 and 1998. Lenton (2000) determined that for every 100 people to lose their jobs during a recession, an additional 37 were discouraged from seeking employment. However, these effects were not evenly distributed, with labour force discouragement most pronounced among women, students, people with children, and the unmarried.

Socioeconomic status (SES) is a significant variable in determining not just labour market outcomes, but related concepts such as the type of occupation, educational aspiration and attainment, healthcare needs and accessibility, family size and composition, access to affordable childcare, and welfare dependency. Given the importance of education in promoting and maintaining LFP, it is worth examining the extent to which SES impacts on academic outcomes. According to the OECD (2018b), social background is a statistically significant variable in determining success in school across a wide range of metrics. Disparities in academic performance between students of different socioeconomic strata take root at an early age and widen over time, accounting for statistically significant gaps in everything from basic literacy and numeracy to testing scores in science between disadvantaged and advantaged students. By the time a student reaches the age of 15, these differences in student performance are likely to become entrenched and were found to account for 31 per cent of the difference in university completion rates and 33 per cent of the difference in the skilled employment rate upon entering the workforce (OECD, 2018b). While approximately 41 per cent of adults in Australia attained a higher level of education than their parents, only 25 per cent of adults with parents who did not complete upper secondary education went on to complete tertiary education compared to 67 per cent of adults with tertiary-educated parents (OECD, 2018b). Adults with tertiary-educated parents were found to be six times more likely to complete tertiary education themselves than those with low-educated parents (OECD, 2018b).

These findings are especially significant in a Gippsland context given the research outlined in section 3.2.1. While those who go on to complete tertiary education are more likely to find secure employment in a professional, degree-based industry, there is also significant labour migration as many of these industries are concentrated in metropolitan areas. Even when work is available within the region, metropolitan-based employers can still attract migration from the regions with more generous pay, benefits, prestige, and opportunities for career advancement (Birrell and O'Connor, 2000). This has the potential to entrench socioeconomic disparities between geographical areas, as skilled professional workers migrate out of Gippsland and leave behind a predominantly blue-collar or unskilled workforce. This issue is further compounded by the decline of high-paying blue-collar jobs in sectors such as power production, with a lack of replacement industries capable of offering the same level of pay and benefits for these workers (Haywood, Janser, and Koch, 2021).

SES also has a significant impact on health outcomes, including those stemming from occupational type and lifestyle choices such as diet, drinking, and smoking. As noted by Politzer, Shmueli, and Avni (2019), low SES possesses a high correlation with excess morbidity and premature mortality from potentially preventable health issues, which in turn have flow-on impacts on welfare costs and LFP rates. People from lower socioeconomic backgrounds are significantly more likely than those in other strata to regularly drink alcohol, smoke, and eat unhealthy foods; be employed in physically demanding manual labour jobs that have higher incidents of injury or disability than other sectors; and less likely to seek early medical intervention for emerging conditions (Bacharach, Bamberger, Sonnenstuhl, and Vashdi, 2004; Robroek, Rongen, Arts, Otten, Burdorf, and Schuring, 2015).

The effects of ill health have been shown to increase the likelihood of labour force exit regardless of SES, with workers becoming either unemployed or NILF, moving on to disability benefits which lack a mutual obligation to seek employment, or entering early retirement (Schuring, Robroek, Otten, Arts, and Burdorf, 2013). However, even after adjusting for the effect of ill health, workers from a low socioeconomic background were still found to be more likely to fall into these categories, except for early retirement which is less available. Instead, ill health among low SES workers was found to decrease the likelihood of a worker re-entering the workforce again at a later point after exiting the labour market (Schuring, et al., 2013).

The impact of health in driving down LFP among low SES workers is pertinent in a Gippsland context given the local industry mix. A significant proportion of the working population are employed in physically intensive industries such as construction, manufacturing, forestry, agriculture, and mining, where health issues caused by injury or physical stresses over the long-term can impact on LFP. The prevalence of emissions-intensive

coal power production, along with events such as the Hazelwood mine fire, have also been argued to contribute to rates of respiratory, cardiovascular, and other illnesses within the region, leading to the establishment of an annual Hazelwood Health Report. The most recent report determined that the 30-day mine fire period, and the six months afterwards, saw an increased risk of death from injury or cardiovascular disease, but not respiratory illness (Hazelwood Health Report, 2020). While the flow-on effects of health are significant within an LFP context, there are mitigating factors that can reduce the prevalence of labour force exit among workers from poor socioeconomic backgrounds. As noted by Robroek, et al. (2015), promotion of healthy lifestyles and improving working conditions to reduce injuries are important measures in reducing poor LFP outcomes among low SES workers, especially those with a low level of education.

Finally, attention should be given to the relationship between SES and crime rates, and its effects on employment. As noted by Weatherburn (1992), while it may seem intuitive that a lack of legitimate economic opportunities may force people to turn to more illegitimate avenues, the relationship between crime and economic conditions is more complex. Most unemployed people do not and will not turn to crime, owing to a broader range of social, cultural, and policy factors that serve as a deterrent even in the absence of economic opportunities (Weatherburn, 1992). Nevertheless, the impact of SES is felt given that higher levels of income, occupational status, and years of education all correlate negatively with criminality, with these variables also exerting an influence at the parental level (Ellis, Beaver, and Wright, 2009). While it is an oversimplification to say that certain types of crime are a symptom of a lack of economic opportunities, those most likely to turn to illegal activity come from disproportionately low-education, low-skilled backgrounds. This means that the jobs that are available to them are more likely to offer lower pay, fewer benefits, limited flexibility, and less opportunity for career advancement. This is particularly pertinent in a Gippsland context, as Latrobe possesses one of the top five highest crime rates by Local Government Area in Victoria and the highest crime rate outside of a metropolitan area (Lesman, Breukel, and McMahon, 2018).

In relating crime rates to LFP, several factors are identifiable at both the employer and employee levels. High crime rates can serve to deter new businesses from establishing operations within a particular area, driving down the number of employment opportunities that are available (Matti and Ross, 2016). Although businesses that are already established are likely to remain in the area, they are sensitive to types of illegal activity that drive up their operating costs. This could result in relocation if the costs associated with moving are lower than those already being incurred, creating a vacuum of lost jobs in the area (Matti and Ross, 2016). There are also implications in terms of future LFP for those who engage in criminal behaviour, which may not necessarily be captured within the employment data. Those who engage in employment via the grey and black economies do not generate tax revenue, do not accrue superannuation, do not attain skills and qualifications desirable to legal employers, and face challenges in providing a demonstrated work history when seeking such employment. Gaining a criminal record can further deter employers from hiring individuals, even in the absence of statutory requirements barring ex-criminals from employment, narrowing the range of available career options. This serves to create a section of the labour force that finds it increasingly difficult to find legitimate work, entrenching unemployment.

## **3.2.7 Summary**

The factors affecting LFP are multifarious and complex, with various demographic, geographical, and socioeconomic components creating impacts at the individual level. While it is important not to treat groups as monolithic considering this complexity, broad factors of relevance to this research are identifiable in the literature. Regional location-based factors affecting LFP in regional areas include the most common industries being disproportionately affected by automation; the concentration of new emerging industries in major cities; and disparities in skills and levels of education. These locational factors further intersect with a range of demographic factors, with the review focusing on gender and age specifically. The primary factors impacting LFP among women include policies that discourage multiple earners within the same household; differing attitudes and social expectations regarding work; relationship status and dependent children; and access to affordable childcare. While there have been significant strides in increasing female LFP, it is worth noting that women may also run at-home businesses which may not be reflected within the data. Age is also an important factor, given that Gippsland is ageing at a faster rate than the State and Federal average and this is expected to continue over the coming decades, alongside a declining share of young labour market entrants. Access to and promotion of job training is an important factor in boosting LFP among older people, especially as they are more likely to work in declining sectors. It is also important to create opportunities for young workers and pathways for career progression, as well as combat the perception that getting a high-paying job requires moving into the city. Finally, there are socioeconomic issues surrounding education and health that impact on LFP and must be addressed in light of a heavily blue-collar workforce. These include significant disparities in educational advancement, which become entrenched at a young age and narrow career options upon

entering the workforce, and health outcomes, with lifestyle factors and occupational types and risks disproportionately impacting blue-collar workers.

## 3.3 Significant Events Impacting the Gippsland Region

In examining labour force participation rates in Gippsland from 2001 onwards, three significant events stand out: the Global Financial Crisis and its after-effects; the transition of the power industry; and the extant COVID-19 pandemic. Sections 3.3.1 through 3.3.3 will analyse each of these events, respectively, while section 3.3.4 will examine the agricultural and forestry sectors; and section 3.3.5 will provide a summary.

#### 3.3.1 The Global Financial Crisis (GFC)

In examining the impact of the GFC on Gippsland, it is notable that Australia fared relatively better than most other OECD nations. A combination of factors such as the mining boom, limited financial exposure to the United States housing market and other subprime assets, growing trade with China, and early policy interventions served to ensure that the economic slowdown and increase in unemployment did not result in a major economic downturn (Reserve Bank of Australia, n.d.; Waring and Lewer, 2013). However, much of the literature argues that the GFC served to produce a 'two-speed economy,' where the boom in faster-growing sectors of the economy obfuscated the sluggishness and decline in others (Stimson, 2013; Waring and Lewer, 2013; Perlich, 2014; Wilkins and Wooden, 2014). Perlich (2014) found that the fastest growing state economies were focused on provided mining exports, while the slower performing states revolved around more traditional sectors such as finance, tourism, and manufacturing. Victoria fell into the latter category of non-resource, manufacturing states, lagging states such as Queensland in terms of job creation and attracting investment. However, it should be noted that Victoria nevertheless experienced growth during this period as a mid-performing state exceeding laggards such as the Northern Territory and ACT (Wilkins and Wooden, 2014).

Wilkins and Wooden (2014) argue that these disparate outcomes between high-, mid-, and low-performing states, as well as the regions and sectors contained within them, makes the notion of a 'two-speed' economy an oversimplification. However, it is worth noting the disparities between the metropolitan and non-metropolitan areas of Victoria. The Municipal Association of Victoria (2009, p. 4) noted that the effects of the GFC were 'more pronounced in the areas that have less diverse economies or were already facing economic hardship.' Indeed, the unemployment rate in non-metropolitan regions of Victoria was 6.8 per cent in early 2009, well above the national average of 5.2 per cent (Stimson, 2014). A report by BankWest determined that Gippsland was the 10<sup>th</sup> worst performing region out of 65 in Australia during the GFC, with a five per cent drop in LFP over the 18-month period leading into September 2009 (ABC, 2009). The most affected sectors included real estate, telecommunications, and even mining, despite the boom in other parts of the country (ABC, 2009).

Despite the diminishment in local mining jobs, the increasing growth and employment of the sector at a national level had several flow-on effects for other industries. Notably, the increasing value of mining exports and the terms of trade contributed to a high Australian dollar, with a real appreciation of 37 per cent between 2005 and 2011 (Stimson, 2014). This had an adverse impact on import-competing and export industries that were unconnected to mining, including manufacturing, tourism, and agriculture (Stimson, 2014). Declines in the international competitiveness in these sectors likely contributed to the job losses experienced during the GFC (Stimson, 2014). While the value of the Australian dollar has since declined from its above-parity height during the GFC, its continued strength internationally poses challenges to exporters.

On top of Gippsland's poor performance during the GFC, the unemployment rate spiked to far higher levels over the 2015 to 2018 period, during which it experienced the closure of major power stations, and again in 2019 with the outbreak of COVID-19.

#### 3.3.2 Closure of the Hazelwood Power Station

One of the most notable economic developments in Gippsland in recent years was the closure of the Hazelwood Power Station in 2017. As noted by Duffy and Whyte (2017) the significance of this event can only be appreciated by understanding the historical context surrounding local power stations, the government, owners, and the community. They point to the privatisation policies of the 1990s having left some workers and community members in the Latrobe Valley cynical regarding the likelihood of regional economic revitalisation. Wiseman, Workman, Fastenrath, and Jotzo (2020) note that this culture of suspicion was affirmed when Engie

announced the closure of the Hazelwood power station. The event has led the Parliament of Victoria (2021) to establish an Inquiry into the Closure of the Hazelwood and Yallourn Power Stations, with terms of reference focusing on the impact of these events to the economy and unemployment; the efficacy of economic recovery efforts; and the anticipated impact of Yallourn's proposed closure in 2028. While the report will not be released before December 2021, there is literature in this space to draw on for the purpose of this review.

A combination of ongoing domestic and international efforts to reduce emissions, changing regulatory and market environments, technological innovation, and the emergence of viable alternatives has seen a decline in emissions-intensive coal-based power production over recent decades (Burke, Best, and Jotzo, 2019). This has had considerable ramifications for regional areas which rely upon the power production and related sectors such as mining as major local employers (Duffy and Whyte, 2017). A growing body of literature has stressed the need to provide a 'just transition' away from coal, ensuring that communities and workers affected by the closure of power plants, mines, and related industries are not left behind in the aftermath (Spencer et al., 2018). Despite this emphasis, Spencer et al. (2018) note that local transitions away from the coal sector are often poorly managed, resulting in persistent long-term social dislocation and below-average socioeconomic performance. They note that short-term policies implemented to ease the transition for firms and workers often fail to address long-term factors such as the loss of human capital, the difficulty in establishing alternative sources of regional economic activity, and the lack of migration opportunities to other, more prosperous areas (Spencer, et al., 2018).

An event study by Burke, Best, and Jotzo (2019) examined the impact of coal-fired power station closures across Australia as a whole, utilising monthly regional labour force survey data from the ABS. Their analysis determined that, on average, the closure of a coal-fired power station within a given region contributed to a 0.7 per cent increase in local unemployment, with the effects continuing to persist for months after. In the case of the Hazelwood plant and mine closures, Burke, Best, and Jotzo (2019, p. 148) found that 'net job losses represented 0.4 per cent of the labour force of the Gippsland region and around five per cent of the total number of unemployed people in the region.' However, they also note that the unemployment factors were mitigated by factors such as labour retention for decommissioning; worker transfers to other power stations; leave and separation payments stimulating the local economy; and State and Federal government commitments, including the establishment of the Latrobe Valley Authority.

Further research by Wiseman et al. (2020) indicates that ongoing transitional efforts are having a positive effect on LFP in the Latrobe Valley. Citing ABS data, they note that over the three-year period from October 2016 to October 2019, unemployment fell from 7.7 per cent to four per cent, which they attribute to a mixture of economic, labour market, and investment packages implemented to help ease the transition. They further cite the establishment of the Latrobe Valley Authority and the allocation of resources to the Worker Transition Service, Worker Transfer Scheme, and Back to Work schemes, as helping to offer training and employment opportunities to laid off workers. However, they caution that considerable work remains to be done to maintain and build upon this initial success, especially considering the COVID-19 pandemic and its associated economic impacts.

## 3.3.3 COVID-19 and its Ongoing Effects

The final major incident meriting discussion is the impact of the ongoing COVID-19 pandemic on LFP rates. Due to its extant nature, a full empirical measure of the direct and indirect consequences of COVID-19 cannot be provided and is outside the purview of this research. However, some preliminary observations can be made which merit discussion. Preventative measures such as lockdowns have had an impact on LFP, with some workers disproportionately affected depending on their field of employment. According to Guven, Sotirakopoulos, and Ulker (2020), COVID-19 directly contributed on average to a 2.1 per cent decline in LFP, a 1.1 per cent increase in unemployment, and a four per cent decrease in full-time work as employees experienced fewer hours. The national lockdown contributed on average to a further 3.3 per cent decrease and 1.7 per cent increase in LFP and unemployment, respectively, and a 7.5 per cent decrease in full-time employment. However, these effects are not evenly distributed, with negative impacts disproportionately affecting workers with shorter job tenure (specifically, those who have held their job for less than five years), a high school level of education or below, and immigrants. By contrast, the labour market disruptions have been less impactful on people who possess university degrees, are married, have access to childcare, and possess occupations suitable for remote work.

In comparing labour market outcomes across industries, Guven, Sotirakopoulos, and Ulker (2020) find similar heterogeneity in the data. The largest reduction in working hours was experienced in the food, hospitality, and personal services industries, with COVID-19 and lockdowns contributing to an average loss of five and ten hours per week, respectively. However, the largest impacts in term of LFP were experienced by community

and professional service workers, due to limitations on their ability to interact directly with clients, with an estimated 4-10 per cent reduction in the LFP rate and a two per cent increase in unemployment. By contrast, those in the educational, clerical, and administrative sectors experienced an increase in their working hours due to the ongoing demand for these services and their ability to transition more effectively.

These findings are significant, given that the labour market profile for the Latrobe Valley reveals that COVID-19 impacts will not be evenly distributed across industries and sectors. Furthermore, the demonstrated reductions in working hours across most industries where workers continue to be employed suggests that underemployment will likely increase because of the pandemic. While ABS data show that overall LFP and unemployment rates are beginning to return to pre-pandemic levels following the initial shocks, it seems unlikely that working hours would be unaffected in the short-term – especially in the face of repeated lockdowns.

#### 3.3.4 Agriculture and Forestry in Gippsland

Attention should also be given to the agricultural and forestry sectors, which are major employers in Gippsland. The former is especially pertinent in the context of LFP given the identification of 'food and fibre' as both a current and future area of regional specialisation at the policy-level. As of 2019, approximately 28 per cent of Gippsland's 41,500-square kilometre landmass was dedicated to agricultural use, with the agriculture, forestry, and fishing sector directly employing some 15,400 people (KPMG, 2019). A report by KPMG (2019) suggests that there is a potential for compounding five per cent growth in the Gippsland agricultural sector contingent on the meeting of six capability platforms for accelerating growth: positioning food and fibre as the backbone of the regional economy; transforming its innovation ecosystems; developing future industries; connecting agricultural producers across Gippsland; promoting sustainable energy, land, and water use; and attracting and cultivating talent and leadership within the industry.

A significant trend in meeting these objectives has been farm and land consolidation, which seeks to combine small and medium farms, processing centres, and other related industries into a larger agribusiness sector (Agribusiness Gippsland, 2014). Arguments in favour of land consolidation are primarily focused on increases to efficiency, removing redundancies between various small producers in favour of a more streamlined production process. Increases in innovation are reflected in increased productivity on farms, new goods and services entering the market, and falling prices for consumers (Wu, Dawson, Fleming-Munoz, Schleiger, and Horton, 2019). However, from an LFP perspective, land consolidation can result in a reduced number of employers overall and fewer employees as efficiency increases make them redundant, with on-farm work accounting for a smaller share of regional employment (Hatfield-Dodds, Hajkowicz, and Eady, 2021). On the opposite end of this trajectory towards fewer, larger farms is the rise of 'lifestyle farming,' where agricultural land is purchased and maintained for personal rather than commercial reasons. As those who engage in this activity are more concerned with the way of life than in making a profit or achieving commercial scalability, they are less likely to serve as a source of employment for workers. However, since lifestyle farmers are willing to sink more of their personal funds into their properties, they tend to buy more equipment and face higher operating costs, potentially creating downstream opportunities in related industries (Farmstyle, 2012).

The forestry industry in Gippsland is another significant regional employer, with Victoria possessing one of the largest such sectors in the country. Approximately 20,000 workers in Victoria are employed directly or indirectly in the forestry industry, with the majority of those based in regional areas (Indufor, 2020). The Central Gippsland region has some of the most productive plantations in the state, but the sector is grappling with issues that threaten the long-term viability of the industry. Among the foremost issues is the policy of the Victorian Government seeking to end native forest logging by 2030, with the sector moving to expand plantations to compensate for the shortfall. This issue was compounded by the impact of the Black Saturday bushfires, which burned through several plantations and resulted in the closure of pulp, paper, and sawmills in the Gippsland region. From an LFP perspective, one of the long-term issues facing the forestry industry is the difficulty in attracting younger workers into the sector, especially as replanting efforts are expected to generate a surplus in coming decades. This raises questions regarding whether workers with the appropriate skill sets can be found and maintained within the region, or whether the sector will need to attract workers from external sources including migration.

## **3.3.5 Summary**

The review outlined three significant events that have impacted on the Gippsland region in recent years: the GFC, the closure of the Hazelwood power plant, and the COVID-19 pandemic. Australia performed relatively well during the GFC compared to other nations and was insulated by a variety of factors, although the

literature notes the emergence of a 'two-speed' economy, with gains from the mining boom obfuscating sluggish growth or even declines in other sectors. The unemployment rate for Gippsland during this period was above the State average, with it ranked as the 10<sup>th</sup> worst performing region of 65 analysed within Australia. However, the unemployment figures during the GFC were rather lower than the period between 2015 to 2017, when the closure of the Gippsland power plant and its flow-on effects produced a significant local shock to the labour market. Although the unemployment rate has showed signs of recovery as the State and Federal governments provided investment and support, these gains were offset due to the outbreak of COVID-19 and associated lockdowns. While these issues are ongoing and the effects may be transient, the short-term has been a significant increase in both unemployment and underemployment, as those still in work experience shorter hours (although it should be noted that these effects are sector-specific, with some occupations experiencing increased working hours).

#### 3.4 Case Studies

While the challenges facing the Gippsland region are significant, they are not unique, with several somewhat analogous regions in both a national and international context providing case studies for comparison. Section 3.4.1 explores regions within Australia specifically; section 3.4.2 analyses the Ruhr Valley of Germany; section 3.4.3 examines the United States; section 3.4.4 outlines the United Kingdom; section 3.4.5 looks at some of the policy implications in a Gippsland context; and section 3.4.6 provides a summary. The case studies are focused on the transition of power generation and coal mining communities with the aim of drawing attention to the potential benefits of identifying learnings from experiences elsewhere. The intention here was to be illustrative rather than to offer up definitive assessments. Also, given the limited scope of the project it was not possible to look beyond such industries to consider others in transition.

#### 3.4.1 Australian Case Studies

In examining contemporaneous examples of Australian regional economies undergoing transition, a lack of policy direction, clarity, and priority becomes evident. In the absence of these vital factors, attempts to ensure a just transition for workers and communities dependent on declining industries are often undermined by inadequate support and contradictory pressures. The 2012 closure of the Collinsville power plant in Queensland exemplifies a lack of clear direction within an Australian context. The closure led to direct job losses for 140 workers, with the flow-on effects combined with a decline in the export cost of coal resulting in an additional 300 workers being laid off from the nearby mine (Burke, Best, and Jotzo, 2019). During this period, there was an increase in the local unemployment rate from just three per cent to eight per cent at its peak, although this figure managed to fall back beneath the state average by 2016, with local LFP continuing to recover from there. Burke, Best, and Jotzo (2019) attribute this recovery to a rebound in the coal export price, with changing market forces serving to make the mining sector in Collinsville viable again in the absence of transitional policy initiatives. Several solar farms are now under construction in Collinsville, including on the site of the former coal-fired power station, highlighting the capacity of power-based regional economies to continue to provide that function throughout the transition to renewables (Burke, Best, and Jotzo, 2019).

Perhaps a more instructive case study comes from the Port Augusta region of South Australia, where longterm planning and a clear policy direction were undermined by an apparent lack of cohesion at different levels and market shifts. With two coal-fired power stations and the nearby mines set to close, the community organised to determine a viable transition strategy that could be implemented prior to the inevitable shutdown. After five years of research, feasibility studies, and community consultation that considered all options, it was determined that the construction of a solar thermal plant was the best method of providing replacement jobs which made use of existing local knowledge and skill sets (Smith, 2017). The proposal saw early promise, with three companies expressing interest in the construction, the local government, unions, and environmental groups expressing support, the State government providing an endorsement, and the Federal government promising funding in the lead up to an election (Smith, 2017). However, the project nevertheless stalled owing to a lack of prioritisation at the State and Federal levels, with this lack of urgency persisting even as Alinta, the power station owner, decided to close years ahead of schedule. The project was ultimately scrapped in 2019, owing to a failure to secure government finance, a lack of revenue certainty, and the establishment of an interconnector to New South Wales, driving down the wholesale cost of electricity. This made the project less competitive compared to other alternatives, leaving it poorly suited as a replacement industry capable of absorbing displaced workers.

#### 3.4.2 Ruhr Valley, Germany

In examining the literature on power-based regional economies undergoing transition, the Ruhr Valley region of Germany emerges as a frequently cited case study. As per Coenen, Campbell, and Wiseman (2018, p. 204):

The Ruhr Valley of northwestern Germany has been a centre of European coal (and steel) production since the mid-1800s. At their peak in 1956, the coal mines of the Ruhr produced 124 million tonnes of coal, employing almost half a million people.... Due to the rise of oil as an alternative fuel to coal, cheap coal imports from countries such as the US and the increasing availability of less costly steel on the global market during the 1960s and 1970s, the Ruhr's core industries—coal, steel and related industries—began to contract, and the region experienced sharp industrial decline and rising unemployment.

Coenen, Campbell, and Wiseman (2018) describe the policy responses to these challenges as occurring along two distinct categories: re-industrialisation and neo-industrialisation. The former of these, which dominated between the 1960s and 1970s, consisted of attempts to restore the Ruhr Valley's economy by doubling down on existing coal-based power production, with policies targeted at boosting international competitiveness, increasing investment in infrastructure, and coordinating approaches between customers, suppliers, and relevant stakeholders (Campbell and Coenen, 2017). However, these policies largely failed to prevent the closure of power plants and mines, succeeding only in providing an orderly transition for workers through the provision of wage subsidies, compensation pay-outs, and early retirement.

The failure of this approach led to the shift towards neo-industrialisation, which began in the 1980s and has successfully transformed the Ruhr Valley into a model for regional economic transition. Realising that the predominant local industries would decline in the long-term, the government and industry groups proactively implemented policies aimed at reorienting towards emerging sectors, most notably environmental and renewable energy technology (Coenen, Campbell, and Wiseman, 2018). However, rather than imposing this shift from the top-down, the government collaborated with local businesses, universities and research institutes, environmental agencies, industry groups, and labour unions, relying heavily on the regional knowledge base provided by the Ruhr Valley's workers to identify pathways for investment (Campbell and Coenen, 2017). As a result of these early transition efforts, the Ruhr Valley has emerged as a leading driver of environmental industry, research, and development in Germany, with its closed-down plants and mines repurposed as tourist attractions showcasing 'industrial culture.' However, Coenen, Campbell, and Wiseman (2018) note that such an approach cannot be idealised as a silver bullet, with the emergence of new jobs in the tourism sector failing to compensate for job losses in more traditional regional industries.

In applying the lessons of the Ruhr Valley to the Gippsland region, several challenges and opportunities are identifiable. First and foremost, it must be acknowledged that the German economy is underpinned by a distinct and unique framework known as Rhenish capitalism, which emphasises promoting the social good and creating consensus between all stakeholders, including governments, labour unions, businesses, and community (Marx and Reitmayer, 2019). By contrast, there is less cohesion and cooperation between these groups within Australia, which may result in a lack of consensus to guide approaches. Secondly, government and industry groups in Germany adopted a proactive approach, beginning the transition process early to ease the impact on workers. By contrast, Australian policy towards regional transition has been identified as sluggish and limited, eliminating opportunities to get ahead of the problem (Burke, Best, and Jotzo, 2019). Finally, it must be acknowledged that the Ruhr Valley was far more subject to market pressures which forced an early transition, as the black coal mined in the area was becoming increasingly costly to extract relative to alternative sources or types of fossil fuel (Wiseman, et al., 2020).

Despite these issues, there are several promising elements of the Ruhr Valley experience that can be translated to the Gippsland region. Firstly, a key element of the Ruhr Valley's success was in bringing together regional development coalitions of relevant stakeholders to draw upon local knowledge and allocate resources via a bottom-up process. This approach is embodied in the establishment of the Latrobe Valley Authority, which serves as an important link in numerous regional partnerships and serves to channel investment through a coordinated process. Secondly, the Ruhr Valley relied upon locally based universities and research institutes to assist industry in reorienting towards emerging industries, providing the backbone for technological research-and-development. Federation University Australia maintains several local campuses which could similarly provide the research base and expertise necessary to facilitate a regional economic transition towards growth sectors.

#### 3.4.3 United States Case Studies

The United States provides somewhat analogous case studies. The ongoing transition in regional communities has been defined by the transitioning of ageing coal-fired power stations, reduced operation of those still being utilised, and a decline in exports, driven by a mixture of market forces, increased competition from alternatives, and stagnating demand (Roemer and Haggerty, 2021). This in turn has resulted in the loss of jobs associated with those sectors, with communities struggling to find viable replacements. As noted by Graff, Carley, and Konisky (2018), policymaking in the United States is highly decentralised in the context of energy and regional transitioning. It is the jurisdiction of individual States to set their own policies regarding energy production and consumption, economic and environmental transitions, and managing the impact on affected communities (Graff, Carley, and Konisky, 2018).

Research by Roemer and Haggerty (2021) considered a sample of eleven states<sup>4</sup> in the American West and determined that two broad but distinct policy corridors were emerging around regional transitions. The first type of corridor seeks to preserve the local industry for as long as possible, by implementing support for job providers and postponing plant retirements. Examples of this include Montana allowing the State Board of Investments to issues loans to coal-fired power stations from its Permanent Coal Tax Trust, and Wyoming directing power plant owners to attempt to find new buyers prior to retiring their facilities (Roemer and Haggerty, 2021). The second type of corridor seeks to accelerate the transition, providing clarity for workers by setting closure dates for plants or introducing incentives to expedite retirement. This includes New Mexico introducing of energy transition legislation, Colorado legislating emissions reduction and regional transition targets, and Washington setting timelines for the closure of all its coal-fired power plants (Roemer and Haggerty, 2021).

In weighing the effectiveness of both approaches in maintaining LFP within the affected communities, Roemer and Haggerty (2021) derive a number of observations from interviews with community members, industry groups, labour groups, and experts at the local and state levels. The policy approach of attempting to prolong the lifespan of local industries often runs afoul of market forces, with communities impacted by unexpected and early closures of plants. This results in an increase of local unemployment in the absence of any transitional efforts to pre-empt this loss of local industries. Worker transfer schemes to other plants still in operation has served to mitigate this impact on jobs, but this option becomes increasingly unviable as more plants close. The offer of early retirement, industry pensions, and other payouts further helps to reduce these impacts at the individual level, but typically does so at the expense of these workers exiting the labour force entirely, creating a hidden class of non-employed who are still capable of productive work.

Attempts at setting clear dates for closures have been embraced by stakeholders as they provide time to plan for the redirection of the local workforce if there is sufficient advanced notice. For example, a 2011 bill in Washington focusing on coal transition was opposed by local workers for setting a closure target of 2015. The bill was able to derive support by changing the dates to 2020 and 2025 for various stations, with investment and supports in place over this lengthier transition period (Roemer and Haggerty, 2021). However, specific policies aimed at transitioning these workers into other industries have struggled to identify viable replacements making the most of worker skillsets while still providing high-paying employment. Interviews identified three major issues across all states which were areas of concern. Firstly, existing policies do not address the needs of remote isolated communities, with a failure to draw on local knowledge, skills, and resources resulting in no sense of direction for strategies. Secondly, policies do not create incentives to support early or long-term planning, resulting in communities being affected by early closures and insufficient progress in transitioning to new industries. Finally, the existing level of support for transitions is insufficient, leading communities reliant on coal power production and mining at risk of a domino effect of job losses once those industries close. Except for Washington and New Mexico, there was a distinct lack of transition funds being made available by State governments to help shape strategies and establish replacement industries (Roemer and Haggerty, 2021).

The situation in many of these States is reminiscent of that in the Gippsland region, which was affected by the early closure of the Hazelwood power station. While the region did not benefit from long-term proactive planning prior to this event, however, its emergence as an area of policy concern has led to some promising developments. Notably, the provision of a regional transition fund by both the Federal and State governments ensured that resources and financial assistance were in place going forward to help mitigate job losses. The

-

<sup>&</sup>lt;sup>4</sup> Washington, Oregon, Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico, and California.

establishment of the Latrobe Valley Authority has also provided a mechanism for long-term planning, with a bottom-up focus on utilising the knowledge, skills, and resources that the Gippsland region has to offer. However, to ensure the success of strategies aimed at preserving LFP within the community, leadership in setting a direction for transition efforts is imperative and also that necessary State and Federal government support is maintained throughout the process.

#### 3.4.4 United Kingdom Case Studies

Another country from which this research can derive useful case studies is the United Kingdom, which has largely completed its transition away from coal. This transition is especially noteworthy given the fact that it was not 'planned' in the sense of being driven by any cohesive policies, with no government commitment to phasing out coal prior to November of 2015 (Fothergill, 2017). Instead, the shift was largely driven by market forces, with cheaper exports, stronger competition from alternative sources, and the growing costs of production serving to make these industries less viable in a domestic context (Fothergill, 2017). Since the early 1980s, an estimated guarter of a million jobs in the coalmining sector have been lost, causing significant shocks to local economies dependent on this industry. While this constituted approximately 10 per cent of the workforce in more urbanised areas such as Lancashire and North Staffordshire, the proportion was as high as 70 per cent in regional areas like South Yorkshire (Fothergill, 2017). During the initial phase of job losses, the labour force was supported by measures such as transfers to nearby mines still in operation, redundancy payments, and job training schemes aimed at allowing a transition into fields such as construction and haulage. However, it should be noted that there was a generational aspect to these policies. Older workers, with access to redundancy payments, welfare, and occasionally early access to industry pensions were more likely to drop out of the labour force entirely. Younger workers, meanwhile, were more likely to move to other mine sites, until dwindling employment opportunities in the sector forced them into other sectors that did not always pay as well (Fothergill, 2017). This further highlights the diminishing returns inherent in worker transfer schemes, which, while providing a temporary solution, only forestall the local shock to LFP in the absence of a replacement industry capable of reabsorbing the displaced labour force.

Despite these short-term disruptions, there have been four major transition efforts since the 1990s that merit attention: colliery site reclamation; access to European Union (EU) Structural Funds; Assisted Area status; and infrastructure investment (Fothergill, 2017). Neither EU Structural Funds nor Assisted Area designations are particularly relevant within an Australian context, except to note that they provided additional sources of financing for infrastructure, training, and business support for job creation. Of more direct interest are efforts surrounding colliery site reclamations, which aim to bring land back into productive use to create new jobs and protect the environment. Such efforts, however, require an enormous level of investment, typically resulting in public-private partnerships on funding (Fothergill, 2017). Infrastructure development similarly involved various commitments from governments, businesses, local authorities, and development agencies, with an aim to replacing the coal-focused infrastructure with the required resources to sustain new industries.

In assessing the effectiveness of these transition efforts, the long-term effect on jobs merits attention. While 225,000 jobs in the coal industry were lost between 1981 and 2008 in England and Wales, the number of male jobs in these same regions increased by 180,000 (Foden, Fothergill, and Gore, 2014). However, while communities with smaller coalfields and fewer workers employed in those industries have recovered well, job replacement rates have been less impressive in more coal-dependent regions such as South Wales, Ayrshire, and Northumberland (Fothergill, 2017). Moreover, many of these new jobs are less well-paid and secure than coal industry jobs, with Fothergill (2014) noting a reclaimed colliery site between Yorkshire, Nottinghamshire, and Derbyshire that was being occupied by warehouses and distribution centres. The median salary in former coalmining areas tends to be approximately 7-8 per cent below the UK national average, a significant decline given that coalmining jobs were one of the highest paid forms of manual labour in the country. Assessing the impact on LFP and outcomes is further compounded by the fact that many of those on unemployment benefits in regional areas have been shifted to incapacity benefits, effectively classifying many working-age men and women as NILF (Forthergrill, 2017). It is notable that more claims for incapacity benefits based on medical reasons were given after these industries closed than when they were in operation.

In applying the lessons from the United Kingdom to the Gippsland region, it must be noted that the short-term effects of transition can be painful for the community. The loss of a significant local employer, even with the provision of funds to ease the transition, can result in older workers opting out of the labour market entirely in favour of early retirement, while younger workers are left with the prospect of eventually having to accept jobs that pay less. The longer-term findings suggest that it is possible to reclaim former coal mining sites, provide job training and investment to support new industries, and create replacement jobs that reabsorb the displaced labour force within a region. However, while these findings are promising in terms of the LFP and

unemployment rates, like does not necessarily replace like, with job quality a factor that merits attention. In particular, the UK experience demonstrates a shift from some of the highest paying blue-collar jobs in the country to median incomes well-below the national average in coal-reliant communities. Given that redundancy funds, industry pensions, and government assistance have been provided to workers in the Gippsland region, it is important to ensure that displaced workers do not simply opt out of the labour force entirely.

## 3.4.5 Policy Implications for Gippsland

In assessing the policy implications for the Gippsland region, the issue of early retirement emerges as an area of concern within an LFP context. There is an inherent contradiction in the offer of early retirement given that government policies are otherwise reorienting to reflect the fact that people are living longer (OECD, 2020). With this comes the acknowledgement that people can enjoy longer working lives and that encouragement of this may be necessary to ensure that they are adequately supported in retirement. The source of this contradiction appears to be the short-term expediency and benefits to all stakeholders upon the closure of a major local industry at the expense of these longer-term considerations. After all, the workers in question are given some financial security in an otherwise uncertain time; labour unions can rest assured that the interest of their members are being protected; industry cannot be accused of simply abandoning a loyal and long-serving workforce; and governments do not have to implement policies to address a sudden surge in unemployment, with displaced workers instead becoming classified as NILF.

Early retirement may indeed be a necessary temporary solution to supporting workers within traditional industries within a community where new ones are not available to take their place. However, this policy also serves as a disincentive to remain in the labour force in direct contravention of other government priorities intended to encourage and sustain this over longer periods. This highlights the necessity of identifying, promoting, and supporting new industry sectors capable of absorbing displaced workers before they are encouraged to opt out of the labour force entirely.

#### **3.4.6 Summary**

The case studies outlined demonstrate that while the challenges facing the Gippsland region are significant, they are not unique, with analogous areas both nationally and internationally offering insights that can be drawn upon. The Ruhr Valley presents the most successful case study in regional transitioning, although it had the benefit of proactive planning and a different political, cultural, and economic context that does not exist within Australia. In the absence of such proactive interventions, the United States and United Kingdom case studies demonstrate that there are three important factors necessary for a successful transition. Firstly, there must be a clear sense of direction in terms of policy, which draws together all stakeholders and levels of government. The latter is of particular importance, given that a lack of prioritisation from State and Federal governments had undermined transition attempts in Australia in the past. Secondly, there needs to be strong local leadership to chart this direction, bring stakeholders together, and implement policies with government support. Finally, any attempts at transition must be tailored specifically for the community, drawing on local knowledge, skills, and resources to ensure that no section of the labour market is left behind by the shift from established industries to newer ones.

#### 3.5 Conclusion

In grounding this research within the extant body of literature, several factors merit attention. Firstly, the factors influencing LFP and unemployment are multivariate and complex, with an overlapping array of demographic, cultural, regional, and policy factors exerting an influence on the working population. Secondly, the labour market is also growing increasingly complex, with growing rates of casualization and contract-based employment, along with the rise of the gig economy and at-home work. Finally, while the challenges facing the Gippsland region are significant, there are case studies that can be drawn upon to guide approaches to increasing local LFP. The following chapter will outline the findings of the key informant interviews.

#### 4 Interviews

To obtain an on-the-ground view of LFP issues in the Gippsland region, a series of 20 interviews were conducted with local stakeholders. Interviewees consisted of a broad sample derived from employers, industry groups, labour unions, registered training organisations, job active providers, and the public sector. The interviews covered a range of topics identified by the literature review, with section 4.1 covering the nature of work and employment participation in Gippsland; section 4.2 exploring geographical factors; section 4.3 outlining cultural factors; section 4.4 detailing demographic factors; section 4.5 addressing the role and impact of education; section 4.6 detailing the informal economy; section 4.7 summarising the implications for policy; and section 4.8 presenting concluding remarks.

## 4.1 The Nature of Work and Employment Participation in Gippsland

The interviews covered a wide range of topics related to the nature of work, employment participation, and job quality in the Gippsland region. Section 4.1.1 addresses changes in full-time, part-time, and casual working arrangements; section 4.1.2 covers underemployment; and section 4.1.3 details the changing nature of agriculture.

#### 4.1.1 Working arrangements

While there was acknowledgement that working arrangements and the types of job on offer vary between industries, there was a consensus among all interviewees that the Gippsland region was unlikely to see an increase in full-time employment. Rather, the general trend was leaning towards more flexible working arrangements, with a preference for part-time and casual employment. Notably, these trends are being driven by both employees and employers, as opposed to a disconnect between what the former wants and what the latter are willing to offer. The willingness of employers to offer full-time work for employees is being driven by a mixture of ongoing economic uncertainty caused COVID-19 and the regulatory burden attached to full-time workers. As noted by numerous respondents, it remains an open question for businesses as to whether they will endure further lockdowns, how long those will last, and their financial liability for workers during these periods or in the event of an outbreak. This uncertainty has inculcated employers with a risk-averse mentality, where they seek to hedge against any negative impacts on their business by limiting job offers to those which afford them a greater degree of flexibility in responding to any issues that arise over that period of employment. It is interesting to note that, while most respondents felt that the impacts of COVID-19 would be transitory and alleviated upon full reopening of the economy, they still felt that employers were likely to continue preferring more flexible working arrangements. This is partly due to the likelihood of employers taking a 'wait and see' approach while business confidence recalibrates in the wake of a novel economic shock but may also be driven by employee preferences.

The shift towards fewer full-time working arrangements is also being driven on the employee side, with both current workers and jobseekers preferring greater flexibility. Respondents have noticed a significant cultural shift in employees seeking to maintain a greater work-life balance, with this corresponding to increased demand for part-time, casual, or other working arrangements. One respondent tied this to the phenomenon of the Great Resignation, an umbrella term for the economic and employment flow-on effects created by the response to COVID-19. The Great Resignation has been driven by several factors, including dissatisfaction with pre-COVID working conditions, adaptations within certain industries in response to COVID-19 such as working from home, and the boost to savings produced by short-term welfare increases and stimulus payments. With more money in their pockets to tide them over, and less social pressure to find work, would-be employees are withholding their labour while they seek better career options<sup>5</sup>. Interviewees noted a generational difference in attitudes to work, particularly regarding more flexible arrangements, which will be addressed further in section 4.4.2.

Even when employers are incentivised to provide secure full-time employment, there are nevertheless pressures to cut costs and preserve options on the employers' end. One respondent, who works within the education sector, stated that there were specific policies in place to prevent employers from replacing full-time staff with less secure casual workers. However, they noted that whenever a teacher entered retirement, it was

<sup>&</sup>lt;sup>5</sup> Noting that the interviews were conducted prior to growing inflation and cost of living increases, potentially providing countervailing pressures to this trend.

common practice to replace them with a recent graduate than someone with more experience due to budgetary constraints. The interviewee noted that it was rare for a retiring teacher to be replaced with someone of comparable experience unless their departure resulted in a specific skill gap and there was room in the budget to fill it. Although this occurs within an industry-specific context, the preference for cutting costs by taking people with the appropriate skills and training them up rather than hiring those who possess both qualifications and professional experience merits attention.

#### 4.1.2 Underemployment Gippsland

There is a notable disconnect between the data concerning underemployment and attitudes towards it amongst interviewees. Most respondents did not consider underemployment to be a significant issue in the Gippsland region, attributing people working fewer than 40 hours to the increasing desire of employees to maintain a stronger work-life balance. This may be the result of lay misinterpretation of the meaning of underemployment, given that the rate is defined as the percentage of workers who would like to or can take on additional hours (ABS, 2020). However, it could also be indicative of these statistical measures no longer being representative of the changing nature of work, with some employees considering themselves 'capable of' working additional hours but possessing little to no inclination of seeking them.

Insofar as respondents identified potential drivers of underemployment, they pointed to the uncertainty within the business community. Hiring full-time workers carries additional risks for employers in terms of their rights and entitlements, which many are unwilling to take on in an uncertain economic climate. As one interviewee noted, many businesses would prefer to 'hire three casual workers instead of one full-time employee,' which grants them the flexibility to 'scale [hours per week] up or down' in response to their needs at any given time. Another interviewee noted that the weekly hours offered by an employer can be reflective of a fixed budget, where the percentage of funding allocated to salaries is not sufficient to cover 40 hours per week across the period of employment. Beyond these observations, respondents seemed more concerned with the unemployed and those classified as NILF than the underemployed.

#### 4.1.3 Changes in the Agriculture Sector

Given that food and fibre has been identified as an area of potential growth and specialisation for the Gippsland region, it is worth outlining the notable changes identified by respondents within the industry. It was observed that agriculture was becoming an increasingly technology-driven sector, with the resulting innovations driving demand for a more skilled workforce. Innovation is being driven in areas including boosting energy efficiency, reducing greenhouse gases emissions, and expanding the use of drones, automation, and other labour-saving devices. It should be noted that this shift within the sector has been occurring over the course of decades, driven by several political and economic incentives to boost efficiency in agriculture. However, these trends have been exacerbated by international and domestic border closures imposed in response to COVID-19, which have served to limit the available pool of willing and affordable workers.

In contextualising this shift towards a more technically oriented and skilled workforce, one interviewee cited the example of Melbourne-based airline pilots who were unable to work due to COVID-related travel restrictions. Drawing upon their transferable skills operating large, complex machinery, they reached out to local agricultural businesses and now operate as freelancers within the sector. Their skills have proven to be in such high demand that these former pilots have decided to change careers entirely and remain within the sector even after airlines fully reopen. This case study stands in significant contrast to a pilot program which transported a group of Melbourne residents interested in working in agriculture to farms based in Gippsland. The overwhelming majority of prospective workers withdrew on the first day because they lacked the skills necessary to perform the work required by employers.

These case studies highlight a shift in the agricultural sector, which has traditionally been defined by a low-skilled, entry-level workforce. This has significant implications for policies aimed at increasing LFP in the Gippsland region, especially given that food and fibre has been identified as a local industry with comparative advantages that make it likely to experience growth. The need for low-skilled workers has not diminished in all levels of the sector, with one respondent identifying the plan to make Gippsland a key link in the seaweed and industrial hemp supply chains. However, a growing emphasis on automation and the use of technology is going to drive demand for a larger skilled workforce over the coming years. To meet these demands, training and education providers will need to have greater engagement with the agricultural sector and provide new course offerings to ensure that jobseekers are qualified to fill these positions.

## 4.2 Geographical factors

Issues of LFP are not experienced homogenously across the Gippsland region, with disparities in outcomes and performance across its six LGAs. Section 4.2.1 explores the impact of geography on LFP in Gippsland while section 4.2.2 addresses issues of public and private transport.

#### 4.2.1 Labour Force Participation Implications of Geography in Gippsland

Issues of unemployment are heterogeneous across the six LGAs that comprise the Gippsland region. It was a common refrain among respondents that 'the further east you go, the worse [these issues] get.' It was noted that the LGAs closer to the Melbourne metropolitan area experienced lower unemployment, both due to local employment opportunities within their communities and greater capacity to commute into the city. Access to the highway, rail lines, and other transportation arteries also served to boost employment outcomes, with communities removed from these experiencing higher rates of unemployment. Others were blunter in their assessment, with one arguing that LFP is 'a Latrobe problem and not a Gippsland problem,' as evidenced by the higher unemployment rate in Latrobe City relative to the other LGAs. A more detailed breakdown of employment figures between LGAs is provided in Chapter 5.

#### 4.2.2 Transportation Issues

One of the most commonly recurring issues raised by respondents was the availability of public transport and its impact on jobseekers and employees lacking either a driver's license or their own vehicle. The inability to travel to a job site was noted as a significant impediment to jobseekers across all age ranges securing employment, with one job active provider noting that lack of public transport affected both young workers who had not acquired a license and older workers who had difficulty holding on to them due to convictions for repeated driving offences. Issues of accessing public transport were identified as being heterogeneous across the Gippsland region, with a respondent arguing that 'employment opportunities and industry are located along the Princes Highway and the rail line.' They noted that issues of unemployment increased the further one travelled from these transport arteries, with smaller or remote communities and industries based outside of community centres disproportionately impacted by fewer public options. Another respondent noted their frustration that whenever the need for more services and routes to remote areas was brought up with policymakers, a common defence was that buses offered several 'connections' that could be taken advantage of by commuters.

Even when public transport is available, the schedule of buses and other services appears structured to cater to a more traditional '9 to 5' work schedule and becomes less available outside of that window. One interviewee, who works in the agricultural sector, notes that it is common for some shifts at abattoirs or food processing centres in regional Gippsland to start as early as 5 AM and for others to end late at night, falling outside the window of public transport availability on either end of the working day. This issue was further compounded by the fact that many of these facilities are based outside of population centres and far from the nearest bus stop, forcing commuters to deal with additional travel back and forth. Given the remote locations and niche demand of these services, further collaboration with industry is needed to structure a public transportation schedule that facilitates these workers. Providing more direct and flexible transport will not only provide greater convenience for workers already employed in the sector, but also potentially offer opportunities to the unemployed who were previously locked out due to an inability to travel to prospective job sites.

While there is significant demand for increased public transport, acquiring a driver's license could also be incentivised as a means of boosting LFP wherever possible. One respondent noted the success of a trial program at a regional secondary school experiencing high dropout rates among students prior to their completion of Year 12. While they felt that completing schooling would not be necessary if they picked up an apprenticeship, they were encouraged to remain by the offer of paid driving lessons to help them attain their license. This policy had a significant success rate in increasing retention, ensuring that students graduated with both a full high school-level education and their driver's license. These traits further went on to significantly increase their likelihood of gaining employment following graduation, making them more competitive applicants, and opening more pathways than would previously be available. The prevalence and underpinnings of attitudes that a high school education is not necessary will be explored in greater depth in section 4.4.2. However, the success of this policy should be understood as a potential mechanism for addressing that issue.

#### 4.3 Cultural factors

The Gippsland area is unique, and policies aimed at boosting LFP within the region must be specifically tailored to the needs and resources of the local environment. Throughout the interview process, respondents made several observations about the local culture that merit attention from an LFP perspective. Section 4.3.1 outlines the cultural impact of the coal industry, section 4.3.2 details a culture of cynicism and pessimism regarding change, and section 4.3.3 explores the impact of generational joblessness and welfare.

#### 4.3.1 The power Industry in Gippsland

The power industry is one that casts a long shadow in Gippsland and continues to define the cultural identity of parts of the region even as it enters a transition phase. Respondents noted that the labour force participation impact of power plant closures was somewhat overstated and had more of a psychological impact than an economic one, pointing to declining unemployment since the closure of Hazelwood. However, this psychological impact remains palpable, as demonstrated by the concerns raised by respondents about the regional economy once the power industry closes. One respondent outlined the cultural impact of the power industry as follows:

When you go into Melbourne and tell someone [you're] a coal miner, they'll say, 'Oh, well, that's cool, I guess.' Then you come down... the main street in Morwell [and do the same] and they'll bow, because you know that industry is predominantly the high, high end [for workers in Gippsland].

Another respondent noted that the 'top of the food chain' in Gippsland was 'not a stockbroker, not a real estate worker... not the IT industry... but coal workers.' While these comments are somewhat overstated for effect, they highlight the considerable blue-collar identitarianism within parts of Gippsland and the loyalty the sector has engendered for providing high-paying jobs to these workers.

It should be noted that, despite an undercurrent of pessimism, respondents saw the transitioning of the power industry as presenting opportunities as well as problems. One respondent observed that Gippsland is situated mere hours from the Melbourne CBD, the beach, and snow-capped mountains, with surrounding bush and waterways. Their hope was that no longer being stereotyped as 'coal country' might allow the Gippsland region to be recognised for this central location, causing Melbournians to see it as a good place to live and work. Another in the agricultural sector pointed to the emergence of new industries to replace those entering decline, citing plans for Gippsland to become an important link in the supply chain for seaweed and industrial hemp. However, there were lingering concerns about the ability of new emerging sectors to offer wages and job quality comparable to those in the power industry. As once respondent succinctly put it, 'You can't replace 200 mine workers in a coal mine with 400 casual lifeguards at a swimming pool that's been built and expect things to remain the same, even if this boosts employment numbers.' The potential for lower-paying jobs to drive labour migration out of the region is discussed further in section 4.5.3.

## 4.3.2 Cynicism and Pessimism in Gippsland

As noted by Duffy and White (2017), an undercurrent of cynicism has existed in the Gippsland community and workforce since the privatisation policies of the 1990s did not result in the economic revitalisation of the region. However, the problems faced by Gippsland do not start and end with the power industry, with one respondent noting that one economic shock after another has been affected workforce morale in the region. Discussing the impact of power station closure, the GFC, and COVID-19, they observed, 'I feel like [the impact of various economic shocks are] transitory, but they keep coming... They just don't stop... There's always something more... We've had bushfires. We've had floods. We've had a pandemic. Drought.' Another respondent who has worked for numerous job active providers noted that the cumulative effect of these shocks has been deleterious to the mental health of jobseekers, who feel that they cannot get ahead and there is something always around the corner to set them back. This pessimism serves to externalise the experience of unemployment, leaving jobseekers feeling like they cannot find work due to circumstances

<sup>&</sup>lt;sup>6</sup> It should be noted that this recovery comes in the context of worker transfers to other plants and early retirement offers, policies which this research has observed will experience diminishing returns over the long run.

outside of their control. This, in turn, promotes a culture of joblessness and welfare dependency, particularly within an intergenerational context.

#### 4.3.3 Intergenerational Joblessness and Welfare

There was a consensus among respondents that intergenerational joblessness was an issue in parts of Gippsland, particularly regarding the way it shapes the attitudes and aspirations of the long-term unemployed. As one respondent observed, for all the ambitions of policymakers for the future of the region, people look to their family, peers, and immediate social network in terms of what they can expect from life. It is an observable phenomenon, both in the literature and the interviews, that those who grow up in households where neither parent works, or struggle to maintain long-term employment, are more likely to fall into this lifestyle themselves. One respondent, who has worked for seven years in multiple job service providers in Gippsland, observed that:

Culturally, there's been this image built through... parents not working, and their kids not working, and their kids not working. And it's cultural for them not to work and for them to be on Centrelink.... And I've seen it in all age ranges... from people in their 60s to... people coming through [that] are 16 and they've already got the [mentality] ingrained.

The extent to which children observe and internalise the attitudes to work of their parents is so significant that one respondent even expressed concern about the rise of online and at-home work driven by COVID-19. As they observed, if children start 'seeing mum and dad sitting at the computer all day,' perhaps taking more liberties than would be expected in the traditional workplace, it could distort their view on the nature of employment and their expectations of work once they enter the labour force. It should be noted that the current level of at-home work is an unprecedented phenomenon, and, while this is a valid hypothesis, it will take some time before long-term research is conducted within this space to determine the effects.

Respondents working in the job active sector identified a 'class of professional jobseekers,' who are 'very good at putting in for jobs' that they have 'zero intent' of picking up to meet their mutual obligations for payments. While the welfare system provides an undeniably necessary function in supporting those in need, an ingrained culture of joblessness undermines its role as a safety net to facilitate the transition into work. It can also be observed that the welfare system can undermine its own intentions through the unintentional codification of disincentives for work. One interviewee cited the example of public housing, where rent is charged proportionately at a rate no more than 25 per cent of total household income, including welfare payments (Housing Victoria, 2022). This proportionality means that the cost of rent can be reduced by earning less money, creating a perverse incentive to work fewer hours. The respondent noted that this disincentive was most prevalent in shared living environments, where one person making more money and working more hours than the rest of the household created social pressure for them to cut back and reduce the costs for everyone. While a proportional system for charging rent makes some sense given that those in public housing are likely to experience unreliable income and difficulty holding jobs, it is necessary to ensure that the welfare system does not unwittingly entrench disincentives to breaking this cycle. Approaches to tackling the culture of joblessness and welfare from a policy perspective are outlined in section 4.7.

## 4.4 Demographic Factors

As noted by the literature review, there are several demographic factors that have implications in terms of LFP outcomes. These topics were explored in the interviews, with section 4.4.1 exploring the impact of gender in Gippsland and 4.4.2 addressing that of age.

## 4.4.1 Gender in Gippsland

It was the position of most respondents that gender was becoming less of a relevant issue in terms of LFP outcomes. All employers interviewed indicated that policies specifically aimed at improving equal gender representation had been implemented within their industries, and, while some workforces remained gendered, that this was largely due to differing interests and inclinations. The exact nature of these gender disparities varied between industries, with one interviewee from a community and human services provider noting that they had difficulty attracting men to their largely women-dominated profession. While physical labour-intensive professions remain dominated by men, respondents noted both increasing participation by women and a cultural shift in the notion that some professions require 'men's work.' One respondent involved in agriculture noted that while their industry remained predominantly male, there have been significant increases in female

farm workers and owners from previous decades. Another respondent in the forestry sector noted that, while gender had been a historical factor within the industry, shifts in policy and culture had served to bridge this divide dramatically over just the past five years. She even went so far as to predict that 'this may be right out there, but maybe in five to ten years we [won't need to] be talking about this.'

Despite these positive changes, respondents did identify some issues worth noting from an LFP perspective. All respondents noted that the burden of childrearing disproportionately fell upon women, affirming the need for more flexible part-time working arrangements to keep them in the labour force. However, the demand from female workers for more flexible working arrangements has been so significant that major employers in Gippsland are already cognisant of this issue and implementing policies to address it. One respondent noted that their company had already introduced a gender-neutral parental leave policy and was focused on producing a workplace culture that encouraged both men and women to feel secure in making use of it. While it should be noted that these policies are not universal across all workforces and industry sectors in Gippsland, the acknowledgement of this issue and shifts in both policy and culture are promising signs for maintaining women's LFP.

Respondents also flagged the high rates of domestic violence in parts of Gippsland as a factor impacting women's LFP. According to the Crime Statistics Agency (2022), the region experiences rates of domestic violence above the state average, with the Latrobe Valley and East Gippsland seeing particularly high rates and Wellington having the highest figures in Victoria in 2020. One interviewee, who leads a domestic violence support service, noted that an increasing percentage of women who experienced family abuse were entering into homelessness. The difficulties in securing housing then produce several flow-on effects from an LFP perspective, denying victims 'the stability that's required to be able to transition into work effectively.' This produces a 'cycle and circle of living' that feeds into a culture of joblessness, particularly in circumstances where dependent children are also involved. A job active provider noted that, even when domestic violence victims attempt to enter the workforce, their experience of abuse impacts upon the way they engage with employers and employment services. They observed that domestic violence victims could become highly introverted when dealing with male case workers, interviewers, bosses, or customers, only to open up and 'become a very different person' when dealing with other women. This has the potential to limit career options without the provision of additional support and counselling services.

Despite these issues, respondents noted a significant cultural shift in terms of awareness of the impacts of domestic violence and increased resources to support services. The expansion of the support services sector has also created several employment opportunities from a labour for participation perspective. As noted by one interviewee working within the sector, the influx of funding has resulted in a rapidly growing workforce of professionally qualified service providers. Due to the requirement that employees have a university degree, employers such as Quantum Support Services are drawing applicants from the Melbourne metropolitan area to Gippsland to provide on-the-ground counselling and support to victims of domestic violence. However, while the importation of labour is necessary to address immediate-term skill shortages, the interviewee notes that Federation University's Gippsland Campus has responded to demand by providing required degrees in community and human services. The profession is also attracting workers from other disciplines, with the respondent noting that they had had significant success in job advertisement listings for financial experts who can offer budgetary planning and consultation to victims on limited incomes. They attribute this success to the ability to 'connect the dots' for professionally qualified workers, allowing them to link their degree with the desire for social impact detailed in section 4.1.2.

## 4.4.2 Age in Gippsland

There were limited observations from respondents pertaining to the experiences and challenges of older workers in Gippsland, save that they are disproportionately employed in declining industries and struggle with the expectation of reskilling. One job active provider noted that many of the older workers they dealt with had worked predominantly within a single industry all their life, only to have it collapse from beneath them. This causes them to struggle in their dealings with job service providers, as they have never had to deal with them previously and work to identify new pathways that make the most of their transferable skillsets. The interviewee observed that this issue was compounded by the fact that there were no specialised services dealing with older workers who find themselves unemployed, with them 'being tossed into the same system as everyone else.' Given the perceived stigma surrounding reskilling later in life, many older workers decide to retire early and exit the workforce if the option is available to them. Given the ageing population of Gippsland and the need to extend working lives, it may be worth considering a specialised support system specifically tailored to dealing with the issues affecting older workers.

As described in section 4.1.1, there may be a generational divide concerning attitudes towards work. Respondents noted that there is a significant portion of young people who demonstrate a weak orientation to employment. Numerous explanations were given for this phenomenon, although all tended to fall within two broad categories. The first is that young people are being supported at home for longer relative to previous generations, resulting in reduced financial and social pressures to seek out employment. This, in turn, makes young people more content to live on welfare, as the majority share of payments goes to their personal use as opposed to cost-of-living expenses. The second is that, in the absence of further education or long-term career experience, they are left to accept entry-level positions that pay the minimum wage. The gap between welfare payments and a full-time minimum wage is not significant enough for many to value the additional money they would make working more than the time lost that could be spent on leisure activities. This cost-benefit analysis is further weighted against work by the sentiment that these jobs offer limited opportunities for career advancement, do not provide a sense of dignity and self-worth, and are rife with poor quality management. As one respondent observed, employers offering entry-level positions can get away with treating their staff poorly since they are the easiest to replace, as highlighted by high turnover within these industries.

The lack of skills and qualifications among young workers who do not complete high school means that this cohort is most likely to experience long-term unemployment. As one secondary education provider detailed:

We have Year 9 students disengage from school, telling us that... education is not that important because they're gonna get an apprenticeship next year. And what they don't realise is there are Year 10s and 11s and 12s who also want apprenticeships. And there are some Year 12 students who have completed VCE, and so... in a competitive market, they're gonna be weighed [against them]. So their perception of reality is often skewed.

Given that this is a prevailing attitude among a significant percentage of high school students, who, in the absence of a competitive advantage are most likely to find themselves unemployed, policies aimed at encouraging retention are needed. The respondent noted that schools are already working to make students aware of the realities surrounding access to apprenticeships, tying education to access of desired career pathways. These could be complemented by other programs aimed at boosting potential LFP upon graduation, such as the provision of paid driving lessons for those who remain to complete Year 12.

Even among young people who enter the labour force, there is a considerably greater emphasis on maintaining a strong work-life balance and working in professions that have a social impact that aligns with their values. The influence of streaming culture was also observed by all job active providers, who noted a marked uptick in young people wanting to work as content creators, influencers, and video game streamers. While responses to this cultural attitude ranged from bemusement to bafflement in most cases, one interviewee noted that it provided an opportunity to ground employment within a context that young people could understand. They would explain to clients that, to achieve high-level production value, successful streamers had to invest in expensive audio-visual equipment, training in video editing, and other expenses such as high-end gaming systems. In this context, employment could serve as a means of attaining self-sufficiency and capital to invest in streaming as a side project, with much more successful outcomes. They cite the example of a young person who now works as a full-time tyre fitter and streams video games at night, with the professional pride instilled by employment making them feel less guilty about playing games so often. The success of this approach provides a strategy from dealing with young unemployed people whose expectations about the nature of work are disconnected from the local environment and industry.

#### 4.5 Educational factors

The education sector plays an important role in LFP outcomes by providing workers with skills and qualifications needed by employers. Section 4.5.1 details the ongoing engagement between industry and education providers, section 4.5.2 addresses issues in the TAFE sector, and section 4.5.3 explores the reasons behind skilled migration from the Gippsland region.

## 4.5.1 Relationship Between Industry and Education Providers

Interviewees were generally pleased with the actions of education providers in Gippsland, although several issues were raised that merit attention. It was widely agreed that universities and TAFE were doing a good job in terms of their outreach, collaborating with local industry groups to ensure they were instilling future workers with skills needed by industry. However, it was observed that these institutions lacked 'nimbleness' in incorporating such feedback into their course offerings. It should be noted that the need of industries for

tailored programs must also be balanced with the responsibility of education providers to meet set standards, with the accreditation process imposing several regulatory and bureaucratic hurdles to the introduction of new courses. While ongoing efforts around communication and collaboration with industries seems to have engendered goodwill, one interviewee warned that the perception of 'a lot of talk and no action' had the potential to leave local employers feeling disconnected from the process, undermining the process of tailoring courses to meet the current needs of workers.

Another issue of contention was the difference between skills and qualifications, with employers wanting workers to develop a growing 'toolkit' of fluencies in areas of direct relevance to their industry as opposed to a larger, more time-consuming degree. As one interviewee put it, if workers are undertaking a degree and 'only 60 per cent of it is relevant [to their specific workplace, their employers] start to wonder about the other 40 per cent.' There appears to be a considerable appetite for 'micro-credentialing' courses, which can instead be completed in a matter of weeks or months and provide certification in a single skill or handful of related skills (e.g. basic literary in a specific computer program). Given the considerable bureaucracy around accrediting courses and education providers not responding to demand for micro-credentialing, one interviewee expressed concern that some industry sectors would move much of their training 'in-house' in response, absorbing the time, cost, and resources of upskilling their workers. The interviewee noted that this could have the effect of devaluing education, as industries de-emphasise workers with qualifications in favour of their own on-the-job training. From an LFP perspective, such a shift would represent a double-edged sword. While lower credentialing requirements and expanded training opportunities could boost employment by broadening the base of potential applicants, pursuing training that is not formally accredited or universally recognised could reduce workers mobility.

#### 4.5.2 TAFE in Gippsland

Most interviewees expressed positive views of the TAFE sector in Gippsland and approved of its growing recognition as a pathway into career opportunities en par with universities. However, while increased funding and resources were viewed favourably, one interviewee considered that government policies towards TAFE needed to be better targeted towards ensuring employment outcomes. Perhaps suggestive of a lack of understanding in the community regarding the role of TAFE and other labour market actors, they expressed concern about competing priorities and incentive structures in the following terms:

I think TAFEs are confused with who they are now as well. TAFEs should be a training provider, but they're also now running many State Government pre-employment support hubs and so forth... [And this encourages] internal referrals, referring back into TAFE courses rather than into other areas or into other work... stepping stone jobs and so forth. So we end up with a community that just becomes professional trainers and professional students.

They went on to add that TAFEs had 'received a lot of money in the last few years from State Government' and they have become 'confused' as to whether they are an RTO, a training provider, or an employment agency. This possibly suggests there is a need to consider afresh how the local training-employment ecosystem is structured and also to address issues of community awareness of the roles and responsibilities of different agencies.

## 4.5.3 Skilled Labour Migration

Another area of concern is the tendency for Gippsland residents to acquire their qualifications locally but then seek employment outside the region, a phenomenon observed amongst both university-qualified professionals and skilled tradespeople. Respondents concurred with the assessment that certain types of jobs tend to concentrate in metropolitan areas, with a higher number of employers and the competition between them driving higher salaries and better benefits than Gippsland-based employers can offer. This drain on local talent then serves to make it more difficult for these industries to attempt to establish operations within the Gippsland region. As one respondent from Aussie Broadband observed:

A lot of our more professional roles are now based in Melbourne as opposed to our home base of Morwell, which is partially because of being unable to find people with the specific skills we needed. Both business skills... specific marketing, commerce... and also technical skills... Network engineer roles... Software developers. I think there comes a point where you can basically find the bottom of the pool of potential applicants within a given area if there is a smaller workforce or if there is a workforce that hasn't had the training.

The respondent noted that Aussie Broadband had experienced success with registered training organisations in helping a pool of predominantly long-term unemployed find work in their call centres. However, they also observed a lack of provision of higher-level computer courses in several years, despite a demand for skilled labour. While it should be noted that the concentration of industry in metropolitan areas has the potential to shift demand and funding for courses by both students and employers, the growing importance of information-technology across all sectors highlights the need for these programs.

Labour migration is also impacted by the decline of traditional industries, particularly in the absence of those that can offer comparable wages and benefits to those jobs that are lost. Many respondents cited the transitioning of the power industry in the region, the effects of which have been heterogeneous across the industry. Workers with highly transferable, professional skillsets, such as engineers and technicians, remain in high demand across a variety of sectors, allowing them to easily transition into new lines of work. These opportunities are available in worksites across the country, leaving these workers with their pick of jobs that command a high wage in the absence of any locally based alternatives. According to respondents the resulting migration leaves behind a displaced workforce of people previously involved in non-skilled or manual labour jobs, who experience greater difficulty in transitioning into other industries.

It should be noted that there is also migration among students who leave the Gippsland region to acquire degrees or qualifications elsewhere, a phenomenon that respondents feel has increased in recent years. One respondent attributed this to a perception of reputational damage done to the Gippsland Campus when ownership transferred from Monash University to Federation University. They observed that Federation University had developed a reputation as a 'subpar university' and 'an institution of last resort,' despite maintaining continuity in several courses. On the other hand, they also noted that there are exceptions to this, with degrees in nursing, midwifery, and teaching enjoying strong local reputations, likely due to their longstanding pedigree and a strong relationship with local employers. At a minimum, it must be acknowledged that the withdrawal of Monash University from the region has denied its inhabitants the ability to access a Group of Eight education locally, forcing those who desire that brand recognition to migrate. This issue is further compounded by the wider range of career opportunities and the higher wages they command outside of the Gippsland region.

## 4.6 Informal Economy

By its very nature, the informal economy is difficult to accurately quantify or detail, with estimates provided by government sources tending to be more conservative than those presented by some experts (Bajada, 2008; Finlay, Staib, and Wakefield, 2018). While this report is unable to make commentary on the exact size of the informal economy in Gippsland, the interviews provided several observations that highlight the need for additional research in this area. Section 4.6.1 discusses illegal activity in Gippsland, while section 4.6.2 details the cash economy.

## 4.6.1 The Illicit Economy

There was general agreement among interviewees that cash-in-hand work and illegal sources of income existed within the Gippsland region, but none of the respondents were able to provide an authoritative estimate on the size of the informal economy. There was a consensus that illegal activity always has and always will exist, and that there was nothing to suggest that the informal economy was either growing or shrinking outside of this 'normal' range. One interviewee, who previously served as a police officer in Gippsland, noted that commercial-scale illicit enterprises were not 'hugely prevalent' in the region, providing the example of illicit drugs, which were produced at a 'low level' and often for personal use. However, another respondent noted that much of this activity goes undetected, sharing the following anecdote:

I can remember when I did work in Jobactive. I had somebody on my caseload that was a dealer and said to me very openly, 'I make way more money than you do.' And I said, 'Well, just get off benefits, please, so that I don't have to see you.' But he said 'Then the government would know I was doing something illegal,' so he felt like he had to still receive the benefits in order to not draw attention to himself.

The respondent noted that this was just one example of numerous such encounters, although they also added that this was common to lots of areas and not unique to Gippsland. The issue of illicit drugs is pertinent from an LFP perspective not just in their sale, but in their use by those in the labour force. As noted by one employment consultant, the 'elephant in the room' when it comes to prospective jobseekers successfully finding work is their ability to pass drug tests. Citing changes within the agricultural sector over the past two

decades, they observe that it went from roughly 20 to 25 per cent of employers they worked with requiring employees or job applicants to take drug tests to more than 80 to 90 per cent.

They attribute this dramatic increase to a change of thinking within various sectors driven by duty of care requirements imposed by WorkCover. The expansion of drug testing within sectors including manufacturing, processing, vehicle driving, and equipment handling, has been further compounded by additional screenings, such as medical and pre-employment checks. This has reportedly had a significant impact on applicants, with many declining to apply for jobs or proceed to interviews once they are made aware of the requirements. The respondent noted that illegal drug use is 'rampant through the community' and cannot be dismissed as a 'young person's issue,' crossing age and gender boundaries; in particular, they point to a number of jobseekers, both male and female, aged 55 and over, turning down job opportunities with a drug testing requirement. They advocated introducing awareness programs around drugs, aimed both at expectations and requirements held in industries jobseekers may want to work in and combatting misconceptions<sup>7</sup> around more commonly used drugs such as marijuana.

#### 4.6.2 Cash-in-hand Work

Another major issue from an LFP perspective is the prevalence of cash-in-hand work, which, while legal, can be used to avoid taxation and regulatory obligations. Most respondents agreed that cash-in-hand work is quite common in certain industries, with the most common example given being that of skilled tradespeople and other workers who operate at their employer's home. However, one of the more surprising observations was that cash-in-hand work, often conducted 'under-the-table,' is rife in small, brick-and-mortar businesses operating within the CBD of regional towns and cities. One respondent who works with small businesses in Gippsland made the frank observation that:

It happens way too often... I understand why it happens. Small business owners that are living on an oily rag get people in, pay them that same day, come in, head out... It happens right across Gippsland... Small coffee shops, hospitality, all those types of industries are unfortunately rife by it...

The interviewee noted that while Jobactive providers have faced heavier regulation in response to indulging such practices, this had not translated into fines or other regulatory responses for the businesses employing these workers. They attribute this disconnect to possible sensitivities surrounding 'cracking down' on small businesses, highlighting the need to properly understand and engage with this issue. Although this report is unable to quantify the size of the informal economy in Gippsland, the claim that legitimate, brick-and-mortar businesses are engaged in cash-in-hand work to such an extent is demonstrative of the need for further research in this area.

## 4.7 Policy Implications

Perhaps the most difficult task from a policy perspective is breaking the entrenched culture of joblessness and welfare dependency that exists in parts of Gippsland. This will require not only ensuring that jobs are made available in those areas, but also creating incentives that encourage and promote employment. Finding employment should be understood not only as a means of satisfying material needs or mutual obligation requirements for payments, but as a source of dignity, purpose, and achieving upward mobility. This requires a focus on job quality as opposed to just job creation, with an emphasis on attracting industries that can offer career opportunities that serve as steppingstones to better positions, wages, and benefits. Employees, especially those entering the labour force for the first time in entry-level positions, need to be provided with a clear understanding of the career pathways available to them within their industry, as well as the skills, training, and other educational requirements necessary to achieve promotion. An emphasis on job quality rather than job numbers is also necessary to retain Gippsland's skilled labour force, which has demonstrated an ability and inclination to migrate elsewhere if opportunities are not available locally.

Breaking through the culture of welfare will also require identifying and reforming the perverse incentives against attaining employment that are embedded within the system itself. As noted in section 4.3.3, rent on public housing is charged at a rate proportionate to income, meaning that costs can be minimised by working

<sup>&</sup>lt;sup>7</sup> The interviewee noted that it was a frequent issue with jobseekers that marijuana was perceived to be different from other drugs and assumed not to be detected during drug testing.

fewer hours. While it is reasonable to charge a flexible rate to those most likely to experience unreliable employment and income, a system that punishes success will ensure that those who end up on welfare are likely to remain that way even as other policies try to push them into self-sufficient employment. It remains the case that those who wish to move off welfare will need to accumulate some savings to afford rent in the private market, a fact that may clash with the role of welfare in providing a subsistence rate to cover the basic cost of living. This contradiction in policy would best be addressed by exploring a range of alternate pricing models, including charging a fixed rate based on specific welfare payments, introducing an income threshold before additional costs are incurred, or even tying reductions in rent to achieving certain employment outcomes (e.g. working x number of hours per week). Additional research is required to identify other perverse incentives embedded in the welfare system that discourage LFP among recipients.

Another important finding is the high demand for expanded access to transport for workers and jobseekers. While the current system of public transport is suitable for facilitating traditional '9 to 5' jobs within community centres, it was not designed to accommodate fields of employment that fall outside this framework. There needs to be an understanding that certain professions require their employees to be at work well outside these hours, whether before dawn or at night, and outside of town centres. Further collaboration with industries in such a category is necessary to find expanded opportunities for public transport that meet these demands in the most reasonable and cost-effective ways. Wherever possible, incentives should also be put in place to encourage those without a driver's license to acquire one, boosting their employment prospects while reducing the pressure on the public system. Policies such as the trial program outlined in section 4.2.2, tying school retention with paid driving courses, should be explored as mechanisms for improving access to work.

The education and training sectors also need to ensure that course offerings are representative of the emerging needs of employers and workers. While the university and TAFE sectors have been broadly praised for their engagement with local industry and offering of full degrees, there remains persistent demand for narrowly targeted, skills-based packages that can be completed within a short timeframe. The lack of 'nimbleness' in responding to this demand has left some employers feeling disconnected from the ongoing dialogue with the education and training sectors, encouraging them to explore in-house training options as an alternative. While this has the potential to boost LFP outcomes by expanding the recruitment pool to workers who do not possess prior qualifications, the absence of regulatory standards and universal industry recognition of credentials could limit career pathways. Universities and TAFEs need to explore the extent to which they can provide limited skills packages that are substantially smaller than the traditional degree or certificate, establishing a new model better suited to meeting the needs of local industry, workers, and iobseekers. These skills packages need to be modular and flexible, but perhaps can be designed to be cobbled together as employees expand their 'toolkit' to form pathways to full degrees. It should be noted that the ability of the education and training sectors to provide such courses is subject to regulations surrounding accreditation and quality standards, which provide a countervailing influence to producing the desired 'nimbleness' in course design and delivery.

Finally, there needs to be a reckoning with the size and nature of the informal economy in Gippsland, with a particular focus on cash-in-hand work. While there will always be a certain percentage of undisclosed payments in any cash-based economy, particularly within certain professions such as skilled trades and household labour, the claim that it is prevalent within brick-and-mortar retail is a significant research finding. It should be noted that these cash-in-hand jobs have been attributed to the financial pressures faced by small business, raising questions about how to best provide support and regulatory relief to alleviate these issues. However, allowing this trend to continue has serious implications for workers regarding their job security, tax obligations, and lack of superannuation contributions. This is a topic that would benefit from further on-the-ground research, designed to identify the extent and nature of the cash economy in Gippsland and the most appropriate policy responses to bring these workers and industries into full regulatory compliance.

#### 4.8 Conclusion

The interviews provided several insights into the nature of work in Gippsland, the LFP impacts of geography, culture, demographics, and education, and some of the main challenges, opportunities, and needs of the region. These in turn have informed a series of policy recommendations underpinned by the lived experience and insights of local stakeholders, with the respondent pool reprised of employers, labour unions, registered training organisations, job active providers, and community groups. The following chapter will present the findings derived from analysis of quantitative data sets.

## 5 Quantitative Analysis

To ascertain the current state of LFP in the Gippsland region and identify issues of concern, this research draws upon several government statistical datasets. These include ATO data on tax returns filed in Gippsland, Centrelink data on payments issued within the region, the Census, and the Labour Force survey. Section 5.1 details the population mix in Gippsland; section 5.2 provides a statistical snapshot of Gippsland; section 5.3 considers rates of LFP and unemployment; section 5.4 outlines the income distribution and employment types; section 5.5 addresses the allocation of welfare payments; section 5.6 explores issues of data collection and means of addressing them in future research; and section 5.7 offers concluding remarks on the data.

## 5.1 Understanding the Data

This report primarily relies upon data obtained from the ABS regarding labour market statistics, from the ATO regarding all the tax filings lodged as of 2019 and Centrelink detailing all welfare payments issued as of 2020. These datasets provide the most comprehensive sample sizes available and allow for analysis at the SA4 level, and the ATO data can be brought down to the postcode level but not SA3. This is due to misallocation in the data as provided by the ATO and Centrelink that produced inaccurate results. While these data address all individuals filing tax returns and/or receiving welfare payments across several years, additional data sets breaking these figures down on a demographic level were not made available for reasons outlined in section 4.5. Due to the need to derive data detailing the post-2019/2020 period, this research supplements these initial data sets by drawing upon ABS survey data. While the ABS provides the most up-to-date data, there is a trade-off in terms of a substantially reduced sample size. Due to this small sample size, accurate data can only be derived at the SA4 level. This research will also make some limited observations on demographic trends at the SA4 level using the LFS data where it is possible to do so without risking an unrepresentative sample. It should be noted that the ATO and Centrelink data contains accurate numbers for all individuals within the SA4 region, while those from the ABS are based on estimates extrapolated from a random sample.

## 5.2 Statistical Snapshot of Gippsland

This section of the report commences with a brief statistical snapshot of the Gippsland workforce<sup>9</sup>. The region has a working age population of approximately 161 thousand, of which approximately 127 thousand are employed. The unemployment rate for the region at 4.2 per cent, exceeds that for Australia at 3.9 per cent. A youth unemployment rate of 17.9 per cent in the region also compares unfavourably with a national rate of 8.8 per cent. The region's employment rate at 71.6 per cent and its labour force participation rate at 55.8 per cent are less than the national rates which stand at 76.9 and 66.3 per cent respectively. A large proportion of the region's population are classified as not in the labour force: approximately 103 thousand. The region's workforce has an underrepresentation of younger people and an overrepresentation of older workers compared with the rest of Victoria and Australia. The industry sectors of Healthcare and Social Assistance, Retail Trade and Agriculture, and Forestry and Fishing show the largest share of employment in the region. Compared with Victoria as a whole Gippsland has disproportionately fewer professional workers and disproportionally more managers, machinery operators and drivers, and labourers. It is also worth outlining evidence concerning socio-economic disadvantage among those participating in Gippsland compared with other parts of Victoria. It is apparent from Table 5.1 that a significant proportion of Gippsland's labour force are from among the most disadvantaged groups.

<sup>&</sup>lt;sup>8</sup> Statistical areas were designed not to correspond to postcode boundaries. In instances where postcodes overlap with multiple SA3s, all the data from the former are filed under only one of the latter. This produced several inaccuracies within the data at the SA3 level. Most notably, Wellington Shire, which possesses a population of almost 45,000, was showing substantially higher figures across all categories. This is because the 3844 postcode, which includes the more than 25,000 inhabitants of Traralgon, was listed under Wellington Shire rather than Latrobe City at the SA3 level.

<sup>&</sup>lt;sup>9</sup> Statistics obtained from https://labourmarketinsights.gov.au/regions/all-regions-abs-sa4/?

Table 5.1 Socio-economic disadvantage and labour force participation, Latrobe-Gippsland and other parts of Victoria

Statistical Area Level 4 (SA4)	Ballarat	Bendigo	Geelong	Hume	Latrobe - Gippsland	Mornington Peninsula	Victoria - North West	Shepparton	Warrnambool and South West	Total
Index of Relative Socio- economic Advantage/Disa dvantage - 2016 - SA1 (State/Territory deciles)										
Decile 1 (lowest)	17.5	5.7	2.2	9.6	31.8	8.1	11.6	26.6	10.2	12.6
Decile 2	4.9	9.7	4.7	24.4	12.9	14.3	16.7	28.4	22.6	14.1
Decile 3	27.5	35.7	12.9	3.0	13.4	5.3	15.4	14.6	9.7	13.9
Decile 4	8.7	10.9	22.5	11.4	5.9	14.9	14.6	3.0	14.1	12.7
Decile 5	16.6	17.4	8.6	9.8	10.7	8.5	17.5	22.5	7.9	11.3
Decile 6	-	3.3	2.4	21.1	19.0	4.8	9.9	-	38.6	9.9
Decile 7	29.6	9.0	28.7	16.9	-	17.6	10.5	-	-	14.7
Decile 8	-	-	10.4	-	12.6	16.0	-	-	-	5.6
Decile 9	-	6.8	5.9	4.8	-	3.6	-	-	-	2.6
Decile 10 (highest)	-	-	4.5	-	-	8.6	-	-	-	2.2
Total	100.0	100.0	100.0	100. 0	100.0	100.0	100.0	100.0	100.0	100. 0

Source: Australian Bureau of Statistics, Education and Work, 2021

# 5.3 Rates of Labour Force Participation, Employment, Unemployment and not in the Labour Force

This research focused on understanding the LFP and unemployment rates across the Latrobe-Gippsland SA4 and the six LGAs that comprise it. Section 5.3.1 reports LFP and unemployment rates at the SA4 level; section 5.3.2 compares unemployment figures at the LGA level; section 5.3.3 reports employment, unemployment and labour force participation by age and gender and evidence concerning educational attainment and those classified as not in the labour force for Latrobe-Gippsland; and section 5.3.4 examines the number of businesses in the SA4 region as an indicator of the type of employment being undertaken.

## 5.3.1 Labour force participation, employment, and unemployment rates in Gippsland

Figure 5.1 reports rates of labour force participation over time outside of Greater Melbourne and when compared with Victoria as a whole. The rates of labour force participation for Victoria and Gippsland are highlighted. Apparent is that levels of participation in much of regional Victoria sit below that for Victoria as a whole. Also apparent is that not only does participation in Gippsland sit well below Victoria as a whole, it sits below much of the rest of regional Victoria. Participation in Gippsland also showed a sharp decline in the wake of the pandemic.

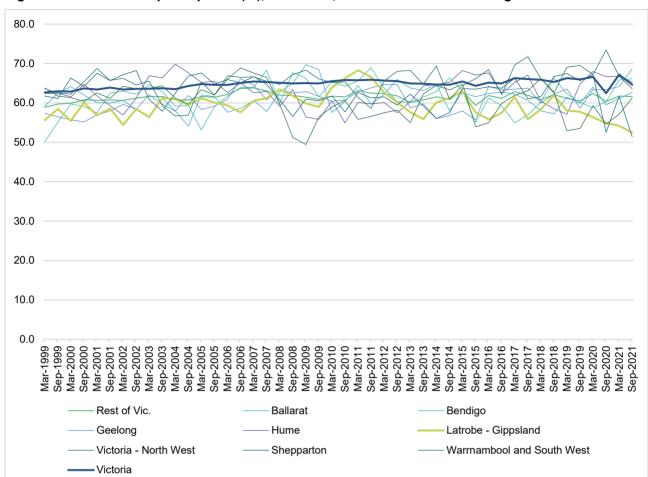


Figure 5.1 Labour force participation (%), 1998-2022, Victoria as a whole and regional Victoria

Next, we examine LFP, employment, and unemployment across Gippsland. Figure 5.2 details the LFP and employment rates at the SA4 level from January 2007 to January 2022.

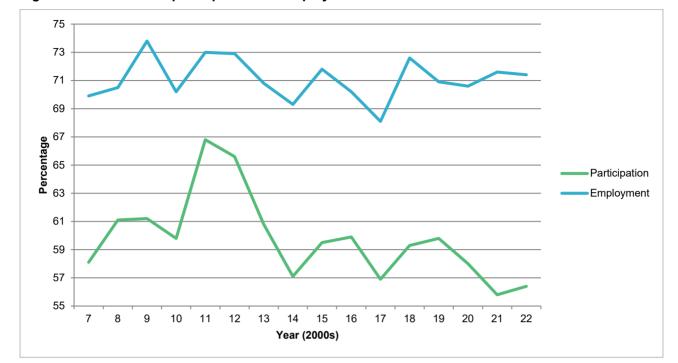


Figure 5.2 Labour force participation and employment rates at the SA4 level

Source: LMIP, 2022a.

Across the sixteen-year period sampled, the employment rate has inhabited a relatively stable range between 68.1 per cent at its lowest point in January 2017 and 73.8 per cent at its height in January 2009. A consistent cycle of peaks and troughs can be observed across the sample period within this range, although this trend has stabilised since the outbreak of COVID-19 for reasons that will be discussed in relation to participation rates. As displayed in Figure 5.2, fluctuations in the labour force participation rate have occurred over a much broader range, from a low of 55.8 per cent in January 2021 to a high of 66.8 per cent in January 2011. It should be noted that the 2011 and 2012 years are statistical outliers, as participation rates for all other years have fallen in a narrower range between 55.8 and 61.2 per cent. The stabilisation in employment rates shown in Figure 5.2, and the temporary dip in unemployment depicted in Figure 5.3<sup>10</sup>, at the beginning of the COVID-19 pandemic may appear indicative of a resilient labour market. However, the marked decline in participation rates from 2019 onwards shows that these figures are only representative of a labour market that is contracting as people drop out of the workforce entirely. During this period, a significant portion of people who were out of work due to business closures were classified as NILF and subsequently removed from the employment and unemployment data.

-

<sup>&</sup>lt;sup>10</sup> The unemployment rate over the sample period fluctuates between 3.8 and eight per cent, a comparatively narrow band relative to the employment and participation figures. When included in the same graphic, the fluctuations in the unemployment rate became visually undistinguishable, with the data separated into Figure 5.3 for greater clarity.

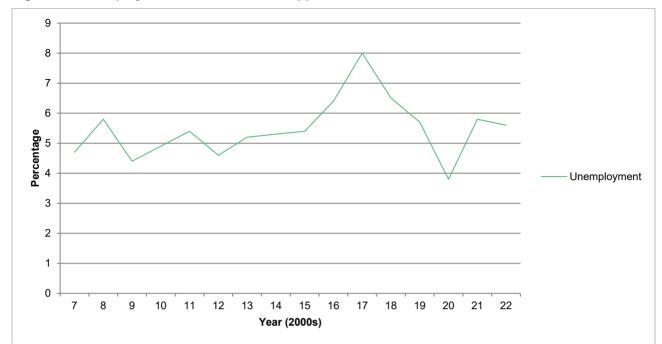


Figure 5.3 Unemployment rates in Latrobe-Gippsland

Source: LMIP, 2022a.

As shown in Figure 5.3, the unemployment rate in the Latrobe-Gippsland SA4 region has fluctuated in a range between 3.8 per cent at its lowest in January 2020 and eight per cent at its highest in January 2017. From January 2007 to January 2015, unemployment fluctuated along a much narrower band between four and six per cent, with the period from 2016 onwards characterised by much sharper peaks and troughs. The peak period of unemployment coincides with the Hazelwood power station closure and its impact on employment within the region. While the declining unemployment rate points to the success of policies aimed at reintegrating these displaced workers into the labour market, the extent of the recovery may be overstated, given the outbreak of COVID-19. During this period, the unemployment rate plunged as workplaces were closed and welfare recipients were absolved of their mutual obligation requirement to seek employment, resulting in these individuals being classified as NILF. The uptick in unemployment from 2021-2022 is indicative of the economy being reopened and individuals re-entering the labour market, although there are insufficient data to determine the extent of the economic recovery.

## 5.3.2 Comparison of Unemployment Rates Between Local Government Areas

Although the evidence set out above is useful for identifying broad trends at the SA4 level, it obscures differences between the six LGAs in Gippsland. To obtain a view of unemployment at the LGA level, this research drew upon data provided publicly by local councils. It should be noted that only data for unemployment rates were available from these sources. Figure 5.4 details the annual unemployment rates across the six LGAs. It should be noted that data were not readily available for the Latrobe City and Wellington Shires prior to 2013.

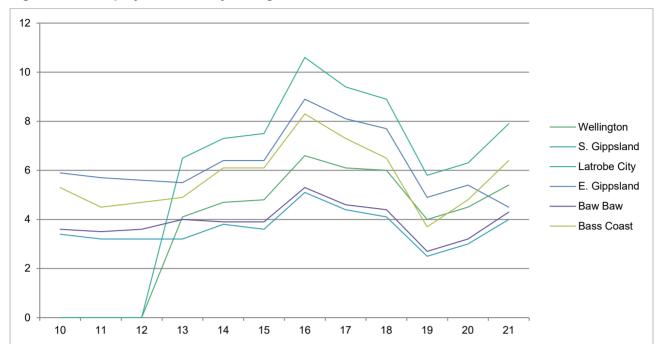


Figure 5.4 Unemployment rates by local government area

Source: Informed Decisions (2022a; 2022b; 2022c; 2022d); REMPLAN (2022a; 2022b).

As shown in Figure 5.4, there is a strong co-movement relationship between the six local government areas covered, with peaks and troughs in unemployment consistent between regions. In particular, rates of unemployment remained relatively stable prior to 2015, experienced a peak in 2016, then entered into a gradual recovery. However, these coincident movements occurred across different ranges. The lowest unemployment rates were found in South Gippsland, with figures fluctuating between 2.5 per cent and 5.1 per cent. These figures were closely mirrored by Baw Baw Shire, with unemployment fluctuating between 2.7 per cent and 5.3 per cent. By contrast, Wellington had an unemployment rate between 4.1 per cent and 6.6 per cent, Bass Coast had an unemployment rate between 3.7 per cent and 8.3 per cent, and East Gippsland had an unemployment rate between 4.5 per cent and 8.9 per cent. However, it is clear from the data that unemployment is a phenomenon more likely to be observed in Latrobe City, which experienced an unemployment rate between 5.8 per cent and 10.6 per cent. Given that these figures are substantially higher than all other local government areas, policies targeted at reducing unemployment should be specifically tailored to Latrobe City. It should be noted that the outbreak of COVID-19 led to a substantial increase in unemployment rates across each local government area, and unemployment in Baw Baw, East Gippsland, and South Gippsland sits between four and five per cent as of 2021. The outlier is Bass Coast, which has a substantially higher unemployment rate of 6.4 per cent. Given East Gippsland's typically higher unemployment rates, it seems likely that it will diverge from Baw Baw and South Gippsland as their economies recover.

To provide a point of comparison for these data, it is worth considering the unemployment rate across the State of Victoria. The state-level unemployment rate is detailed in Figure 5.5.

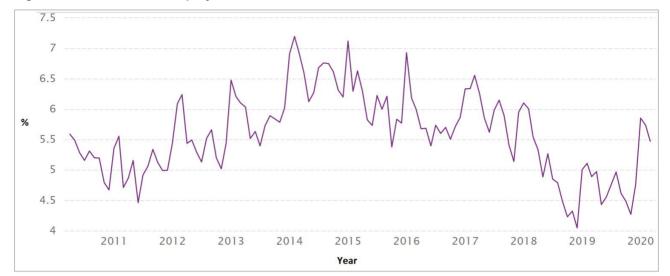


Figure 5.5 State-level unemployment rate

Source: LMIP, 2022b.

As shown in Figure 5.5, unemployment across the State has typically sat between four per cent and below 7.5 per cent across the same period, with more frequent peaks and troughs. South Gippsland and Baw Baw have outperformed the State, with substantially lower unemployment rates. Wellington Shire also sits comfortably within that range, while Bass Coast and East Gippsland only exceeded the State average during the period of peak unemployment in 2016. By contrast, Latrobe City has sat above that range across most of the sample period, reinforcing the finding that issues of unemployment in the Gippsland region are predominantly a Latrobe problem rather than a Gippsland one.

## 5.3.3 Employment, Unemployment and Labour Force Participation by Age and Gender

Figure 5.6 shows monthly labour market statistics for women and men in Gippsland. From the commencement of the new century, women's and men's participation showed an uneven but broadly upward trend. Noteworthy is that women's participation fell in the wake of the GFC, whereas men's increased. Both men's and women's participation peaked around 2010 before unevenly declining thereafter. Interestingly, while men's participation continues to exceed that of women there has been a convergence over time which was particularly noticeable after 2010. As of September 2021 levels of men's participation were markedly lower than they had been two decades earlier (65.4 in March 1999 versus 53.8 in September 2021), whereas participation among women was slightly higher (45.9 in March 1999 versus 51.2 in September 2021). Unsurprisingly, declining rates of employment strongly parallel declining participation rates.

From 1999 levels of unemployment fell back from a peak of approximately 10 per cent, before climbing quite sharply for women, but not for men in 2009. Women's and men's unemployment also peaked in 2015. Men's unemployment rose sharply in 2021 while women's fell. Rates of unemployment have rarely exceeded 10 per cent in the last two decades

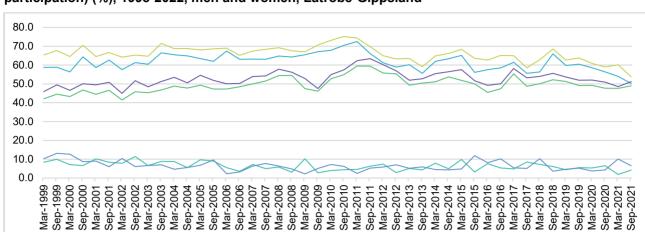


Figure 5.6 Labour market statistics (employment to population rate, unemployment, labour force participation) (%), 1998-2022, men and women, Latrobe-Gippsland

Women - Employment

Men - Unemployment

Figure 5.7 shows men's rates of employment between 1999 and 2021 in Gippsland. Noticeable is a marked if uneven upward trend in the 55-64 age group's employment, which remains rather lower than that of the 35-44 and 45-54 age groups. Rates of employment for men aged 65+ have also increased, peaking in 2010 and again in 2021, but remain substantially lower than the other age groups. The data are also indicative of declining levels of employment among men in the 15-24 and 25-34 age groups since the middle of the last decade. Apparent also is a sharp dip in employment in the aftermath of the COVID-19 pandemic across some age groups of men. This is particularly noticeable for those aged 15-24 where a very steep decline can be observed.

Men - Employment

Women - Participation

Women - Unemployment

Men - Participation

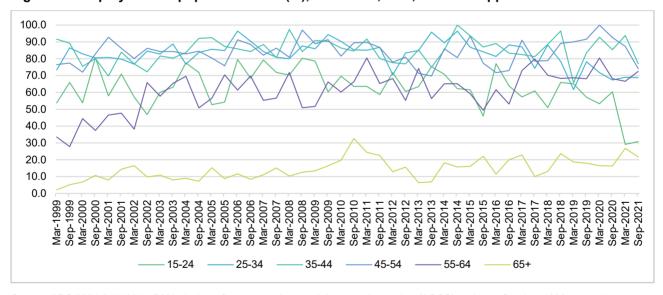


Figure 5.7 Employment to population rates (%), 1999-2021, men, Latrobe-Gippsland

Source: ABS 6291.0.55.001 - RM1 - Labour force status by age, labour market region (ASGS) and sex, October 1998 onwards

Turning to the situation for women shown in Figure 5.8, as with men a gradual increase in the rate of employment among those in the 55-64 age group can be observed, but this remains rather lower than those in the 35-44 and 45-54 age groups. Observable is a broadly upward trend in employment among women aged 65+. Also observable across age groups is a drop off in employment in the wake of the Global Financial Crisis. Also noticeable is a very pronounced fall in the rate of employment among women in the 15-24 age group in the aftermath of the COVID-19 pandemic but this sits alongside a sharp rise in the years 2020 and 2021, perhaps indicative of a statistical anomaly. While other age groups also saw falls at this time these stabilised and there was also a rapid recovery.

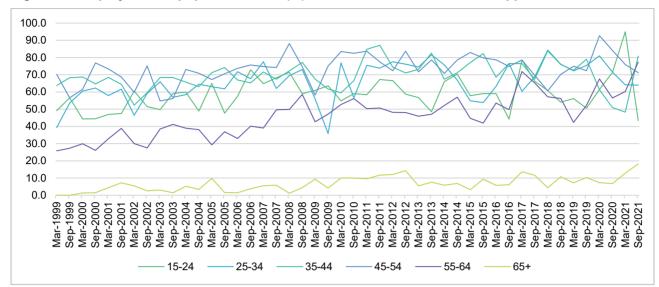


Figure 5.8 Employment to population rates (%), 1999-2021, women, Latrobe-Gippsland

Particularly notable in Figure 5.9 which shows unemployment rates for different age group of men between 1999 and 2021 in Gippsland are the increased rates in the aftermath of the COVID-19 pandemic among those aged 15-24 and to a lesser extent those aged 25-34. Also notable is that unemployment among men aged 15-24 has generally been higher than that among other age groups, particularly since 2010. It can also be observed that there are somewhat higher levels of unemployment among those aged 55-64 in the years 2015-2016 and 2018-2019.

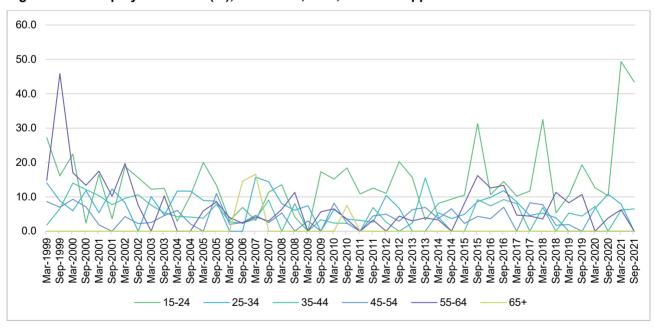


Figure 5.9 Unemployment rates (%), 1999-2021, men, Latrobe-Gippsland

Source: ABS 6291.0.55.001 - RM1 - Labour force status by age, labour market region (ASGS) and sex, October 1998 onwards

Figure 5.10 shows the corresponding unemployment figures for women. Notable, are the increased rates in the aftermath of the COVID-19 pandemic, although the situation of younger men is apparently not mirrored in the situation of younger women, perhaps indicating there is a need for caution in interpreting these statistics. Rates of unemployment among women aged 25-34 and 65+ rose particularly steeply during the pandemic. However, notable is that as with younger men, unemployment among women aged 15-24 has generally been higher than for other age groups.

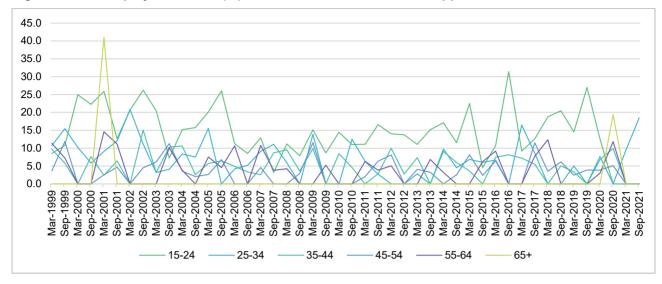


Figure 5.10 Unemployment rates (%), 1998-2022, women, Latrobe-Gippsland

Figure 5.11 shows labour force participation rates among age groups of men in Latrobe-Gippsland. Reflective of the other statistics they show participation among the 55-64 age group sitting below those of the 35-44 and 45-54 age groups. However, participation among men in the 55-64 age group has seen a marked increase over the last two decades, sitting at approximately 40 per cent in March 1999 and rising to approximately 70 per cent by September 2021. The participation of men aged 65+ also shows a gradual and marked increase over time, from approximately five per cent in March 1999 to over 20 per cent in September 2021.

By comparison with the older age groups the participation of those aged 15-24 and 25-34 has declined in recent years. Patterns of participation among the 15-24 age group are uneven but compared with a recent peak of over 80 per cent in March 2016, participation stood at just over 50 per cent in September 2021. After sitting well above 80 per cent for much of the last two decades the participation of men aged 25-34 has seen a marked recent decline, reaching just under 70 per cent by September 2021.

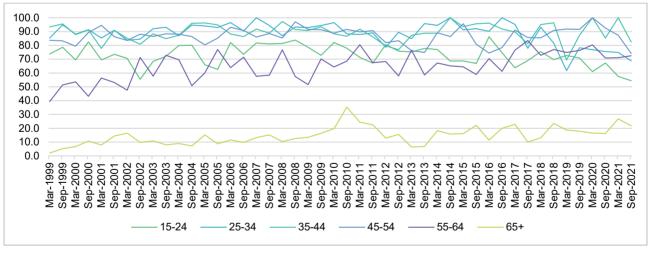


Figure 5.11 Participation rates (%), 1999-2021, men, Latrobe-Gippsland

Source: ABS 6291.0.55.001 - RM1 - Labour force status by age, labour market region (ASGS) and sex, October 1998 onwards

Figure 5.12 shows the equivalent figures for women. Notable is a general upward trend in levels of women's participation over time. Once again, the participation of those in the 55-64 age group has increased markedly over time, from below 30 per cent in March 1999 to almost 80 per cent by September 2021. Particularly noticeable was a pronounced fall in the participation of those aged 15-24 during the pandemic, with women in other age group's participation also showing declines but at different times. The participation of women aged 65+ also shows a gradual increase over time, reaching just under 20 per cent in September 2021. More generally, it is also important to note that while women's participation broadly sits below that for men across age groups levels have seen convergence.

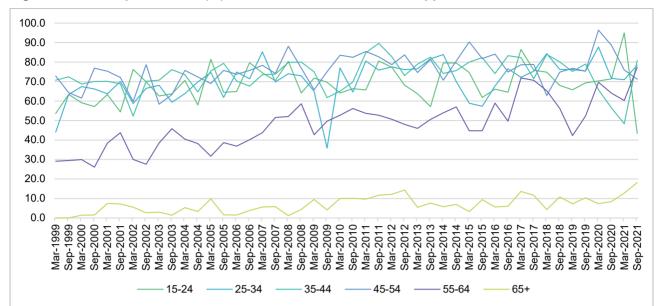


Figure 5.12 Participation rates (%), 1999-2021, women, Latrobe-Gippsland

Table 5.2 shows highest level of educational attainment for those participating in the labour force and those not in the labour force. It is apparent that labour force participants have rather higher levels of qualifications than those not in the labour force. Small numbers make analysis and interpretation of statistics for Gippsland somewhat problematical. However, it is apparent from Table 5.3, which has been adjusted due to low cell sizes that the low-skilled are overrepresented among the unemployed in Gippsland, with approximately four thousand of this group having achieved year 9 or less.

Table 5.2 Level of highest educational attainment by labour force status, Latrobe-Gippsland (%)

Labour force status	Participating in labour force	Not in labour force	Total
Level of highest educational attainment			
No educational attainment	-	-	-
Postgraduate degree	3.4	-	2.3
Graduate Diploma and Graduate Certificate	3.1	-	3.6
Bachelor degree	13.3	4.3	12.1
Advanced Diploma and Diploma	6.8	16.3	10.3
Certificate III and IV	27.1	14.2	22.8
Year 12 or equivalent	14.9	10.4	15.9
Year 11	16.7	11.9	17.9
Year 10	6.4	13.6	10.2
Certificate I and II	-	-	-
Year 9 and below	2.5	15.7	7.7
Certificate n.f.d.	-	-	-
Level not determined (non-school only)	-	-	-
Total	100.00	100.00	100.00

The table contains a large number of unreliable estimates and should be used with caution.

Source: Australian Bureau of Statistics, Education and Work, 2021

Table 5.3 Level of highest educational attainment, Latrobe-Gippsland, employed versus unemployed (000s)

Labour force status	Employed	Unemployed
Level of highest educational attainment		
Postgraduate degree	**4.3	-
Graduate diploma and graduate certificate	*4	-
Bachelor degree	*15.5	-
Advanced diploma and diploma	**8.7	-
Certificate III and IV	*24.9	*7.3
Year 12 or equivalent	*19.2	-
Year 11	*21.3	-
Year 10	**7	-
Certificate I and II	-	-
Year 9 and below	**3.2	*4.2
Total	114.7	*8.5

<sup>\*\*</sup> Estimate has a relative standard error greater than 50 and is considered too unreliable for general use

Source: Australian Bureau of Statistics, Education and Work, 2021

Table 5.4 presents statistics concerning the highest level of educational attainment outside of Melbourne. Jobs and opportunities associated with higher degrees tend to concentrate in metropolitan areas. The qualification levels of those participating in the Gippsland labour force compare relatively poorly with other parts of Victoria. Comparing it with nine other regions it is apparent that it ranks 7/9 in terms of its workforce having a postgraduate degree, 5/9 in terms of those having a graduate diploma or a graduate certificate, joint 6/9 in terms of those having a bachelor degree, 8/9 in terms of those having an advanced diploma or diploma, 5/9 in terms of those having a certificate III or IV, 6/9 in terms of those at year 12 or equivalent, 1/9 in terms of those at year 11, 6/9 in terms of those at year 9 or below.

Table 5.4 Level of highest educational attainment SA4 Victoria of those participating in the labour force (%)

Geographical location	Ballarat	Bendigo	Geelong	Hume	Latrobe- Gippsland	Mornington Peninsula	Victoria North- West	Shepparton	Warrnambool and South West
Level of highest educational attainment									
No educational attainment	-	-	-	-	-	-	-	-	-
Postgraduate degree	2.8	4.4	5.4	6.2	3.4	8.6	2.2	-	3.7
Graduate Diploma and Graduate Certificate	5.5	2.3	8.6	4.5	3.1	5.6	-	-	2.1
Bachelor degree	18.3	20.9	19.9	14.2	13.3	13.3	14.8	5.6	8.8
Advanced Diploma and Diploma	10.1	5.3	10.7	12.9	6.8	12.4	7.6	7.7	10.9
Certificate III and IV	25.5	20.6	21.7	32.4	27.1	23.5	37.6	36.1	29.0
Year 12 or equivalent	9.9	17.7	13.6	13.3	14.9	20.6	15.3	16.9	15.7
Year 11	10.5	12.0	6.7	4.1	16.7	7.0	3.6	10.5	14.8
Year 10	9.7	8.9	6.1	11.4	6.4	3.9	8.3	3.9	8.5
Certificate I and II	-	-	-	-	-	-	-	-	-
Year 9 and below	6.5	6.41	4.6	4.9	2.5	3.8	7.7	7.2	2.8

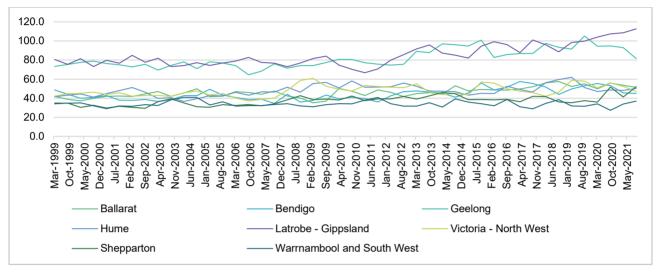
<sup>\*</sup>Estimate has a relative standard error of 25 to 50 and should be used with caution.

Certificate n.f.d.	-	-	-	-	-	-	-	-	-
Level not determined (non- school only)	-	1.5	1.1	3.8	-	1.5	4.3	3.6	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Australian Bureau of Statistics. Education and Work. 2021

Figure 5.13 shows the incidence of those classified as not in the labour force in parts of regional Victoria. It is apparent that along with Geelong, Gippsland has the highest incidence of those classified as NILF and that this has increased markedly since 2010.

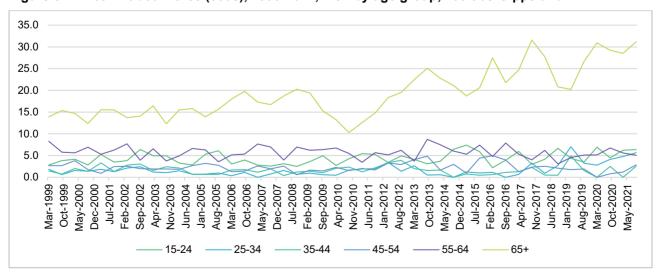
Figure 5.13 Not in labour force (000s), 1999-2021, regional Victoria



Source: ABS 6291.0.55.001 - RM1 - Labour force status by age, labour market region (ASGS) and sex, October 1998 onwards

Figure 5.14 shows the incidence of men classified as not in the labour force by age group in Gippsland. It is apparent from this figure that men aged 65 or over dominate those classified as NILF and that their numbers have increased markedly since 2010. Also of some note is an upward trend in recent years of those aged 25-34, which sat just below that for those aged 15-24 in September 2021. Turning to the situation for women, Figure 5.15 shows that as with men those classified as NILF in Gippsland are disproportionally aged 65+ and their incidence has also seen a steep increase since 2010. Also, particularly noticeable is a relatively high incidence of women aged 55-64 classified as NILF, but this has not increased discernibly over time.

Figure 5.14 Not in labour force (000s), 1999-2021, men by age group, Latrobe-Gippsland



Source: ABS 6291.0.55.001 - RM1 - Labour force status by age, labour market region (ASGS) and sex, October 1998 onwards

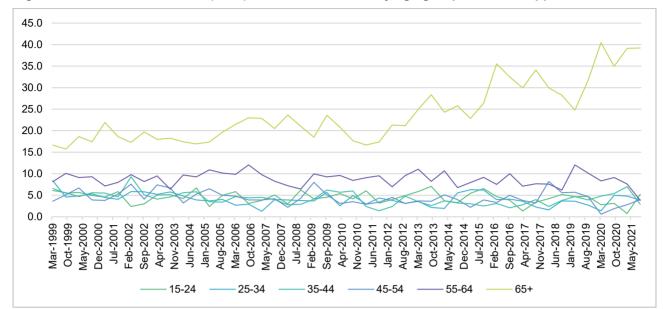


Figure 5.15 Not in labour force (000s), 1999-2021, women by age group, Latrobe-Gippsland

#### 5.3.4 Businesses in Gippsland

Finally, attention should be given to the number of businesses operating within the Latrobe-Gippsland region and their size. This is an important factor in determining the number of jobs available within the SA4 region. The total number of businesses by number of employees is outlined in Table 5.5.

Table 5.5 Number of businesses in Latrobe-Gippsland SA4 region

<b>Business Size</b>	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Non-employing	15,327	15,693	16,018	16,307	16,662
1 to 4 employees	6,356	6,351	6,321	6.304	6,179
5 to 9 employees	2,134	2,190	2,208	2,241	2.274
20 or more employees	379	388	436	473	473
Total	24,235	24,625	24,979	25,324	25,580

Source: ATO, 2021

As shown in Table 5.5, more than half of all businesses within the Gippsland region are non-employing. Of those with employees, the majority are small businesses with fewer than 20 workers. There is consistent year-on-year growth in the total number of businesses in the region, except for those employing one to four workers which has experienced a small decline across the five-year period. Given the increase across all other categories, it seems likely that the decline in businesses employing one to four workers can be attributed to some of these growing and taking on additional employees. <sup>11</sup> While the growth in small businesses is an encouraging trend from an LFP perspective, the year-on-year net loss in businesses with one to four employees is indicative of low rates of new business formation and market entry.

## 5.4 Income Distribution and Employment Type

Along with overall employment trends, this research examined the various occupational types and income distribution of the Gippsland workforce. Section 5.4.1 provides a breakdown of occupational types at the SA4

<sup>&</sup>lt;sup>11</sup> It seems unlikely that businesses with employees transitioned into non-employing businesses, as this category primarily consists of sole traders and partnerships who have registered for an ABN.

and postcode levels; section 5.4.2 explores related demographic factors; and section 5.4.3 addresses income distributions at the SA4 and postcode levels.

#### 5.4.1 Occupation Types in Gippsland

In detailing the occupational breakdown of the Gippsland region it is possible to compare the 2016 Census figures with more recent 2019 ATO data. The comparative breakdown is detailed in Table 5.6.

Table 5.6 Occupational breakdown of Latrobe-Gippsland

Occupation	2016 Census		ATO 2019	
Technicians and Trade Workers	18,144	16.4	16,179	14.1
Professionals	16,866	15.3	20,394	17.8
Managers	15,933	14.4	13,165	11.5
Labourers	14,037	12.7	16,673	14.5
Community and Personal Services Workers	12,775	11.6	15,725	13.7
Clerical and Administrative Service Workers	12,598	11.4	13,889	12.1
Sales Workers	10,566	9.6	10,647	9.3
Machinery Operators and Drivers	7,615	6.9	7,995	7.0

Source: ABS, 2017; ATO, 2021

These figures demonstrate an increase in total numbers and percentage terms of professionals (2.5), labourers (1.8), community and personal service workers (2.1), clerical and administrative workers (0.7), and machinery operators (0.1). The number of sales workers increased by less than 100, but their share of the total workforce declined on a percentage basis of 0.3 per cent. However, there was a decline in total numbers and percentage terms of technicians and trade workers (-2.3) and managers (-2.9). These two occupational groups are comprised of skilled workers who can find employment in most locations, meaning that their declining numbers can likely be attributed to labour migration from the region. However, these figures do not measure the impact of COVID-19 and associated policies.

To ascertain a view of changes in employment over time following the outbreak of COVID-19, the research must draw upon the LFS data. Along with the sample size issues, it should also be noted that the LFS categorises workers into different occupational groupings than the ATO data. A comparison of employment data from August 2020 and August 2021 is provided in Table 5.7. LFS figures from 2016 are also included to contextualise the changes in occupational categorisation.

Table 5.7 Number of employees by industry in Latrobe-Gippsland

Industry	August 2016	August 2020	August 2021
Retail trade	15,300	12,600	21,500
Health care and social assistance	15,200	15,300	19,500
Agriculture, forestry, and fishing	14,400	12,100	11,500
Construction	11,900	15,100	11,400
Public administration and safety	7,300	5,900	7,800
Education and training	7,100	12,100	7,500
Accommodation and food services	10,800	5,900	7,400
Professional, scientific, and technical services	3,400	6,600	6,300
Transport, postal, and warehousing	4,400	4,200	5,100
Administrative and support services	4,800	5,400	5,100
Other services	4,400	5,400	5,100
Manufacturing	6,700	9,300	4,900
Wholesale trade	3,200	2,400	4,600
Electricity, gas, water, and waste services	1,600	4,200	3,700
Rental, hiring, and real estate services	1,000	1,100	2,600

Arts and recreation services	900	3,300	2,400
Financial and insurance services	2,000	1,300	1,500
Information media and telecommunications	1,200	100	200
Mining	900	2,400	0
All industries	116,400	124,400	124,800

Source: ABS, 2022.

These findings provide a much clearer picture of impacts to employment since COVID-19 and some of the trends that may be emerging as the economy begins to reopen. Most notably, the retail sector, which suffered a significant contraction since 2016, has rebounded strongly, gaining almost 9,000 employees in the span of a single year. There are further signs of growth in industries such as health care and social assistance; public administration and safety; accommodation and food services; transport, postal, and warehousing; wholesale trade; rental, housing, and real estate services; and financial and insurance services. Many of these industries experiencing increased jobs growth were disproportionately impacted by COVID-19 and associated policy restrictions. While several have yet to rebound to pre-COVID levels, the upward trajectory is promising.

Over the one-year period from August 2020 to August 2021, there were declines in the total workforce employed in agriculture, forestry, and fishing; construction; education and training; professional, scientific, and technical services; administrative and support services; other services; manufacturing; electricity, gas, water, and waste services; arts and recreation services; and mining. The most significant declines were experienced in education and training (4,600 jobs lost) manufacturing (4,400 jobs lost); construction (3,700 jobs lost); and mining (2,400 jobs lost). It should be noted that many of these industries identified were also disproportionately likely to be impacted by COVID-19, demonstrating that the impacts of the pandemic and capacity to recover are heterogeneous across industry sectors. The mining sector, which lost the entirety of its workforce, is demonstrative of the decline of the coal industry in the Latrobe-Gippsland region, although it should be noted that this was already one of the smallest industries in terms of the number of employees. The agricultural, forestry, and fishing sector was also impacted by an inability to attract migrant workers during the pandemic and ongoing issues with attracting local employees. However, the increasing demand for skilled workers identified in section 4.1.3 should also be noted. The significant decline in the manufacturing sector is most notable in presenting challenges for maintaining a blue-collar labour force in the Latrobe-Gippsland region.

In presenting these findings, it needs to be reiterated that the LFS relies upon a small sample size which can lead to spurious findings. The substantial upticks in the education and training and mining sectors one year, followed by precipitous drops the next, is more likely to be representative of a sampling error than an actual decline in those industries. Similarly, while it is likely that the retail sector has experienced a recovery as the economy reopens from COVID-19 lockdowns, the creation of 9,000 jobs over the span of a single year cannot be verified. This highlights the inability to trust the LFS as a source for informing government policy, as well as the conflict between accurate data and timely data. This issue will be detailed further in section 5.5.1.

## 5.4.2 Occupational Breakdowns by Demographic and Employment Factors

The LFS provides further breakdowns in terms of gender, age, and employment type. However, the limited sample size means that the accuracy of the data substantially decreases as it is broken down into smaller categories for analysis. For this reason, the research will draw upon LFS data for gender distribution and full-time versus part-time arrangements by industry, which are both presented in binary terms. The findings on age distribution by industry were omitted from this research due to concerns over the unrepresentative sample size.

As noted in section 3.2.3 of the literature review and section 4.4.1 of the interview findings, there has been a significant shift in the gendered nature of workforces over the past decade. However, it remains the case that men and women comprise a disproportionate share of certain industries due to factors such as interest. Figure 5.5 provides a breakdown of gender distribution by industry in Gippsland, as of August 2021.

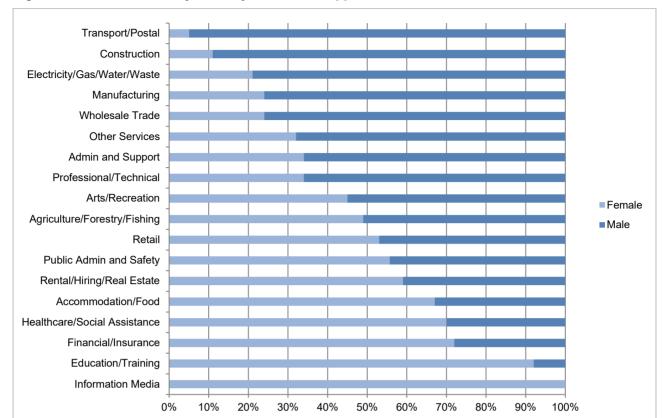


Figure 5.16 Gender share by industry in Latrobe-Gippsland

Source: ABS, 2022.

As demonstrated in Figure 5.16, women comprise most of the workforce in information media and telecommunications; education and training; financial and insurance services; health care and social assistance; accommodation and food services; rental, hiring, and real estate services; public administration and safety; and retail. Men comprise most of the workforce in transport, postal, and warehousing; construction; electricity, gas, water, and waste services; manufacturing; wholesale trade; other services; administration and support; professional, scientific, and technical services; and arts and recreation. The closest industry to achieve gender parity was agriculture, forestry, and fishing, with a 51-49 per cent breakdown between men and women. This reinforces the comments from a respondent in the forestry sector in section 4.4.1, noting that gender representation was becoming an issue of decreasing relevance in the industry. These findings are commensurate with the literature regarding the occupations each gender group is most interested in. It should be noted that the finding that 100 per cent of the workforce in the information media and telecommunications is female is likely the product of the small sample size, although it can be reasonably assumed that this industry is majority female.

This research is also concerned with the nature of work, particularly regarding full-time, part-time, casual, and other working arrangements. While a comprehensive breakdown of all contractual arrangements by industry is unavailable, the LFS does compare full-time and part-time workloads. This breakdown at the Gippsland level is presented in Figure 5.17.

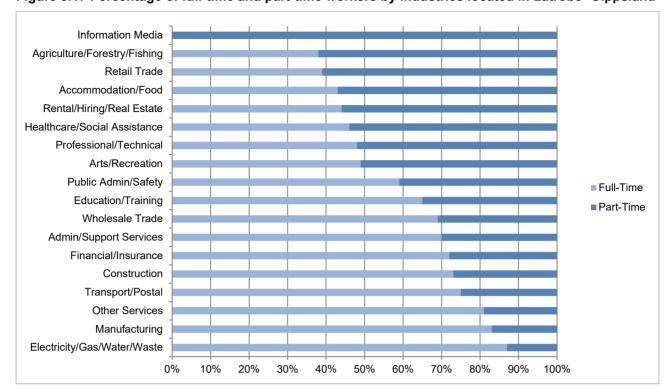


Figure 5.17 Percentage of full-time and part-time workers by industries located in Latrobe- Gippsland

Source: ABS, 2022.

As shown in Figure 5.6, full-time workers comprise most of the workforce in industries such as electricity, gas, water, and waste services; manufacturing; other services; transport, postal, and warehousing; construction; financial and insurance services; administrative and support services; wholesale trade; education and training; and public administration and safety. These findings are consistent with the nature of these industries, most of which are based around traditional '9 to 5' workloads and require a dedicated labour force. Part-time employees comprised most of the workforce in industries such as art and recreation services; professional, scientific, and technical services; health care and social assistance; rental, hiring, and real estate services; accommodation and food services; retail trade; agriculture, forestry, and fishing; and information media and telecommunications. It should be noted that, except for retail, agriculture, forestry, and fishing, and information media and telecommunications, these industries maintain a full-time workforce more than 43 per cent. This is indicative of a core full-time workforce in those industries, which are supported by a larger part-time workforce. The finding that 100 per cent of the information media and telecommunications industry works on a part-time basis is most likely the product of the limited sample size rather than an accurate representation of the sector.

## 5.4.3 Income Distribution in Gippsland

An important component in identifying the quality of jobs in the Gippsland region is the income range of the population. This can serve as an indicator of trends such as labour demand, hours worked, and negotiating power of employees. Table 5.8 details the number of people in Gippsland earning within specified income brackets.

Table 5.8 Income distribution of Latrobe-Gippsland

Income range	FYE 2017	FYE 2018	FYE 2019
\$18,200 or less	32,378	32,346	32,009
\$18,201-\$37,000	40,000	39,578	39,915
\$37,001-\$90,000	56,593	59,341	63,886

\$90,001-\$180,000	15,626	17,563	17,882
\$180,000-\$190,000	2,655	2,897	3,120
\$190,001 or more	598	480	604

Source: ATO, 2021.

Across the three-year period, there is a gradual decline in people making \$18,200 or less per annum and an increase across all brackets ranging from \$37,001 to \$190,000. Fluctuations were experienced among those earning between \$18,201 and \$37,000 or over \$190,000. Given that these changes are occurring across a narrow range, it can be assumed that these year-on-year increases are largely consistent with population growth and income increases driven by inflation. Given that the available data do not break these wide brackets down into narrower ones, it is difficult to ascertain the extent of any shifts within brackets. However, Table A.1 in Appendix A details the income breakdown by postcode.

As shown in Appendix A, most postcodes contain a relatively even income distribution across all brackets except for those earning more than \$190,000. Curiously, however, in any postcode where individuals made over \$190,000, there were zero individuals earning between \$90,000 and \$190,000. This means that there are significant disparities of income between residents of at least \$100,000. This phenomenon was observable in the postcode region of 2633, 3699, 3832, 3852, 3853, 3857, 3864, 3865, 3873, 3885, 3886, 3887, 3889, 3890, 3891, 3895, 3896, 3898, 3900, 3902, 3903, 3921, 3946, 3957, 3958, 3964, 3965, 3967, 3979, 3988, 3990, 3991, and 3992. Each of these postcodes are characterised by extremely small populations, with only 3699 containing more than 500 residents who filed tax returns. In years where no one in those postcodes made an income exceeding \$190,000, the income brackets of \$37,001 to \$90,000 and \$90,001 to \$180,000, which were previously absent, were restored. This indicates that some of those earning in the highest bracket do not necessarily maintain the same level of income year-over-year and may revert into brackets as the nature of their employment changes.

#### 5.5 Welfare Payments

To ascertain the size of the potential labour force in the Gippsland region, this research draws upon Centrelink data detailing the allocation of welfare payments in Gippsland. Section 5.5.1 outlines payments for recipients either actively looking for work or qualifying for wage supplements; section 5.5.2 details Youth Allowance payments for students or apprentices; section 5.5.3 addresses pensions; and 5.5.4 outlines disability support and carer payments.

## 5.5.1 Payments for Jobseekers and Low-Income Workers

The first category of welfare payments that merits attention is those pertaining to active jobseekers or those on low incomes who require additional support. The Newstart allowance consists of payments issued to those between the ages of 22 and Age Pension eligibility actively seeking employment, with receipt contingent upon meeting various mutual obligations tied to meeting this goal. <sup>12</sup> It is also worth considering the Income Support Supplement, although data for this payment were only available for those beneficiaries receiving it through the Department of Veteran Affairs. The number of recipients in Gippsland is detailed in Table 5.9.

Table 5.9 Newstart and income supplement recipients in Latrobe-Gippsland

Payment type	2015	2016	2017	2018
Newstart Allowance Recipients	11,058	11,408	11,716	11,907
Income Support Supplement (Department of Veteran Affairs) recipients	902	818	757	679

Source: ABS, 2020b.

 $<sup>^{12}</sup>$  It should be noted that the Newstart Allowance was replaced with JobSeeker payments in 2020, although this falls outside the period covered in the dataset.

As shown in Table 5.9, the number of Newstart Allowance recipients sat between 11,000 and 12,000 across the four-year period of available data. The number of recipients experienced a gradual but steady increase with each year, although it remained relatively stable over this period. However, it should be noted that the outbreak of COVID-19 and associated policies, such as lockdowns, increases to welfare payments, and suspension of mutual obligation requirements, would have seen a spike of recipients for JobSeeker Payments. While the data provided by Centrelink does not cover this period, it is likely that the effects of this will be transitory, and the number of welfare recipients will drop as the economy reopens. This hypothesis is supported by the jobs number outlined in section 5.3.2, which saw the retail sector alone adding almost 9,000 jobs in a single year as COVID restrictions were eased across Victoria. There were less than 1,000 recipients of the Income Support Supplement across the sample period, although this reflects the data only being representative of those who receive it via the Department of Veteran Affairs.

#### 5.5.2 Study Support and Parenting Payments

It is also worth examining the allocation of study support payments, as these represent an investment in skills for potential future workers. The Youth Allowance payment comes in two varieties which will be examined. Youth Allowance (full-time) is paid to recipients between the ages of 16 and 24, who are enrolled in full-time tertiary study or undertaking a full-time apprenticeship. Youth Allowance (other) is paid to recipients between the ages of 16 and 21 who are active jobseekers, with payments contingent on mutual obligation requirements aimed at finding employment. This section will also address Parenting Payment Single recipients, which are granted to sole parents raising children under the age of eight, as most beneficiaries are younger. The number of recipients for each payment are detailed in Table 5.10.

Table 5.10 Youth allowance and single parent recipients in Latrobe-Gippsland

Payment Type	2015	2016	2017	2018
Youth Allowance (full-time) recipients	1,456	1,570	1,399	1,292
Youth Allowance (other) recipients	1,612	1,574	1,574	1,527
Parenting Payment Single recipients	3,925	3,988	3,939	3,848

Source: ABS, 2020b.

As shown in Table 5.10, the number of recipients for each type of Youth Allowance payment fell below 2,000 over the four-year period covered by the data. There were a higher number of Youth Allowance (other) payments than Youth Allowance (full-time) each year, although only by small margins. This indicates that young people – or at least those accessing welfare – are almost equally likely to attempt to gain employment as they are to pursue tertiary education or apprenticeships. The number of Parenting Payment Single recipients fell just below 4,000 across the four-year period and it is reasonable to assume that many of the beneficiaries fall outside the labour force.

## 5.5.3 Pension Payments

The allocation of pensions in the Gippsland region also merits attention, especially since they cover a segment of the population that is either retired or possesses limited attachment to the labour force. This section will cover the Age Pension, which recipients can access upon reaching pension age, and the Service Pension, which is given to veterans who have reached pension age, been forced out of the labour force due to disability, or their partners. The number of Age Pension and Service Pension recipients is detailed in Table 5.11.

Table 5.11 Pension recipients in Latrobe-Gippsland

Payment type	2015	2016	2017	2018
Age Pension recipients	41,178	42,519	42,228	42,472
Service Pension (Department of Veteran Affairs) recipients	1,929	1,831	1,229	1,571

Source: ABS, 2020b.

As depicted in Table 5.11, there are more than 40,000 Age Pension recipients and fewer than 2,000 Service Pension recipients across the Gippsland region. It should be noted that these figures are not necessarily indicative of each beneficiary retiring from the labour force entirely. However, pension payments of both types are reduced or eliminated once recipients begin earning above a set threshold from employment, creating a disincentive for work beyond that point. Given that the Gippsland region is projected to have an ageing

population, it can reasonably be assumed that the number of Age Pension recipients will undergo an upwards trend over the coming decades.

#### 5.5.4 Disability Support and Carer Payments

Finally, it is worth addressing the number of disability support and carer payments in the Gippsland region. The Disability Support Pension is given to recipients who possess a physical or mental health condition that impacts on their standard of living and capacity to find employment. The Carer Payment provides financial support to beneficiaries who are providing full-time care to at least one person with a disability, severe illness, or who possesses a high care need score. The number of recipients for each payment across the Gippsland region is detailed in Table 5.12.

Table 5.12 Disability and carer recipients in Latrobe-Gippsland

Payment type	2015	2016	2017	2018
Disability Support Pension recipients	13,967	13,526	13,298	13,515
Carer Payment recipients	3,836	3,873	4,010	4,270

Source: ABS, 2020b.

Across the four-year period sampled, the number of Disability Support Pension recipients remained steady at over 13,000 individuals. The number of Carer Payments recipients experienced steady growth year-over-year, growing from 3,836 in 2015 to 4,270 by 2018. There appears to be no observable relationship between the number of beneficiaries of the Disability Support Pension and Carer Benefit, despite the associated access requirements. It should be noted that the Disability Support Pension has fewer restrictions on joining the labour force, and resources are offered along with the payment to help beneficiaries find employment. However, recipients are likely to be limited in the types of employment they can undertake, and it can be reasonably assumed that a significant portion are unable to enter the labour market. Beneficiaries of the Carer Payment can also be expected to remain outside the labour market for the duration of their full-time caretaking responsibilities.

## 5.6 Addressing Issues of Data Collection

As noted in Section 5.1, there were several issues regarding access to comprehensive and reliable data for analysis. Section 5.6.1 will further outline some of these issues, while section 5.6.2 will detail strategies for rectifying them in future research.

#### 5.6.1 Issues of Data Collection

This research drew upon data supplied by the Victorian Public Service (VPS), which maintain contracts with several Commonwealth departments to supply data. However, those contracts stipulate that data are to be used by the VPS for internal purposes only, preventing any information that was not also available via public sources to be shared with the research team. These data include the levels of dimensionality absent from this research, including the capacity to break the findings derived from the ATO and Centrelink data down by demographic variables. While the LVA is liaising with the relevant authorities to renegotiate these contracts to allow the sharing of industry, educational, and community partners in a sensible way, this process remains ongoing and could not be completed prior to the submission of this report. To achieve a successful outcome in these negotiations, the LVA is required to demonstrate its capability of safely managing highly sensitive data and its trustworthiness in providing that information to partner organisations.

Another issue encountered by this research was the ability to access data that are simultaneously accurate and up to date. While the Census, ATO, and Centrelink datasets provided information derived from the entire SA4 population, the period covered only extended as far as FYE 2019. Attempts to access more up-to-date data by incorporating the LFS potentially resulted in substantially less-accurate findings, and, in many cases, the small sample size produced findings that should be treated as potentially erroneous. To ensure that policy is reflective of conditions on-the-ground in the Latrobe-Gippsland region, data need to be both timely and accurate. This is especially pertinent in a period of rapid economic change, both in terms of the market disruptions produced by COVID-19 and the realignment in attitudes regarding work.

#### 5.6.2 Data Collection Strategies

There is a need for a comprehensive data strategy to identify and plan for future needs around data collection, access, and use, and allocate the appropriate resources accordingly. Such a strategy should encompass all stakeholders within the Gippsland region. This will ensure that the LVA and others can maintain a 'bottom-up' approach to community development as key suppliers of resources and information for local stakeholders, while allowing industry, educational, and community partner organisations to gain access to relevant data. Given the highly sensitive nature of some of the data supplied to the VPS by Federal agencies, and the subsequently strict conditions regarding its use, the data strategy should be integrated into all relevant research and other partnered programs. This includes assessing data requirements at the inception of such programs, ensuring that the data required can be made available prior to or soon after project commencement, and that the necessary resources are allocated throughout the duration of the project. These resources may include the provision of data analytics staff capable of providing support at key stages of the project and collaborative reporting technology such as Tableau, which also requires additional resources to maintain and use.

#### 5.7 Conclusion

Analysis of the quantitative datasets has produced several relevant findings regarding LFP issues in the Gippsland region. Recent levels of labour force participation in Gippsland compare unfavourably with other parts of Victoria. Upward trends in participation among older people contrast with some evidence of a downward trend among younger people. Numbers of those classified as not in the labour force have grown markedly and set Gippsland apart from much of the rest of Victoria. Despite an identifiable co-movement between the six LGAs that comprise Gippsland, issues of participation and unemployment are heterogeneous across the region. Low unemployment rates in Baw Baw and East Gippsland are indicative of a need to concentrate policy responses within certain areas, most notably Latrobe City, which possesses the highest unemployment rate in the region by a significant margin. The following chapter will provide concluding remarks.

#### 6 Conclusions

This research has contributed to the understanding of issues of labour force participation in Gippsland through the provision of a literature review and the analysis of quantitative and qualitative data sets. Section 6.1 briefly summarises the key findings of the report; section 6.2 provides several recommendations; section 6.3 outlines opportunities for future research building off the report; and section 6.4 presents concluding remarks.

## 6.1 Summary of Key Findings

The broad-ranging focus of this research resulted in several findings related to LFP issues in the Gippsland region. The key findings are as follows:

- 1. The labour force participation rate in Gippsland sits well below that of Victoria as a whole as of September 2021 and is less than other parts of regional Victoria, and markedly so in some cases. Participation in Gippsland declined significantly during the pandemic.
- 2. In Gippsland rates of participation among men and women increased until approximately 2010-11, before gradually declining thereafter. Men's participation peaked in 2010 while women's peaked in 2011. While men's participation continues to exceed that of women, there has been a convergence since 2010.
- 3. Rates of labour force participation vary markedly by age group across Gippsland. The region's workforce is increasingly an older one. Regarding men, participation of those in the 55-64 age group sits below those of the 35-44 and 45-54 age groups but has seen a marked increase over the last two decades. The participation of men aged 65+ also shows a gradual and marked increase over time. As with men, the participation of women in the 55-64 age group has increased markedly. The participation of women aged 65+ also shows a gradual increase over time.
- 4. Relative to the older age groups, the participation of those men aged 15-24 and 25-34 has declined in recent years. Such trends are not observed in terms of younger women's participation, although participation among those aged 15-25 fell during the pandemic. More generally, it is also important to note that women's participation broadly sits below that for men across age groups.
- 5. It is apparent that issues of participation are heterogeneous across the region. The local government areas of Baw Baw and South Gippsland possess low rates of unemployment, while Bass Coast, East Gippsland, and Wellington have rates consistent with the range of the Victoria State average. However, Latrobe City possesses an unemployment rate substantially higher than all other local government authorities and the State average.
- 6. Evidence concerning those classified as not in the labour force who are neither employed nor unemployed in a particular reference period shows that this is an increasingly important phenomenon in Gippsland. With the exception of Geelong, which is comparable, the incidence of those classified as not in the labour force sets Gippsland apart from the rest of regional Victoria. While it is unsurprising that this phenomenon is particularly observed among both men and women aged 65+ due to this classification including those self-defining as retired, it should be noted that these numbers have seen a dramatic increase since 2010. This may largely explain declining levels of labour force participation in Gippsland. Also, noteworthy has been recent growth (albeit from a relatively low base) in the numbers of young men classified as not in the labour force.
- 7. Part of the project brief was also to consider issues of Indigenous Australian's labour force participation in Gippsland. Data that allowed such a degree of specificity were not available. National surveys indicate that the labour force participation of Indigenous Australians compares poorly with those classified as non-Indigenous. For Indigenous workers, levels of employment decrease and levels of unemployment and not being in the labour force increase from inner regional to outer regional locations.
- 8. The study findings indicate that labour force participation should be a critical area of concern for regional stakeholders. Alongside the general fall in participation in Gippsland, that of younger men is of particular concern, from both an economic and social perspective. But alongside this, markedly higher levels of unemployment among both younger women and men continue to be a concern, underlining the need for ongoing efforts that have a particular youth focus. That unemployment in Latrobe City is substantially higher than all other local government areas also indicates that policies

- targeted at reducing unemployment should be specifically tailored to this locality. It can be inferred from the evidence that a lack of participation in the labour force generally and high levels of unemployment among Indigenous Australian also necessitates ongoing specific attention.
- 9. This picture contrasts with growth in older workers' labour force participation. While this should be viewed positively from both an economic and social perspective it raises the question, against the backdrop of an ageing population, of what more could be done to maintain older workers' connections with the labour force, and the extent of local business' capacity to respond well to the needs and aspirations of an age diverse workforce. Of concern is that those classified as not in the labour force have seen a sharp increase in Gippsland in the last decade and these are disproportionately men and women aged 65+. This would indicate a need for a major focus on retaining or drawing a proportion of such people back into the workforce, considering such issues as job service support, skills training, employment arrangements, employer awareness raising and health and wellbeing. More broadly, the findings concerning younger and older age groups raise the question of how to construct an employment narrative for the region that does not position younger and older workers as being in competition for jobs; the so-called 'lump of labour' fallacy. A focus on the participation of both young and old will potentially benefit both, particularly considering research indicating that age-diverse workforces enjoy advantages from complementary knowledge, experience, and skill sets.
- 10. In this regard, worker transfer schemes will have diminishing returns in the long run as the power industry transitions, and offerings of early retirement are contradictory to Commonwealth policies aimed at prolonging working lives due to demographic shifts. This necessitates a long-term strategy focused on labour force participation and preventing skilled labour migration from Gippsland. On the other hand, while evidence drawn from Australian and international case studies indicates that it is possible to provide job training and investment in supporting new industries and create replacement jobs that reabsorb displaced labour within a region, like does not necessarily replace like, with job quality a factor requiring attention.
- 11. There is an entrenched culture of intergenerational joblessness and welfare in some areas of Gippsland. Analysis of welfare allocation rates indicates that the number of people on unemployment and other payments has remained relatively steady on a year-by-year basis, indicating that this cohort is neither shrinking nor growing substantially. Addressing this cultural issue will require not only the provision of jobs, but career pathways capable of fostering a sense of independence, self-reliance, and aspiration in communities where this is absent.
- 12. There is a changing culture regarding attitudes towards work and increasing desire among employees to maintain a stronger work-life balance. A shift towards more flexible working arrangements is indicative of the changing 'psychological contract' that employees have with their employers, which is not yet fully understood. It is important that this cultural shift is understood by employers to maintain labour force participation under this emerging paradigm. Alongside this was some evidence of a shift in terms of the nature of employment contracts being offered, raising questions regarding the preservation of job quality in the region, an issue worthy of particular attention if Gippsland is to stave off competition from employers in metropolitan Melbourne and elsewhere who might be able to offer better terms and conditions.
- 13. The agricultural sector is becoming increasingly technology-oriented with growing demand for skilled workers alongside an unmet need for low skill workers. This shift in what was once a predominantly low-skilled industry needs to be addressed, particularly by education and training providers, to ensure it has access to the workers it needs. This issue is especially pertinent given the identification of food and fibre as an area of regional specialisation for Gippsland. More broadly, the Gippsland economy is becoming increasingly knowledge based and a focus on ensuring its population has the requisite knowledge and skill base will be a critical requirement to ensure higher levels of labour force participation into the future.
- 14. Respondents identified domestic violence as an important issue requiring attention. A lack of the stability that is required to be able to transition into work effectively may result in long-term joblessness, particularly in circumstances where dependent children are involved. Experiences of abuse may also affect how people engage with both employers and employment services.
- 15. Availability of public transport was also identified as a critical impediment to finding and holding down a job. Smaller or remote communities and industries based outside of community centres are impacted by fewer public options, and transport schedules seemingly cater for traditional '9 to 5' working hours without factoring in the needs of workers operating outside of typical business hours.

#### 6.2 Recommendations

Considering the above findings of the report, the following recommendations can be made:

- 1. The implementation of a focused long-term labour market strategy for the Gippsland region, with an emphasis on proactive planning for the transition of traditional industries and the conditions necessary for the emergence of new ones. In order to respond to future labour demand, strategies should emphasise the participation of workers rather than narrowly focus on those classified as unemployed and solutions should focus on growing and maintaining labour supply e.g. early retirement schemes should not be used as a matter of course.
- 2. State and Commonwealth Government agencies will play a central role here in redesigning and expanding the labour market eco-system, particularly regarding aligning skills and education offerings with the needs of future industries, the design of focused programs targeting the participation of specific groups of workers and removing impediments to employment. For instance, policy could usefully focus on women experiencing domestic violence, the availability of public transport, the provision of quality labour market analysis that can inform policymaking and aid in evaluating program success, and advice for local business focused on achieving effective labour supply strategies.
- 3. Gippsland's specific circumstances will potentially require the piloting of innovative solutions focused on continued participation and the activation of large numbers of people who have withdrawn from the labour market if it is to meet its labour supply needs going forward. This will require a significant expansion of services focused on maintaining participation in addition to those focused on unemployment. There will be overlap with existing services for the unemployed. However, the scale of the services offered and consequently the need for resourcing will increase substantially, given the numbers unemployed are far fewer than those who are not participating in the labour market. That such issues are being faced by other parts of regional Australia suggests that Gippsland could be used as a testbed for innovation addressing issues of labour supply, identifying solutions that could be applied elsewhere. Given numerous examples of somewhat similar regions in transition elsewhere in Australia and internationally some of which were described in this report, lessons could be learned from deep analysis of these that could also inform actions in Latrobe- Gippsland.
- 4. More broadly, there is a need to consider labour force participation in the context of dynamic changes in work and the characteristics of workers. Translational activities that raise community awareness about the implications of these changes and engage business with emerging best practices in areas such as skills, job quality, flexible working, and labour sourcing, and the reconfiguring of human resource management capability to make it more responsive to future-oriented business needs will be required. This will involve education providers and others working with local industry and regional stakeholders in developing and promulgating models of work that position Gippsland as being at the leading edge of such developments if they are to attract high quality candidates and retain workers. At a time of a historically tight national labour market, the region's future competitiveness will depend on the ability of its business to maintain and grow its labour supply. This may also involve much greater cooperation among local business if it is to reduce the leakage of workers outside of the region.
- 5. The study has highlighted the need for more accessible, accurate and timely data alongside greater local capability in the synthesis and analysis of such data to inform policy and program design. While much relevant data exist, they were not always readily available to the research team to utilise, with obtaining permissions and confidentiality barriers. There is also scope to explore innovative approaches to measuring labour force participation, reducing reliance on survey data, in order to obtain more reliable assessments.
- 6. Alongside this is the importance of being able to collect data that can enable fine-grained analysis of issues as they pertain to relatively small but important labour market groups, for instance, women running small businesses from home, young men not in the labour force, Indigenous Australians, those with a disability or those experiencing domestic violence. The data requirements of new projects should be considered and addressed during their planning and implementation stages.
- 7. Additionally, bespoke research and co-design activities in Gippsland resulting in local solutions might result in greater community buy-in. More fine-grained analysis of existing quantitative datasets accompanied by qualitative research would provide a deeper understanding of the experiences and orientations of target groups leading to better interventions. The co-design of interventions focused on labour market participation would be novel in Australia.

8. Finally, a focus on participation, not only unemployment, would demonstrate a progressive approach to labour market policy that mainstreams support for jobseekers against the backdrop of the recent economic upheaval resulting from the pandemic that led to many suddenly losing their jobs and has led others to rethink their careers. This broadened focus is especially pertinent given the changing 'psychological contract' of workers and growing demand for a stronger work-life balance.

#### 6.3 Need for Future Research

While this research has produced important findings regarding LFP in Gippsland this represents the beginning of a process as opposed to an end. Nevertheless, this research provides a foundation upon which future projects can build. Perhaps the most immediate opportunity for building upon this research is the integration of demographic variables into the ATO and Centrelink data, allowing for greater dimensionality in analysis to identify the groups most in need of support and intervention. The LVA is already in possession of these data but was unable to release them to the research team due to Commonwealth permissions and data protection issues.

Analysis of the quantitative datasets revealed that some critical issues of LFP are predominantly experienced in Latrobe City, with this representing a problem area relative to the other five LGAs. However, in the absence of demographic data from the ATO and Centrelink, this research was unable to identify the constituent groups in Latrobe City most in need of support and intervention. While this may be addressed using data unavailable to the project team, it is also worth considering specific research targeted at Latrobe City residents. A qualitative analysis of local stakeholders and key demographic groups could result in the production of 'on-the-ground' findings that are valid in a Latrobe City context.

There is also potential to contribute directly to developing support services and other provisions via the identification and trialling of solutions targeting particularly disadvantaged groups in the labour market. Internationally, in the wake of large-scale restructuring over the last two decades a range of initiatives have emerged focused on supporting workers in transition. There would be value in synthesising learnings from these activities, drawing upon practical experience to guide the Gippsland region in becoming a model for a viable post-carbon regional economy.

More broadly, the changing nature of attitudes to work and the revision of the 'psychological contract' that employees have with their employers has also emerged as a topic requiring additional attention. This realignment is ongoing, meaning that this research was only able to identify some of the emerging trends, but it is clear from the literature that this is a phenomenon being experienced across several developed countries including the United States and United Kingdom. Specific research exploring the nature of this shift and how it develops in a Gippsland context is necessary to ensure that employers understand and can adapt to the changing attitudes of employees and jobseekers.

## 6.4 Concluding Remarks

The factors impacting upon LFP in the Gippsland region are multifarious and complex, with a wide range of demographic, cultural, geographic, and economic variables intersecting with one another at the individual level. This research has derived several findings by exploring these issues and produced key recommendations to inform policy at the Latrobe Valley Authority. It has also provided a foundation upon which further research can be conducted to guide and inform long-term policy for the Gippsland region.

#### 7 References

- Agribusiness Gippsland (2014) 'Submission to Inquiry into the Opportunities for Increasing Exports of Goods and Services from Regional Victoria,' Agribusiness Gippsland Incorporated, Warragul: Victoria.
- Aither (2019) Gippsland Regional Profile: An analysis of regional strengths and challenges, Infrastructure Victoria, Melbourne.
- Alam, K. and Mamun, S.A.K. (2017) 'Access to broadband internet and labour force outcomes: a case study of the Western Downs Region, Queensland,' *Telematics and Informatics*, 34(4), 73-84.
- Armstrong-Stassen, M. and Templer, A. (2005) 'Adapting training for older employees: The Canadian response to an aging workforce,' *Journal of Management Development, 24*(1), 57–67.
- Austen, S. and Seymour, R. (2015) 'The evolution of the female labour force participation rate in Australia, 1984-1999,' *Australian Journal of Labour Economics*, 9(3), 305-320.
- Australian Broadcasting Corporation (2009) 'Report reveals credit crunch job losses,' *ABC News*, Report reveals credit crunch job losses ABC News, Retrieved on 27<sup>th</sup> September 2021.
- Australian Bureau of Statistics (2017) '2016 Census,' <u>2016 Census (abs.gov.au)</u>, Retrieved on February 2<sup>nd</sup> 2022
- Australian Bureau of Statistics (2020a) '6102.0.55.001 Labour Statistics: Concepts, Sources, and Methods, Feb 2018,' 6102.0.55.001 Labour Statistics: Concepts, Sources and Methods, Feb 2018 (abs.gov.au), Retrieved on 4<sup>th</sup> August 2021.
- Australian Bureau of Statistics (2020b) 'Customised report, Department of Social Services and Department of Veteran Affairs, Data by Region, 2014-19,' Cat. No. 1410.0.
- Australian Bureau of Statistics (2022) 'Labour Force Survey, Detailed,' <u>Labour Force, Australia, Detailed,</u> <u>February 2022 | Australian Bureau of Statistics (abs.gov.au)</u>, Retrieved on 24<sup>th</sup> January 2022.
- Australian Institute of Health and Welfare (2022) 'Aboriginal and Torres Strait Islander Health Performance Framework,' <a href="https://www.indigenoushpf.gov.au/measures/2-07-employment">https://www.indigenoushpf.gov.au/measures/2-07-employment</a>, Retrieved on 26 May 2022.
- Australian Taxation Office (2021) 'Organisations,' <u>Australian Taxation Office Organizations data.gov.au</u>, Retrieved on 2<sup>nd</sup> December 2021.
- Bacharach, S.B., Bamberger, P.A., Sonnenstuhl, W.J. and Vashdi, D. (2004) 'Retirement, risky alcohol consumption, and drinking problems among blue-collar workers,' *Journal of Studies on Alcohol, 65*(4), 537-545.
- Bajada, C. (2008) 'Estimates of the underground economy in Australia,' *Economic Record*, 75(4), 369-384.
- Baum, S. and Mitchell, W. (2008) 'Adequate employment, underutilisation, and unemployment: an analysis of labour force outcomes for Australian youth,' *Australian Journal of Labour Economics*, 11(3), 187-201.
- Best, R. and Burke, P.J. (2019) 'Is there regional lock-in of unemployment rates in Australia?' *Australian Journal of Labour Economics*, *22*(2), 93-115.
- Birrell, B. and O'Connor, K. (2000) 'Regional Australia and the 'new economy',' People and Place, 8(4), 52-62.
- Burgess, J. (1998) 'Workforce casualization in Australia,' *International Employment Relations Review, 2*(1), 33-53.

- Burke, P.J., Best, R. and Jotzo, F. (2019) 'Closures of coal-fired power stations in Australia: local unemployment effects,' *Australian Journal of Agricultural and Resource Economics*, *63*(1), 142-165.
- Campbell, S. and Coenen, L. (2017) 'Transitioning beyond coal: Lessons from the structural renewal of Europe's old industrial regions,' *CCEP Working Paper 1709*, Crawford School of Public Policy, Australian National University.
- Coenen, L., Campbell, S. and Wiseman, J. (2018) 'Regional innovation systems and transformative dynamics:

  Transitions in coal regions in Australia and Germany,' in A. Isaksen, R. Martin, and M. Trippl (eds.)

  New Avenues for Regional Innovation Systems Theoretical Advances, Empirical Cases and Policy

  Lessons, Springer, Cham.
- Colley, L. and Brown, K. (2015) 'The politics of regional disadvantage: regional differences in public sector employment,' *Public Administration Quarterly*, *39*(4), 664-696.
- Crime Statistics Agency (2022) 'Latest crime data by area,' <u>Latest crime data by area | Crime Statistics</u>

  <u>Agency Victoria</u>, Retrieved on 10<sup>th</sup> February 2022.
- Cuervo, H., Chesters, J. and Aberdeen, L. (2019) 'Post-school aspirations in regional Australia: an examination of the role of cultural and social capital,' *The Australian Educational Researcher*, *46*, 843-861.
- Duffy, M. and Whyte, S. (2017) 'The Latrobe Valley: the politics of loss and hope in a region of transition,' *Australasian Journal of Regional Studies*, 23(3), 421-446.
- Ellis, L., Beaver, K., and Wright, J. (2009) Handbook of Crime Correlates, Academic Press.
- Elmeskov, J. and Pichelmann, K. (1993) 'Interpreting unemployment: the role of labour-force participation,' *OECD Economic Studies*, *21*, 139-160.
- Evans, M.D.R. (1996) 'Women's labour force participation in Australia: Recent research findings,' *Journal of the Australian Population Association*. 13, 67-92.
- Evans, R., Moore, A. and Rees, D.M. (2019) 'The cyclical behaviour of the labour force participation rate in Australia,' *The Australian Economic Review, 52*(1), 94-106.
- Farmstyle (2012) 'Hobby farmers = local earners? Gippsland study breaks ground,' <u>Hobby farmers = local</u> earners? Gippsland study breaks ground | Farmstyle Australia, Retrieved on 11th November 2021.
- Finlay, R., Staib, A. and Wakefield, M. (2018) 'Where's the money? An investigation into the whereabouts and uses of Australian banknotes,' *Research Discussion Paper 2018-12*, Reserve Bank of Australia.
- Foden, M, Fothergill, S. and Gore, T. (2014) *The State of the Coalfields,* CRESR, Sheffield Hallam University.
- Fothergill, S. (2017) 'Coal Transition in the United Kingdom,' IDDRI and Climate Strategies.
- Garnett, A. (2018) 'The changes and challenges facing regional labour markets,' *Australian Journal of Labour Economics*, *21*(2), 99-123.
- Graff, M., Carley, S. and Konisky, D.M. (2018) 'Stakeholder perceptions of the United States energy transition: local-level dynamics and community responses to national politics and policy,' *Energy Research and Social Science*, *43*, 144-157.
- Guven, C., Sotirakopoulos, P. and Ulker, A. (2020) 'Short-term labour market effects of COVID-19 and the associated national lockdown in Australia: evidence from longitudinal labour force survey,' *GLO Discussion Paper, No. 635*, Global Labour Organization (GLO).

- Hatfield-Dodds, S., Hajkowicz, S. and Eady, S. (2021) *Stocktake of Megatrends Shaping Australian Agriculture (2021 Update)*, Australian Bureau of Agricultural and Resource Economics and Sciences,
  Canberra: Australia.
- Haywood, L., Janser, M. and Koch, N. (2021) 'The welfare costs of job loss and decarbonisation evidence from Germany's coal phase out,' *IZA Discussion Paper No. 14464*, Institute of Labour Economics, Germany.
- Hazelwood Health Study (2020), *Hazelwood Health Study Annual Report 6*, <u>HHS-6th-Annual-Report-v1.0.pdf</u> (hazelwoodhealthstudy.org.au), Retrieved on 27<sup>th</sup> September 2021.
- Housing Victoria (2022) 'Public Housing,' Public housing | Housing.vic.gov.au, Retrieved on 31st March 2022.
- Humphrey, D.D. (1940) 'Alleged "additional workers" in the measurement of unemployment,' *Journal of Political Economy*, 43, 412-419.
- Hunter, B. and Gray, M. (1999) 'Changes in the distribution of personal income of Indigenous and non-Indigenous Australians between 1976 and 1996,' in S. Shaver and P. Saunders (eds.) *Social Policy* for the 21st Century: Justice and Responsibility, Social Policy Research Centre, Sydney: Australia, p. 117-132.
- Indufor (2020) 'Victorian timber situation analysis,' Department of Jobs, Precincts, and Regions, Melbourne:

  Victoria
- Informed Decisions (2022a) 'Bass Coast Shire,' <u>Unemployment rate | Bass Coast | economy.id</u>, Retrieved on 20<sup>th</sup> February 2022.
- Informed Decisions (2022b) 'Baw Baw Shire,' <u>Unemployment rate | Baw Baw | economy.id</u>, Retrieved on 20<sup>th</sup> February 2022.
- Informed Decisions (2022c) 'East Gippsland Shire,' <u>Unemployment rate | East Gippsland | economy.id</u>, Retrieved on 20<sup>th</sup> February 2022.
- Informed Decisions (2022d) 'South Gippsland Shire,' <u>Unemployment rate | South Gippsland | economy.id</u>, Retrieved on 20<sup>th</sup> February 2022.
- Jaumotte, F. (2013) 'Female labour force participation: Past trends and main determinants in OECD countries,' *OECD Working Paper No. 376*, Organisation for Economic Co-operation and Development.
- Kennedy, S. and Hedley, D. (2003) 'Educational attainment and labour force participation in Australia,' *Economic Round-up*, 27-41.
- Kimber, M. (2003) 'The tenured 'core' and the tenuous 'periphery': The casualization of academic work in Australian universities,' *Journal of Higher Education Policy and Management*, *25*(1), 41-50.
- KPMG (2019) Accelerating Growth for the Gippsland Food and Fibre Industry, Food & Fibre Gippsland, Warragul: Victoria.
- Labour Market Information Portal (2022a) 'Gippsland,' <u>Welcome to the Labour Market Information Portal.</u>
  (<u>Imip.gov.au</u>), Retrieved on February 1<sup>st</sup> 2022.
- Labour Market Information Portal (2022b) 'Unemployment Rate by State and Territory,' <u>Welcome to the Labour Market Information Portal. (Imip.gov.au)</u>, Retrieved on March 27<sup>th</sup> 2022.
- Lenten, L.J.A. (2000) 'The profile of labour force discouragement in Australia,' *Australian Journal of Labour Economics*, *4*(1), 3-17.

- Lesman, B., Breukel, J. and McMahon, M. (2018) 'Victorian crime statistics by LGAs,' *Research Paper No. 2.*, Parliament of Victoria.
- Liefbroer, A.C. and Corijn, M. (1999) 'Who, what, where, and when? Specifying the impact of educational attainment and labour force participation on family formation,' *European Journal of Population, 15,* 45-75.
- Liu, S.F., Courtenay, B.C., and Valentine, T. (2011) 'Managing older worker training: A literature review and conceptual framework,' *Educational Gerontology*, 37(12), 1040–1062.
- Long, C.D. (1958) *The Labour Force Under Changing Income and Unemployment*, Princeton University Press.
- Madanizadeh, S.A. and Pilvar, H. (2019) 'The impact of trade openness on labour force participation rate,' *Applied Economics*, *51*(24), 2654-2668.
- Marx, C. and Reitmayer, M. (2019) 'Rhenish capitalism and business history,' *Business History*, *61*(5), 754-784.
- Massey, S. and Parr, N. (2012) 'The socioeconomic status of migrant populations in regional and rural Australia and its implications for future population policy,' *Journal of Population Research*, 29, 1-21.
- Matti, J. and Ross, A. (2016) 'Does crime affect entrepreneurship? A discussion of the current literature,' Journal of Entrepreneurship and Public Policy, 5(3), 254-272.
- Mavromaras, K. and Zhu, R. (2015) 'Labour force participation of older men in Australia: the role of spousal participation,' *Oxford Economic Papers*, *67*(2), 310-333.
- Mincer, J. (1966) 'Labour force participation and unemployment,' in R.A. Gordon and M.S. Gordon (eds.). *Prosperity and Unemployment*, John Wiley, New York.
- Neumark, D. and Wascher, W. (2004) 'Minimum wages, labour market institutions, and youth employment: A cross-national analysis,' *ILR Review, 57*(2), 223-248.
- Organisation for Economic Co-operation and Development (2013a) *A Good Life in Old Age? Monitoring and Improving Quality in Long-Term Care*, OECD Publishing, Paris.
- Organisation for Economic Co-operation and Development (2013b) *OECD Employment Outlook 2013*, OECD Publishing, Paris.
- Organisation for Economic Co-operation and Development (2018a) *Recommendation of the Council on Ageing and Employment Policies*, OECD Publishing, Paris.
- Organisation for Economic Co-operation and Development (2018b) *Country Note Equity in Education:*Breaking Down Barriers to Social Mobility, OECD Publishing, Paris.
- Organisation for Economic Co-operation and Development (2020) *Promoting an Age-Inclusive Workforce:*Living, Learning, and Earning Longer, OECD Publishing, Paris.
- Parliament of Victoria (2021) 'Inquiry into the closure of the Hazelwood and Yallourn power stations,' <u>Inquiries</u> (<u>parliament.vic.gov.au</u>), Retrieved on 4<sup>th</sup> August 2021.
- Perlich, H. (2014) 'Australia's 'two-speed economy',' Journal of Australian Political Economy, 72, 106-126.
- Politzer, E., Shmueli, A., and Avni, S. (2019) 'The economic burden of health disparities related to socioeconomic status in Israel,' *Israel Journal of Health Policy Research*, 8(46), 1-16.

- REMPLAN (2022a) 'Latrobe City Council Economy,' <u>Latrobe City Council Economy Profile | Unemployment,</u>

  <u>Trends | REMPLAN</u>, Retrieved on 29<sup>th</sup> March 2022.
- REMPLAN (2022b) 'Wellington Community Profile,'

  <a href="https://app.remplan.com.au/wellington/community/trends/unemployment">https://app.remplan.com.au/wellington/community/trends/unemployment</a>, Retrieved on 29<sup>th</sup> March 2022.
- Reserve Bank of Australia (n.d.) 'The Global Financial Crisis,' <u>Explainer: The Global Financial Crisis</u> (<u>rba.gov.au</u>), Retrieved on 20<sup>th</sup> August 2020.
- Robroek, S.J.W., Rongen, A., Arts, C.H., Otten, F.H.W., Burdorf, A. and Schuring, M. (2015) 'Educational inequalities in exit from paid employment among Dutch workers: The influence of health, lifestyle, and work,' *PLoS ONE*, *10*(8), 1-12.
- Rodriguez-Modrono, P. (2021) 'Non-standard work in unconventional workplaces: Self-employed women in home-based businesses and coworking spaces,' *Urban Studies*, *58*(11), 2258-2275.
- Roemer, K.F. and Haggerty, J.H. (2021) 'Coal communities and the U.S. energy transition: A policy corridors assessment,' *Energy Policy*, *151*, 1-11.
- Schuring, M., Robroek, S.J.W., Otten, F.W.J., Arts, C.H., and Burdorf, A. (2013) 'The effect of ill-health and socioeconomic status on labour force exit and re-employment: A prospective study with ten years follow-up in the Netherlands,' *Scandinavian Journal of Work, Environment, and Health, 39*(2), 134-143.
- Smith, S. (2017) Just Transition: A Report for the OECD, Extractions Hub: Dundee, UK.
- Spencer, T., Colombier, M., Sartor, O., Garg, A., Tiwari, V., Burton, J., Caetano, T., Green, F., Teng, F., and Wiseman, J. (2018) 'The 1.5°C target and coal sector transition: at the limits of societal feasibility,' *Climate Policy, 18*(3), 335-351.
- Stimson, R.J. (2014) 'Troubling times The GFC and its implications for regional performance. Part two: Australia,' *Romanian Journal of Regional Science, 7*(1), 1-16.
- Taylor, P., and Earl, C. (2021) 'The enduring myth of endemic age discrimination in the Australian labour market,' *Ageing and Society*, 1-10. doi:10.1017/S0144686X21001112
- Vlasblom, J.D. and Schippers, J.J. (2004) 'Increases in female labour force participation in Europe: Similarities and differences,' *European Journal of Population*, *20*, 375-392.
- Waring, P. and Lewer, J. (2013) 'The global financial crisis, employment relations and the labour market in Singapore and Australia,' *Asia Pacific Business Review, 19*(2), 217-229.
- Watson, I. (2013) 'Bridges or traps? Casualisation and labour market transitions in Australia,' *Journal of Industrial Relations*, *55*(1), 6-37.
- Weatherburn, D. (1992) 'Economic adversity and crime,' *Trends and Issues in Crime and Criminal Justice, 40,* 1-9.
- Wilkins, R. and Wooden, M. (2014) 'Two decades of change: the Australian labour market, 1993-2013,' *The Australian Economic Review, 47*(4), 417-431.
- Wilson, L. (2006) 'Developing a model for the measurement of social inclusion and social capital in regional Australia,' *Social Indicators Research*, *75*, 335-360.

- Wiseman, J., Workman, A., Fastenrath, S. and Jotzo, F. (2020) 'After the Hazelwood coal fired power station closure: Latrobe Valley regional transition policies and outcomes 2017-2020,' *CCEP Working Paper 2010, Nov 2020*, Crawford School of Public Policy: Australian National University.
- Wood, A.J., Graham, M., Lehdonvirta, V. and Hjorth, I. (2018) 'Good gig, bad gig: Autonomy and algorithmic control in the global gig economy,' *Work, Employment, and Society, 33*(1), 56-75.
- Woodhouse, A. (2006) 'Social capital and economic development in regional Australia: a case study,' *Journal of Rural Studies*, 22, 83-94.
- Woytinsky, W. S. (1940) 'Additional workers and the volume of unemployment in the depression', Social Science Research Council, Pamphlet Series 1.
- Wu, W., Dawson, D., Fleming-Munoz, D., Schleiger, E. and Horton, J. (2019) *The Future of Australia's Agricultural Workforce*, CSIRO Data61, Canberra: Australia.

## 8 Appendix

**Table A.1: Income Distribution by Postcode** 

Postcode	SA3 Name	Year	Total Income or Loss (\$)	Total Income or Loss (Vol)	Avg. Total Income or Loss (\$)
3854	Wellington	FYE15	\$55.4M	876	\$91,632
		FYE16	\$57.2M	865	\$93,718
		FYE17	\$58.5M	865	\$93,146
		FYE18	\$57.4M	883	\$89,382
		FYE19	\$59.1M	891	\$91,244
3856	Wellington	FYE15	\$35.3M	567	\$88,503
		FYE16	\$35.0M	572	\$90,443
		FYE17	\$35.0M	575	\$89,976
		FYE18	\$36.6M	596	\$87,648
		FYE19	\$38.1M	614	\$90,521
3869	Latrobe Valley	FYE15	\$60.8M	1,037	\$87,614
		FYE16	\$63.2M	1,037	\$89,678
		FYE17	\$62.4M	1,048	\$89,049
		FYE18	\$64.3M	1,065	\$89,425
		FYE19	\$65.0M	1,068	\$87,848
3851	Wellington	FYE15	\$126.7M	2,327	\$87,170
		FYE16	\$125.5M	2,405	\$84,427
		FYE17	\$127.9M	2,445	\$81,996
		FYE18	\$132.0M	2,514	\$82,315
		FYE19	\$138.2M	2,573	\$86,342
3844	Wellington	FYE15	\$963.7M	15,916	\$87,821
		FYE16	\$992.6M	16,120	\$88,874
		FYE17	\$999.1M	16,413	\$88,060
		FYE18	\$1,051.3M	16,751	\$90,164
		FYE19	\$1,116.1M	17,242	\$93,130
3873	Wellington	FYE15	\$10.1M	202	\$78,020

		FYE16	\$9.7M	195	\$79,249
		FYE17	\$9.8M	199	\$73,143
		FYE18	\$9.9M	205	\$72,838
		FYE19	\$10.2M	210	\$73,753
3850	Wellington	FYE15	\$471.1M	8,111	\$88,888
		FYE16	\$473.2M	8,074	\$88,693
		FYE17	\$452.5M	7,980	\$85,795
		FYE18	\$476.7M	8,153	\$86,936
		FYE19	\$508.4M	8,304	\$90,626
3862	Wellington	FYE15	\$92.0M	1,735	\$83,282
		FYE16	\$90.4M	1,771	\$79,045
		FYE17	\$92.2M	1,804	\$79,344
		FYE18	\$95.9M	1,854	\$78,352
		FYE19	\$100.8M	1,957	\$78,514
3870	Wellington	FYE15	\$32.4M	670	\$79,548
		FYE16	\$34.1M	696	\$80,289
		FYE17	\$33.7M	692	\$77,393
		FYE18	\$34.7M	690	\$79,424
		FYE19	\$33.7M	688	\$80,109
3859	Wellington	FYE15	\$22.1M	448	\$80,681
		FYE16	\$20.7M	453	\$74,799
		FYE17	\$20.8M	461	\$71,837
		FYE18	\$21.9M	474	\$76,214
		FYE19	\$23.0M	479	\$76,155
3824	Baw Baw	FYE15	\$144.5M	2,674	\$81,005
		FYE16	\$149.0M	2,763	\$81,453
		FYE17	\$153.5M	2,867	\$82,604
		FYE18	\$161.5M	2,858	\$84,332
		FYE19	\$176.3M	2,981	\$88,327
3860	Wellington	FYE15	\$207.8M	3,978	\$80,300
		FYE16	\$208.2M	4,026	\$80,797

		FYE17	\$208.6M	3,995	\$82,387
		FYE18	\$211.8M	4,007	\$81,800
		FYE19	\$226.3M	4,096	\$84,253
3874	Wellington	FYE15	\$33.8M	343	\$151,122
		FYE16	\$48.3M	342	\$215,615
		FYE17	\$16.3M	333	\$78,008
		FYE18	\$16.2M	337	\$75,769
		FYE19	\$35.3M	365	\$154,243
3847	Wellington	FYE15	\$56.9M	1,103	\$80,426
		FYE16	\$58.2M	1,139	\$78,248
		FYE17	\$56.2M	1,160	\$74,800
		FYE18	\$59.1M	1,171	\$76,125
		FYE19	\$63.0M	1,186	\$79,210
3857	Wellington	FYE15	\$10.6M	223	\$76,806
		FYE16	\$11.2M	221	\$77,443
		FYE17	\$11.1M	230	\$69,459
		FYE18	\$12.1M	244	\$74,803
		FYE19	\$13.2M	244	\$85,937
3945	Gippsland - South West	FYE15	\$27.2M	581	\$77,439
		FYE16	\$26.6M	585	\$74,480
		FYE17	\$31.7M	615	\$82,066
		FYE18	\$33.6M	617	\$82,185
		FYE19	\$36.3M	621	\$92,486
3823	Baw Baw	FYE15	\$53.2M	1,029	\$79,239
		FYE16	\$52.5M	1,048	\$75,067
		FYE17	\$59.5M	1,137	\$80,951
		FYE18	\$62.4M	1,189	\$78,776
		FYE19	\$67.4M	1,221	\$83,903
3871	Latrobe Valley	FYE15	\$74.0M	1,531	\$78,033
		FYE16	\$74.3M	1,575	\$75,699
		FYE17	\$78.6M	1,591	\$79,135

		FYE18	\$79.7M	1,566	\$81,157
		FYE19	\$85.2M	1,566	\$84,503
3825	Wellington	FYE15	\$508.7M	9,756	\$79,770
		FYE16	\$513.1M	9,725	\$80,614
		FYE17	\$522.7M	9,834	\$81,317
		FYE18	\$539.8M	10,048	\$81,417
		FYE19	\$570.1M	10,228	\$84,683
3821	Baw Baw	FYE15	\$79.9M	1,558	\$81,241
		FYE16	\$83.0M	1,666	\$77,678
		FYE17	\$84.8M	1,683	\$77,110
		FYE18	\$91.2M	1,752	\$78,907
		FYE19	\$98.0M	1,803	\$83,068
3840	Latrobe Valley	FYE15	\$401.3M	7,627	\$80,027
		FYE16	\$406.0M	7,641	\$81,240
		FYE17	\$409.3M	7,670	\$81,948
		FYE18	\$412.9M	7,726	\$81,275
		FYE19	\$427.9M	7,914	\$82,756
3842	Latrobe Valley	FYE15	\$114.0M	2,150	\$80,302
		FYE16	\$114.9M	2,189	\$79,190
		FYE17	\$119.0M	2,194	\$82,904
		FYE18	\$118.3M	2,246	\$79,768
		FYE19	\$124.9M	2,304	\$83,661
3831	Baw Baw	FYE15	\$45.6M	933	\$76,873
		FYE16	\$48.5M	964	\$78,692
		FYE17	\$50.6M	1,005	\$79,186
		FYE18	\$54.5M	1,040	\$81,359
		FYE19	\$59.5M	1,100	\$83,820
3820	Baw Baw	FYE15	\$464.3M	8,975	\$79,834
		FYE16	\$492.3M	9,351	\$80,953
		FYE17	\$525.7M	9,673	\$82,532
		FYE18	\$587.5M	10,227	\$84,964

		FYE19	\$626.1M	10,638	\$87,131
3858	Wellington	FYE15	\$80.9M	1,607	\$80,236
		FYE16	\$78.6M	1,622	\$74,308
		FYE17	\$77.5M	1,611	\$74,879
		FYE18	\$80.2M	1,601	\$76,759
		FYE19	\$81.6M	1,619	\$76,004
3990	Gippsland - South West	FYE15	\$3.6M	91	\$79,510
		FYE16	\$4.3M	105	\$72,140
		FYE17	\$4.3M	98	\$80,549
		FYE18	\$5.3M	111	\$78,331
		FYE19	\$5.0M	102	\$79,256
3996	Gippsland - South West	FYE15	\$141.9M	2,892	\$79,959
		FYE16	\$152.3M	3,021	\$83,109
		FYE17	\$156.5M	3,107	\$82,717
		FYE18	\$173.8M	3,265	\$87,127
		FYE19	\$186.7M	3,406	\$87,956
3822	Baw Baw	FYE15	\$28.6M	547	\$76,307
		FYE16	\$28.6M	560	\$74,915
		FYE17	\$30.0M	577	\$77,893
		FYE18	\$33.8M	619	\$79,450
		FYE19	\$35.9M	609	\$84,210
3964	Gippsland - South West	FYE15	\$4.2M	93	\$73,589
		FYE16	\$4.2M	94	\$73,628
		FYE17	\$3.8M	84	\$69,586
		FYE18	\$3.4M	80	\$65,163
		FYE19	\$4.7M	94	\$78,677
3962	Wellington	FYE15	\$19.8M	498	\$68,298
		FYE16	\$23.1M	513	\$76,779
		FYE17	\$21.6M	501	\$72,224
		FYE18	\$22.5M	508	\$71,450
		FYE19	\$20.7M	486	\$68,911

3818	Baw Baw	FYE15	\$332.8M	7,102	\$73,550
		FYE16	\$356.7M	7,435	\$74,247
		FYE17	\$387.1M	7,853	\$76,447
		FYE18	\$424.4M	8,257	\$77,733
		FYE19	\$456.7M	8,739	\$79,022
3835	Gippsland - South West	FYE15	\$17.3M	357	\$80,170
		FYE16	\$16.8M	340	\$80,271
		FYE17	\$18.4M	347	\$81,916
		FYE18	\$18.4M	352	\$82,109
		FYE19	\$17.4M	338	\$81,680
3946	Gippsland - South West	FYE15	\$7.2M	164	\$77,763
		FYE16	\$6.6M	163	\$70,474
		FYE17	\$6.3M	152	\$72,007
		FYE18	\$7.2M	156	\$75,139
		FYE19	\$7.5M	168	\$72,109
3957	Gippsland - South West	FYE15	\$8.0M	181	\$70,803
		FYE16	\$8.0M	186	\$66,527
		FYE17	\$8.7M	200	\$63,359
		FYE18	\$8.2M	194	\$70,124
		FYE19	\$8.8M	203	\$72,049
3960	Gippsland - South West	FYE15	\$66.7M	1,461	\$76,832
		FYE16	\$66.2M	1,447	\$77,470
		FYE17	\$64.4M	1,447	\$75,759
		FYE18	\$68.7M	1,459	\$79,287
		FYE19	\$72.7M	1,461	\$84,050
3951	Gippsland - South West	FYE15	\$25.9M	578	\$72,947
		FYE16	\$26.3M	586	\$71,268
		FYE17	\$27.1M	602	\$72,303
		FYE18	\$28.4M	619	\$72,827
		FYE19	\$31.6M	653	\$76,640
3891	Gippsland - East	FYE15	\$3.7M	73	\$99,670

		FYE16	\$3.7M	65	\$105,888
		FYE17	\$3.8M	74	\$95,328
		FYE18	\$3.1M	67	\$81,162
		FYE19	\$2.8M	66	\$72,052
3954	Gippsland - South West	FYE15	\$12.4M	224	\$86,988
		FYE16	\$12.6M	244	\$84,292
		FYE17	\$12.3M	245	\$81,970
		FYE18	\$13.4M	254	\$83,296
		FYE19	\$14.3M	254	\$85,735
3988	Gippsland - South West	FYE15	\$32.5M	670	\$78,842
		FYE16	\$28.9M	689	\$71,086
		FYE17	\$28.0M	635	\$72,848
		FYE18	\$31.0M	646	\$74,499
		FYE19	\$31.6M	672	\$72,612
3953	Gippsland - South West	FYE15	\$215.0M	4,438	\$77,699
		FYE16	\$215.0M	4,458	\$76,574
		FYE17	\$221.1M	4,563	\$77,449
		FYE18	\$233.6M	4,649	\$78,632
		FYE19	\$246.7M	4,688	\$82,309
3882	Gippsland - East	FYE15	\$26.0M	584	\$74,136
		FYE16	\$27.5M	611	\$74,661
		FYE17	\$29.5M	629	\$76,124
		FYE18	\$29.7M	630	\$74,136
		FYE19	\$31.9M	659	\$77,054
3950	Gippsland - South West	FYE15	\$112.9M	2,445	\$73,917
		FYE16	\$117.6M	2,483	\$75,093
		FYE17	\$118.7M	2,521	\$74,826
		FYE18	\$129.7M	2,660	\$76,789
		FYE19	\$137.1M	2,729	\$79,267
3971	Wellington	FYE15	\$95.8M	2,089	\$72,682
		FYE16	\$95.8M	2,067	\$74,725

		FYE17	\$87.8M	2,056	\$70,120
		FYE18	\$95.0M	2,106	\$73,260
		FYE19	\$94.7M	2,116	\$73,674
3890	Gippsland - East	FYE15	\$8.3M	176	\$75,940
		FYE16	\$7.3M	165	\$73,427
		FYE17	\$6.8M	147	\$77,943
		FYE18	\$7.7M	156	\$84,170
		FYE19	\$8.0M	163	\$78,744
3925	Gippsland - South West	FYE15	\$88.2M	1,869	\$76,434
		FYE16	\$94.3M	1,984	\$76,196
		FYE17	\$97.0M	2,034	\$76,628
		FYE18	\$111.6M	2,160	\$79,528
		FYE19	\$116.7M	2,225	\$81,844
3979	Gippsland - South West	FYE15	\$8.4M	202	\$69,936
		FYE16	\$8.4M	198	\$69,769
		FYE17	\$10.0M	219	\$75,932
		FYE18	\$10.4M	222	\$76,098
		FYE19	\$9.9M	227	\$70,886
3904	Gippsland - East	FYE15	\$34.7M	781	\$77,691
		FYE16	\$37.6M	836	\$77,742
		FYE17	\$38.5M	864	\$76,472
		FYE18	\$42.7M	917	\$80,225
		FYE19	\$46.5M	937	\$84,235
3902	Gippsland - East	FYE15	\$10.1M	228	\$72,194
		FYE16	\$10.3M	227	\$75,061
		FYE17	\$10.1M	231	\$71,807
		FYE18	\$9.4M	233	\$70,731
		FYE19	\$11.2M	241	\$76,205
3923	Gippsland - South West	FYE15	\$14.7M	325	\$77,974
		FYE16	\$17.3M	345	\$83,107
		FYE17	\$18.6M	364	\$82,801

		FYE18	\$19.0M	377	\$81,899
		FYE19	\$22.4M	392	\$91,215
3878	Gippsland - East	FYE15	\$28.2M	585	\$80,071
		FYE16	\$27.6M	587	\$78,821
		FYE17	\$28.2M	607	\$75,851
		FYE18	\$30.0M	623	\$79,271
		FYE19	\$34.6M	680	\$83,598
3900	Gippsland - East	FYE15	\$4.1M	100	\$72,711
		FYE16	\$5.2M	109	\$78,187
		FYE17	\$4.7M	106	\$73,923
		FYE18	\$4.5M	103	\$78,538
		FYE19	\$4.5M	98	\$71,486
3886	Gippsland - East	FYE15	\$8.7M	189	\$77,663
		FYE16	\$8.4M	190	\$74,056
		FYE17	\$8.4M	197	\$73,033
		FYE18	\$8.6M	191	\$72,497
		FYE19	\$8.7M	195	\$73,994
3903	Gippsland - East	FYE15	\$18.7M	402	\$75,825
		FYE16	\$19.8M	412	\$78,292
		FYE17	\$19.9M	408	\$78,300
		FYE18	\$21.1M	398	\$84,203
		FYE19	\$20.5M	410	\$81,610
3967	Wellington	FYE15	\$3.5M	73	\$79,581
		FYE16	\$2.6M	69	\$67,299
		FYE17	\$3.3M	81	\$69,730
		FYE18	\$3.6M	77	\$73,795
		FYE19	\$3.5M	87	\$69,671
3966	Wellington	FYE15	\$14.4M	303	\$78,690
		FYE16	\$13.3M	290	\$76,832
		FYE17	\$12.5M	282	\$75,175
		FYE18	\$12.7M	292	\$72,509

		FYE19	\$14.0M	333	\$72,656
3875	Wellington	FYE15	\$455.8M	9,794	\$73,036
		FYE16	\$464.0M	9,963	\$72,785
		FYE17	\$474.4M	10,138	\$73,504
		FYE18	\$508.6M	10,447	\$74,649
		FYE19	\$530.8M	10,721	\$76,682
3832	Baw Baw	FYE15	\$5.5M	124	\$69,836
		FYE16	\$5.5M	124	\$75,173
		FYE17	\$5.9M	125	\$77,386
		FYE18	\$5.7M	128	\$67,344
		FYE19	\$5.5M	124	\$75,622
3880	Wellington	FYE15	\$83.8M	1,925	\$74,691
		FYE16	\$84.8M	1,959	\$76,541
		FYE17	\$88.6M	1,993	\$77,947
		FYE18	\$96.1M	2,069	\$78,976
		FYE19	\$102.6M	2,097	\$83,865
3865	Gippsland - East	FYE15	\$13.6M	286	\$72,506
		FYE16	\$13.3M	298	\$71,105
		FYE17	\$13.7M	305	\$72,555
		FYE18	\$13.2M	298	\$69,167
		FYE19	\$14.6M	314	\$71,827
3991	Gippsland - South West	FYE15	\$7.3M	203	\$61,947
		FYE16	\$8.2M	212	\$68,053
		FYE17	\$8.0M	218	\$67,669
		FYE18	\$9.1M	232	\$67,252
		FYE19	\$11.0M	245	\$73,424
3992	Gippsland - South West	FYE15	\$16.4M	401	\$67,318
		FYE16	\$18.9M	443	\$70,078
		FYE17	\$22.7M	507	\$72,167
		FYE18	\$25.0M	513	\$75,310
		FYE19	\$25.8M	540	\$77,323

3723	Wellington	FYE15	\$61.5M	1,443	\$73,310
		FYE16	\$65.9M	1,496	\$75,846
		FYE17	\$83.6M	1,576	\$88,246
		FYE18	\$75.3M	1,637	\$75,026
		FYE19	\$79.5M	1,681	\$77,502
3896	Gippsland - East	FYE15	\$10.5M	222	\$80,898
		FYE16	\$10.9M	228	\$77,317
		FYE17	\$12.1M	226	\$83,927
		FYE18	\$11.8M	230	\$77,570
		FYE19	\$11.7M	237	\$76,840
3885	Gippsland - East	FYE15	\$43.3M	1,013	\$69,536
		FYE16	\$41.7M	1,021	\$67,028
		FYE17	\$41.6M	1,035	\$65,677
		FYE18	\$43.4M	1,031	\$67,192
		FYE19	\$46.0M	1,057	\$70,374
3707	Gippsland - East	FYE15	\$43.4M	967	\$72,427
		FYE16	\$43.9M	978	\$70,743
		FYE17	\$45.6M	1,013	\$72,667
		FYE18	\$46.5M	1,016	\$74,571
		FYE19	\$47.2M	1,018	\$76,495
3888	Gippsland - East	FYE15	\$75.0M	1,670	\$73,765
		FYE16	\$73.3M	1,648	\$72,603
		FYE17	\$81.4M	1,670	\$78,080
		FYE18	\$76.7M	1,692	\$72,068
		FYE19	\$77.2M	1,678	\$72,365
3965	Gippsland - South West	FYE15	\$2.9M	82	\$59,093
		FYE16	\$3.5M	91	\$58,077
		FYE17	\$3.7M	89	\$65,561
		FYE18	\$3.8M	93	\$65,601
		FYE19	\$4.1M	90	\$82,159
3956	Gippsland - South West	FYE15	\$59.9M	1,333	\$74,320

		FYE16	\$57.2M	1,351	\$70,490
		FYE17	\$61.9M	1,395	\$74,322
		FYE18	\$68.5M	1,453	\$77,218
		FYE19	\$72.2M	1,487	\$80,231
3909	Wellington	FYE15	\$169.2M	3,873	\$73,016
		FYE16	\$172.4M	3,954	\$72,241
		FYE17	\$174.9M	3,993	\$73,048
		FYE18	\$184.5M	4,132	\$73,830
		FYE19	\$194.1M	4,169	\$77,136
3922	Gippsland - South West	FYE15	\$174.1M	3,990	\$72,715
		FYE16	\$182.2M	4,097	\$73,758
		FYE17	\$198.7M	4,427	\$74,302
		FYE18	\$219.6M	4,703	\$75,783
		FYE19	\$234.2M	4,839	\$78,887
3959	Gippsland - South West	FYE15	\$30.5M	688	\$77,250
		FYE16	\$29.0M	684	\$71,052
		FYE17	\$31.1M	702	\$74,226
		FYE18	\$33.3M	731	\$75,761
		FYE19	\$36.0M	739	\$81,967
3853	Wellington	FYE17	\$5.3M	81	\$103,656
		FYE18	\$4.8M	75	\$112,284
		FYE19	\$5.6M	82	\$121,797
3898	Gippsland - East	FYE15	\$15.9M	397	\$66,418
		FYE16	\$16.3M	402	\$66,275
		FYE17	\$16.5M	389	\$67,516
		FYE18	\$20.2M	427	\$69,098
		FYE19	\$18.3M	420	\$69,481
3995	Gippsland - South West	FYE15	\$212.4M	4,960	\$69,482
		FYE16	\$215.7M	5,017	\$70,216
		FYE17	\$223.8M	5,180	\$70,486
		FYE18	\$241.5M	5,356	\$72,772

		FYE19	\$260.7M	5,568	\$75,819
3921	Gippsland - South West	FYE15	\$1.8M	61	\$65,721
		FYE16	\$2.8M	71	\$83,366
		FYE17	\$2.4M	66	\$75,615
		FYE18	\$1.8M	52	\$81,160
		FYE19	\$1.2M	49	\$61,494
3701	Gippsland - East	FYE15	\$27.0M	609	\$70,794
		FYE16	\$27.4M	626	\$71,480
		FYE17	\$26.6M	597	\$72,868
		FYE18	\$28.5M	610	\$75,671
		FYE19	\$36.8M	611	\$95,489
3864	Gippsland - East	FYE15	\$4.2M	103	\$65,484
		FYE16	\$4.3M	111	\$62,149
		FYE17	\$5.0M	105	\$68,289
		FYE18	\$4.3M	105	\$67,701
		FYE19	\$5.1M	118	\$66,799
3699	Gippsland - East	FYE15	\$26.7M	653	\$70,209
		FYE16	\$26.7M	643	\$70,139
		FYE17	\$26.8M	641	\$69,075
		FYE18	\$29.6M	700	\$67,457
		FYE19	\$33.9M	701	\$76,382
3887	Gippsland - East	FYE15	\$5.6M	159	\$57,101
		FYE16	\$5.7M	164	\$61,190
		FYE17	\$5.3M	162	\$58,657
		FYE18	\$6.4M	164	\$66,287
		FYE19	\$6.4M	178	\$64,476
3889	Gippsland - East	FYE15	\$2.2M	83	\$54,237
		FYE16	\$1.9M	81	\$53,727
		FYE17	\$2.1M	76	\$54,169
		FYE18	\$2.3M	76	\$58,616
		FYE19	\$3.0M	78	\$70,882

3892	Gippsland - East	FYE15	\$23.7M	570	\$72,612
		FYE16	\$24.1M	576	\$73,345
		FYE17	\$26.1M	566	\$79,032
		FYE18	\$27.5M	596	\$78,257
		FYE19	\$28.9M	593	\$82,788
3895	Gippsland - East	FYE15	\$4.5M	121	\$66,600
		FYE16	\$4.7M	119	\$74,092
		FYE17	\$4.9M	117	\$71,865
		FYE18	\$4.1M	119	\$64,678
		FYE19	\$3.4M	116	\$58,281
3958	Gippsland - South West	FYE15	\$7.5M	164	\$75,259
		FYE16	\$6.3M	168	\$66,154
		FYE17	\$7.0M	170	\$70,110
		FYE18	\$7.6M	172	\$72,765
		FYE19	\$8.0M	167	\$79,652
3852	Wellington	FYE19	\$5.6M	78	\$94,002