



Research report 3/2021

An assessment of the economic effects of COVID-19 – Version 3

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Report prepared for the Fair Work Commission

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The contents of this paper are the responsibility of the author and the research has been conducted without the involvement of members of the Fair Work Commission.

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Table of contents

- 1 Summary 1**
- 2 Background 4**
- 3 By industry..... 11**
- 4 Employment by characteristics of workers and jobs 15**
- 5 Business performance..... 19**
 - 5.1 Revenue 19
 - 5.2 Labour costs..... 20
 - 5.3 Profits 20
- 6 Labour market churning 24**
- References 28**
- Appendix 29**

List of charts

Chart 1: Real output and income, per cent change in GDP relative to March quarter 2020.....	4
Chart 2a: Changes in employment and monthly hours worked per capita, March 2020 to March 2021.....	7
Chart 2b: Changes in employment/population rate and labour force participation rate, March 2020 to March 2021.....	7
Chart 3a: Change in number of jobs, 14 March 2020 to 27 March 2021	8
Chart 3b: Change in number of jobs per capita, 4 January 2020 to 27 March 2021	9
Chart 4: Growth in wages, annual per cent change, Australia, 1997–98 to 2019–20.....	10
Chart 5: Changes in monthly hours worked per capita, By state, March 2020 to March 2021.....	16
Chart 6: Changes in employment/population rate, by age, persons, Australia, March 2020 to March 2021.....	17
Chart 7: Changes in employment, by hourly earnings in occupation, February 2020 to February 2021.....	18
Chart 8a: Ratio of profit/sales in 2020 to profit/sales in 2017-19 and Job Keeper payments as a share of compensation of employees, By industry.....	23
Chart 8b: Ratio of profit/sales in 2020 to profit/sales in 2017-19 and Boosting Cash Flow to Employers payments as a share of gross operating surplus, By industry	23
Chart 9: Vacancy rate, Australia, 1994 quarter 3 to 2021 quarter 1	24
Chart 10: Relation between the rate of unemployment and vacancy rate (Beveridge curve), Australia, 1994 quarter 3 to 2021 quarter 1	25

List of tables

Table 1: Industry clusters based on impact of COVID-19	2
Table 2: Contributions to change in GDP, March quarter to December quarter 2020	5
Table 3: Contributions to changes in total household income, March quarter to December quarter 2020.....	6
Table 4: Key labour market outcomes, changes from March quarter to December quarter 2020....	9
Table 5: Growth in wages, per cent change, 2020.....	10
Table 6: Measures of changes in labour market outcomes, by industry, pre- to post-COVID.....	12
Table 7: Explanations of the classification of industries into clusters	13
Table 8: Classification of industries by cluster	14
Table 9: Changes in employment to population ratio, persons, Australia, March 2020 to March 2021.....	15
Table 10: Changes in employment, by occupation, persons, February 2020 to February 2021	18
Table 11: Per cent change in employment, employees by status, February 2020 to February 2021 19	
Table 12: Change in revenue over the past month, July 2020 to March 2021	20
Table 13: Payments to and costs of employees, March to December quarters 2020 (sa)	20
Table 14: Gross operating surplus and employee compensation, Per cent change, March quarter to December quarter 2020.....	21
Table 15: Business performance, By industry, Per cent change, 2020 compared to average of 2017–19 (current prices)	22
Table A1: Determinants of per cent change in profit/sales and profits in 2020 compared to 2017-19 29	
Table A2: Determinants of change in vacancy rate, By industry, June quarter 2020 to December quarter 2020	29

1 Summary

Background

Real GDP declined by 7 per cent between the March and June quarters in 2020, but by the December quarter had rebounded to be just 0.8 per cent below the level in the March quarter. The main driver of the down-and-up of real GDP was changes in household consumption. The changes in household consumption during 2020 were not due to changes in gross disposable income, which increased strongly in the June quarter and rose slightly for the rest of the year.

From the March quarter to December quarter 2020, gross disposable income increased by 2.94 per cent. This was due to increases in social assistance benefits, gross mixed income and employee compensation, partly offset by a decrease in net property income. Household consumption expenditure decreased by 1.29 per cent and net saving grew by 4.08 per cent.

Changes in real GDP over 2020 in Australia have been reflected in labour market outcomes. For example, employment and hours worked in Australia fell rapidly from March to May 2020. Monthly hours worked per capita decreased by 10.4 per cent and the employment to population ratio by 4.2 percentage points. From May 2020 to March 2021 (the most recent date for which data are available), there has been a steady improvement in both outcomes. By March 2021, monthly hours worked per capita were 1.2 per cent above March 2020; and the employment to population ratio was 0.1 of a percentage point above. The downturn in economic activity in 2020 due to COVID-19 also brought slow growth in wages. Annual growth rate in the WPI to the December quarter 2020 was 1.4 per cent.

Labour market outcomes by industry

Labour market outcomes by industry from late 2020 to early 2021 were largely consistent with the pattern established during 2020. This report makes one recommendation for a change to the classification of industries into clusters from Borland (2020)—for Professional, scientific and technical services to be shifted from the middle to lower cluster.

Table 1: Industry clusters based on impact of COVID-19

Upper cluster (industries most adversely affected)
Accommodation and food services
Arts and recreation services
Information, media and telecommunications

Central cluster (industries adversely affected, but not to the same degree as upper cluster)
Mining
Manufacturing
Construction
Wholesale trade
Transport, postal and warehousing
Rental, hiring and real estate
Education and training
Other services

Lower cluster (industries less affected)
Agriculture, forestry and fishing
Electricity, gas, water and waste services
Retail trade
Finance and insurance services
Professional, scientific and technical services
Administrative support services
Public administration and safety
Health care and social assistance

Labour market outcomes by characteristics of workers and jobs

The impact and extent of recovery across workers and jobs have not been uniform.

- The onset of COVID-19 caused a larger negative effect on female than male employment; however, the period of recovery has brought stronger growth in female than male employment.
- Part-time employment was reduced more than full-time employment due to COVID-19, but then has increased more during recovery.
- Generally, employment has evolved in a similar way between states. The main exception is Victoria, which experienced a second major lockdown from July to October 2020. As well, over time greater differences are emerging between states than were evident initially in 2020.
- Young people were much more adversely affected by the initial impact of COVID-19. With recovery, the position of young people improved more rapidly than for prime age and older workers—so that by March 2021 employment to population ratios for the different age groups had largely converged back to their levels a year ago. However, employment of young non-full-time students remains below its level in early 2020.
- All occupation groups experienced decreases in employment from February to May 2020; and almost all have had increases from May 2020 to February 2021. The scale of those changes, however, differed considerably between occupations. Negative effects on employment in the

year to February 2021 were concentrated in lower-paying occupations and employment growth was concentrated in the highest-paying occupations.

- Casual employees initially experienced much larger decreases in employment than permanent employees; but have also had a stronger increase in employment during the recovery phase. Nevertheless, over the year to February 2021, employment and actual hours worked of permanent employees grew slightly, while for casual employees they decreased by 4.6 and 5.1 per cent, respectively.

One interpretation of these changes in employment outcomes is that as the impact of COVID-19 recedes, pre-existing trends are reappearing—such as faster growth in female than male employment, in part-time than full-time employment and strong growth in employment in the managerial and professional occupations.

Business performance

Business sales fell in the June quarter, before progressively recovering in the September and December quarters. Labour costs for employers decreased with the onset of COVID-19, and then rose again at the end of 2020. Business profitability improved throughout 2020 and was higher in 2020 than previous years—in aggregate and almost universally across industry groups. All industries except Finance and insurance services had increased profits in 2020 compared to the previous three years—although there is substantial variation in the extent of improvement.

The profit-to-sales ratio improved for business in 14 out of 15 industries in 2020 compared to 2017–19. Some of the increases are large—such as about 100 per cent in Other services, Accommodation and food services and Arts and recreation services.

Changes in the profit/sales ratio by industry between 2020 and the previous three years can largely be explained by government COVID-19 related support to business in 2020—specifically, the JobKeeper payment and the Boosting Cash Flow to Business program.

Labour market churning

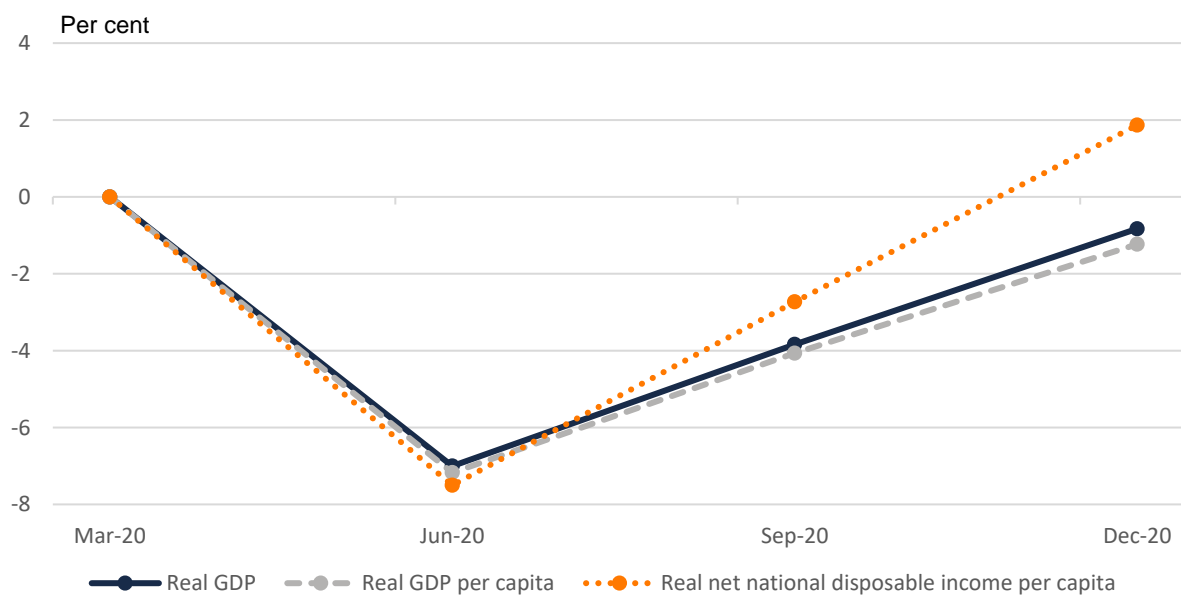
A notable development in the Australian labour market in late 2020 and early 2021 has been a strong rise in the vacancy rate. After rapidly decreasing with the onset of COVID-19, the vacancy rate has then steadily increased—and is currently at a higher level than at any time for which data are available.

There are two main explanations for the higher vacancy rate: first, regular labour market adjustment to a rapid increase in economic activity, such as has occurred in the recovery from mid-2020 onwards; and second, that it represents a decrease in ‘matching efficiency’—the speed with which jobseekers are matched to vacant jobs. Of these two potential explanations, at present it is the first explanation—that the increased vacancy rate has occurred as a result of the rapid speed of labour market recovery from the impact of COVID-19, that seems much more plausible.

2 Background

By the end of 2020, economic activity in Australia had almost returned to where it had been at the start of the year. COVID-19 brought a precipitous decline in economic activity in the June quarter, with real GDP decreasing by 7 per cent. The bounce-back was not as quick as the decline, but almost. By the December quarter 2020, real GDP was back to just 0.8 per cent below its level in the March quarter. Changes in real output and income over 2020 are displayed in Chart 1, expressed relative to the March quarter.

Chart 1: Real output and income, per cent change in GDP relative to March quarter 2020



Note: Data are seasonally adjusted.

Source: ABS, *Australian National Accounts: National Income, Expenditure and Product*, December 2020, Table 1.

A detailed decomposition of the sources of changes in real GDP is presented in Table 2.

The initial decline in real GDP in the June quarter was driven by a large decrease in household consumption—and the bounce-back came about via an almost equivalent increase in household consumption in the September and December quarters. Across the overall period from the March to December quarters in 2020, the decrease in real GDP was due to decreases in household consumption, private investment and international trade—offset by an increase in government consumption.

Table 2: Contributions to change in GDP, March quarter to December quarter 2020

By quarter	Change in GDP	Contribution of:			
		Household consumption	Government consumption	Exports - Imports	Private investment
March to June	-7.00	-6.66	+0.58	+0.64	-0.51
June to December	+6.17	+5.91	+0.47	-1.95	+0.02
Total March to December	-0.83	-0.75	+1.05	-1.31	-0.49

Notes: (i) Data are seasonally adjusted; and (ii) All calculations of per cent change are made with GDP in the March quarter 2020 as the numerator. Hence, per cent changes for the sub-periods sum to the per cent change for the overall period from March quarter 2020 to December quarter 2020.

Source: ABS, *Australian National Accounts: National Income, Expenditure and Product*, December 2020, Table 2.

The pattern of decreasing and then increasing household consumption during 2020 did not reflect movements in household income. Instead, gross disposable income increased strongly in the June quarter and rose slightly for the rest of the year. The decrease in household consumption in the June quarter therefore occurred together with a substantial increase in net saving in that quarter—and equally the rise in household consumption in the September and December quarters was accompanied by a large decrease in net saving. Changes in gross disposable income, household consumption expenditure and net saving—and sources of changes in gross disposable income—are shown in Table 3.

Growth in gross disposable income in the June quarter came from higher social assistance benefits and gross mixed income, both reflecting government COVID-19 related payments. The impact of government payments was partly offset by lower employee compensation and net property income. In the September and December quarters, as government payments were reduced and unwound, social assistance benefits and gross mixed income decreased. However, that effect on gross disposable income was offset by higher employee compensation and net property income.

For the overall period, from the March quarter to December quarter 2020, gross disposable income increased by 2.94 per cent. This was due to increases in social assistance benefits, gross mixed income, and employee compensation, partly offset by a decrease in net property income. Increased gross disposable income, together with a decrease in household consumption expenditure of 1.29 per cent, meant that net saving grew by 4.08 per cent.

Table 3: Contributions to changes in total household income, March quarter to December quarter 2020

	Sub-periods		Overall March quarter to December quarter 2020
	March quarter to June quarter 2020	June quarter to December quarter 2020	
Gross disposable income	+2.81	+0.12	+2.94
Contributions of:			
Compensation of employees	-1.50	+2.76	+1.26
Gross mixed income	+2.62	-0.97	+1.65
Social assistance benefits	+4.49	-2.17	+2.32
Net property income	-2.68	+0.83	-1.85
Income tax	-0.74	+0.69	-0.05
Other	+0.63	-1.02	-0.39
Effects			
Final consumption expenditure	-10.63	+9.34	-1.29
Net saving	+13.40	-9.32	+4.08

Notes: (i) Data are seasonally adjusted; and (ii) All calculations of per cent change are made with total household income in March quarter 2020 as the numerator. Hence per cent changes for the sub-periods sum to the per cent change for March to December.

Source: ABS, *Labour Account Australia*, December 2020, Table 1.

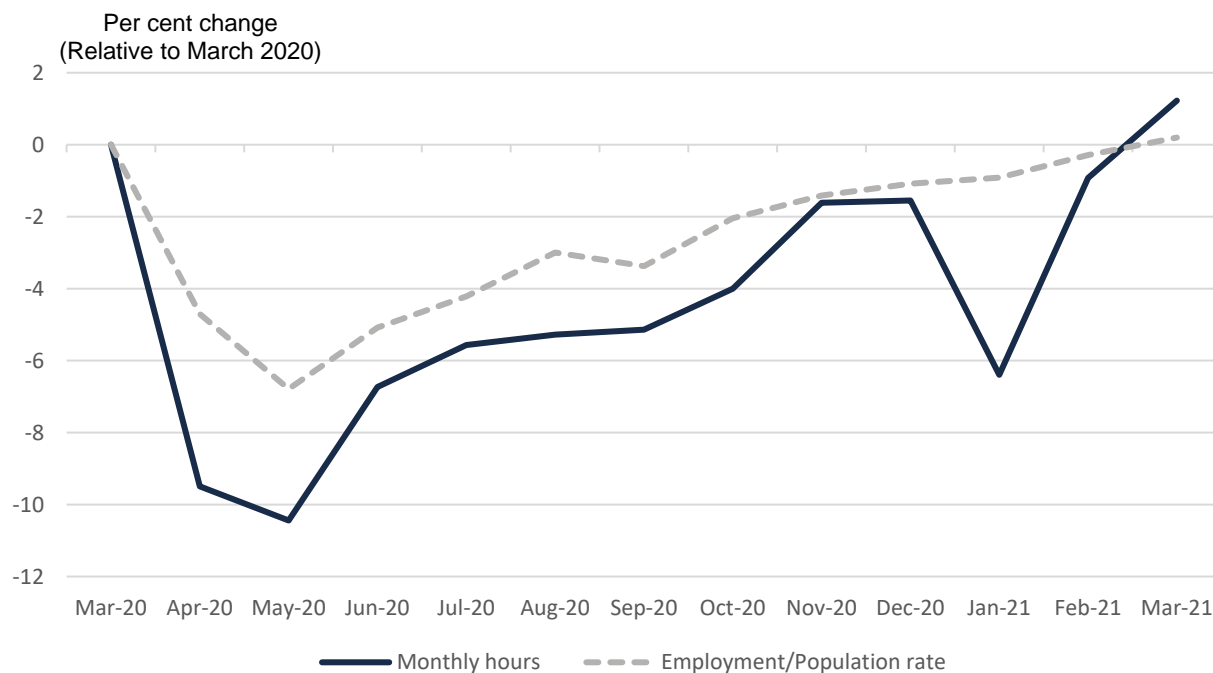
Changes in real GDP over 2020 in Australia have been reflected in labour market outcomes. These outcomes can be tracked using several main data sources—the ABS Labour Force survey; the ABS Weekly Payroll Jobs and Wages survey; and the ABS Labour Accounts.

Charts 2a and 2b are based on data from the Labour Force Survey. Chart 2a shows changes in employment and monthly hours worked per capita in Australia, relative to March 2020. Chart 2b shows changes in the employment to population ratio and labour force participation rate in Australia, over the same time period.

Employment and hours worked in Australia fell rapidly from March to May 2020. Monthly hours worked per capita decreased by 10.4 per cent and the employment to population ratio by 4.2 percentage points. From May 2020 to March 2021 (the most recent date for which data are available), there has been a steady improvement in both outcomes. By March 2021, monthly hours worked per capita were 1.2 per cent above March 2020; and the employment/population rate was 0.1 of a percentage point above.¹ The labour force participation rate also initially fell with the onset of COVID-19, but by March 2021 had returned to be 0.4 of a percentage point above its level a year before.

¹ The temporary drop in monthly hours worked in January 2021 was due to a larger than usual number of people taking leave during this period.

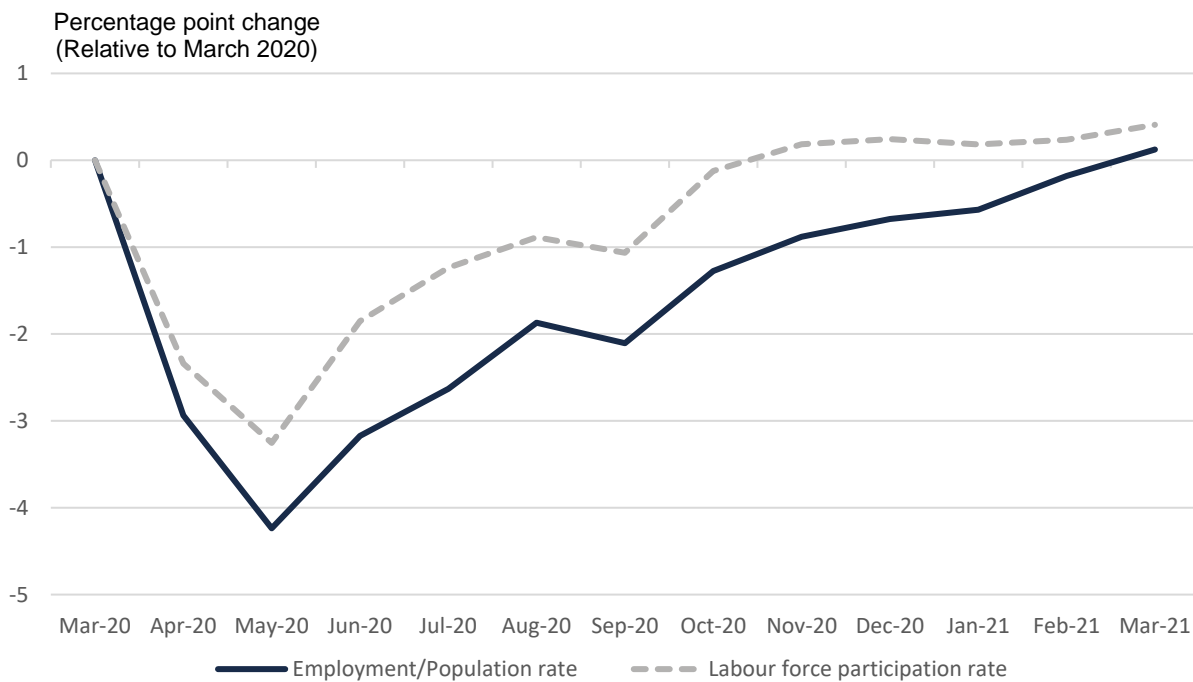
Chart 2a: Changes in employment and monthly hours worked per capita, March 2020 to March 2021



Note: Data are seasonally adjusted.

Source: ABS, *Labour Force, Australia*, March 2021, Tables 1 and 19.

Chart 2b: Changes in employment/population rate and labour force participation rate, March 2020 to March 2021



Note: Data are seasonally adjusted.

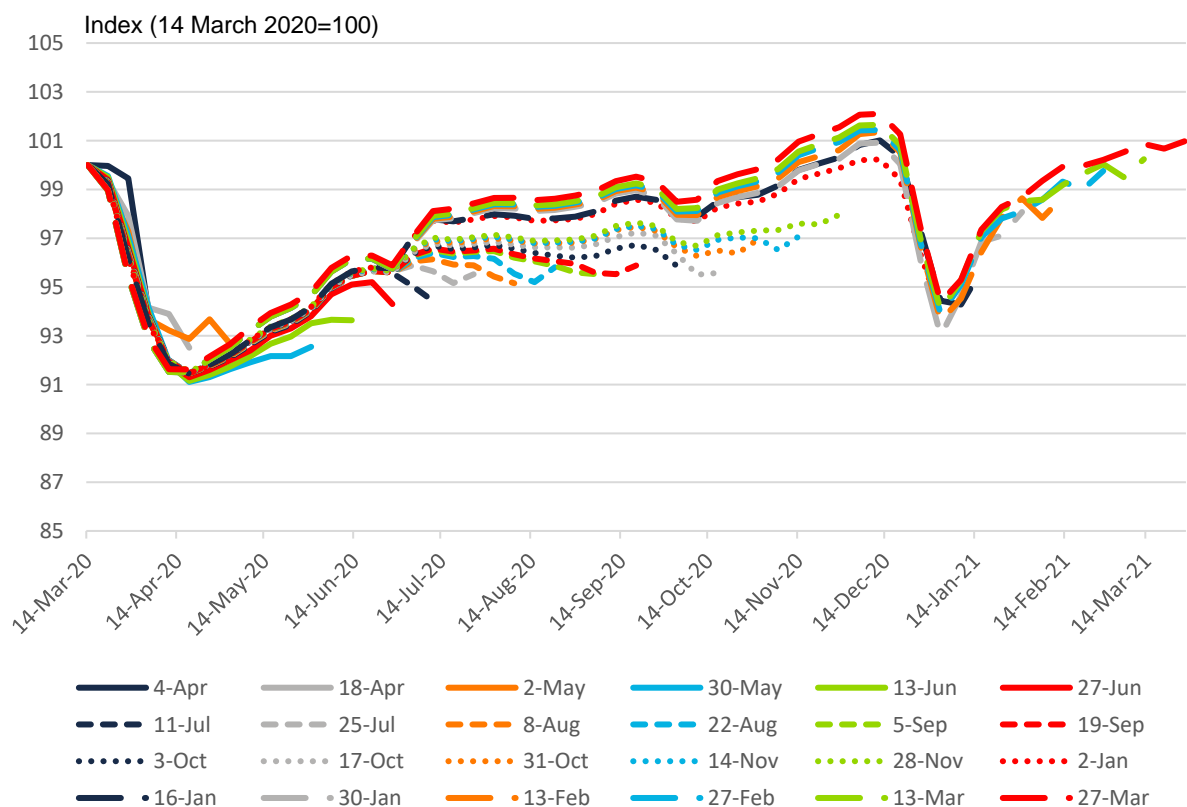
Sources: ABS, *Labour Force, Australia*, March 2021, Table 1.

Charts 3a and 3b are based on the Weekly Payroll Jobs and Wages survey. Chart 3a shows changes in the number of jobs in Australia from 14 March 2020 onwards—including data from each individual release of that series to give a feel for how subsequent updating might affect the most recent series. Chart 3b shows changes in the number of jobs per capita (from the most recent release for the week ending 27 March 2021), with the extra feature of overlaying data from January to mid-March for 2020 and 2021. This overlaying allows a comparison between employment post- and pre-COVID-19 for identical times of year, which is valuable as data from the Weekly Payroll survey are not seasonally adjusted. In Chart 3b, an adjustment for growth in population size during 2020–21 has also been made.

The number of jobs in Australia has generally followed a similar pattern to employment since the onset of COVID-19. This can be seen from Chart 3a. From mid-March to late-April 2020, the number of jobs fell by 8.5 per cent. A rapid recovery to mid-July then occurred, which increased the number of jobs by 6.5 per cent. Steady recovery to the end of 2020 then ensued. By mid-December, the number of jobs was about 2 per cent higher than in mid-March. A large seasonal decrease in the number of jobs occurred in January 2021, but by early February the number of jobs had returned to the level in March 2020.

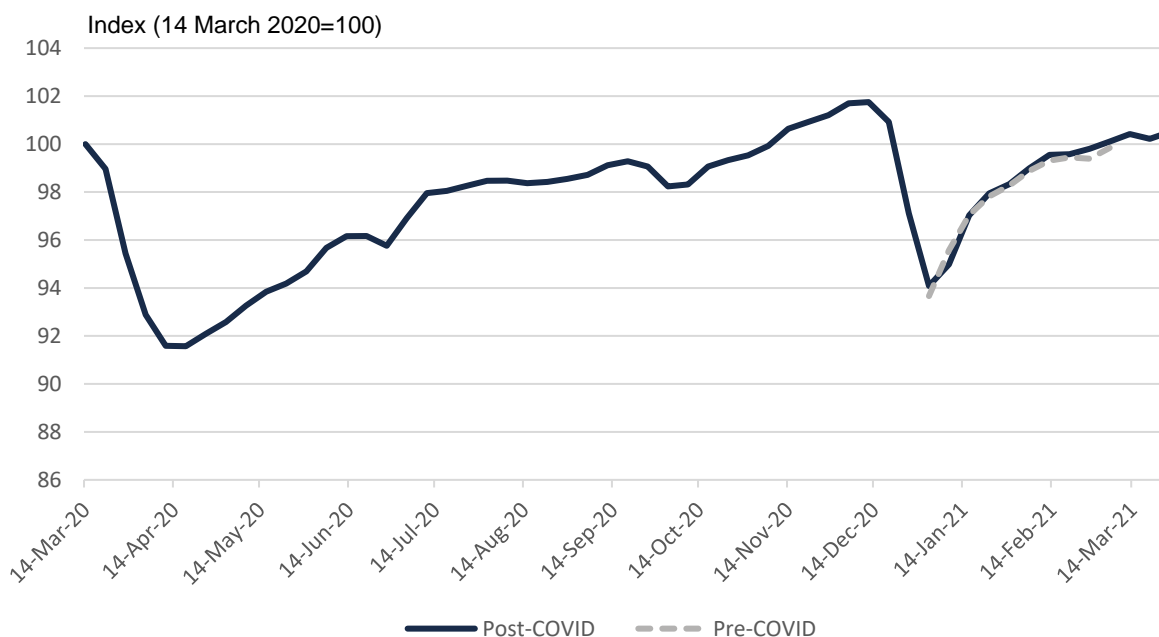
Comparing the number of jobs from January to mid-March in 2020 and 2021—as in Chart 3b—confirms that the total number of jobs has returned to the pre-COVID-19 level. For most of the period of comparison, the two series almost exactly overlap; and by late February/early March the number of jobs in 2021 is slightly above in 2020. It is important to note also that these data are for jobs per capita—that is, even controlling for growth in Australia’s population over 2020–21, the number of jobs was at the same level or slightly higher in early 2021 than 2020.

Chart 3a: Change in number of jobs, 14 March 2020 to 27 March 2021



Source: ABS, *Weekly Payroll Jobs and Wages*, Week Ending 27 March 2021, Table 4.

Chart 3b: Change in number of jobs per capita, 4 January 2020 to 27 March 2021



Source: ABS, *Weekly Payroll Jobs and Wages, Week Ending 27 March 2021*, Table 4.

Table 4 shows data on labour market outcomes from the quarterly Labour Accounts. The same pattern of worsening outcomes from early to mid-2020, and then recovery throughout the rest of the year, is apparent. The Labour Accounts show hours worked and the number of jobs as having recovered about three-quarters of the initial losses experienced by the end of the year.

Table 4: Key labour market outcomes, changes from March quarter to December quarter 2020

	Sub-periods		Total March to December 2020 %
	March to June 2020	June to December 2020	
	%	%	
Number of jobs	-6.8	+5.3	-1.5
Persons employed	-5.3	+2.7	-2.6
Number of multiple jobholders	-22.6	+21.1	-1.5
Hours actually worked	-10.0	+7.7	-2.3

Notes: (i) Data are seasonally adjusted; and (ii) All calculations of per cent change are made with the value of each variable in March 2020 as the numerator. Hence per cent changes for the sub-periods sum to the per cent change for March to December.

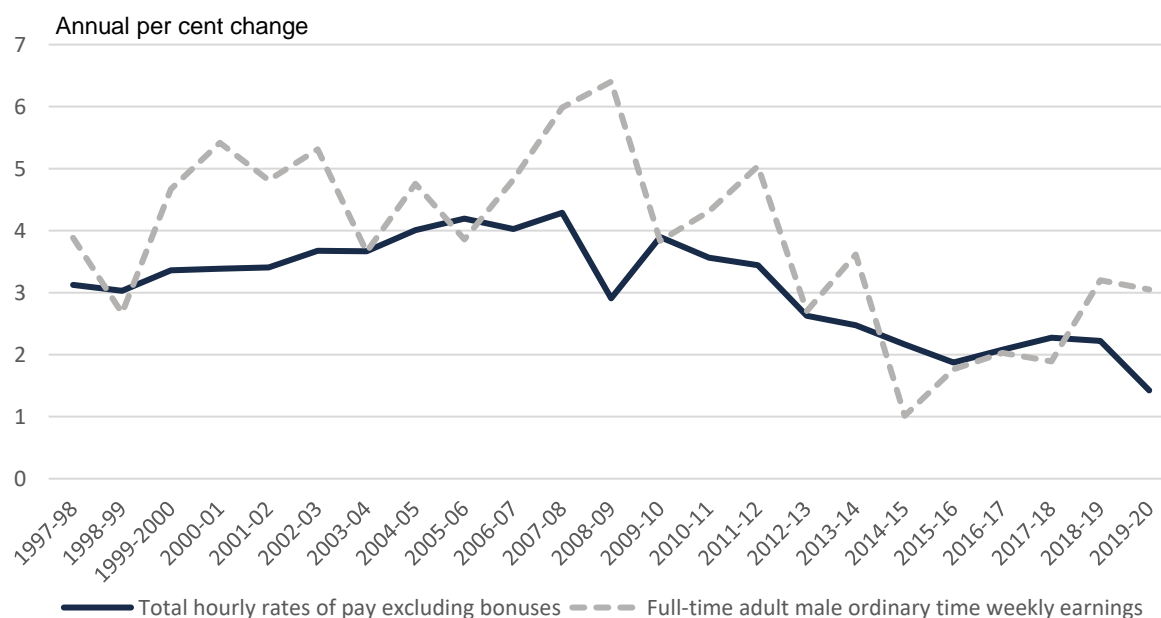
Source: ABS, *Labour Account Australia*, December 2020, Table 1.

A further perspective on the situation in Australia's labour market can come from measures of wages growth. Chart 4 shows annual wage growth for 1997–98 to 2019–20 in Australia using the ABS Average Weekly Earnings series and Wage Price Index. Table 5 presents a more detailed description of changes during 2020.

The downturn in economic activity in 2020 due to COVID-19 brought slow growth in wages. This continued the pattern of a slow-down in wages growth in the period following the GFC. The annual

growth rate in the WPI to the December quarter 2020 was 1.4 per cent. Quarterly changes in the WPI were consistently low during 2020. The Average Weekly Earnings series for full-time adult male ordinary time earnings shows relatively high growth in 2019–20 at 3.1 per cent.² The detailed data show that this was entirely due to growth from November 2019 to May 2020, with the subsequent period from May to December 2020 bringing negative growth in weekly earnings.

Chart 4: Growth in wages, annual per cent change, Australia, 1997–98 to 2019–20



Note: Data are seasonally adjusted.

Source: (i) Full-time adult male ordinary time weekly earnings (November) – ABS, *Average Weekly Earnings, Australia*, November 2020, Table 2; (ii) Total hourly rates of pay excluding bonuses – ABS, *Wage Price Index, Australia*, December 2020, Table 1.

Table 5: Growth in wages, per cent change, 2020

	Per cent change
Full-time adult male ordinary time weekly earnings	
November 2019 to May 2020	+3.5
May 2020 to November 2020	-0.4
Total hourly rates of pay excluding bonuses	
December 2019 to March 2020	+0.5
March 2020 to June 2020	+0.2
June 2020 to September 2020	+0.1
September 2020 to December 2020	+0.7

Note: Data are seasonally adjusted.

Source: (i) Full-time adult male ordinary time weekly earnings (November) – ABS, *Average Weekly Earnings, Australia*, Table 2; (ii) Total hourly rates of pay excluding bonuses – ABS, *Wage Price Index, Australia*, December 2020, Table 1.

² Earnings for full-time employees working ordinary time hours are used in order to minimise the impact on the estimated rate of earnings growth of changes in weekly hours over time. Earnings of males are used in order to avoid an impact on the estimated rate of growth in earnings from changes in the gender composition of employment.

3 By industry

The impact of COVID-19 has differed by industry. That variation was recognised by the majority decision of the Expert Panel in the *Annual Wage Review 2019–20* (2019–20 Review) by classifying industries into three clusters:

- Lower cluster: comprising industries less affected by the pandemic and those covering frontline services and other essential workers.
- Central cluster: comprising industries adversely impacted by the pandemic but not to the same extent as sectors identified in the upper cluster.
- Upper cluster: comprising industries which have been most adversely affected by the pandemic.

The classification of industries into the three clusters was mainly conceived using data on changes to the number of employee jobs and total wages, placing most weight on the jobs data. The separation of industries into three clusters was also supported by changes to industry gross value added and profits³ and business expectations of how the COVID-19 pandemic would adversely impact them.⁴

In an earlier report for the Fair Work Commission (Borland, 2020) I proposed variations to the original classification by the Expert Panel. In this report (version 3), I propose a further variation based on the evolution of industry-level labour market outcomes from late 2020 to early 2021.

Table 6 presents several main measures of changes in labour market outcomes by industry using the three available ABS data sources. First, data on changes in jobs between late February 2020 and 2021 from the ABS Weekly Payroll survey are reported. Comparing outcomes between these two points in time allows a pre- and post-COVID-19 comparison at the same time as controlling for seasonal influences. Second, data on changes in employment from February 2020 to February 2021 from the ABS Labour Force survey are reported. Third, data on changes in jobs and hours worked between the December quarters in 2019 and 2020 from the ABS Labour Accounts are reported. The December quarter 2020 data are the most recent available from the Labour Accounts.

In evaluating how the industries should be classified by cluster, I attach different weights to the alternative measures. I attach most weight to the Weekly Payroll data on jobs—because of its recency and the precision of identification of industry. Next in precedence is the Labour Force Survey data—due to its recency. As it is less up-to-date, I mainly use the Labour Accounts data as a check on the other measures. As well as the data on labour market outcomes reported in Table 6, I have also looked at the evolution of the measures over time to establish consistency with longer-term trends.

In Table 7, I give supporting explanations for the classification of industries in this report and, in Table 8, I report on how classifications have evolved across versions 1 to 3. The change made in this report (version 3) is to:

- shift Professional, scientific and technical services from the middle cluster to lower cluster.

³ [2020] FWCFB 3500 at [309]

⁴ [2020] FWCFB 3500 at [55]

Table 6: Measures of changes in labour market outcomes, by industry, pre- to post-COVID

	Weekly payroll jobs and wages: 29 February 2020 to 27 February 2021	Labour Force Survey: February 2020 to February 2021	Labour Accounts: December qtr 2019 to December qtr 2020	
	Jobs	Employment	Jobs	Hours worked
Agriculture, forestry and fishing	0.1	0.2	1.8	3.5
Mining	-0.1	4.4	-2.3	-0.5
Manufacturing	-2.3	-2.3	-0.6	-0.5
Electricity, gas, water and waste services	3.4	13.8	-1.2	-1.5
Construction	-1.7	-2.5	-3.1	-6.3
Wholesale trade	-2.2	0.1	0.6	0.1
Retail trade	-0.1	6.2	2.7	-0.9
Accommodation and food services	-10.9	-9.2	-10.8	-15.7
Transport, postal and warehousing	-5.6	4.0	-6.1	-10.8
Information, media and telecommunications	-6.9	-4.7	-4.0	-2.6
Finance and insurance services	5.9	0.6	3.5	4.8
Rental, hiring and real estate	-2.1	-2.2	-7.4	-13.7
Professional, scientific and technical services	0.0	4.9	-2.6	-3.5
Administrative and support services	0.4	-11.9	-3.6	-3.6
Public administration and safety	8.9	2.9	1.5	2.4
Education and training	-3.2	-3.2	-5.5	-7.2
Health care and social assistance	3.5	0.8	7.2	8.0
Arts and recreation services	-4.1	-2.2	-15.1	-23.7
Other services	-1.4	3.3	-9.8	-17.6

Sources: (i) Weekly Payroll – ABS, *Weekly Payroll Jobs and Wages, Australia*, Week ending 27 March 2021, Table 4; (ii) Labour Force – ABS, *Labour Force Australia – Detailed*, February 2021, Table 04; (iii) Labour Accounts – ABS, *Labour Accounts Australia*, December 2020, Tables 2 to 20.

Table 7: Explanations of the classification of industries into clusters

Agriculture, forestry and fishing	Data from all sources remain consistent with recovery of employment to pre-COVID 19 level – Stay in lower cluster
Mining	Some evidence of improvement to pre-COVID 19 level of employment – But not sustained across time – Stay in middle cluster
Manufacturing	Fairly consistent evidence of employment remaining below pre-COVID 19 level by 2–3 per cent – Stay in middle cluster
Electricity, gas, water and waste services	Evidence from main data sources consistent with employment at pre-COVID 19 level – Stay in lower cluster
Construction	Fairly consistent evidence of employment remaining below pre-COVID 19 level by 2–3 per cent – Stay in middle cluster
Wholesale trade	Evidence of improvement to pre-COVID 19 level of employment in LFS – But not evident in Weekly Payroll data – Stay in middle cluster
Retail trade	Evidence from main data sources consistent with employment at pre-COVID 19 level – Stay in lower cluster
Accommodation and food services	Consistent evidence that employment remains 10 per cent below pre-COVID 19 level – Stay in upper cluster
Transport, postal and warehousing	Consistent evidence from Weekly Payroll survey that number of jobs is 5 per cent below pre-COVID 19 level – But evidence from LFS suggests steady increase in employment – Would be considered for reclassification to upper cluster if future LFS data show decrease in employment – Stay in middle cluster
Information, media and telecommunications	Consistent evidence that employment remains 6–7 per cent below pre-COVID 19 level – Stay in upper cluster
Finance and insurance services	Evidence from main data sources consistent with employment above pre-COVID 19 level – Stay in lower cluster
Rental, hiring and real estate	Fairly consistent evidence of employment remaining below pre-COVID 19 level by 2–3 per cent – Stay in middle cluster
Professional, scientific and technical services	Consistent evidence of recovery in jobs in Weekly Payroll survey – Evidence of increase in employment to above pre-COVID 19 level in Labour Force Survey – Shift to lower cluster
Administrative and support services	Consistent evidence of recovery in jobs in Weekly Payroll survey – Evidence of decrease in employment to below pre-COVID 19 level in recent Labour Force Survey, but employment data for this industry have shown a high degree of quarterly variation – Stay in lower cluster
Public administration and safety	Evidence from main data sources consistent with employment above pre-COVID 19 level – Stay in lower cluster
Education and training	Continuing evidence that jobs and employment remain 2–3 per cent below pre-COVID 19 level – Stay in middle cluster
Health care and social assistance	Evidence from main data sources consistent with employment above pre-COVID 19 level – Stay in lower cluster
Arts and recreation services	Evidence of continuing gradual recovery in jobs and employment – Might be considered for reclassification to middle cluster when outcomes have been 2–3 per cent below pre-COVID 19 level for sustained period – Stay at upper cluster
Other services	Consistent evidence of number of jobs below pre-COVID 19 level – However LFS data show consistent increase in employment over recent quarters to above pre-COVID 19 level – Could be reclassified to lower cluster if jobs data improve to pre-COVID-19 level – Stay in middle cluster

Table 8: Classification of industries by cluster

	Version 1	Version 2	This version
Upper cluster: Industries most adversely affected	Accommodation and food services Arts and recreation services	Accommodation and food services Arts and recreation services Information, media and telecommunications	Accommodation and food services Arts and recreation services Information, media and telecommunications
Central cluster: Industries adversely affected, but not to the same degree as upper cluster	Agriculture, forestry and fishing Mining Manufacturing Construction Wholesale trade Retail trade Transport, postal and warehousing Information, media and telecommunications Rental, hiring and real estate Professional, scientific and technical services Administrative and support services Education and training Other services	Mining Manufacturing Construction Wholesale trade Transport, postal and warehousing Rental, hiring and real estate Professional, scientific and technical services Education and training Other services	Mining Manufacturing Construction Wholesale trade Transport, postal and warehousing Rental, hiring and real estate Education and training Other services
Lower cluster: Industries less affected	Electricity, gas, water and waste services Finance and insurance services Public administration and safety Health care and social assistance	Agriculture, forestry and fishing Electricity, gas, water and waste services Retail trade Finance and insurance service Administrative and support services Public administration and safety Health care and social assistance	Agriculture, forestry and fishing Electricity, gas, water and waste services Retail trade Finance and insurance services Professional, scientific and technical services Administrative support services Public administration and safety Health care and social assistance

Source: (i) Version 2 and This version: My classification; Version 1: Revised from Fair Work Commission (2020), *Information note – Update to payroll jobs and wages (week ending 17 October 2020)*, 6 November.

4 Employment by characteristics of workers and jobs

So overwhelming and extensive was the impact of COVID-19 that no group of workers or type of jobs was immune from its effects; and equally, all have benefitted from recovery. Nevertheless, the impact and extent of recovery across workers and jobs have not been uniform. Hence, describing the impact of COVID-19 on labour market outcomes by characteristics of workers and jobs is important.

Changes in the employment to population ratio by gender and hours of work are shown in Table 9. The onset of COVID-19 caused a larger negative effect on female than male employment—partly due to the industry composition of the impact but also because females were more likely than males to lose employment, controlling for the industry in which they worked. The period of recovery, however, has brought stronger growth in female than male employment. In March 2021, the female employment to population ratio was 0.47 of a percentage point higher than a year before; whereas for males the rate was 0.24 of a percentage point lower. Part-time employment was reduced more than full-time employment due to COVID-19, but has increased more during recovery.

One interpretation of changes in the employment to population ratio from March 2020 to March 2021 is that the impact of COVID-19 has largely disappeared, and pre-existing trends are reappearing—that is, faster growth in female than male employment and in part-time than full-time employment.

Table 9: Changes in employment to population ratio, persons, Australia, March 2020 to March 2021

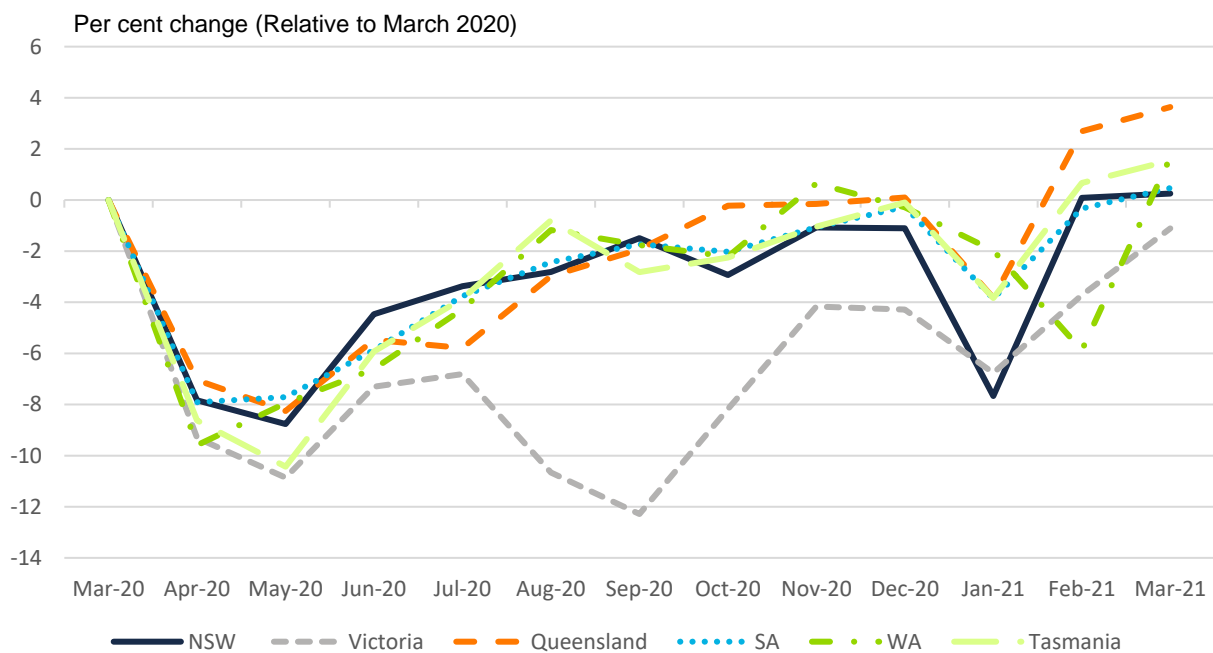
	Sub-periods		Overall March 2020 to March 2021
	March 2020 to May 2020	May 2020 to March 2021	
By gender			
Females	−4.49	+4.96	+0.47
Males	−3.97	+3.73	−0.24
By hours of work			
Full-time	−1.66	+1.50	−0.16
Part-time	−2.57	+2.87	+0.30

Note: Data are seasonally adjusted.

Source: ABS, *Labour Force, Australia*, March 2021, Table 1.

Changes in monthly hours worked per capita by state are shown in Chart 5. Generally, hours worked have evolved in a similar way between states. The main exception is Victoria, which experienced a second major lockdown from July to October 2020. By March 2021, monthly hours worked per capita were above the level from a year prior in all states except Victoria. But greater differences had emerged between states than were evident in 2020. Monthly hours worked per capita in Queensland in March 2021 were 3.6 per cent higher, in Western Australia and Tasmania about 1.5 per cent higher, and in New South Wales and South Australia less than 0.5 per cent higher. Monthly hours worked per capita in Victoria remained 1.1 per cent below.

Chart 5: Changes in monthly hours worked per capita, By state, March 2020 to March 2021



Notes: Data are seasonally adjusted.

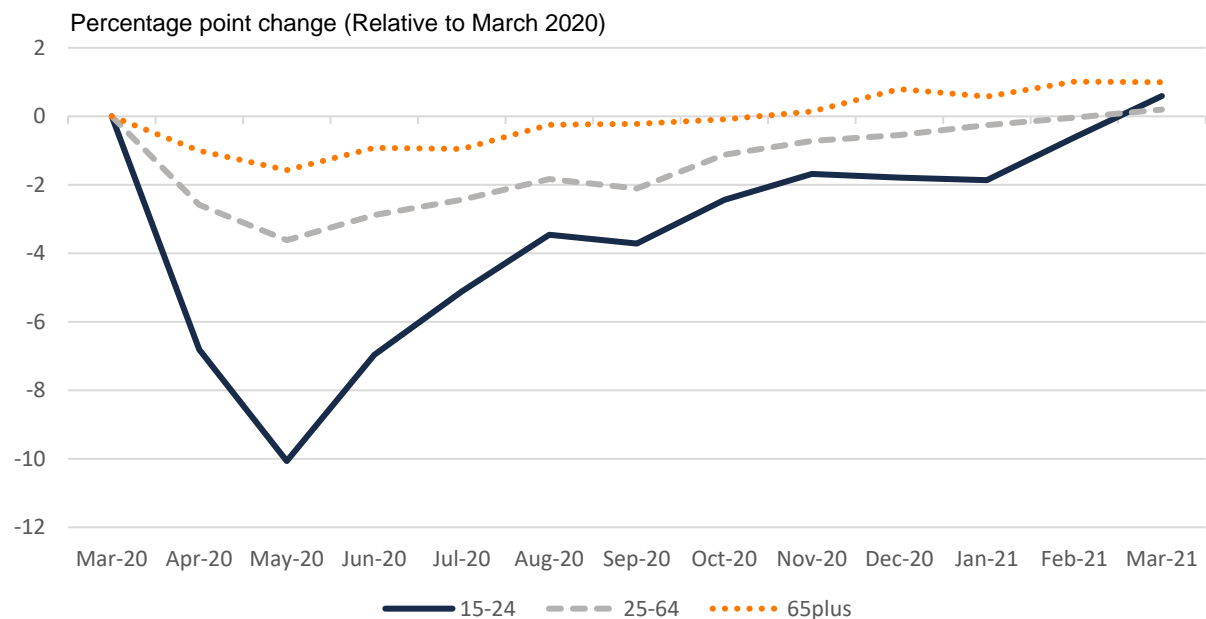
Sources: ABS, *Labour Force, Australia*, March 2021, Tables 12 and 19.

Changes in the employment to population ratio by age are shown in Chart 6. Young people were much more adversely affected by the initial impact of COVID-19. Their employment to population ratio fell by 10.1 percentage points, compared to decreases of 3.6 and 1.6 percentage points, respectively, for persons aged 25–64 years and 65 plus years. The greater negative effect on young people was due to them accounting for above-average shares of employment in the worst affected industries; and being more likely to be in casual jobs for less than a year, and hence ineligible for the JobKeeper program. With recovery, the position of young people improved more rapidly than for prime age and older workers so that by March 2021 employment to population ratios for the different age groups had largely converged back to their levels a year ago.

The overall rebound in employment outcomes for young people disguises quite different experiences between those attending and not attending full-time education. The employment to population ratio in March 2021 for those attending full-time education was 2 percentage points above a year prior; whereas for those not attending full-time education was 2.6 percentage points below.⁵

⁵ These calculations are made including a correction for seasonal influences.

Chart 6: Changes in employment-to-population ratio, by age, persons, Australia, March 2020 to March 2021



Note: Data are seasonally adjusted.

Source: ABS, *Labour Force, Australia*, March 2021, Tables 1, 13 and 18.

Changes in employment by occupation are described in Table 10 and Chart 7. Table 10 shows the per cent change in employment by major occupation group. Chart 7 shows changes in employment and actual hours worked, classifying occupations (2-digit level) on the basis of their average hourly earnings. For example, the first decile shows changes in employment and hours worked for those occupations with the 10 per cent of employees with the lowest average hourly earnings in Australia in 2019. That is, the first decile can be interpreted as showing changes in employment and hours worked for workers in the lowest-paying occupations; and in the tenth decile as showing changes in employment and hours worked for workers in the top-paying occupations.

All occupation groups experienced decreases in employment from February to May 2020; and almost all have had increases from May 2020 to February 2021. The scale of those changes, however, differed considerably between occupations. For example, large decreases and increases occurred for Community and personal service workers and Sales workers; whereas the group of Clerical and administrative workers were much less affected. Differences in the impact of COVID-19 between occupations reflected the different distribution of occupations by industry; and also that occupations involving close contact with other workers and customers, and which were unable to be done at home, had much larger employment losses than other occupations. For the year from February 2020 to February 2021, the occupation groups of Managers and Professionals experienced the largest growth in employment; and employment of Labourers remained almost 8 per cent behind.

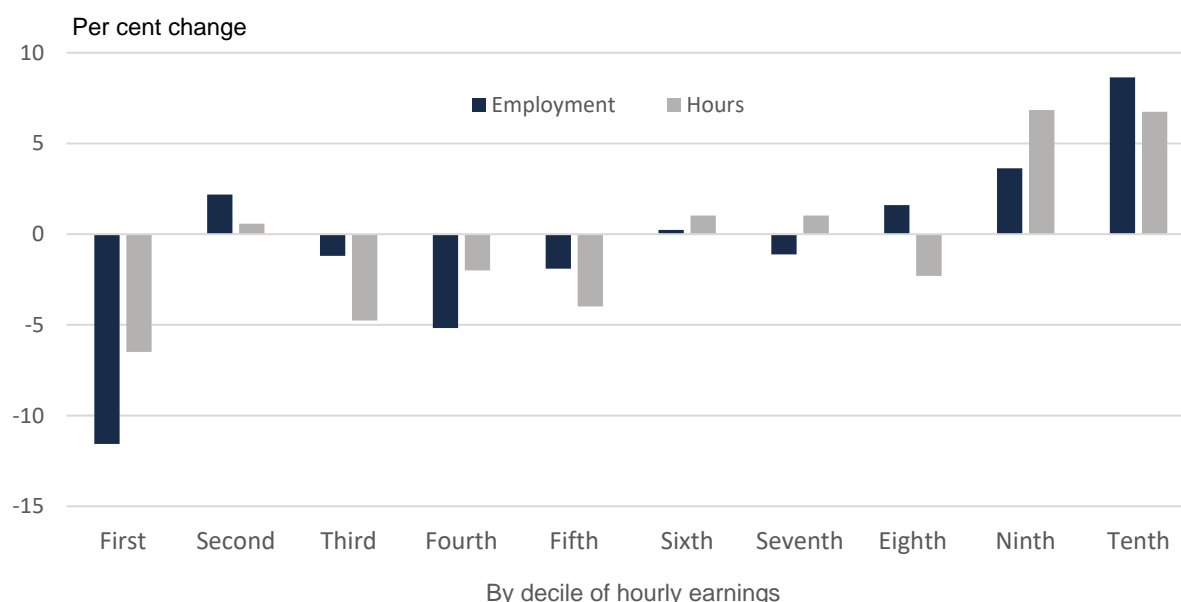
Table 10: Changes in employment, by occupation, persons, February 2020 to February 2021

	By sub-period		Overall
	February 2020 to May 2020	May 2020 to February 2021	February 2020 to February 2021
	%	%	%
Managers	-2.10	+6.62	+4.52
Professionals	-1.70	+6.30	+4.60
Technicians and trade workers	-6.04	+4.06	-1.98
Community and personal service workers	-21.91	+18.63	+3.28
Clerical and administrative workers	-0.97	-1.80	-2.77
Sales workers	-12.99	+11.71	-1.28
Machinery operators and drivers	-2.64	+5.84	+3.20
Labourers	-13.03	+5.07	-7.96

Source: ABS, *Labour Force, Australia, Detailed*, February 2021, Table 07.

Negative effects on employment over the year to February 2021 were concentrated in lower-paying occupations—especially the bottom decile where employment decreased by 11.6 per cent and actual hours worked by 6.5 per cent. Employment growth over the same period was concentrated in the highest-paying occupations, in the ninth and tenth deciles. For example, employment in occupations in the top decile for hourly pay increased by 8.6 per cent and actual hours worked by 6.7 per cent.

Chart 7: Changes in employment, by hourly earnings in occupation, February 2020 to February 2021



Note: Occupations are ordered by average hourly earnings of employees using 2-digit occupations. Each decile is constructed to include 10 per cent of employment (actual hours worked) in February 2020.

Sources: (i) Employment and actual hours worked: ABS, *Labour Force Australia, Detailed*, February 2021, EQ08; (ii) Average hourly earnings by occupation: ABS, *Characteristics of Employment*, August 2020, Tablebuilder.

Changes in employment have differed substantially between casual and permanent employees, as shown in Table 11. Casual employees initially experienced much larger decreases in employment than permanent employees; but have also had a stronger increase in employment during the recovery phase. The difference in the initial impact was due to it being easier to dismiss casual employees; and also that casual employees who had been in their jobs for less than a year were ineligible for JobKeeper. Over the year from February 2020 to February 2021, employment and actual hours worked of permanent employees grew slightly, while for casual employees decreased by 4.6 and 5.1 per cent, respectively.

Table 11: Per cent change in employment, employees by status, February 2020 to February 2021

	By sub-period		Overall
	February 2020 to May 2020	May 2020 to February 2021	February 2020 to February 2021
Persons employed			
Permanent	-2.62	+3.63	+1.01
Casual	-20.59	+15.96	-4.63
Hours actually worked			
Permanent	-6.12	+6.93	+0.81
Casual	-27.65	+22.60	-5.05

Source: ABS, *Labour Force, Australia, Detailed*, February 2021, Table 13.

5 Business performance

5.1 Revenue

The onset of COVID-19 caused decreased revenue for many businesses, but that effect receded with economic recovery. Table 12 shows impacts on revenue from July 2020 to March 2021. Almost half of businesses were still experiencing a decrease in month-to-month revenue in July 2020. However, from November 2020 onwards that proportion has been steady at about 20 to 25 per cent. An indication of an increasingly stable business environment is that the proportion of businesses where revenue remained the same month-to-month steadily increased from about 32 to 58 per cent over the period of the survey.

The pattern of changes over time in business revenue from Table 12 is also evident in data on sales reported by the ABS for 15 (out of 19) industry groups.⁶ Sales in the March quarter 2020 were 6.6 per cent above the average of the same quarter in 2017–19. Sales then dropped to 5.4 per cent below the average of the previous three years in the June quarter. In the September and December quarters, sales were, respectively, 2.5 per cent below and 1.4 per cent above the same quarter in the previous three years. That is, sales fell in the June quarter, before progressively recovering in the September and December quarters.

⁶ Sales data are from ABS, *Business Indicators Australia*, December 2020, Table 6. Industries for which sales data are reported are Mining; Manufacturing; Electricity, gas, water and waste services; Construction; Wholesale trade; Retail trade; Accommodation and food services; Transport, postal and warehousing; Information media and telecommunications; Finance and insurance services; Rental, hiring and real estate services; Professional, scientific and technical services; Administrative and support services; Arts and recreation services; and Other services. Sales are reported in current prices.

Table 12: Change in revenue over the past month, July 2020 to March 2021

	Decreased	Stayed the same	Increased
March 2021	22	58	16
February 2021	28	53	17
January 2021	31	43	20
December 2020	20	48	25
November 2020	22	49	24
October 2020	31	49	16
September 2020	38	45	13
August 2020	41	38	16
July 2020	47	32	16

Source: ABS, *Business Indicators, Business Impacts of COVID-19*, March 2021, assorted Tables.

5.2 Labour costs

Labour costs for employers decreased with the onset of COVID-19, and then rose again at the end of 2020. Table 13 presents information on total and average labour costs from the March to December quarters in 2020. A decrease in total labour costs occurred mainly due to a decrease in other related costs to employers—presumably reflecting the impact of JobKeeper payments to business. The average cost of labour per hour worked fell by 4 per cent from the March to September quarters, but then rose in the December quarter to be 0.8 per cent higher than in the March quarter.

Table 13: Payments to and costs of employees, March to December quarters 2020 (sa)

	Compensation of employees	Other related costs to employers	Total labour costs	Average labour cost per hour worked
March qtr	240 334.0	17 122.9	257 456.8	52.1
June qtr	235 169.6	-16 392.3	218 777.3	50.7
September qtr	240 482.8	-15 192.2	225 353.6	50.0
December qtr	243 973.7	6 116.8	250 090.6	52.5

Source: ABS, *Labour Accounts Australia*, December 2020, Table 1.

5.3 Profits

Business profitability improved throughout 2020 and was higher in 2020 than previous years—in aggregate and almost universally across industry groups. Table 14 shows the per cent change in gross operating surplus from the March to December quarters. Gross operating surplus for all corporations increased by 11.2 per cent, due to increases for private and public non-financial corporations. Table 15 shows the per cent change in business gross operating profits in 2020 compared to the average of 2017–19, for the 15 industry groups for which the ABS reports this measure. All industries except Finance and insurance services had increased profits in 2020 compared to the previous three years, although there is substantial variation in the extent of improvement. For example, profits decreased by 58.1 per cent in Finance and insurance services, grew by just 1.9 per cent in Information, media and telecommunications and exploded by 174.7 per cent in Other services.

Table 14: Gross operating surplus and employee compensation, Per cent change, March quarter to December quarter 2020

	March qtr to December qtr
Gross operating surplus	
Total corporations	+11.2
Private non-financial corporations	+14.0
Public non-financial corporations	+12.6
Financial corporations	+0.1
General government	+4.4
Dwellings owned by persons	+0.3
Compensation of employees	+1.54

Source: ABS, *Australian National Accounts: National Income, Expenditure and Product*, December 2020, Table 7.

Benchmarking business profits against sales provides a further perspective on the improvement in profitability in 2020. Table 15 also presents information on sales and the ratio of profit-to-sales in 2020 compared to 2017–19. The profit-to-sales ratio is a measure of the net income for a business generated by a dollar of sales. It can be interpreted as showing the efficiency with which a business earns profits.

Whereas profits increased for 14 out of 15 industries in 2020 compared to 2017–19, sales grew for only 8 out of the 15 industries. The largest decreases in sales occurred in Accommodation and food services and Arts and recreation services. The profit-to-sales ratio improved for business in 14 out of 15 industries in 2020 compared to 2017–19. Some of the increases are large—such as about 100 per cent in Other services, Accommodation and food services and Arts and recreation services. This implies that businesses in these industries were earning twice the amount of profits on each dollar of sales in 2020 compared to 2017–19.

Table 15: Business performance, By industry, Per cent change, 2020 compared to average of 2017–19 (current prices)

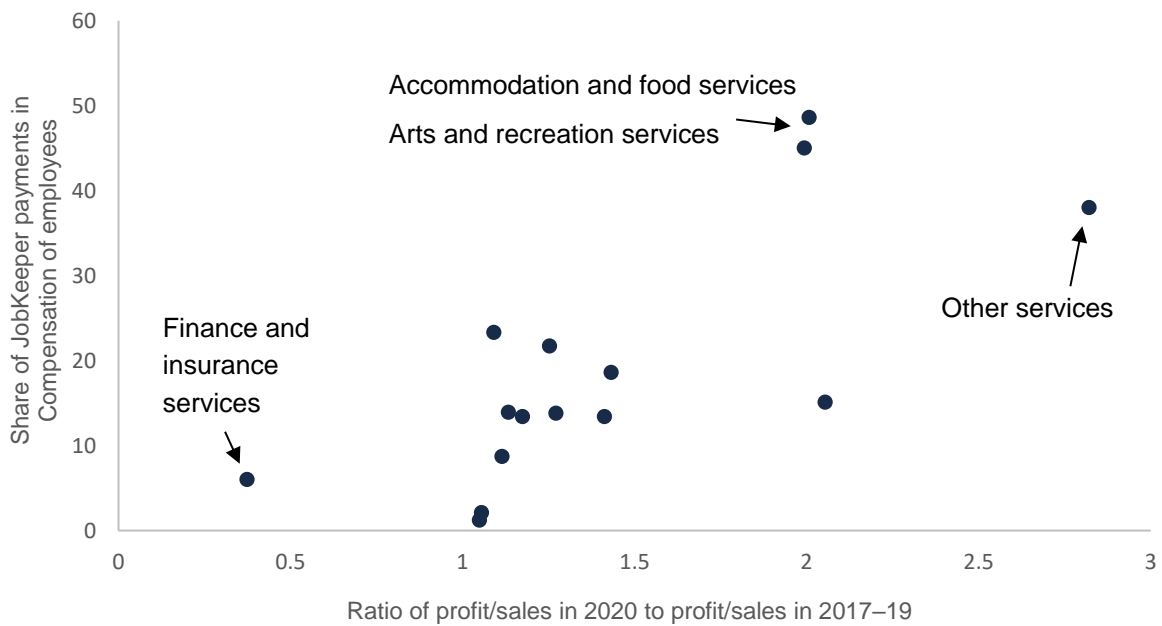
	Business gross operating profits	Sales	Profit-to-sales ratio
Mining	+15.1	+9.7	+4.9
Manufacturing	+19.3	+1.6	+17.4
Electricity, gas, water and waste	+3.5	-2.0	+5.5
Construction	+36.6	-4.6	+43.2
Wholesale trade	+27.6	+0.3	+27.2
Retail trade	+30.4	+4.1	+25.3
Accommodation and food services	+66.7	-16.4	+99.3
Transport, postal and warehousing	+1.8	-10.2	+13.3
Information, media and telecommunications	+1.9	-8.6	+11.5
Finance and insurance services	-58.1	+12.0	-62.7
Rental, hiring and real estate services	+6.8	-2.1	+9.1
Professional, scientific and technical services	+52.2	+7.7	+41.3
Administrative and support services	+87.3	-8.9	+105.4
Arts and recreation services	+67.0	-16.8	+100.1
Other services	+174.7	-2.6	+182.1

Source: ABS, *Business Indicators*, December 2020, Tables 6 and 15.

Changes in the profit-to-sales ratio by industry between 2020 and the previous three years can largely be explained by government COVID-19 related support to business in 2020. Chart 8a shows the industry-level relation between the per cent change in the profit-to-sales ratio and JobKeeper payments as a share of employee compensation. Chart 8b shows the industry-level relation between the per cent change in the profit-to-sales ratio and Boosting Cash Flow to Business payments as a proportion of gross operating surplus. Positive relations can be seen between the change in an industry's profit-to-sales ratio and both measures of government support: from JobKeeper and the Boosting Cash Flow to Business program.

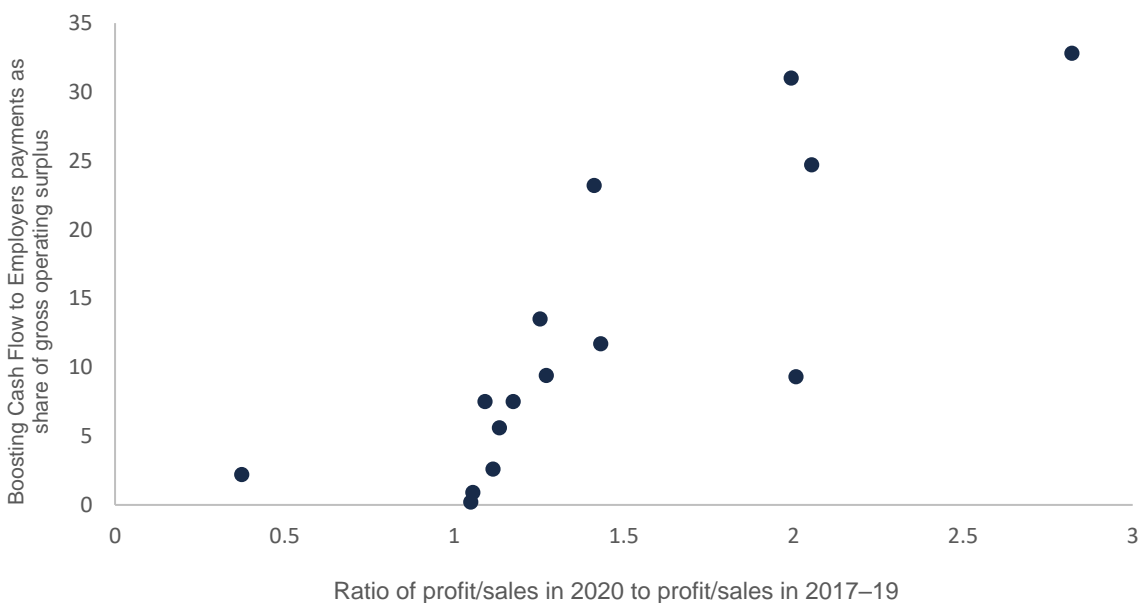
Regression analysis, reported in Appendix Table 1, confirms a strong association between the change in profit-to-sales ratio by industry and government support payments in 2020. Over 70 per cent of the change in industry-level profit-to-sales ratios from 2017–19 to 2020 is explained by industry-level variation in JobKeeper payments and Boosting Cash Flow to Employers payments. A similar finding is obtained when the measures of government support are used to explain changes in industry-level profitability from 2017–19 to 2020.

Chart 8a: Ratio of profit-to-sales in 2020 to profit/sales in 2017–19 and Job Keeper payments as a share of compensation of employees, By industry



Sources: (i) Ratio of profit/sales in 2020 to average profit/sales in 2017–19: ABS, *Business Indicators*, Tables 6 and 15; and (ii) Job Keeper payments relative to Compensation of employees – ABS, *Government support for Business*, Figure 2; accessed at: <https://www.abs.gov.au/articles/government-support-business#jobkeeper-payments-by-industry>

Chart 8b: Ratio of profit-to-sales in 2020 to profit-to-sales in 2017–19 and Boosting Cash Flow to Employers payments as a share of gross operating surplus, By industry

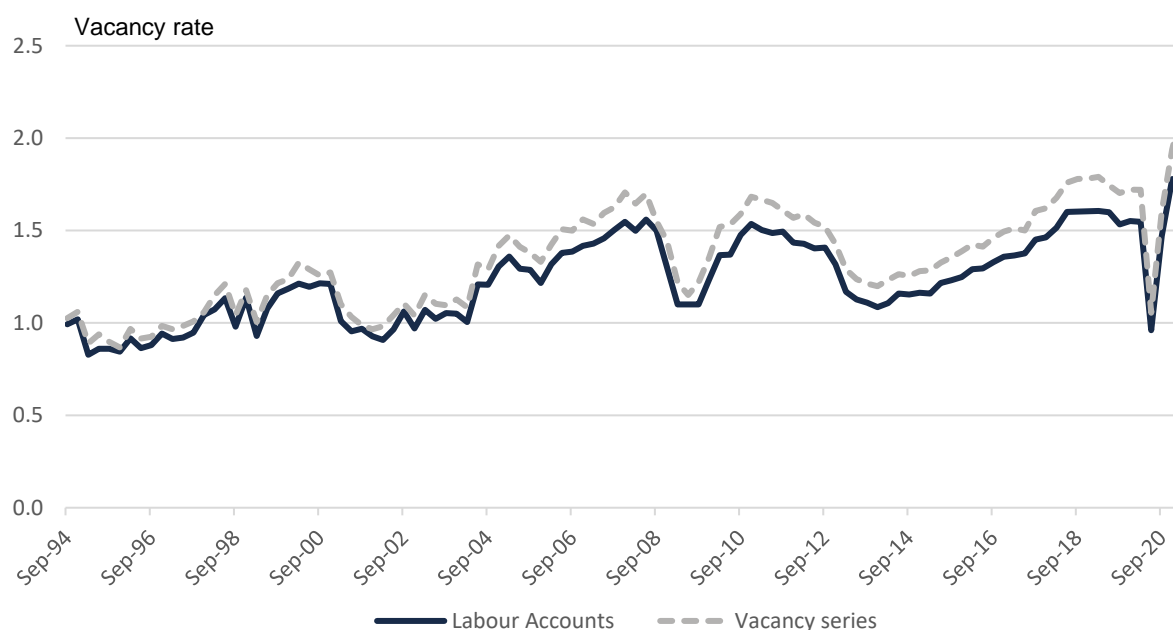


Sources: (i) Ratio of profit/sales in 2020 to average profit/sales in 2017-19: ABS, *Business Indicators*, Tables 6 and 15; and (ii) Boosting Cash Flow to Employers payments relative to gross operating surplus – ABS, *Government support for Business*, Figure 3; accessed at: <https://www.abs.gov.au/articles/government-support-business#jobkeeper-payments-by-industry>

6 Labour market churning

A notable development in the Australian labour market in late 2020 and early 2021 has been a strong upward movement in the vacancy rate. That movement can be seen in Chart 9, which shows quarterly data on the vacancy rate from the mid-1990s onwards. After rapidly decreasing with the onset of COVID-19, the vacancy rate has then steadily increased—and is currently at a higher level than at any time for which data are available.

Chart 9: Vacancy rate, Australia, 1994 quarter 3 to 2021 quarter 1



Note: (i) Labour Accounts series – Proportion of unfilled jobs: (ii) Vacancy series – Vacancy rate = (Number of vacancies)/(Number of vacancies + Number of persons employed). Data are seasonally adjusted.

Sources: (i) Labour Accounts – ABS, *Labour Accounts Australia*, December 2020, Table 1; (ii) Vacancy series – Number of vacancies: ABS, *Job Vacancies Australia*, February 2021, Table 1; Employment, ABS, *Labour Force, Australia*, March 2021, Table 1.

A further perspective on the increase in the vacancy rate can be obtained from the Beveridge curve. The Beveridge curve has been described as a ‘... production possibility frontier for the job matching capabilities of the labor market, where the rate at which job seekers are matched to job openings depends primarily on the ratio of the vacancy rate to the unemployment rate’ (Daly et al., 2012, p. 7).⁷

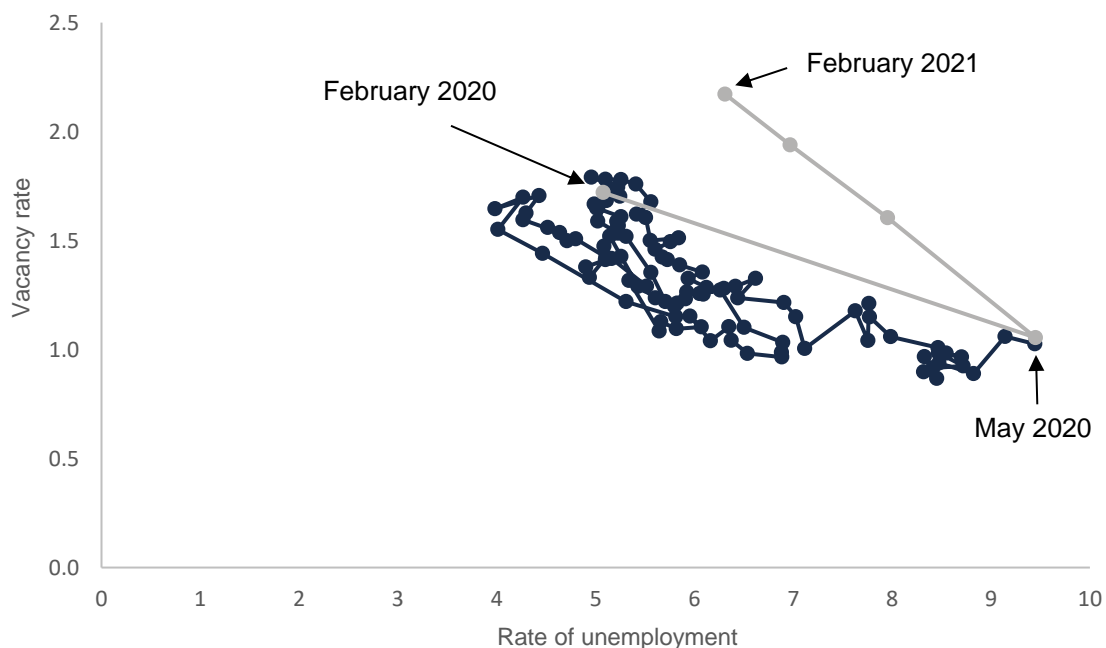
Chart 10 shows a Beveridge curve for Australia from the mid-1990s onwards. The grey sections of the curve show quarterly observations from February 2020 to February 2021. The downward and then upward movement of observations over this period are consistent with the initial downturn in economic activity caused by COVID-19, followed by recovery. It is also the case, however, that the most recent observations involve combinations of the vacancy rate and rate of unemployment that are higher than has previously been observed.

There are two main explanations for why the Beveridge curve appears to have ‘shifted outwards’ in 2020–21. First, this movement can be consistent with regular labour market adjustment to rapid

⁷ Daly M, Hobijn B, Sahin A and Valletta R (2012), ‘A search and matching approach to labor markets: Did the natural rate of unemployment rise?’, *Journal of Economic Perspectives*, Summer, 3-26, p. 7.

changes in economic activity, such as has occurred due to COVID-19 during 2020–21. Second, the movement may reflect a change in ‘matching efficiency’—the speed with which jobseekers are matched to vacant jobs. For example, a decline in matching efficiency implies workers have more difficulty finding jobs at any given level of vacancies so that there will be an outward shift of the Beveridge curve. Of these two potential explanations, at present it is the first explanation—that the increased vacancy rate has occurred as a result of the rapid speed of labour market recovery from the impact of COVID-19, that seems much more plausible.

Chart 10: Relation between the rate of unemployment and vacancy rate (Beveridge curve), Australia, 1994 quarter 3 to 2021 quarter 1



Notes: The rate of unemployment for 2020–21 has been adjusted to reclassify as unemployed persons who in the LFS were counted as employed but who worked zero hours due to having ‘no work, not enough work, or stood down’. The number who are reclassified is the difference between the number in 2020–21 and the average number in the same month in the previous five years. Data are seasonally adjusted.

Sources: (i) Rate of unemployment: ABS, *Labour Force, Australia*, March 2021, Table 1; (ii) Vacancy rate: Vacancy series from chart 9, ABS, *Job Vacancies Australia*, February 2021.

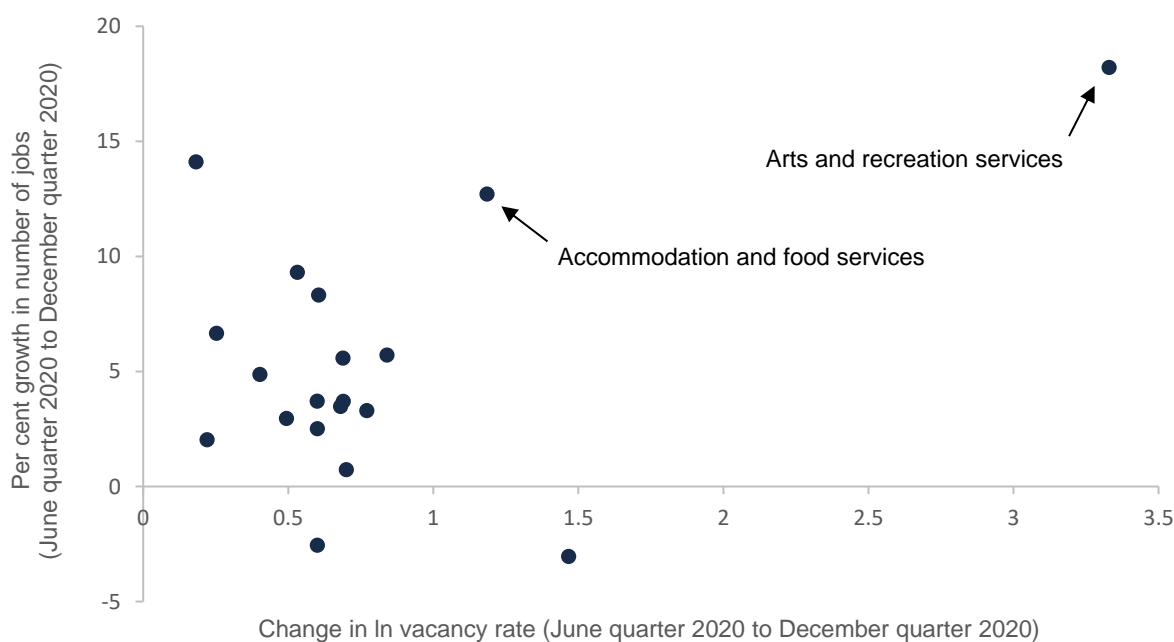
The recent pattern of movement in the Beveridge curve in Australia is what is predicted during the initial phase of economic recovery by standard labour market models (Cahuc and Zylberberg, 2004).⁸ The hiring process—matching jobseekers to jobs—takes time. Hence, in the initial phase of a recovery, increases in vacancies can run ahead of the capacity to fill them, so there is a relatively large increase in the vacancy rate and smaller relative decrease in the rate of unemployment. Eventually, hiring catches up and there is a phase during which both the vacancy rate and rate of unemployment decrease. When economic recovery happens very quickly—as has occurred with COVID-19—the experience of vacancies running ahead of hiring will be most pronounced. In the

⁸ Cahuc P and Zylberberg A (2004), *Labor Economics*, MIT Press, pp. 547–48.

initial stage of recovery there will appear to be an outward movement of the Beveridge curve, as has occurred.

Supporting evidence for this explanation is that industry-level changes in the vacancy rate since mid-2020 are correlated with the rate of growth in jobs in those industries. This can be seen in Chart 11. For example, industries such as Accommodation and food services and Arts and recreation services, which had the largest increases in vacancy rates from the June to December quarters in 2020, also had relatively large increases in jobs growth in the same period. Regression analysis, reported in Appendix Table 2, finds a significant positive relation between the change in the industry-level vacancy rate and industry-level employment growth.

Chart 11: Changes in vacancy rate and rate of growth in jobs, By industry, June quarter 2020 to December quarter 2020



Source: ABS, *Labour Accounts Australia*, Tables 2 to 20.

A decrease in matching efficiency can occur for several reasons. First, it may reflect a structural factor, such as an increased level of mismatch between skills required to do vacant jobs and skills possessed by jobseekers; or a decrease in immigration that causes shortages of workers needed for some jobs. Second, it may be due to an increase in employers' hiring standards or a decrease in intensity of job search by jobseekers. At present, there is no evidence to support a decrease in matching efficiency as an explanation for the increased vacancy rate in Australia.

Increased mismatch does not seem a viable explanation for the increase in vacancy rate since it has occurred for all industries. A decrease in immigration to Australia due to COVID-19 may be an explanation for the higher vacancy rate in some industries—for example, Accommodation and food services has had a large increase in its vacancy rate and is also an industry where a relatively large proportion of the workforce are immigrants who arrived in Australia in the past five years (about 14 per cent in 2019). But the extent of reliance on recent immigrants cannot explain the overall pattern of increased vacancy rates by industry. Regression analysis, reported in Appendix Table 2, finds no significant relation between industry-level increases in vacancy rates from the June to December quarters in 2020 and the proportion of an industry's workforce accounted for by immigrants who arrived in Australia in the past five years. Finally, there is no evidence that employers' hiring

standards or job search intensity of job seekers have changed in recent times. For example, since the amount of JobSeeker payment was decreasing during the time when the vacancy rate in Australia has been increasing, that would have been expected to cause an increase in job search intensity.

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Appendix

Table A1: Determinants of per cent change in profit/sales and profits in 2020 compared to 2017-19

	Profit/ Sales		Profits			
	(1)	(2)	(3)	(4)	(5)	(6)
JobKeeper payments as share of Compensation of employees	0.030 (0.008)		0.015 (0.007)	0.023 (0.008)		0.007 (0.007)
Boosting cash flow for employers payments as a share of gross operating surplus		0.045 (0.009)	0.032 (0.010)		0.040 (0.008)	0.034 (0.010)
Constant	0.854 (0.177)	0.873 (0.137)	0.747 (0.139)	0.924 (0.180)	0.869 (0.120)	0.810 (0.135)
Adjusted R-squared	0.547	0.650	0.715	0.358	0.662	0.660
Observations	15	15	15	15	15	15

Note: Standard errors in parentheses

Table A2: Determinants of change in vacancy rate, By industry, June quarter 2020 to December quarter 2020

	(1)	(2)	(3)
Per cent growth in number of jobs	0.055 (0.028)		0.070 (0.029)
Immigrants who arrived in past 5 years as share of employment		-2.161 (5.22)	-6.681 (5.03)
Constant	0.486 (0.211)	0.890 (0.307)	0.739 (0.280)
Adjusted R-squared	0.133	-0.048	0.171
Observations	19	19	19