Australia's Economic Wellbeing

December 2021

SGS Economics & Planning

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Contents

List of figures

Highlights of this report

The recovery in Agriculture kept regional Victoria out of recession while Melbourne's growth continued to decline. Without this Agricultural recovery, the rest of NSW and Queensland would have also fallen into recession.

The regions that saw fewer lockdowns – regional New South Wales, Brisbane and rest of Queensland, Adelaide and rest of SA and Perth, plus Tasmania, NT and ACT, saw some recovery in Accommodation and Food Services, as restaurants and hotels reopened. In most cases, growth was subdued due to the constraints on tourism.

The increase in unemployment was modest compared to the fall in GDP in locked down regions, as those who had lost their jobs dropped out of the labour force rather than hunt for work. This was likely driven by two factors – the absence of any new jobs to go to as businesses closed their doors in lockdown and the inability to travel for work; and the impact of the JobSeeker supplement and removal of requirements for recipients to seek work.

Greater Sydney and Rest of New South Wales

Greater Sydney recovered from the 2019-20 pandemic recession with growth of 1.7 per cent, of which 0.6 per cent was from Health Care and Social Services and 0.5 per cent was Finance and Insurance Services. The second half of 2021 is likely to show slower growth, due to lockdowns to slow the spread of the Delta outbreak resulting in falls in labour force participation from 80.3 per cent in June to 73.4 per cent in September 2021.

Rest of New South Wales' growth was a more modest 0.8 per cent. The driver of this growth was the recovery in Agriculture after improvements in rainfall after the earlier droughts and bushfires. Agriculture, Forestry and Fishing contributed 1.1 per centage points to Rest of NSW's economic growth from 2020-21 – without this, regional NSW's overall economy would have declined for a second year in a row.

Greater Melbourne and Rest of Victoria

Victoria's economy declined in 2020-21, falling by 0.4 per cent, due largely to COVID restrictions. When economic activity is disaggregated down to capital city/balance of state level, Melbourne's economy experienced a decline of 1.6 per cent while the rest of Victoria's economy grew by 4.3 per cent.

Melbourne's economy was hit particularly hard by the fall in Transport, Postal and Warehousing and Administrative Services. Most cities and regions saw a decline in these industries, but these industries each contributed to 0.5 per cent declines in growth – a significant downturn. This is due to the decline in tourism due to interstate border controls and local lockdowns – domestic tourism expenditure in Victoria fell by 33.6 per cent in the year to 2021 compared to the year 2019, while all other states managed to show at least modest growth, notwithstanding restrictions.

Regional Victoria had been hit hard in 2019-20 with bushfires and drought on top of the first stage of the pandemic, so the only way to go was up. Improved rainfall and growing conditions allowed Agriculture to contribute to 1.5 per cent of Regional Victoria's GDP growth. Health Care and Social Assistance contributed to 1.1 per cent of growth with the pandemic response, and Real Estate grew after the declines of previous years.

Greater Brisbane and Rest of Queensland

Regional Queensland managed to show positive economic growth last year while Brisbane suffered a sharp drop in GDP; this year, the tables have turned and Brisbane has grown by a strong 3.9 per cent while regional Queensland grew by a much slower 0.8 per cent.

Like other cities and regions, Brisbane showed Health and Aged Care and Public Administration as major drivers of recovery, with Administrative Services and Transport, Postal and Warehousing continuing the decline that commenced with COVID-19 travel restrictions in early 2020.

Agriculture was responsible for keeping Regional Queensland's economy in positive growth, contributing 0.8 per cent to its economic growth, cushioning the losses to the regional economy of declines in Mining of -1.1 per cent and Transport of 0.7 per cent.

Greater Adelaide and Rest of South Australia

South Australia had the strongest growth of all the States and Territories at 3.9 per cent, driven by the strong recovery in Agriculture and growth in Manufacturing. Adelaide grew by 2.4 per cent, supported by growth in Professional Services, Finance and Retail Trade, and Rest of South Australia grew by 8.5 per cent – the highest rate of economic growth in any city or region in Australia – boosted by 3.8 per cent from Agriculture.

Greater Perth and Rest of Western Australia

Both Perth and Western Australia showed signs of modest recovery after COVID-19, with growth of 3.3 per cent in Perth and 1.5 per cent in Rest of WA, with the strongest drivers of growth coming from outside of Mining. Perth's economic growth was driven by Health, Mining and Manufacturing, while the major driver of growth in the rest of WA was Agriculture, which added 0.7 per cent to its regional growth.

Tasmania

Tasmania's economy rebounded strongly, growing 3.8 per cent for the 2020-21 financial year, faster than Australia as a whole. The major driver for Tasmania's economic growth was Agriculture, Forestry and Fishing, which was responsible for approximately half of Tasmania's growth. Growth in Health and Aged Care also supported the economy.

Northern Territory

Northern Territory's economy went into reverse after strong growth in 2019-20, falling by 0.6 per cent. Mining represents around a quarter of the Northern Territory's GVA, ensuring that any large shifts in Mining production will have a large impact on the NT economy.

Australian Capital Territory

After the need for additional public sector employment in the first phase of the COVID response in the first half of 2020, the need for public sector action to support unemployed people and distressed businesses declined in 2020-21, and so the economy grew by a comparatively slower 2.8 per cent. Public Administration and Professional Services were the main drivers of this growth. While the ACT saw a comparatively low drop in labour force participation during the first wave of COVID lockdowns, the labour force shock from the second wave of lockdowns in the ACT from August 2021 was far more severe, with participation falling to 79 per cent and unemployment rising to 6.2 per cent -- the highest unemployment rate in the ACT since 1999.

1. Introduction

SGS Economics and Planning (SGS) is an employee-owned public policy consultancy and certified B Corp. Our evidence-based insights help government, business and community leaders understand how places and economies function, assess what projects and programs work, and plan future places and precincts. Beyond advisory services, we hold workshops and courses to share knowledge collaboratively.

Estimates of economic activity

SGS has published Australia's Economic Wellbeing (formerly Economic Performance of Australia's Cities and Regions) for the past 11 years to fill a void in economic policy research. GDP data at the national and state level hides much of the industry and location-specific differences experienced. This publication, interactive map and dashboard show major city and region estimates of Gross Regional Product (GRP) nationally. This is a regional breakdown of the more familiar Gross Domestic Product (ABS, 2021) (GDP) which provides a measure of economic activity. The research contributes to exploring the economic challenges faced in locations.

SGS Economics and Planning began this research into small area estimates of GDP to highlight that headline numbers in economic growth mask significant variation in growth across our cities and regions. It set out to highlight that while some areas were growing rapidly and had high incomes, others were falling behind.

Employment

Some form of employment is important to wellbeing for most people of working age. Households need some form of income, but wellbeing benefits go beyond that. Feeling that one has made a contribution to society is important for wellbeing, and having done something of value for income received, is part of the importance. While most people will spend part of their lives making a contribution in ways other than employment – for example, raising children, caring for sick, disabled or elderly, volunteer work, creating art or studying – working for income is an important part of most people's contribution and sense of self. In locations where jobs are scarce, participation rates are low and unemployment is high, residents are also likely to have lower levels of wellbeing.

This report draws on three indicators of employment:

- Australian Bureau of Statistics' Weekly Payroll Jobs and Wages in Australia series, which estimates payroll jobs and wages from Single Touch Payroll (STP) data provided to the Australian Taxation Office (ABS, 2021).
- Australian Bureau of Statistics' Labour Force, Australia, Detailed, based on a representative survey of labour force engagement (ABS, 2021)
- Small Area Labour Markets (SALM) estimates of unemployment and labour force participation at the LGA level (National Skills Commission, 2021)

This latest edition expands on traditional measures of economic wellbeing. As well as highlighting the distribution of GDP across cities and regions of Australia as previous reports have done, it also highlights small area economic and social indicators that contribute to wellbeing.

Employment engagement by gender

The benefits and costs of employment are not always evenly shared by gender. National patterns of employment show that men are more likely to work full time, women part time and women are more likely to be out of the labour force. Often this is by choice; for example, couples deciding that a father working full-time while the mother is out of the labour force caring for children is the optimum arrangement for their household. However, in some cases, a local area gender imbalance may be due to a lack of employment options in the area across a mix of industries, child care, transport or cultural factors. This has been particularly significant over the last two years, as when State and Territory government COVID-19 restrictions have involved school closures, women have often had to care for children; and women were more likely to hold casual positions that were the first to be cut back when lockdowns were implemented.

SEIFA indexes

The SEIFA (Socio-Economic Indexes for Areas) are developed by the Australian Bureau of Statistics that rank areas according to relative socioeconomic advantage and disadvantage. While this report does not discuss these indicators at length, the SEIFA indexes are presented in the dashboard to allow for a comparison of the socioeconomic circumstances of different areas.

Dashboards and small area maps

These small area estimates are too detailed to properly present in a classic report format. This report focuses on these indicators at the Greater Capital City Statistical Area (GCCSA) level. Detailed estimates can be found at https://www.sgsep.com.au/projects/australias-economic-wellbeing, which allows the user to search for maps and tables at the SA4 and LGA level.

This research project is self-funded by SGS and managed by Marcia Keegan, Julian Szafraniec and Kishan Ratnam. Future years will expand on the indicators of wellbeing in the online dashboard.

Marcia Keegan

Julian Szafraniec

Kishan Ratnam

Economic development is measured in terms of income and employment as well as improvements in education, health, culture, community wellbeing and the environment. Our research methodology recognises that economic development is a continuous process of growing an area's level of income and capital and how this income and capital are distributed among the community. This is a focus on economic wellbeing. The data reports on the performance of cities and regions and the implication of the overall wellbeing of places, communities and economies.

The purpose of economics

The primary purpose of economics is to enhance wellbeing of persons[1]. For most of the 20th and 21st centuries, economists have assumed levels of employment and production within an economy to be the best markers for determining the overall welfare of its population. The use of these indicators has presided over significant improvements in living standards and reductions in rates of absolute poverty across the world. As a result, "although wellbeing may be the ultimate objective, policy priorities typically focus on achieving higher economic growth as the best means for expanding wellbeing in the long-term."[2]

However, it is increasingly recognised that although improvements to GDP, unemployment, productivity for example are suitable for measuring material progress, they are less capable of accounting for people's welfare beyond the marketplace.[3]

Immediately following the Global Financial Crisis, "The Commission on the Measurement of Economic Performance and Social Progress" was formed in France to identify the limits of GDP as a comprehensive measure of economic and social progress. This appointment was made in response to a growing deficit between standard measures of socio-economic progress and widespread perceptions, deemed universal enough to be unexplained simply by money illusion[4].

The Commission's report provides several potential reasons for this misalignment (summarised on page 8 of the report). One of the report's key conclusions is that we make decisions based on what we measure, how good our measurements are, and how well we interpret them[5].

From this, *wellbeing economics* has developed as a framework for better measuring socio-economic progress and the overall prosperity of a society, using new metrics to complement traditional measures of macroeconomic progress.

Wellbeing economics

Wellbeing economics is foremost about measuring societal success and representing the true civic interest in policymaking decisions.

The wellbeing economics agenda is not anti-growth; as stated by Stiglitz et al. (2018), the use of a better 'dashboard' of indicators would likely result in higher GDP growth rates.

Existing examples of indicators/indexes which offer more 'wellbeing' focussed alternatives to standard economic measurements:

- The UN's Human Development Index (HDI) which combines life expectancy, education and GNI per capita indexes.[6]
- The OECD's 'Better Life Index' which accounts for a range of topics, including housing, employment, education and environment.[7]

This report has focused on economic wellbeing, as measured by GDP (Australia-wide) and GRP (regional economic performance). This is because the economic impacts of COVID-19, and the policy response, have been the most significant shock to the economy in decades and are worthy of focus. Additonal indicators across employment and SEIFA expand on the understanding of the impact of changes in GRP in regions.

[1] Fox, J 2012, 'The Economics of Well-Being', Harvard Business Review, https://hbr.org/2012/01/the-economics-of-well-being
[2] Bache, I, Scott, K, Allin, P 2018, 'Wellbeing in Politics and Policy', https://link.springer.com/content/pdf/10.1007 per cent2F978-3-319-93194-4.pdf
[3] Stiglitz, J, Fitoussi, J & Durand, M 2018, 'Beyond GDP: Measuring What Counts for Economic and Social Performance', OECD, https://doi.org/10.1787/9789264307292-en.
[4] Stiglitz, J, Sen, A & Fitoussi, JP 2009, 'Report by the Commission on the Measurement of Economic Performance and Social Progress', http://files.harmonywithnatureun.org uploads/upload112.pdf
[5] Stiglitz, J, Sen, A & Fitoussi, JP 2009
[6] United Nations Development Programme 2020, Human Development Index (HDI), http://hdr.undp.org/en/content/human-development-index-hdi
[7] OECD n.d., 'What's the Better Life Index?', http://www.oecdbetterlifeindex.org/about/better-life-initiative/

2. National snapshot

The last two years have been a rollercoaster – the devastation of COVID-19 outbreaks and lockdowns alternating with the exuberance of elimination of the virus and economies opening – only for outbreaks to occur and cities and regions move back into lockdown again.

Over the 2020-2021 financial year, economic wellbeing across Australia has been a patchwork of devastation and relative comfort.

The second half of 2020 – recovery for some regions, further declines for others...

Throughout the second half of 2020, Queensland, Western Australia and the smaller states and territories managed to stay relatively free of COVID-19 (covid19data, 2021), thanks to tightly closed national borders, hotel quarantine and restrictions on arrivals from states and territories with active infections. Victoria was hit hard by a second wave COVID-19 outbreak and endured strict lockdowns, opening up before December 2020. While NSW remained relatively open through to November, an outbreak managed with localised restrictions prevented some families from having the big Christmases they had hoped for after a difficult year.

The first half of 2021 - when we thought normalcy had returned

In the first half of 2021, Australia's international border closure, hotel quarantine and test and trace systems seemed to be working well to control the spread of COVID-19. Children were back at school. Shops were opening, sport was on, interstate travel was occurring. Infections were mostly confined to returning overseas travellers in hotel quarantine. Occasionally cases occurred in the local community with infections caught by people working with international arrivals or people who had left hotel quarantine later found to have the virus, but these were managed through short, localised lockdowns – typically only a few days to prevent the virus from spreading. Only 169 locally acquired cases occurred across the country between 3 January 2021 and 20 June 2021, and only one person died of COVID in Australia for the first six months of the year – an overseas arrival from hotel quarantine (covid19data, 2021). Vaccines were administered from February 2021, and the opening of the trans-Tasman bubble in April 2021 – allowing travellers to move between Australia and New Zealand without an exemption or hotel quarantine (Richards, 2021) – allowed a sense of hope that life was returning to normal.

The second half of 2021 - half the country in lockdown, half in relative normalcy and the race to vaccinate

These hopes were dashed in late June 2021. An outbreak in Sydney of the new, more contagious Delta variant of COVID-19 spread through Greater Sydney. Localised lockdowns and restrictions on travel were unable to control it, leading to new lockdowns and the associated economic social shocks in Greater Sydney were more widespread than regional New South Wales. On 3 July, only 30 per cent of Australians had received one dose of the vaccine, and fewer than nine per cent were fully vaccinated (Ting, Shatoba, & Palmer, 2021). Without vaccine protection, the Delta variant spread rapidly in Sydney and New South Wales.

Other states and territories closed their borders, but the virus took root in Victoria in late July and despite attempts to control the spread, took off in August; and started spreading in the ACT in mid-August, which in turn re-entered lockdown. The three affected states faced a race to roll out the vaccine ahead of the virus' spread. Vaccination rates of the infected states eventually overtook the spread, and case numbers have dropped dramatically from their peaks. At the time of writing, international borders are re-opening, parties are happening and a trip home to see relatives interstate and overseas for Christmas is no longer a dream.

At the time of writing, the potential impacts of the new Omicron variant are uncertain.

How has this affected us?

The shock of the pandemic in the 2020-21 financial year and their impact on Australia's wellbeing is significant. Some businesses closed by lockdowns will never open their doors again. International students, backpackers and workers on temporary visas were thrown into financial destitution by lockdowns – their jobs disappeared, they could not travel to find new work and they were not entitled to income support. Workers deemed 'essential' who could still go to work faced the risk of catching the virus at work and bringing it home to their families – in fact, some of the regions with the highest numbers of COVID infections had a high share of essential workers and a high share of large households (Holloway, Szafraniec, Hoang, & Keegan, 2021). The relatively lucky workers who were able to do their jobs from home often had to work in unsatisfactory conditions, crammed into sharehouses or juggling home schooling, child care and work. Students' schooling has been interrupted and major milestones have been missed.

Yet, there have been positives. The JobSeeker supplement, which boosted Newstart by $550 per fortnight (Australian Treasury, 2020) boosted the economic wellbeing of people without work. Items that had previously been unaffordable could be purchased, until it was phased out and withdrawn completely in March 2021. The requirement to work from home where possible has forced businesses to reconsider the need for employees to be in the office every day, and commenced a trend towards working at home one or two days per week, reducing commuting costs and improving wellbeing of workers. Some workers and firms have decided to work from home permanently, saving business costs on rent and allowing workers to live in cheaper regional towns where they are able to access more affordable homes. . Companies were forced to get the hang of conducting business over Zoom calls now realise that they don't need to go back to pre-COVID-19 levels of business travel, reducing travel costs and greenhouse gas emissions.

It will take some months or years of normalcy to understand how many of these changes will be temporary and how many will continue as society recovers from the pandemic.

2.1 Cities and regions in lockdown declined, others rebounded

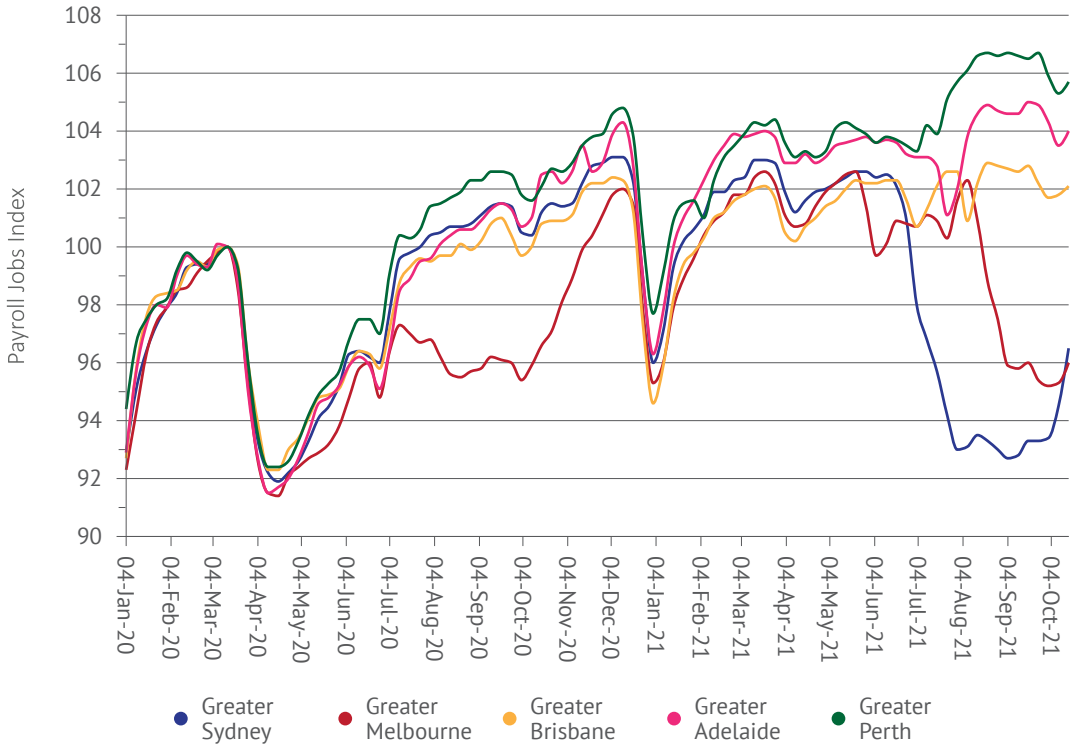
Employment, economic growth and industry growth indicators clearly show where the lockdowns were and the industries that were restricted. They also show where closures in some states, have implications for other locations – for example limiting tourism and access to markets.

Employment

The timing of lockdowns across Australia clearly lines up with the ABS' Payroll jobs Index. Figure 1 shows the movement of payroll jobs in Australia's five largest capital cities. All showed sharp drops following the first lockdowns in March 2020, then growth in jobs cautiously recommenced as economies gradually opened up. The exception was Melbourne, struggling under a second wave outbreak and associated lockdowns to October 2020. As the Melbourne outbreak was brought under control and restrictions eased, Melbourne's jobs growth joined that of the other large capitals, with more employment in the five major capitals in the leadup to Christmas 2020 than before the outbreak. Employment remained steady in these cities for the first half of 2020, then employment fell sharply in Sydney when their Delta wave hit, to be followed a month later by Melbourne. In avoiding significant lockdowns, Brisbane continued to grow over the second half of 2021, while employment growth in Perth and Adelaide grew even faster.

(Note that drops in employment during late December and early January are due to Christmas holidays and occur every year and are unrelated to the pandemic or general economic conditions).

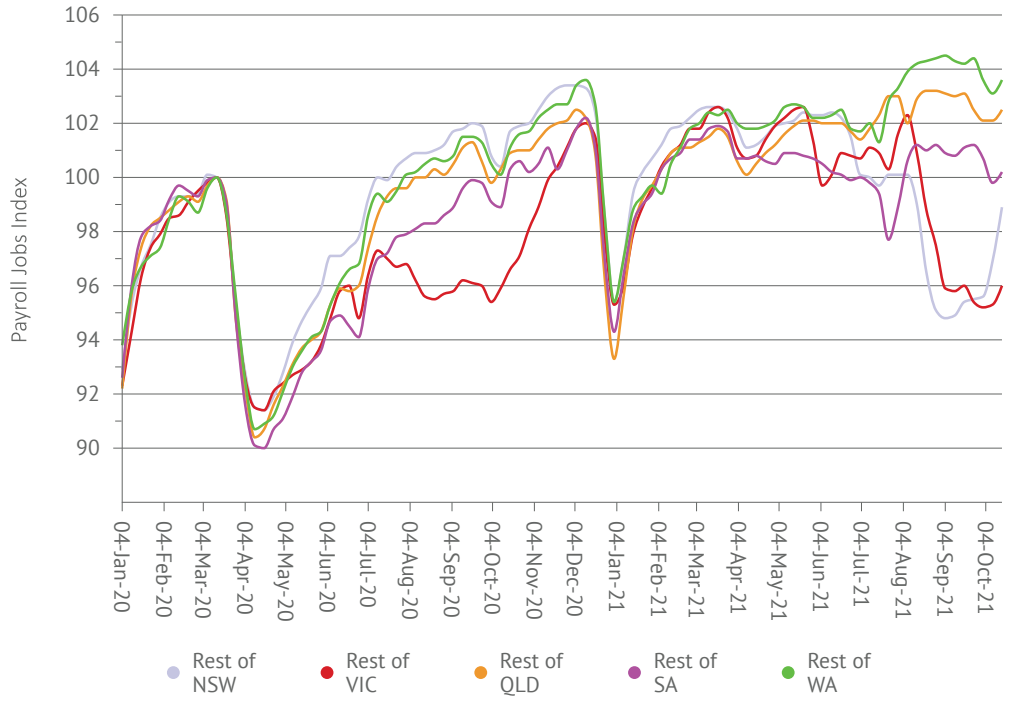
Figure 1: Payroll Jobs Index for Australia's Five Major Capitals



Source: ABS, 2021

Figure 2 shows payroll jobs growth in the regions of Australia's five largest states. These showed the same sharp drop following March 2020 as the capital cities, and the same gradual regrowth. Regional Victoria did not experience the same brake on payroll jobs growth as Melbourne, as the second wave of COVID and associated restrictions were less severe in Regional Victoria. Likewise, the decline in jobs in Regional NSW during the Delta second wave was less than that of Greater Sydney.

Figure 2: Payroll Jobs Index for Most Populous Balance of State Areas

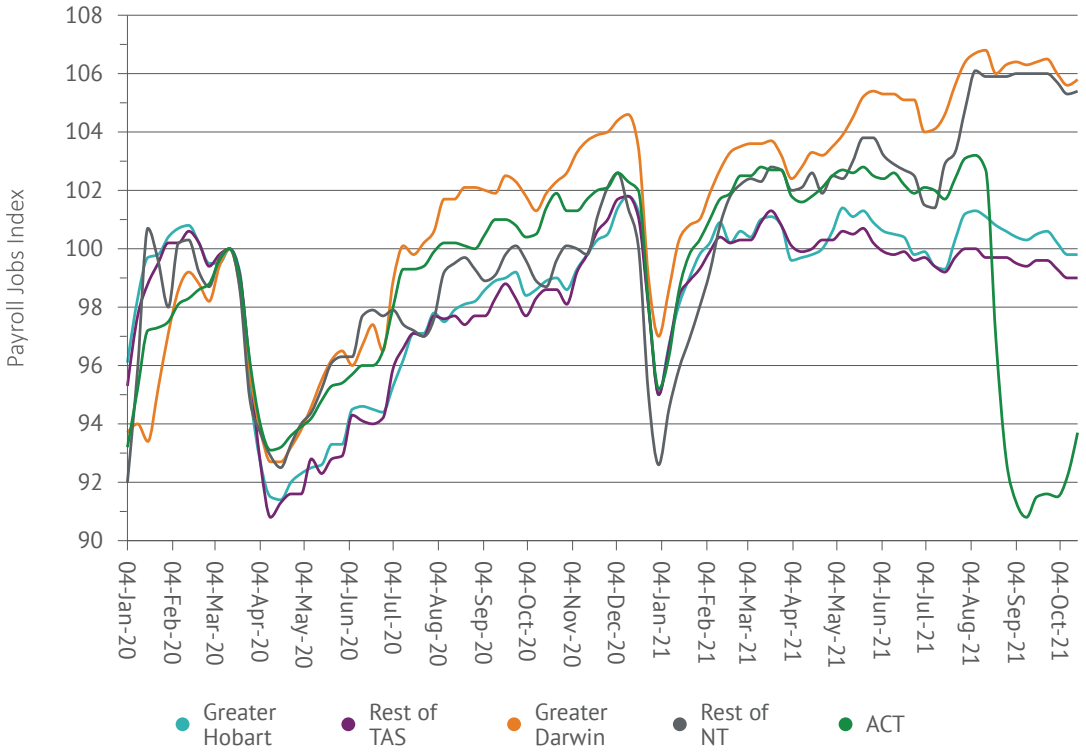


Source: ABS, 2021

Similar patterns can be seen in Tasmania and the Territories. Regional Tasmania showed the sharpest decline in jobs in the first wave, losing 9.2 per cent of its payroll in less than a month from mid-March to mid-April 2020. Regional Tasmania and Hobart showed slower recoveries than Darwin, regional NT and ACT. Over 2020, Hobart and regional Tasmania showed a decline in jobs, possibly due to loss of tourism from the mainland due to lockdowns Victoria and NSW and strict travel restrictions from other states.

When ACT went into lockdown in mid August, it suffered the largest shock to jobs of any city or region throughout the pandemic, with a decline of approximately 12 percent of its jobs index in a month.

Figure 3: Payroll Jobs Index for Australia's smaller cities and regions



Source: ABS, 2021

Economic performance

Most cities and regions in Australia showed at least some level of recovery after the shocks of bushfires and COVID-19 in 2019-20, but growth overall was subdued compared to previous years.

Australia's economy grew 1.5 per cent over the 2020-21 financial year. This growth was not evenly experienced across our cities and regions. Regional South Australia, regional Victoria and Tasmania all showed strong growth, buoyed by the rebound in agriculture. Greater Brisbane also showed strong growth, driven by strong growth in wholesale and retail trade.

Greater Melbourne's economy experienced its second consecutive year in recession due to the lockdowns of the second half of 2021. Northern Territory's economy went into reverse after a strong performance in 2019-20 due to falls revenue from oil and gas. This was also a driver of Regional Queensland's lack of growth, which was compounded by the continued decline of tourism-focused industries such as Transport and Administrative Services.

Australia's modest growth of 1.5% overall despite strong growth in South Australia, Tasmania, Brisbane and regional Victoria and WA is due to the dominance of Sydney and Melbourne in Australia's economy. Sydney and Melbourne combined make up more than 40% of economic activity in Australia, so a decline or slow growth in these cities will put a brake on national growth. The strong growth in areas such as regional South Australia have less impact as they make up a much smaller share of the economy.

Figure 4: Economic growth by capital city and rest of state, 2020-2021

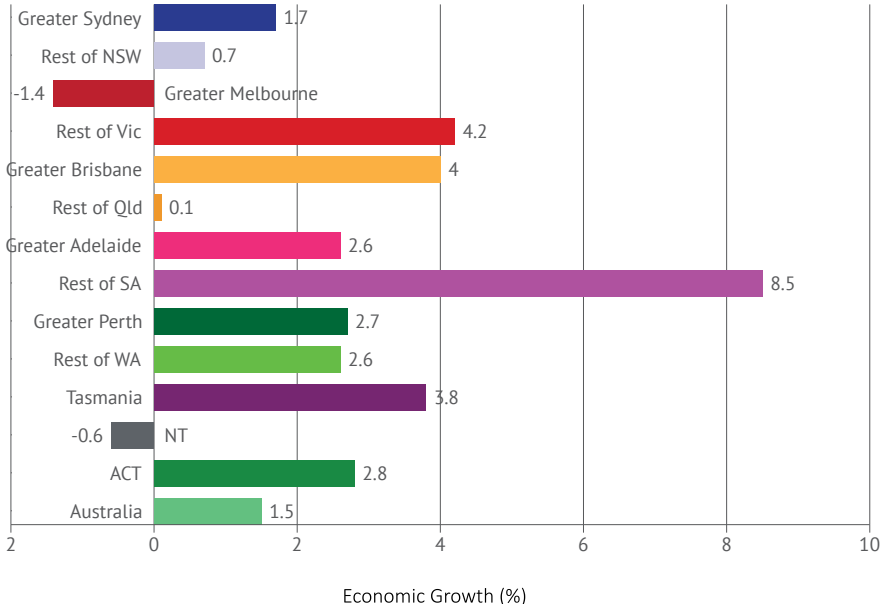
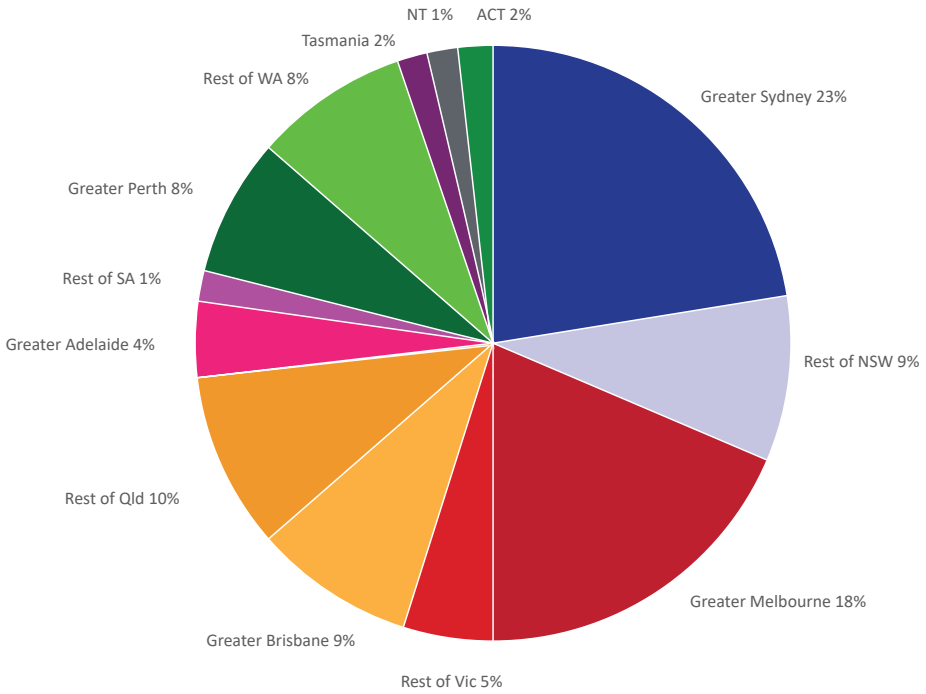


Figure 5: City and Region Shares of Australia's Economy. 2020-21



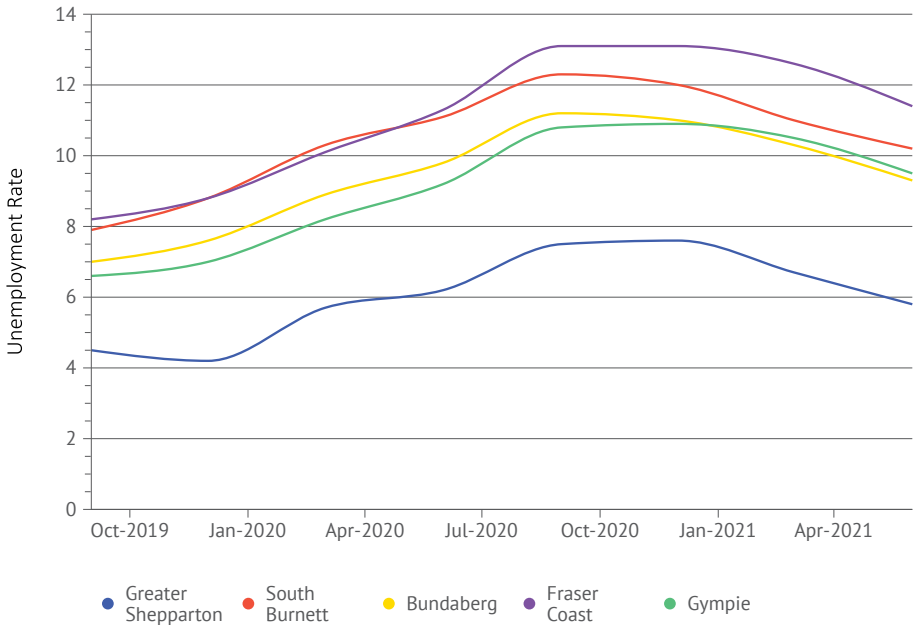
Regional employment patterns

The largest increases in unemployment following the COVID-19 lockdowns in LGAs with at least 10,000 people in the labour force in March 2020 were in Greater Shepparton (Victoria), South Burnett, Bundaberg, Fraser Coast and Gympie (Queensland). All LGAs showed increases in unemployment between March 2020 and December 2020, but have since seen unemployment fall, although not to their pre-COVID-19 levels. Greater Shepparton is a hub of agriculture and manufacturing, while most of the Queensland LGAs that experienced increases in unemployment are tourism dependent.

Other LGAs saw unemployment decrease in response to COVID. Some were remote LGAs for which COVID-19 had little impact on job availability, but many were regional centres that were hubs for surrounding agriculture and mining areas.

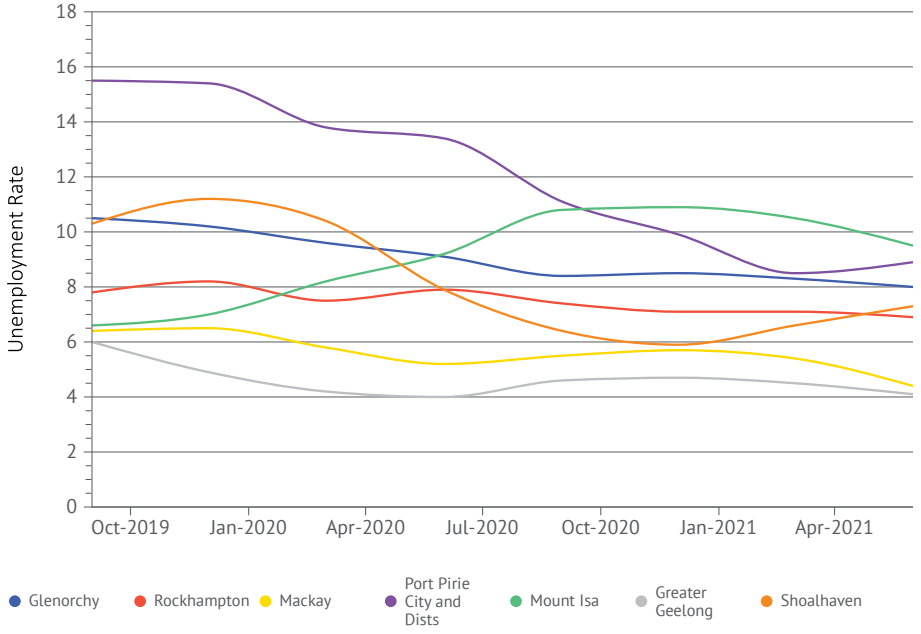
This luck did not hold out for all of these LGAs in the COVID-19 period – Mt Isa and Shoalhaven saw increases in unemployment in 2021.

Figure 6: LGA's with the largest increases in unemployment from COVID



Source: National Skills Commission, 2021

Figure 7: LGA's with declines in unemployment over COVID period



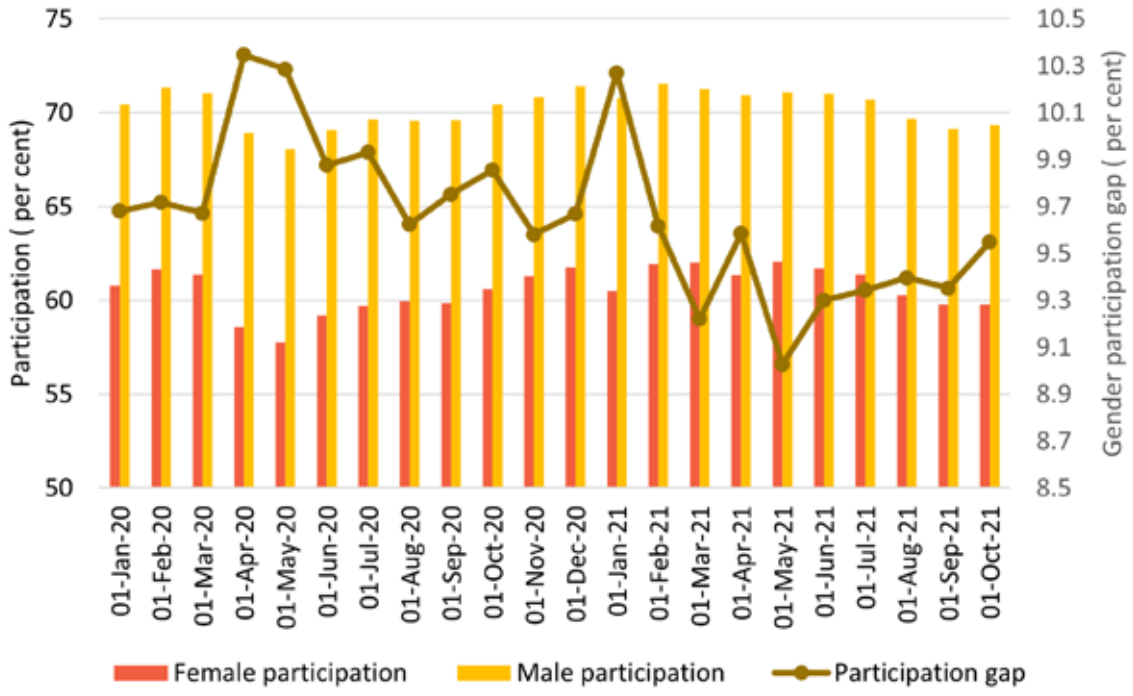
Source: National Skills Commission, 2021

Labour force participation by gender

Women's labour force participation has grown strongly over the last 50 years, following the introduction of policies for equal pay for equal work, maternity leave, childcare and equal access to education for men and women. Male labour force participation has trended downwards slightly over this period, due to more time spent in education and a growing number of men aged 60+ (who tend to have lower levels of labour force participation.)

The first wave of COVID-19 lockdowns showed a drop in labour force participation among both sexes. Employment dropped sharply across Australia, but unemployment did not reach 1990s levels because many who lost their jobs simply dropped out of the labour force, i.e. stopped looking for work, or were unable to start work. Lockdowns meant that new jobs in hospitality and discretionary retail simply didn't exist, companies uncertain about their futures had hiring freezes and JobSeeker supplements reduced the financial necessity to find work immediately. Women's workforce participation fell more than men's participation due to a combination of the industry mix of women's work, casual work and greater need to care for children not attending school. Since then, shown as the gender participation gap - the difference between men's and women's labour force participation rates. As participation among men and women fell with the most recent lockdowns, the gender balance of participation has been similar.

Figure 8: Labour force participation patterns by gender during COVID

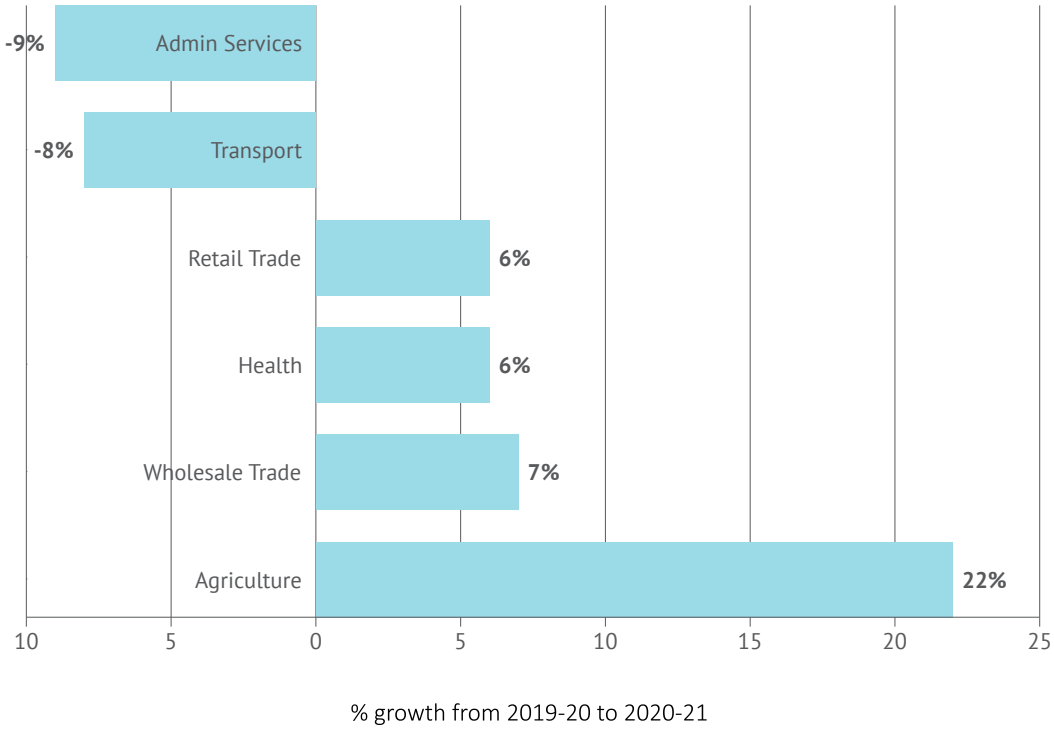


Source: ABS, 2021

2.2 Agriculture industries rebounded strongly, Transport still in the doldrums

These economic impacts have not been spread evenly across industries. The breaking of the drought across large areas of Australia has given an enormous stimulus to Agriculture, Forestry and Fishing, which grew by 22 per cent compared to 2019-20. Wholesale Trade and Retail Trade rebounded as lockdowns were lifted and stimulus flowed through the economy, encouraging spending. Health Care and Social Assistance grew by 6.1 per cent from increases in expenditure on the Medicare Benefits Schedule (MBS) and the National Disability Insurance Scheme (NDIS), and as health services that were postponed during the early stages of the pandemic were rescheduled.

Figure 9: Selected industry growth between 2019-20 and 2020-21



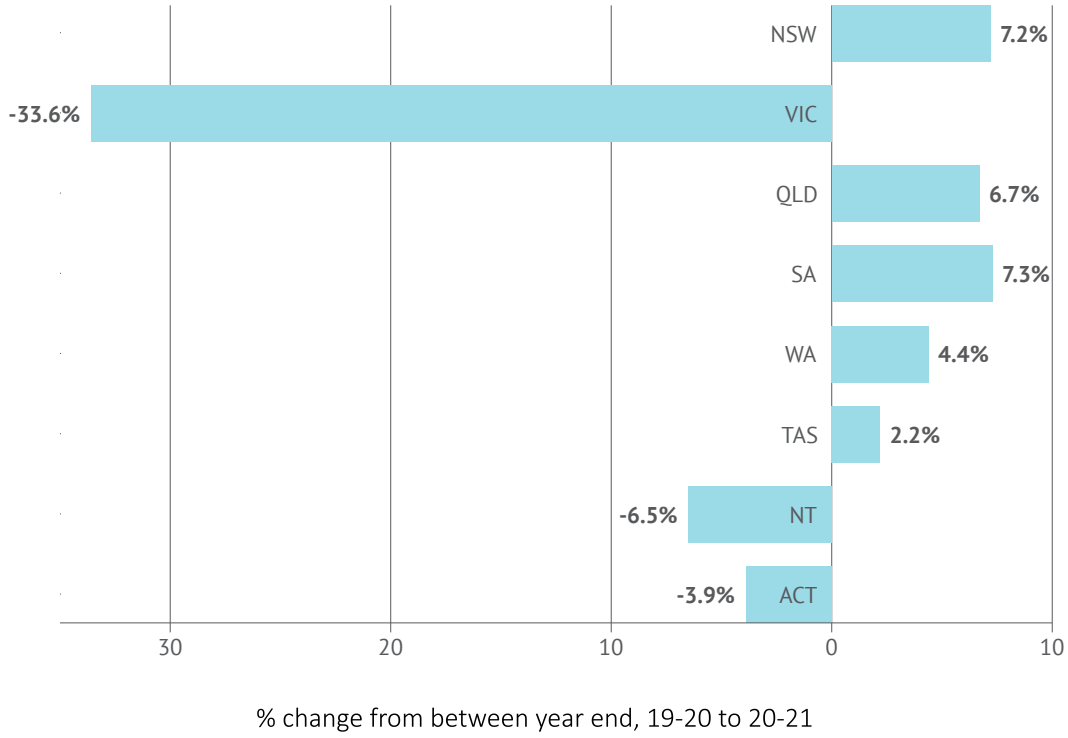
Source: ABS, 2021

2.3 Domestic tourism cannot compensate for the decimation of international tourism

For the entirety of 2020-2021, Australian borders were effectively closed to outside visitors, except for the short-lived trans-Tasman bubble allowing for visitors from New Zealand in the June quarter of 2021. Very few visitors were able to arrive under limited circumstances, all requiring special permission and two weeks of quarantine. As a result, international tourism expenditure was decimated, falling from $45 billion dollars in the last full financial year before the pandemic (2018-19) to only $1.3 billion in 2020-21.

The corresponding loss of the ability of Australians to travel overseas did not translate into a substantial boost for domestic travel. The second half of 2020 saw most states and territories placing restrictions on travel from Victoria and December's outbreak in New South Wales saw other states and territories imposing snap restrictions. Even in the first half of 2021, when COVID-19 was deemed more or less under control, the possibility of sudden additional lockdowns may have deterred a splurge in domestic travel.

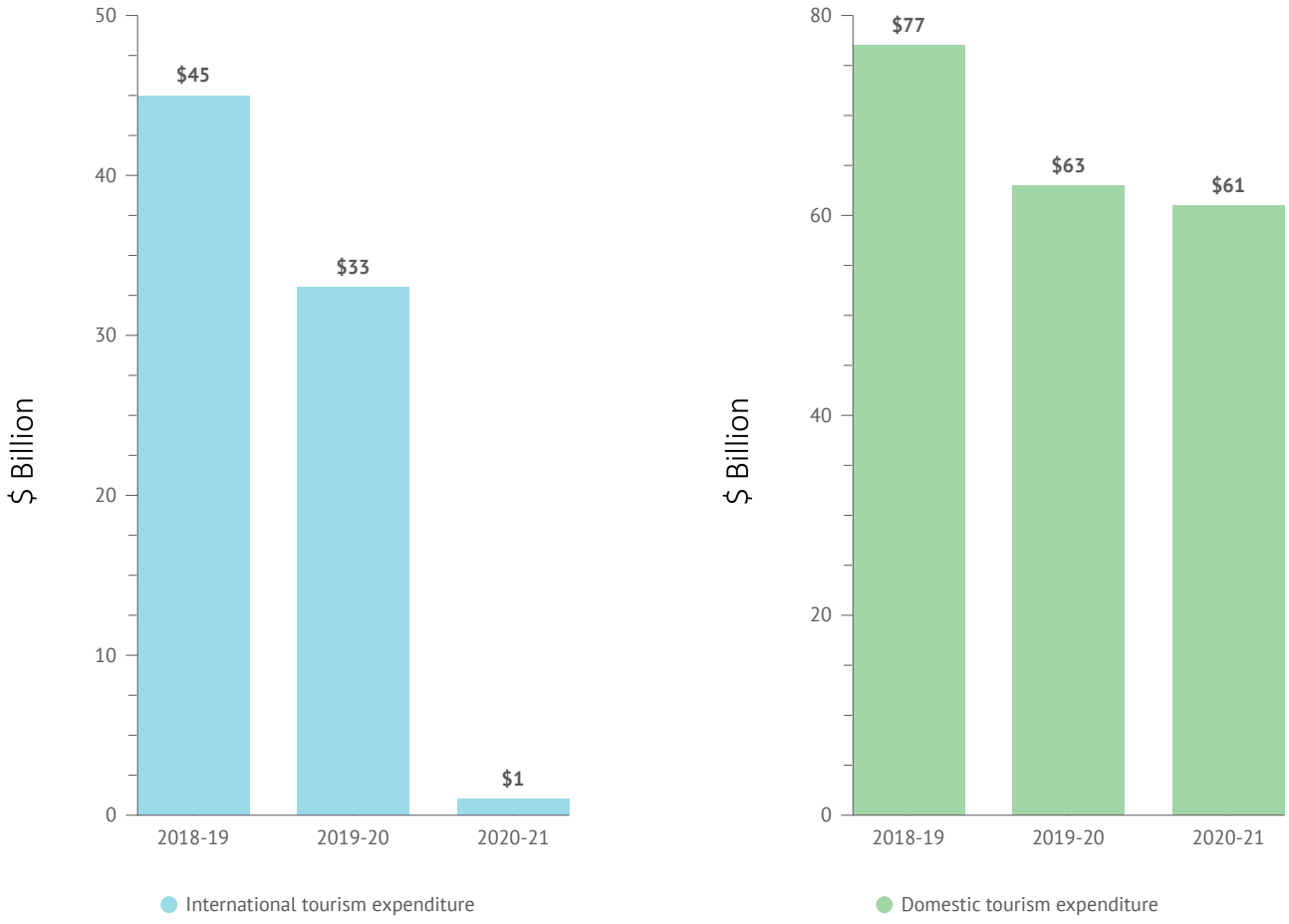
Figure 10: Impacts of COVID-19 restrictions on domestic and international visitor expenditure



Source: (Tourism Research Australia, 2021) (Tourism Research Australia, 2021)

Changes in the levels of travel restrictions and lockdowns across the states and territories may have driven differences in domestic tourism. The rebound concentrated in the larger states and territories that avoided lockdowns. Victoria lost a further third of its previous year's visitor expenditure, even after the declines in tourism from 2019-20. New South Wales, Queensland and South Australia all saw strong growth in tourism expenditure following the previous year's downturn. Western Australia and Tasmania saw more modest growth in expenditure, while the Territories saw a further decline in their tourism expenditure.

Figure 11: Change in regional tourism expenditure, 2019-20 to 2020-21



Source: International Visitor Survey and National Visitor Survey, Tourism Research Australia, 2021

2.4 Changes by Industry

The impacts of COVID-19 on four categories of industries: knowledge workers, population services, health and education, and traditional industrial is provided here. It's clear that knowledge workers retained an advantage during the pandemic, and population services were most impacted.

The Australia and New Zealand Standard Industrial Classification (ANZSIC) classifications used for industry groups by the Australian Bureau of Statistics (ABS) can be broadly grouped into four categories with similar working characteristics – knowledge workers, population services, health and education, and traditional industrial.

Table 1: Industry Classifications

ANZSIC 1 digit industry name	Shortened name	Industry grouping
Professional, Scientific and Technical Services	Professional	Knowledge services
Financial and Insurance Services	Finance	Knowledge services
Public Administration and Safety	Public Admin	Knowledge services
Information Media and Telecommunications	Teleco/Media	Knowledge services
Administrative and Support Services	Admin Services	Knowledge services
Rental, Hiring and Real Estate Services	Real Estate	Knowledge services
Health Care and Social Assistance	Health	Health and education
Education and Training	Education	Health and education
Accommodation and Food Services	Hosp/Accom	Population services
Retail Trade	Retail Trade	Population services
Construction	Construction	Population services
Arts and Recreation Services	Arts/Rec	Population services
Other Services	Other Services	Population services
Transport, Postal and Warehousing	Transport	Traditional Industrial
Manufacturing	Manufacturing	Traditional Industrial
Wholesale Trade	Wholesale	Traditional Industrial
Electricity, Gas, Water and Waste Services	Utilities	Traditional Industrial
Mining	Mining	Traditional Industrial
Agriculture, Forestry and Fishing	Agriculture	Traditional Industrial

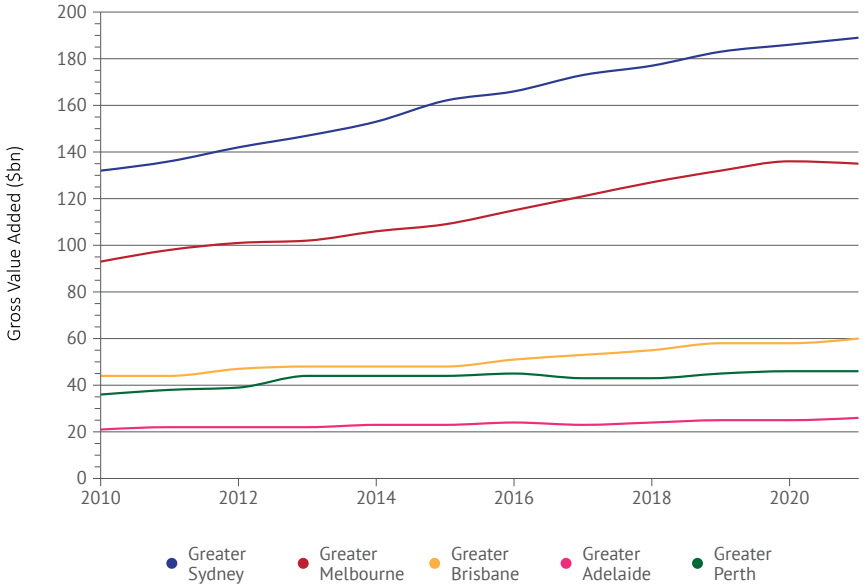
Knowledge services

Knowledge Services covers professional, scientific and technical services, finance, information technology, rental, hiring and real estate services, public administration and administrative services. These jobs typically involve using specialist knowledge and expertise to support the efficient operation of other businesses. These have been growing as a share of all jobs, particularly in capital cities.

Knowledge Services had a significant advantage compared to other industry groupings. Most of these service providers could do their jobs from their kitchen benches with a laptop and a video communications account. These industries suffered if they provided support to other industries that experienced a downturn due to COVID-19 and associated restrictions; for example, Administrative Services declined due to a lower need for travel-related administration.

Despite this, Melbourne showed a decline in economic activity over 2020-21, while other cities showed continued growth. Perth also showed a small downturn in Knowledge Services.

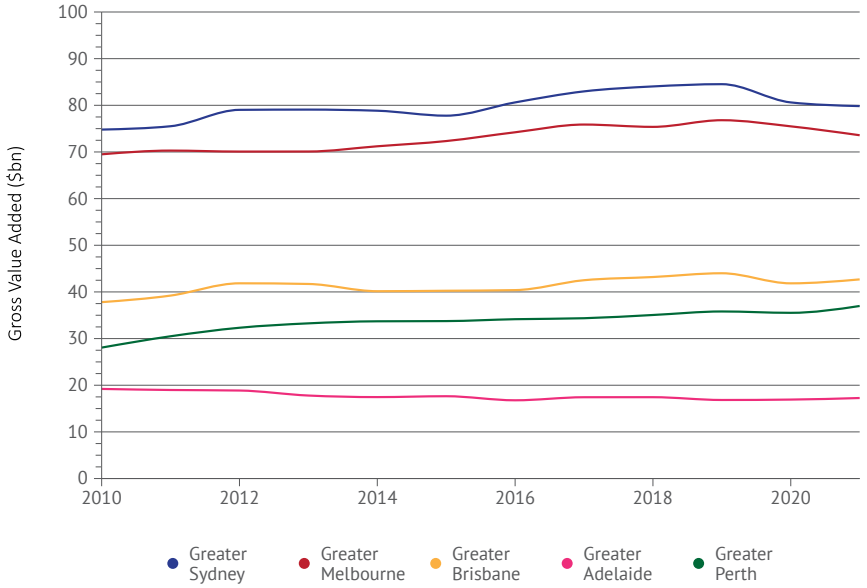
Figure 12: Trends in GVA in knowledge services, 2010-2021



Health and education

Health and Education sectors are grouped together as they are industries with significant positive externalities, and are heavily subsidised or paid for entirely by governments. In 2020-21, their performances were very different. Having grown at an average rate of around 0.5 per cent per quarter over the 2010s, Education quarterly growth fell to 0.2 per cent per quarter for the 2020s. A major cause of this is the closing of international borders preventing international students from coming to Australia, which put a significant brake on additional growth in the Tertiary Education sector in particular. This has been offset by a jump in economic activity in Health, driven by increases in MBS and NDIS payments, COVID-19 testing, the vaccine rollout and catching up on health services that were postponed in the first months of the pandemic.

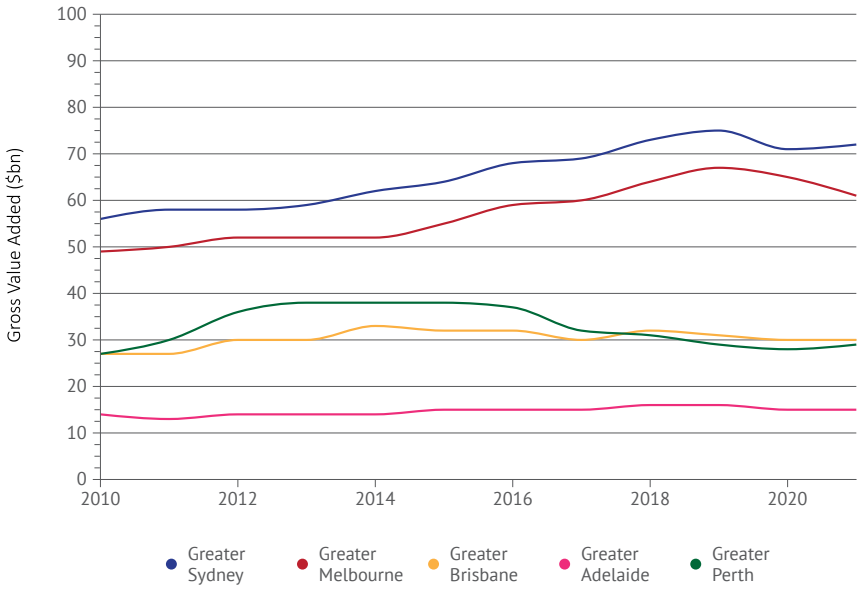
Figure 13: Trends in GVA in Health and Education, 2010-21



Population services

Population Services showed a decline in gross value added among all capital cities in 2019-20, as many population serving industries such as are dependent on large gatherings and face to face interaction, which were heavily restricted or banned outright during lockdowns. Through 2020-21, particularly the first half of 2021, most restrictions on gatherings, intrastate and some interstate movement and face to face contact had been substantially reduced or removed, which should have supported a recovery in population serving industries. However, Melbourne showed a decline in gross value added compared to the previous year, and even though the other capital cities showed modest growth compared to the previous year, only Perth showed growth in this sector compared to 2018-19's levels.

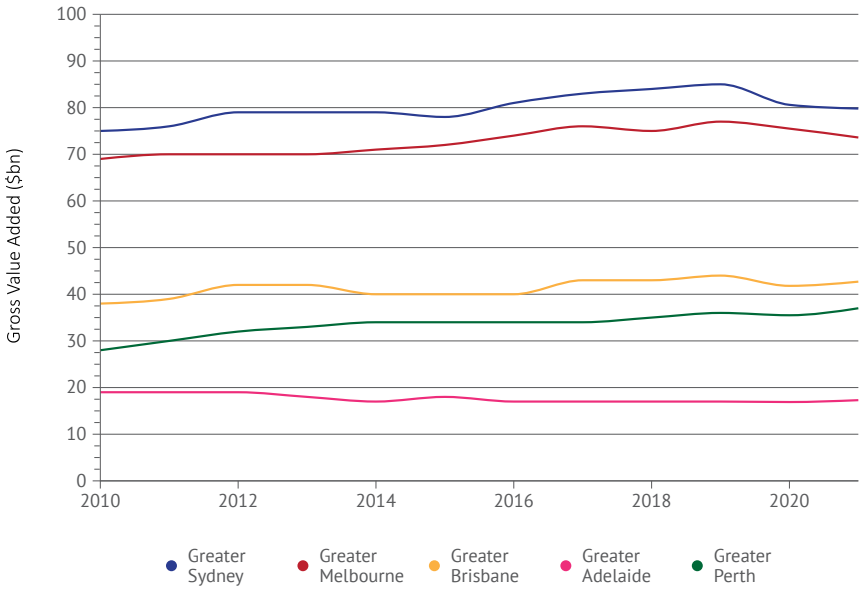
Figure 14: Trends in GVA in population serving, 2010-2021



Traditional Industrial

Traditional industrial has had mixed fortunes in 2020-21. Rainfall across Australia over this year led to a substantial rebound in Agriculture, Forestry and Fishing across several states. While most of this growth concentrated in regional areas, there were some spillovers to growth in capital cities. Mining declined by 2.2 per cent overall and showed mixed results across Australia, with iron ore flat and coal, oil and gas showing declines. Manufacturing rebounded from its COVID decline, and while Transport, Postal and Warehousing suffered another decline due to travel restrictions.

Figure 15: Trends in GVA in traditional industrial industries, 2010-21



2.4 Wellbeing is not just about economic growth

SGS Economics and Planning began this research into small area estimates of GDP to highlight that headline numbers in economic growth mask significant variation in growth across our cities and regions. It sets out to highlight that while some areas were growing rapidly and had high incomes, others were falling behind.

This report takes the next step and starts to incorporate other indicators of wellbeing into the analysis of cities and regions. As well as looking at regional breakdowns of economic activity, this report also considers regional breakdowns of unemployment and the gender mix of the labour force.

3. Economic wellbeing by state

While Australia's economy showed some recovery from the horror year of 2019-20, recovery was not even across Australia.

For some regions, 2020-21 represented an excellent recovery after some bad years; for other regions, things just got worse. This section considers the economic wellbeing of capital cities/rest of states, or Greater Capital City Statistical Areas (GCCSAs), by economic growth, industry mix and labour force outcomes. These indicators can be found in more detail at SA4 or LGA level at https://www.sgsep.com.au/projects/australias-economic-wellbeing

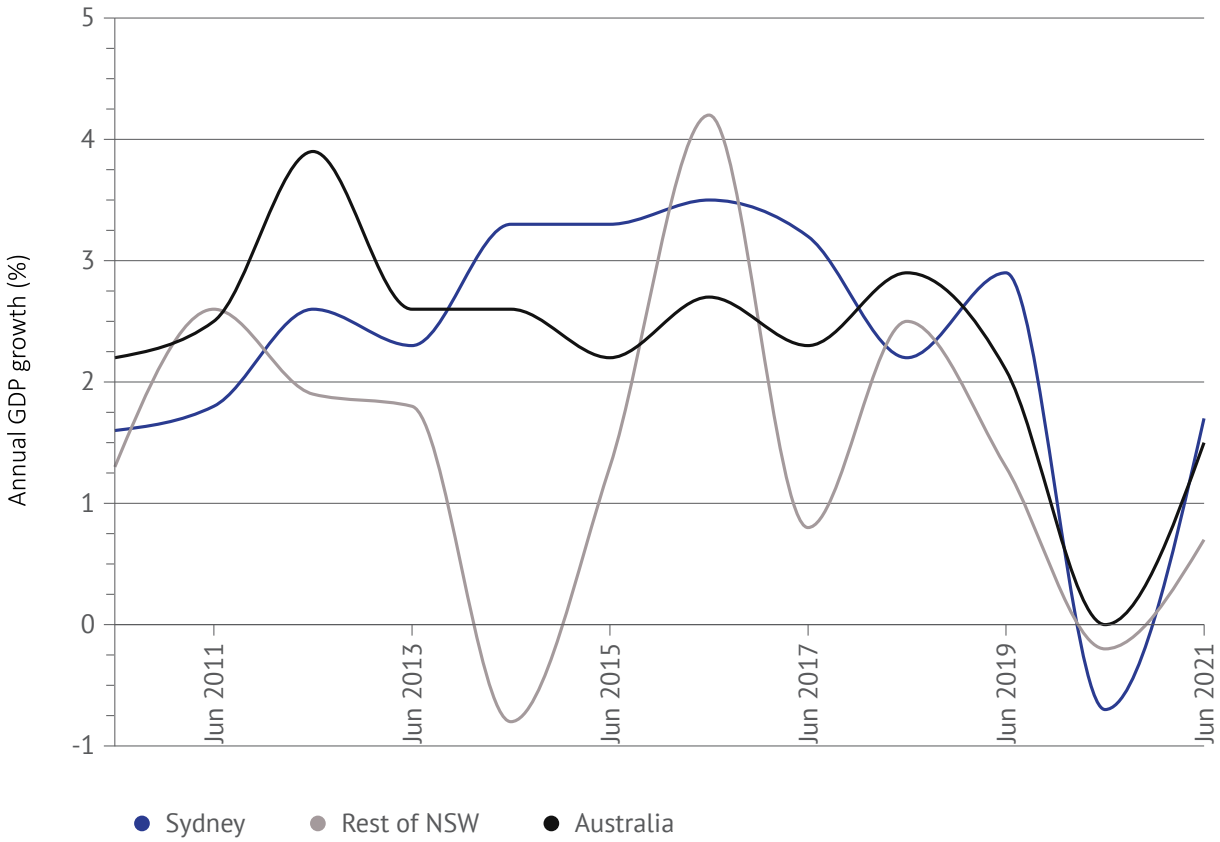
New South Wales

3.1 New South Wales

Sydney was hit harder than regional NSW in the 2019-2020 downturn but has since rebounded to show economic growth of 1.7 per cent . Regional NSW showed a more modest recovery, with growth of 1.1 per cent.

The most recent GDP figures, released the day before this report was published, showed that the recent Delta lockdowns in NSW resulted in state final demand declining by 6.5 per cent in the September 2021 quarter, due to decreases in household consumption, in particular Arts and Recreation and Accommodation and Food Services.

Figure 16: Sydney and Regional NSW Economic Growth, 2010-21



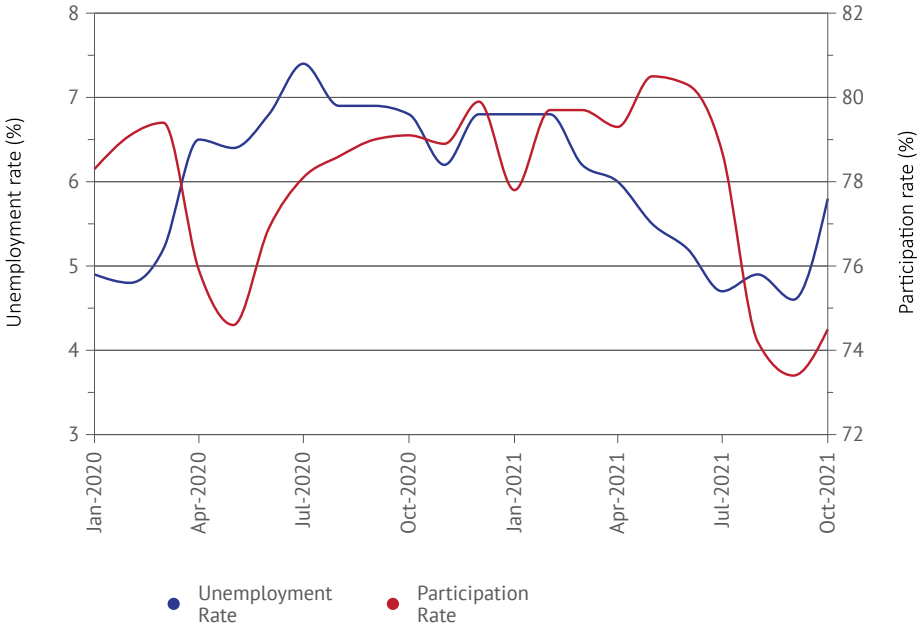
Source: SGS, 2021

Sydney

Sydney showed a modest increase in economic growth over 2020-21, growing again after the shocks to the economy from bushfires and the first wave of the COVID-19 pandemic. Unemployment peaked at 7.4 per cent in June 2020, before falling back to 5.2 per cent in June 2021 as the economy returned to growth. The very modest increase in unemployment given the volume of jobs lost was due to an almost five per centage point fall in labour force participation between March 2020 and April 2020, as those whose jobs were lost due to COVID-19 restrictions ceased job hunting, supported by the JobSeeker supplement and the removal of the requirement to search for jobs.

When Sydney's Delta wave broke out in late June, Sydneysiders responded to the elimination of jobs by dropping out of the labour force rather than looking for work. As vaccinations increased, new infections declined and COVID-19 restrictions eased from mid-September onwards. Unemployment increased from 4.6 per cent to 5.8 per cent as Sydneysiders returned to the labour force to search for jobs as they started to resume.

Figure 17: Labour force participation and unemployment, Sydney 2020-21



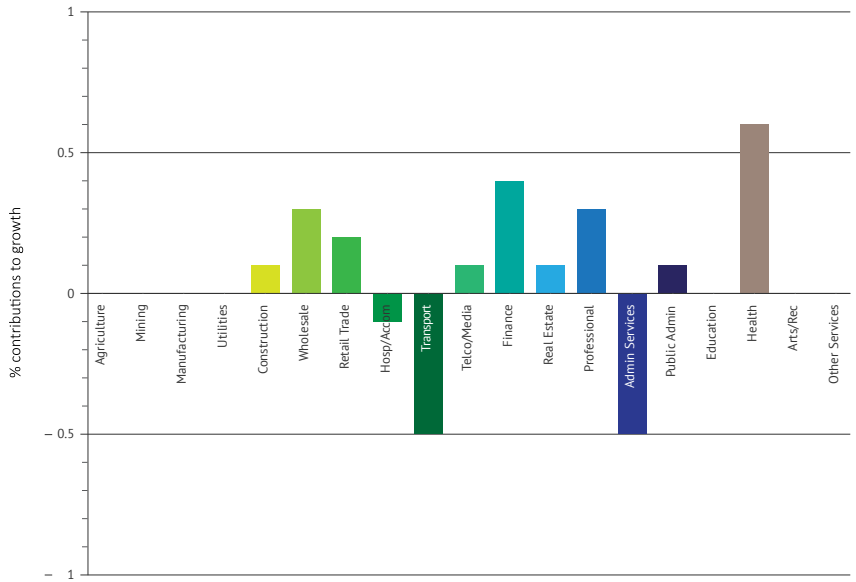
Source: ABS, 2021

These patterns of participation varied by gender and by Statistical Area 4 region, as shown in more detail at https://www.sgsep.com.au/projects/australias-economic-wellbeing.

Growth in Health Care and Social Assistance GVA was driven by increases in the Medicare Benefits Schedule (MBS) and National Disability Insurance Scheme (NDIS) expenditure and the allied health sector, where restrictions on services that were put in place at the beginning of the pandemic eased.

Wholesale and Retail Trade rebounded after the uncertainty of the previous year caused the public to close their wallets. Transport, Postal and Warehousing fell for the second year in a row due to the impact of COVID restrictions on travel-related services, and Administrative and Support Services fell due to the decline in demand for travel agent services.

Figure 18: Greater Sydney contributons to growth 2020-21



Source: SGS, 2021

Regional NSW

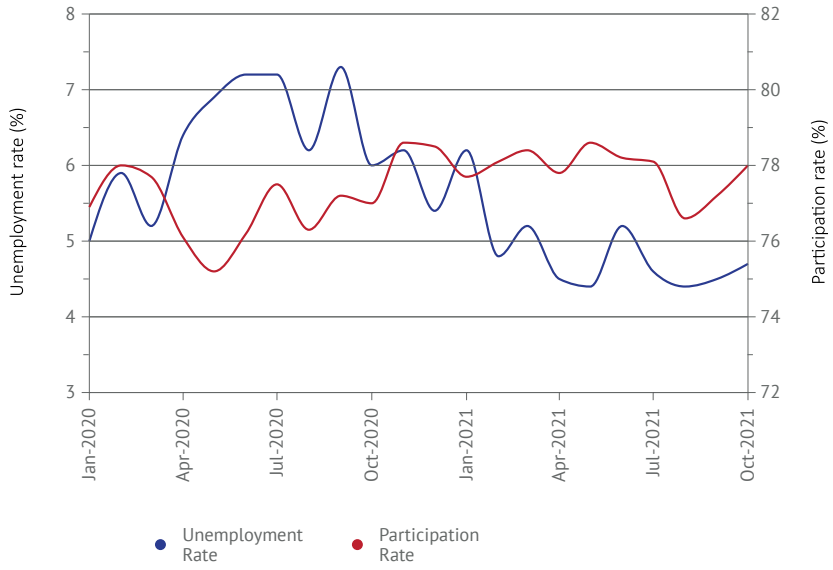
Regional NSW grew more slowly in 2020-21 than Sydney, despite the recovery in Agriculture, as Mining declined. Unemployment peaked at 7.3 per cent in September 2020, and continued to decline after that, even as COVID-19 restrictions in the second half of 2020 started to bite. The shock to employment of the Delta wave of restrictions was less severe in Regional NSW, with overall participation only dropping two per centage points from its peak in May 2021 to August 2021, compared to a six per centage point drop in Sydney.

While women typically are more likely to work part time than men rather than full time – a pattern which holds in regional NSW – since 2020 more women in regional NSW are working full-time, and more men are working part time. In February 2020 women made up 36.1 per cent of full time workers and 72.3 per cent of part time workers; by October this had changed to 38.3 per cent of full time workers and 68.5 per cent of part time workers.

Regional New South Wales saw a growth of 1.1 per cent in Agricultural output following the return of rainfall to the regions after the drought and devastation of the Black Summer bushfires. Without this jump in growth, Regional New South Wales would have remained in recession for 2020-21.

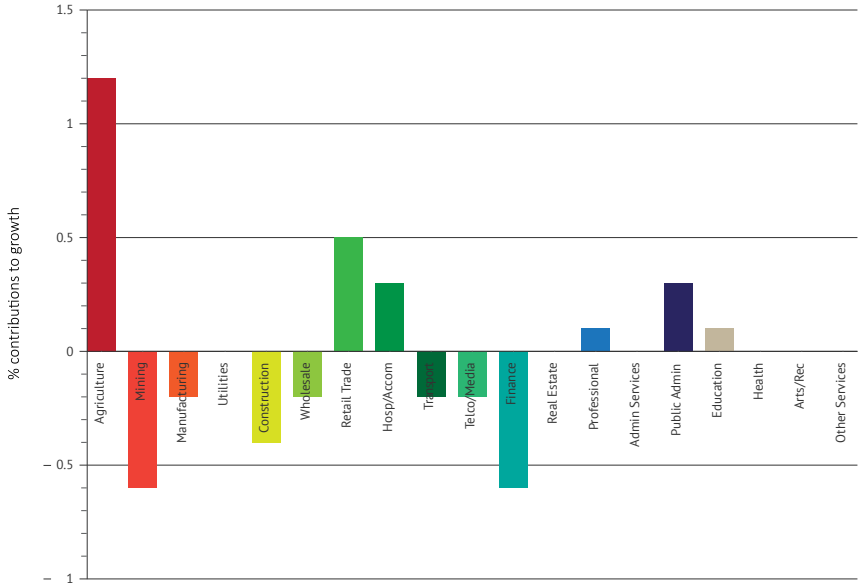
Retail trade returned, adding 0.5 per cent to total growth. Hospitality (Accommodation and Food Services) showed a modest return to growth of 0.3 per cent- possibly from Australians holidaying locally to avoid border closures.

Figure 19: Labour force participation and unemployment, Regional NSW 2020-21



Source: ABS, 2021

Figure 20: Rest of NSW contributions to growth



Source: SGS, 2021

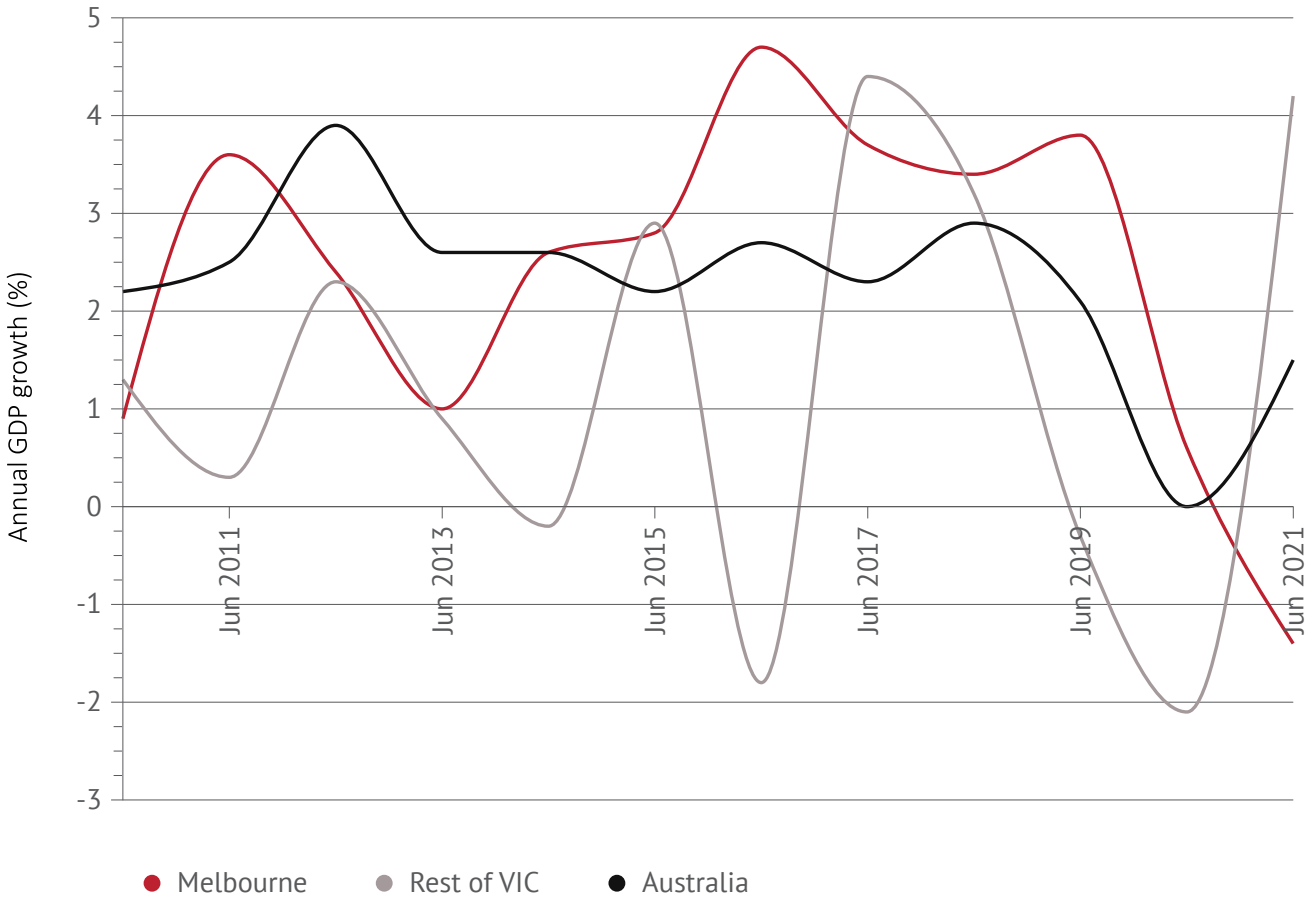

Victoria

3.2 Victoria

Victoria as a whole remained in recession for the 2020-21 financial year, with a decline in growth of 0.4 per cent. However, the recession was experienced by Greater Melbourne, which declined by 1.6 per cent, but not by the rest of Victoria. Lockdowns, in general, were stricter in Melbourne than they were in regional Victoria, which allowed more activity in regional Victoria to continue; and the strong recovery in Agriculture was able to pull the regions out of recession, with Rest of Victoria growing by 3.9 per cent.

The September 2021 quarter release of the Australian National Accounts (ABS, 2021) shows that Victoria as a whole returned to negative growth, with State final demand contracting by 1.4 per cent. This was a smaller decline than seen in NSW, which had lockdowns operating for the entire quarter, while Victoria's were only in place for part of the quarter.

Figure 21: Melbourne and Rest of Victoria economic growth, 2010-2021



Source: SGS, 2021

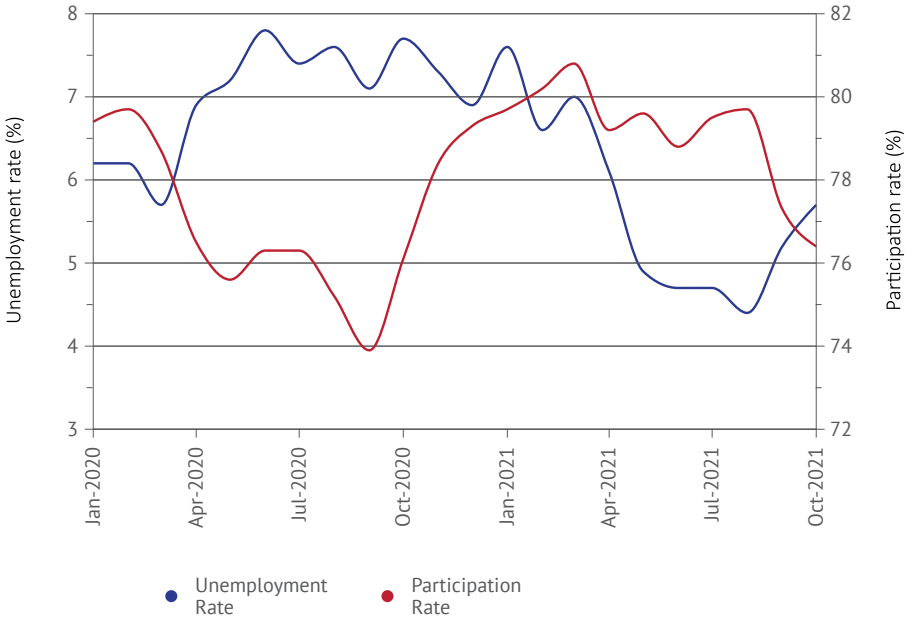
Melbourne

The severe lockdowns of the second half of 2020 in Melbourne resulted in sharp drops in employment and economic activity. Unemployment remained between 7 and 8 per cent between May 2020 and November 2020, when it fell as the economy reopened. More dramatic was the fall in the participation rate, which fell six per centage points from March 2020 to September 2020.

During the first wave of lockdowns in Melbourne, women made up a smaller percentage of unemployed in Melbourne. In Melbourne's second wave of lockdowns in the second half of 2020, women made up a larger percentage of the total unemployed. The same pattern is seen in the most recent Delta lockdowns in Melbourne.

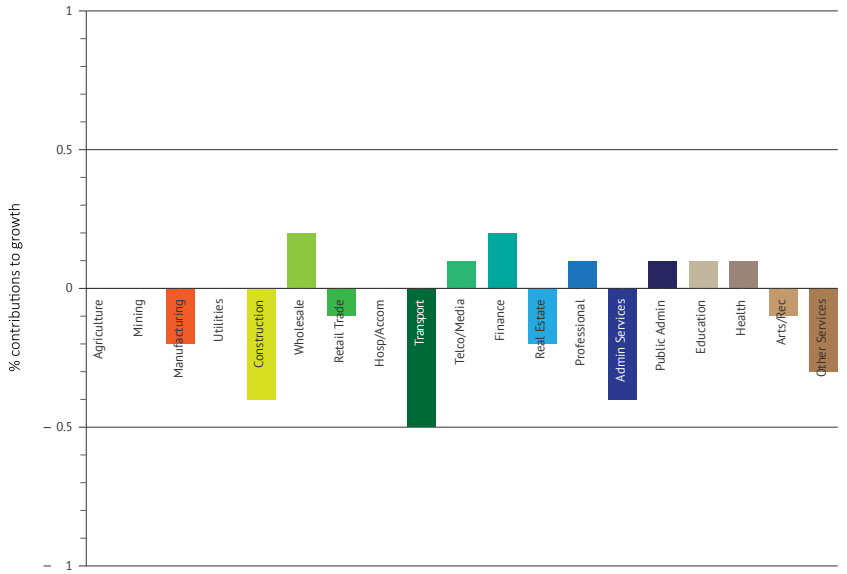
The COVID restrictions throughout the second half of 2020, along with the impacts of smaller snap lockdowns in response to cases escaping from hotel quarantine, took a toll on Melbourne, resulting in Victoria's GDP falling by 1.6 per cent. The largest declines were felt in Transport, Postal and Warehousing, Administrative Services and Construction. Unlike other cities and regions that showed recoveries in Accommodation and Food Services as restaurants and bars re-opened to local residents, the lockdown constraints on the operation of these businesses, and the continuing fall in tourism expenditure in Victoria compared to other States which showed growth, Accommodation and Food Services continued its decline in Melbourne that commenced in the 2019-20 financial year.

Figure 22: Labour force participation and unemployment, Melbourne 2020-21



Source: ABS, 2021

Figure 23: Greater Melbourne contributions to growth, 2020-21



Source: SGS, 2021

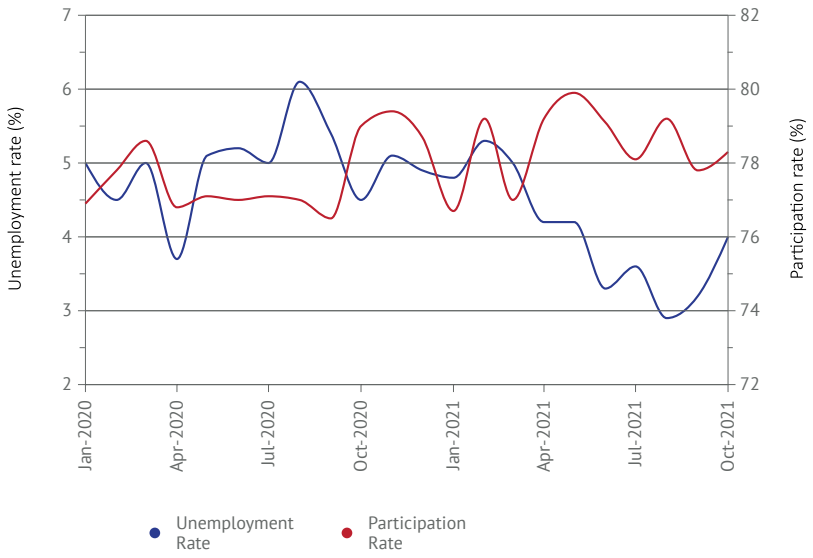
Regional Victoria

The second half of 2020 saw a sustained low level of labour force participation of 77 per cent from April to September, when the easing of restrictions in regional Victoria in October saw a surge in labour force participation. Unemployment generally followed a downward trend as employers gained confidence, only for unemployment to climb again with the Delta outbreak.

While unemployment rates were generally lower in regional Victoria than Melbourne during the lockdowns in the second half of 2021, there were some differences by gender. Male unemployment rates were similar between Melbourne and Rest of Victoria, but female unemployment rates in Melbourne were nearly twice as high as those in regional Victoria.

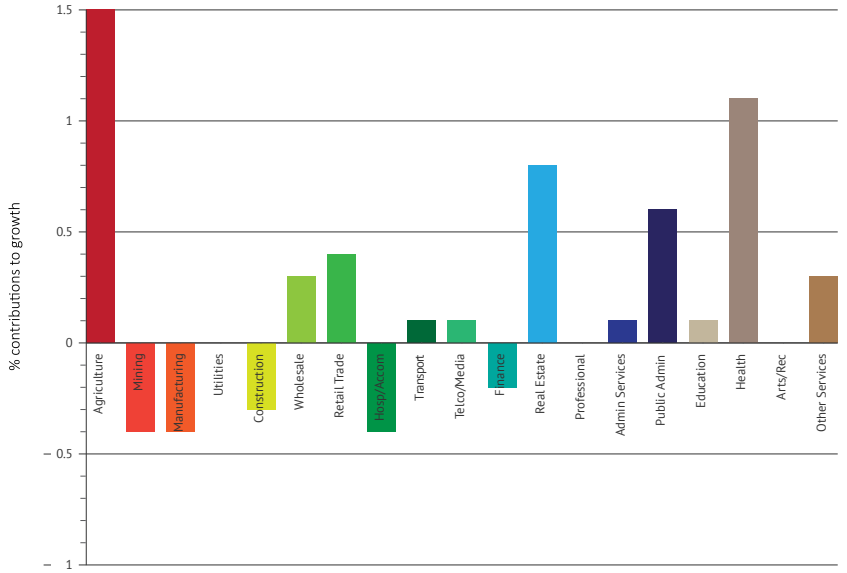
While Victoria as a whole experienced a recession, the rest of Victoria (outside of Greater Melbourne) saw positive economic growth for the year, driven by a recovery in Agriculture following bushfires and drought; in particular from grain, fruit, nut and vegetables and dairy. This was supplemented by growth in Health and Aged Care and Public Administration, which was driven by government pandemic responses, and Rental, Hiring and Real Estate Services.

Figure 24: Labour force participation and unemployment, Rest of Victoria 2020-21



Source: ABS, 2021

Figure 25: Rest of Victoria contributions to growth, 2020-21



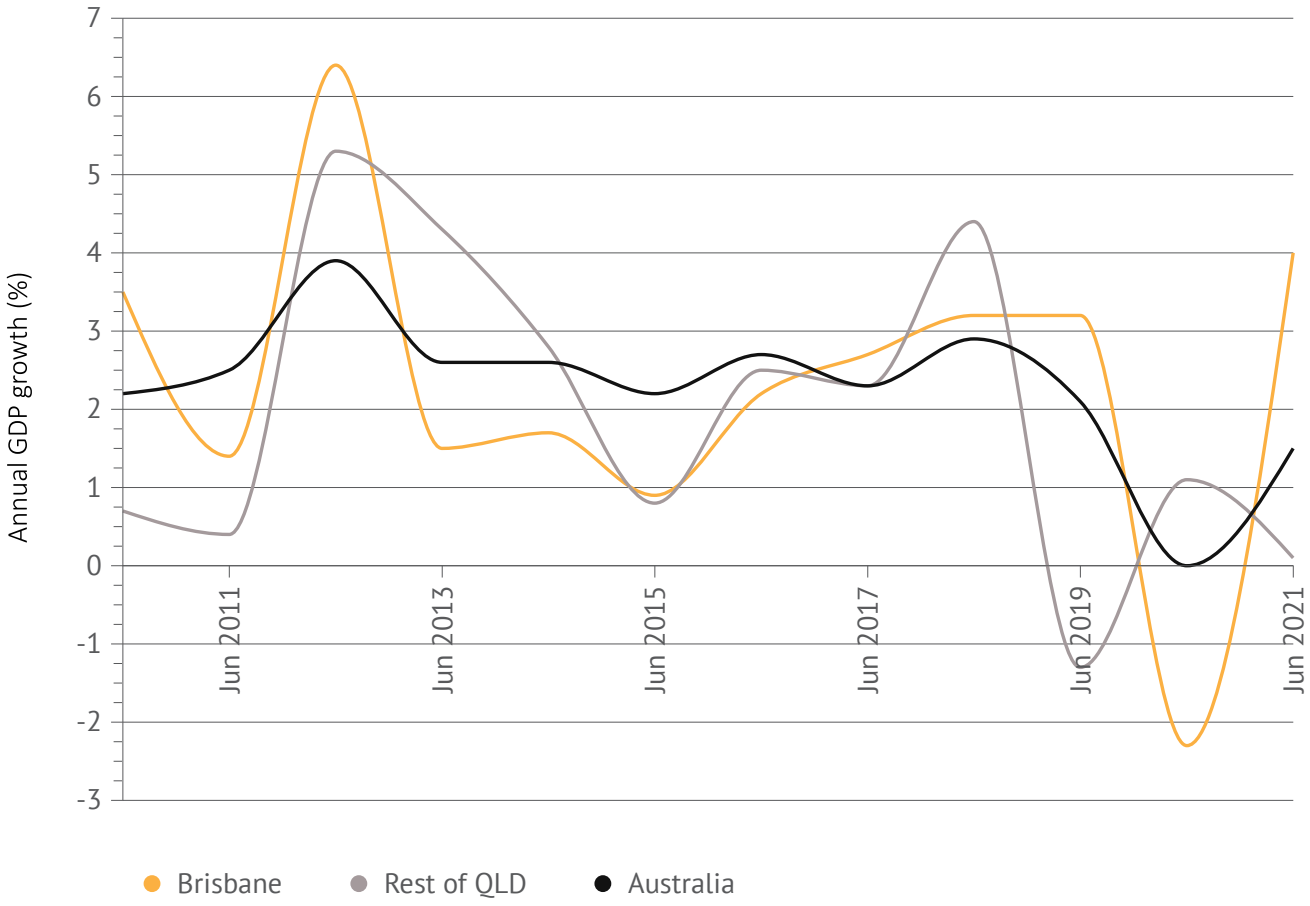
Source: SGS, 2021

Queensland

3.3 Queensland

Regional Queensland managed to show positive economic growth last year while Brisbane suffered a sharp drop in GDP; this year, the tables have turned and Brisbane has grown by a strong 3.9 per cent while regional Queensland grew by a much slower 0.8 per cent. In the September 2021 quarter, Queensland's final demand grew at a rate of 1.8 per cent, a stark contrast to the experiences in NSW and Victoria. The rate of growth in Brisbane was the highest seen in almost 10 years.

Figure 26: Brisbane and Rest of Queensland economic growth, 2010-2021



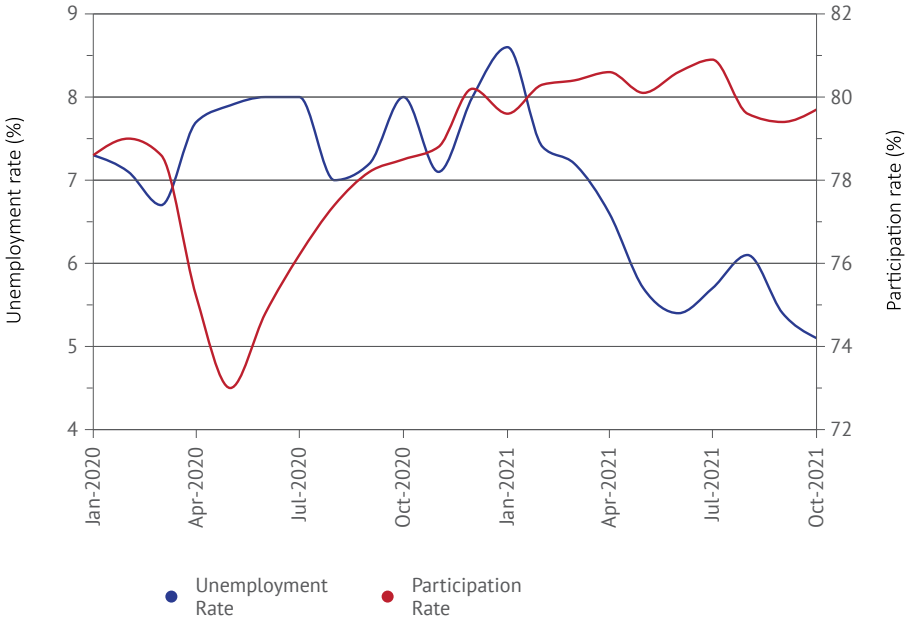
Source: SGS, 2021

Brisbane

As with other capital cities, Brisbane showed a small rise in unemployment from 6.7 per cent in March 2020 to 8 per cent in June 2020 and a six per centage point drop in participation from February to April alone. Since then, unemployment remained steadily between 7 and 8 per cent during the second half of 2020 while participation rates grew to greater than their pre-COVID levels. Throughout 2021, Brisbane unemployment has been on a clear downward trend, and at 5.1 per cent in October 2021 was 1.6 per centage points lower than March 2020.

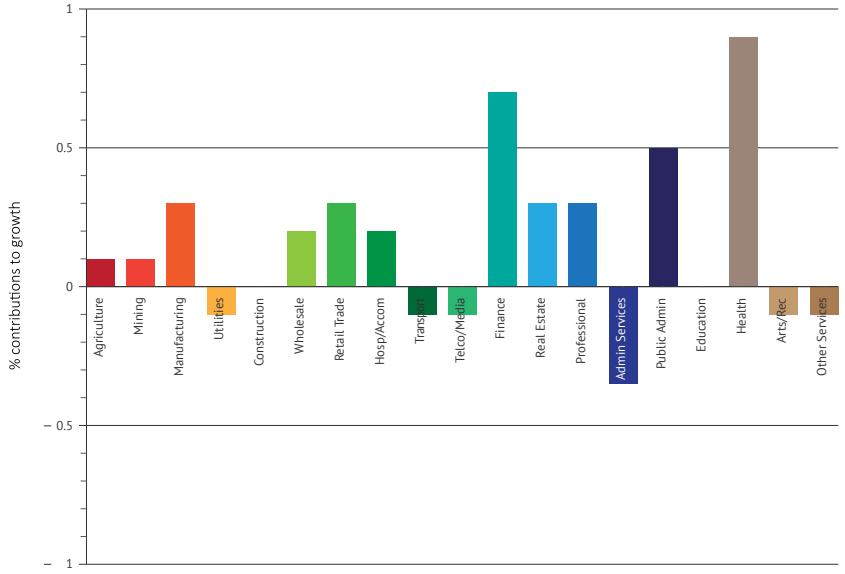
Like other cities and regions, Brisbane showed Health and Aged care and Public Administration as major drivers of recovery, with Administrative Services and Transport, Postal and Warehousing continuing the decline that commenced with COVID travel restrictions in early 2020. Unlike some other capitals that have not grown as strongly, Brisbane's growth has been due to most industries performing modestly well, for example the recovery of Wholesale Trade and Retail Trade; rather than any one particular industry performing unusually strongly.

Figure 27: Labour force participation and unemployment, Brisbane 2020-21



Source: ABS, 2021

Figure 28: Greater Brisbane contributions to growth, 2020-21



Source: SGS, 2021

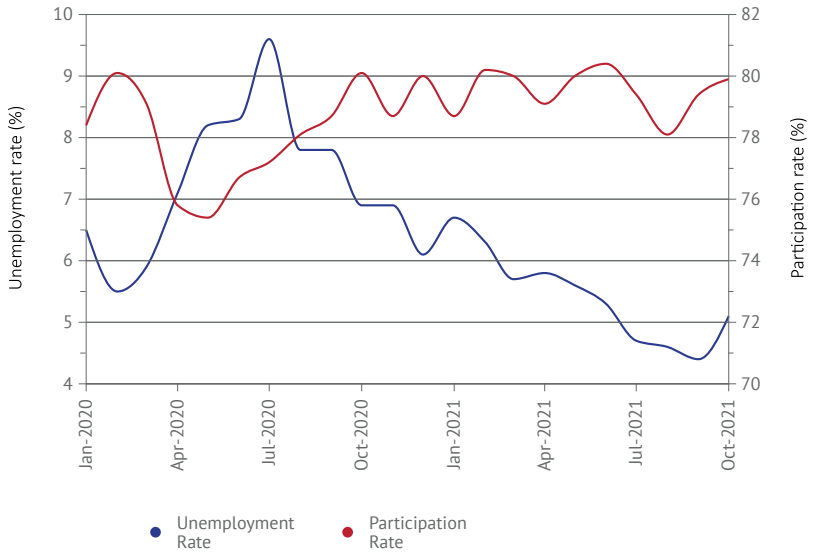
Regional Queensland

As with other regional areas, Regional Queensland's economy has seen a strong recovery in Agriculture, and more modest boosts to the economy from Health and Aged Care, Wholesale Trade and Retail Trade. It continues to be hit by the loss of tourism. The largest drag on growth in regional Queensland in 2020-21 was from Mining, with decreasing prices and demand for LNG.

Agriculture's contribution of 0.8 per cent of growth in Rest of Queensland helped offset Mining's reduction in economic growth of 1.1 per cent. Wholesale Trade added 0.6 per cent to growth, Health and Aged Care and Retail added 0.5 per cent.

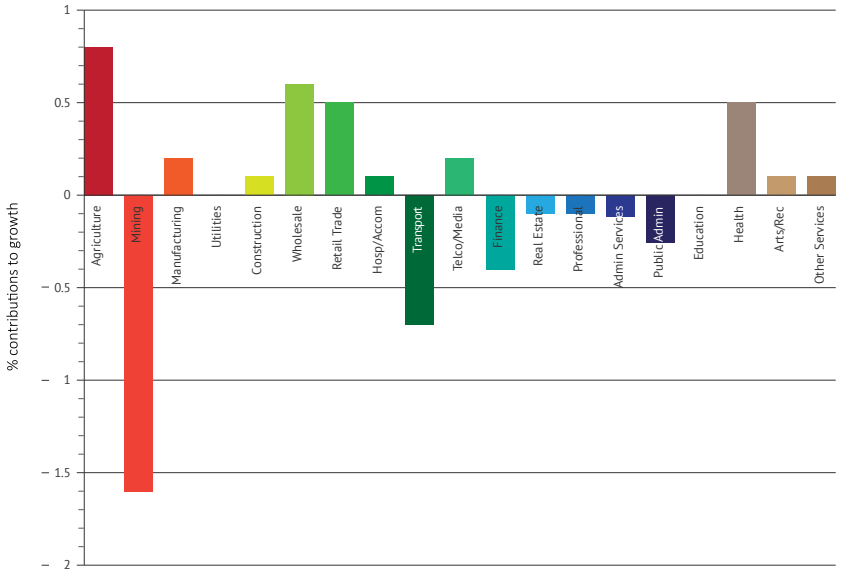
Without the boost from Agriculture, Rest of Queensland would have experienced a slight decline in overall economic growth.

Figure 29: Labour force participation and unemployment, Rest of Queensland 2020-21



Source: ABS, 2021

Figure 30: Rest of Queensland contributions to growth, 2020-21



Source: SGS, 2021

South Australia

3.4 South Australia

South Australia had the strongest growth of all the States and Territories at 3.9 per cent, after a decline in 2019-20, driven by strong growth in Agriculture and Manufacturing, with Transport Equipment Manufacturing and Food Manufacturing providing a source of growth. Adelaide grew by 2.4 per cent, and Rest of South Australia grew by 8.54 per cent – the highest rate of economic growth in any city or region in Australia. In the September 2021 quarter, final demand grew by 1.4 per cent.

Figure 31: Adelaide and Rest of South Australia, 2020-21

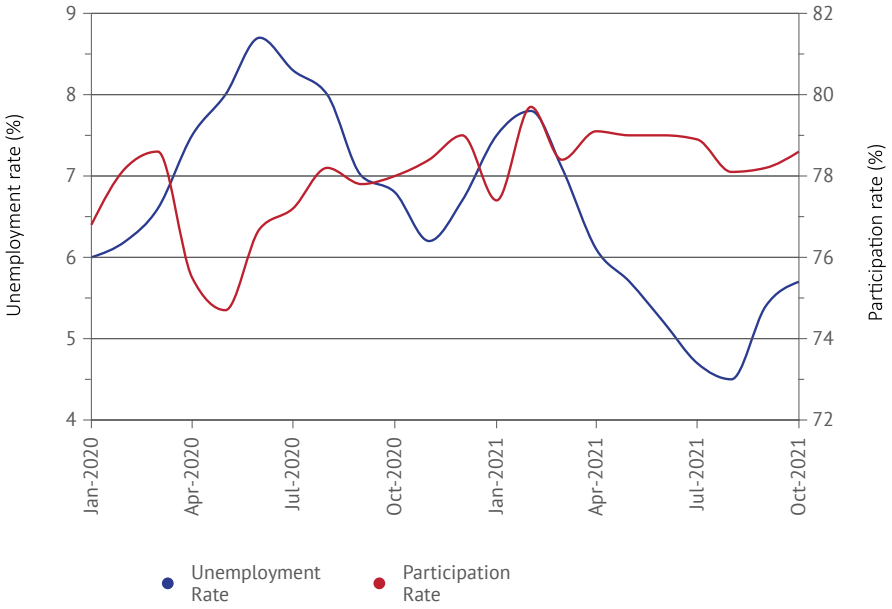
Source: SGS, 2021

Adelaide

The first wave of COVID set off a drop in labour force participation of four per centage points in a rise in the unemployment rate from six per cent to 8.7 per cent, peaking in June. Since then, the labour market has recovered and continued to grow steadily. Participation rates have returned to, and exceeded, their pre-COVID levels, and unemployment has trended downwards for most of 2021. The recent state border closures from the outbreaks in NSW, Victoria and ACT saw unemployment climb again, but the unemployment rate is still lower than pre-COVID levels.

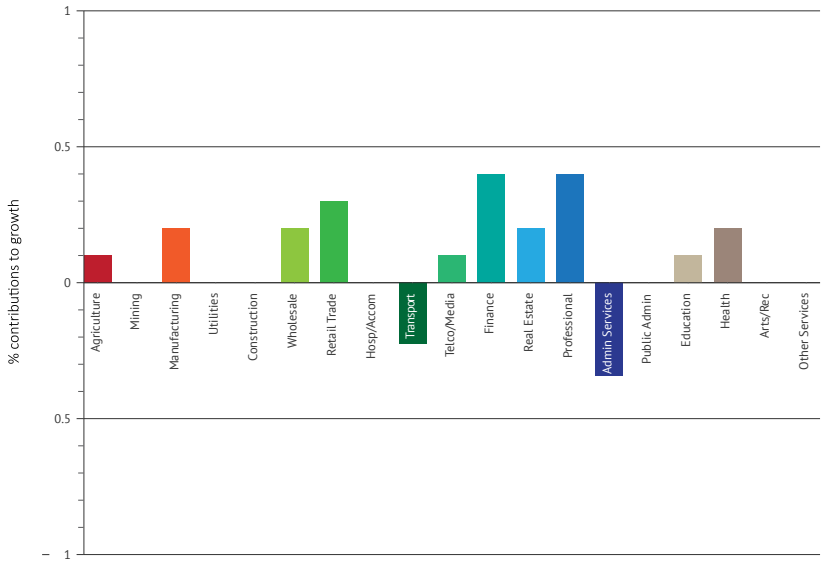
The recovery in Adelaide's economy has been due to growth across several industries, including Manufacturing, Wholesale and Retail Trade and Health Care and Social Assistance, rather than a recovery driven by a single or handful of industries. The COVID-affected industries of Transport, Postal and Warehousing and Administrative Services also declined in Adelaide due to the lack of international tourism and the reduction in interstate tourism.

Figure 32: Labour force participation and unemployment, Adelaide 2020-21



Source: ABS, 2021

Figure 33: Greater Adelaide contributions to growth, 2020-21



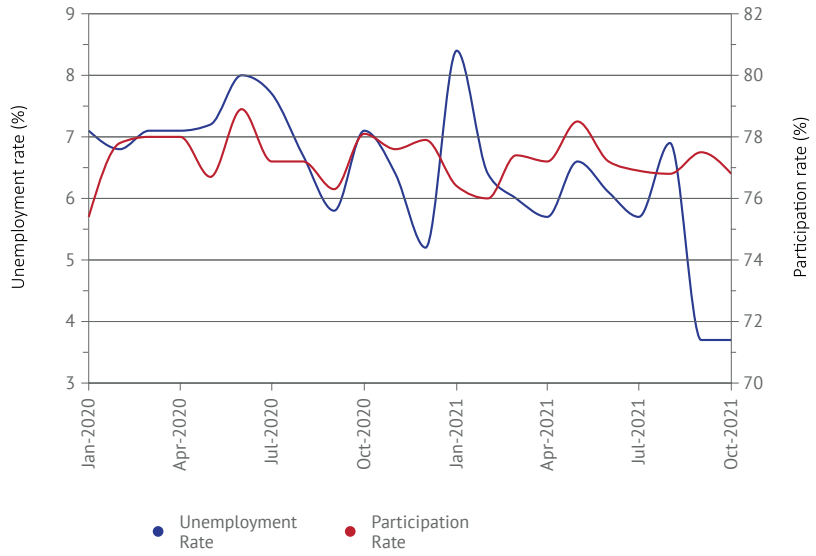
Source: SGS, 2021

Regional South Australia

Labour force participation and unemployment were relatively stable over the COVID-19 period in Rest of South Australia. This is a function of the structure of the regional economy – the dominant industries are generally those that were able to operate during COVID-19 lockdowns, e.g. Agriculture, Mining and Manufacturing. Overall, unemployment in rest of South Australia has trended downward over the last two years, reflecting the strength of the agricultural recovery and manufacturing growth. In regional South Australia, female unemployed made up the lowest share of total unemployed of Australia's regions, with women making up an average of 40.9 per cent of total unemployed over 2020 and 2021.

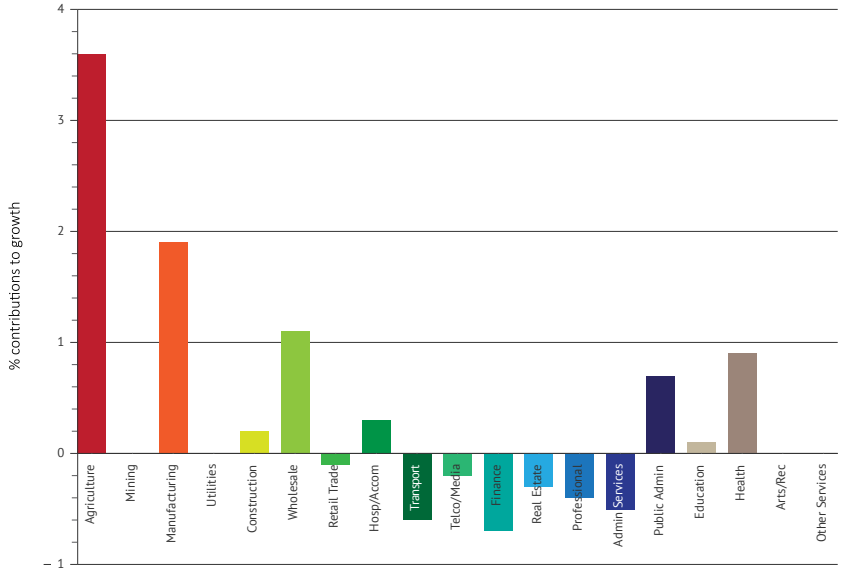
Unsurprisingly, the bumper grain crop in Agriculture contributed to almost half of Rest of South Australia's impressive 8.4 per cent economic growth. This was further supported by strong growth in Manufacturing and the recovery in Wholesale Trade. As with other cities and regions, Public Administration and Health provided further contributions to growth, and Transport, Postal and Warehousing and Administrative Services created a drag on growth due to the lower level of tourism.

Figure 34: Labour force participation and unemployment, Rest of South Australia 2020-21



Source: ABS, 2021

Figure 35: Rest of South Australia contributions to growth, 2020-21



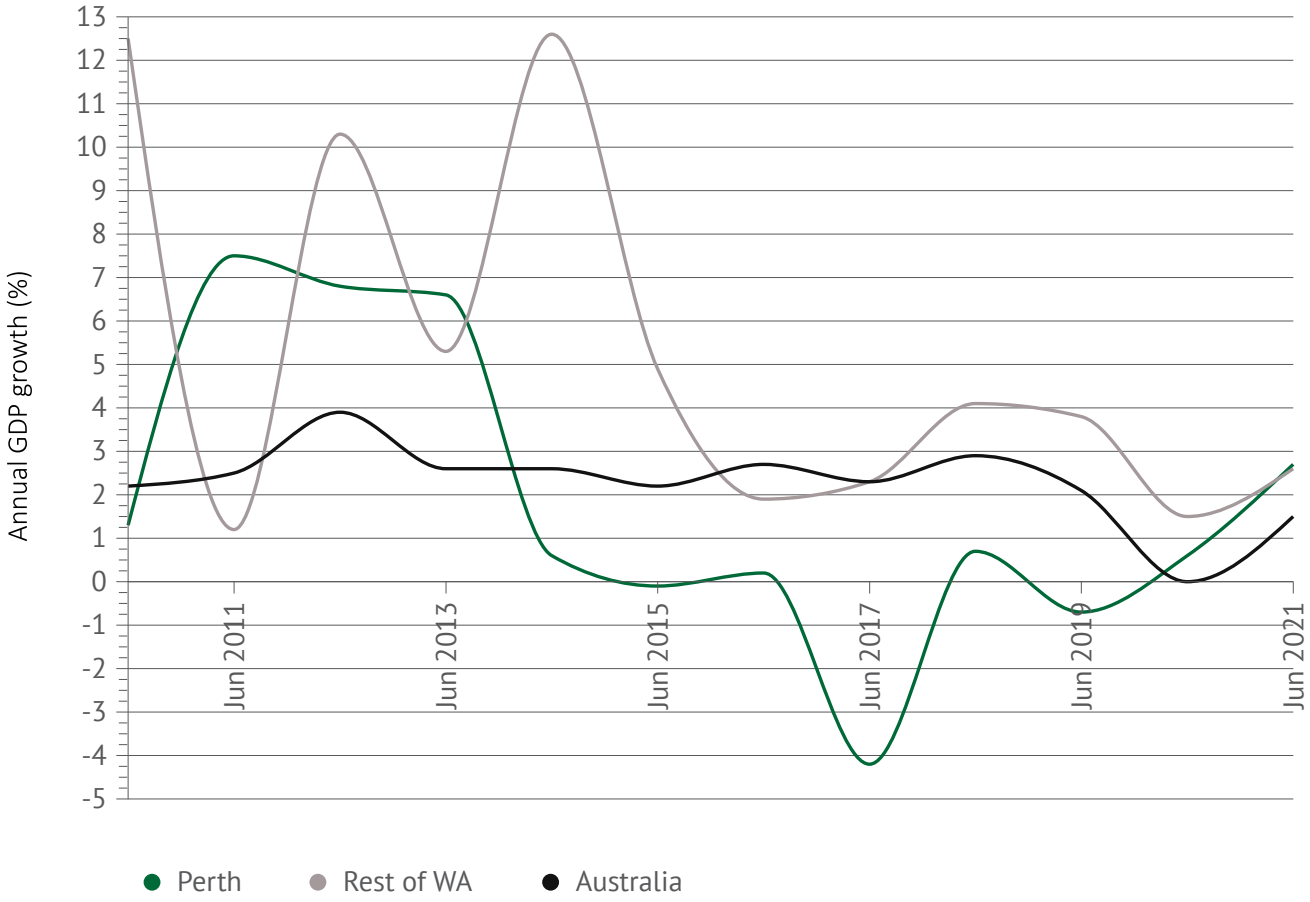
Source: SGS, 2021

Western Australia

3.5 Western Australia

The winding down of the iron ore-driven mining boom in Western Australia has seen the high growth rates of the early 2010s – well over 5 per cent per year for both Perth and Rest of WA – start to wind down to 4 per cent and less since 2016. Both Perth and Western Australia showed signs of modest recovery after COVID-19, with growth of 3.3 per cent in Perth and 1.5 per cent in Rest of WA, with the strongest drivers of growth coming from outside of Mining. State final demand for the September quarter grew by a comparatively modest 0.6 per cent.

Figure 36: Perth and Rest of Western Australia economic growth, 2010-21



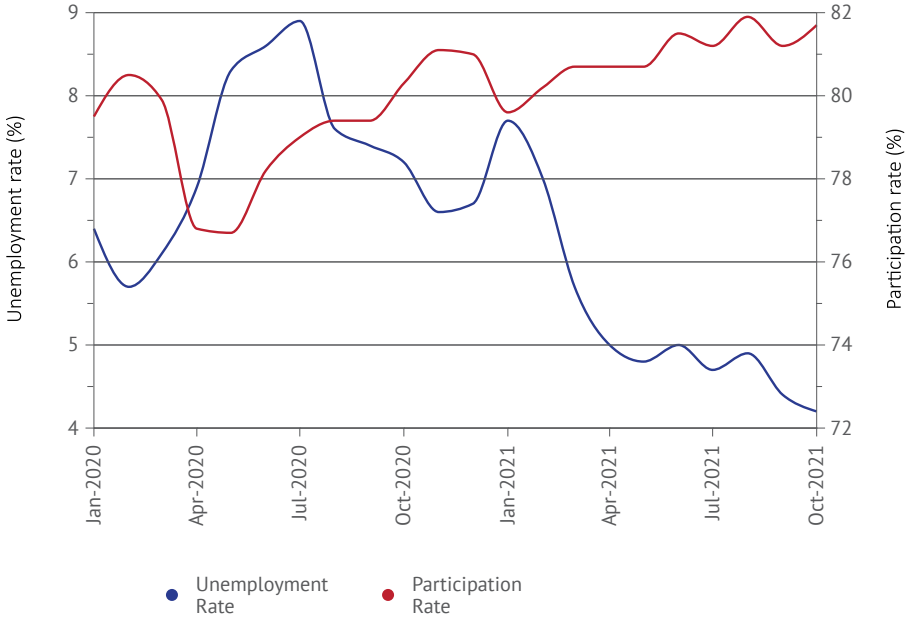
Source: SGS, 2021

Perth

Compared to other cities and regions, Perth residents were more likely to join the ranks of unemployed rather than leave the labour force when jobs dried up at the start of the pandemic. Perth saw unemployment rise from 5.7 per cent to 8.9 per cent from February to July 2020, while participation fell less than four per centage points from the peak in February to the trough in May 2020. Since then, the avoidance of long lockdowns has led to steady growth in participation and falls in unemployment. The recent outbreaks of COVID-19 and associated lockdowns in the Eastern States have not led to any increases in unemployment or declines in participation.

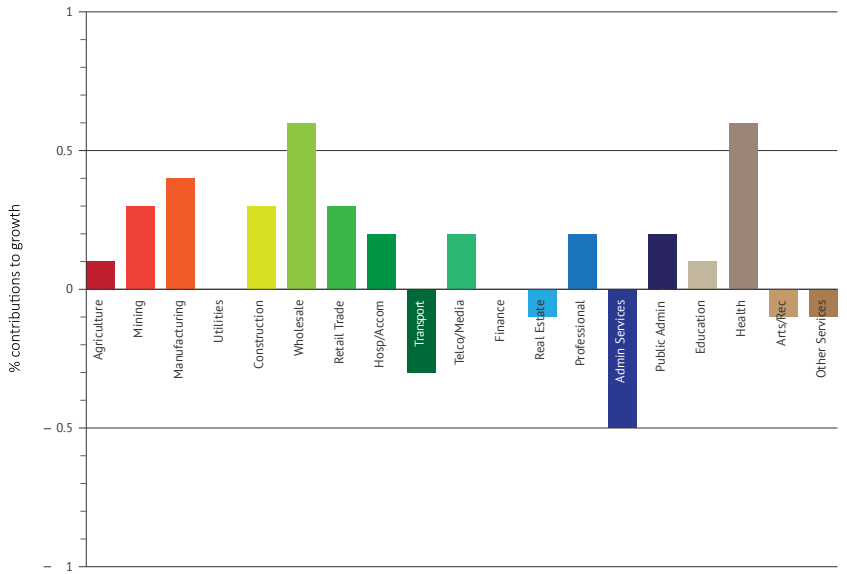
The drivers of growth in Perth were spread evenly across the board, led by Health Care and Social Assistance picking up health care services delayed in 2019-20, the testing and tracing schemes and the vaccination rollout. Notable contributions to growth came from Mining, Wholesale Trade and Manufacturing. A tightly regulated border led to further falls in Transport, Postal and Warehousing and Administrative Services.

Figure 37: Labour force participation and unemployment, Perth 2020-21



Source: ABS, 2021

Figure 38: Greater Perth contributions to growth, 2020-21



Source: SGS, 2021

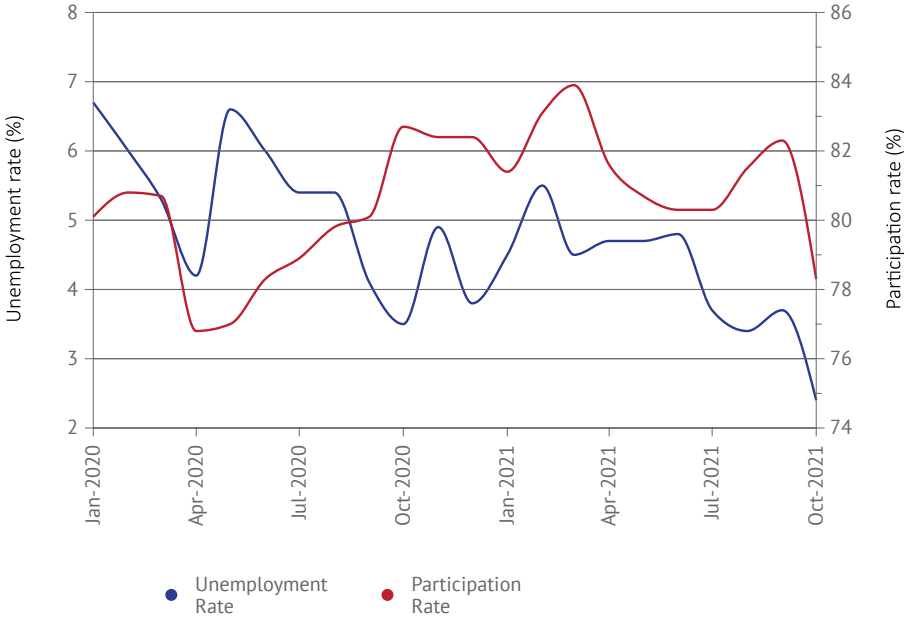
Regional Western Australia

Regional WA also saw a four percentage point decline in participation at the start of the COVID-19 outbreak; by October 2020, participation had returned to pre-COVID-19 levels. A sharp rise in unemployment from 4.2 per cent in April 2020 to 6.6 per cent in May was short-lived, falling to well below its pre-COVID-19 rate to 3.5 per cent by October 2020, to a low of 2.4 per cent in October 2021.

Regional WA's labour force gender mix has the greatest concentration of women in part time work and men in full time work of all of Australia's regions. Women make up an average of 74.5% of part time workers in WA, and only 31.3% of full time workers.

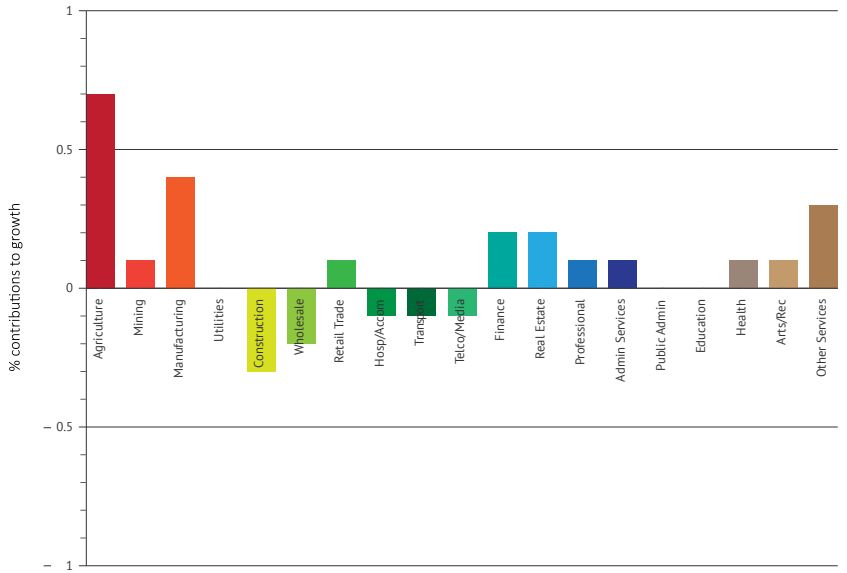
Agriculture and Manufacturing were the heroes of the rest of WA's economic growth, contributing 0.7 per cent and 0.5 per cent to the rest of WA's economic growth.

Figure 39: Labour force participation and unemployment, Regional WA 2020-21



Source: ABS, 2021

Figure 40: Contributions to growth, Regional WA 2020-21



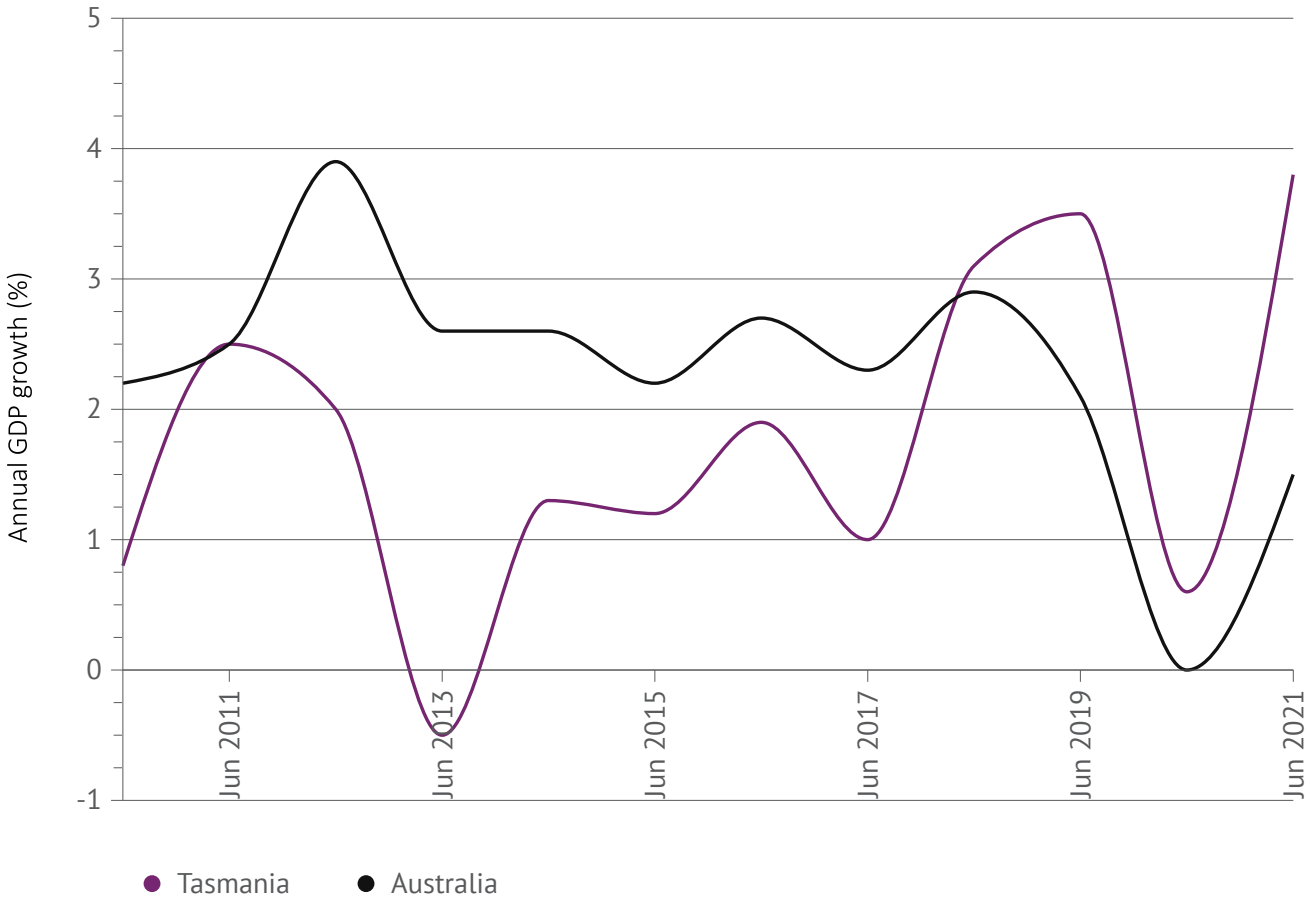
Source: SGS, 2021

Tasmania

3.6 Tasmania

After narrowly avoiding recession last year, Tasmania's economy rebounded strongly, growing 3.8 per cent for the 2020-21 financial year, faster than Australia as a whole. While Tasmania had grown more slowly than the rest of Australia through most of the 2010s, it has grown more strongly than the rest of the country in the last few years. In the September 2021 quarter, Tasmania showed the strongest growth of all states, with State final demand growing by 4.2 per cent.

Figure 41: Economic growth in Tasmania, 2010-21

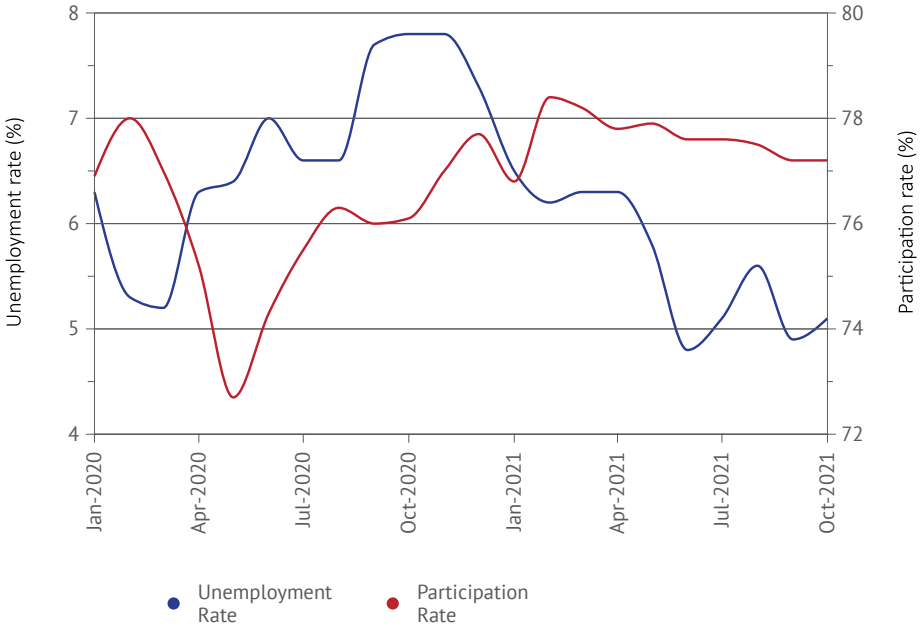


Source: SGS, 2021

Tasmania saw the same declines in participation and increases in unemployment as most other cities and regions in the initial pandemic outbreak. Unlike other cities and regions, the unemployment rate kept growing for the rest of 2020, despite Tasmania remaining more or less open. Unemployment turned the corner at the end of the year and has continued to decline since then, from 7.8 per cent in November 2020 to 5.1 per cent in October 2021.

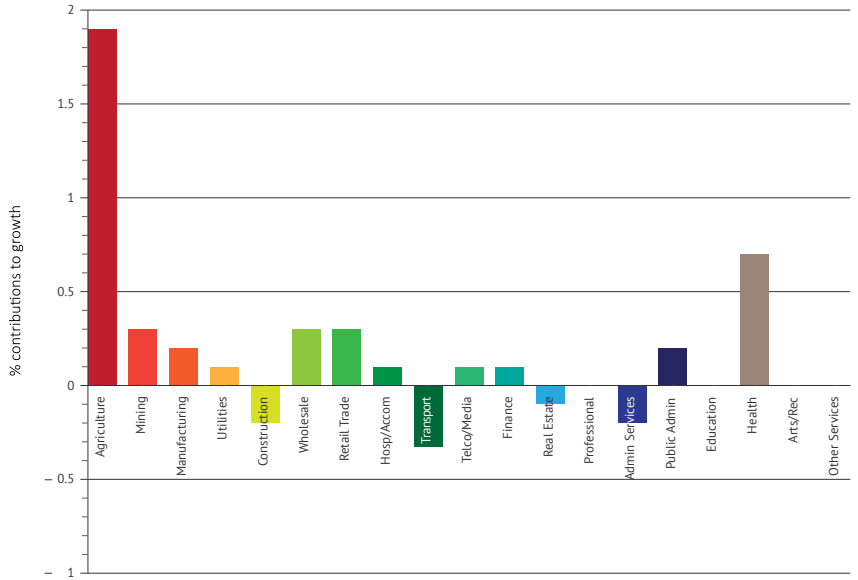
The major driver for Tasmania's economic growth was Agriculture, Forestry and Fishing, which was responsible for approximately half of Tasmania's growth. Growth in Health and Aged Care also supported the economy. While Tasmania experienced declines in Transport, Postal and Warehousing and Administrative Services, these falls were modest and did not heavily weigh on overall economic growth.

Figure 42: Participation and unemployment rate, Tasmania 2020-21



Source: ABS, 2021

Figure 43: Tasmania contributions to growth, 2020-21



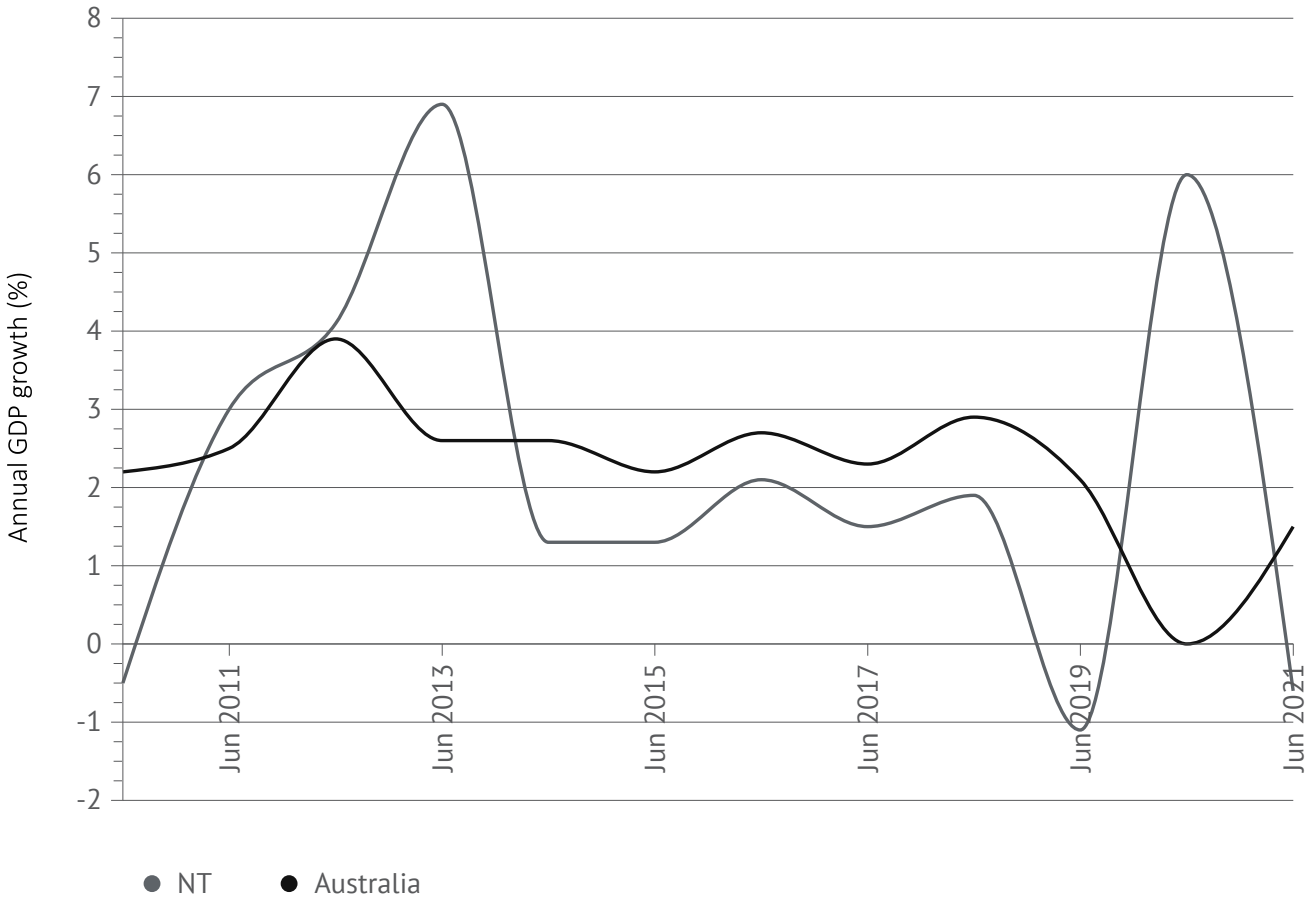
Source: SGS, 2021

Northern Territory

3.7 Northern Territory

While the Australian economy struggled last year due to COVID and bushfires, the Northern Territory's economy surged ahead, growing 6 per cent from the support of Mining, as Oil and Gas Extraction shifted from construction to production. This year, when the Australian economy experienced a tentative recovery, Northern Territory's economy went into reverse, falling by 0.6 per cent. Mining represents around a quarter of the Northern Territory's GVA, ensuring that any large shifts in Mining production will have a large impact on the NT economy. There has been some recovery in September 2021, with state final demand growth of 4.0 per cent. (ABS, 2021).

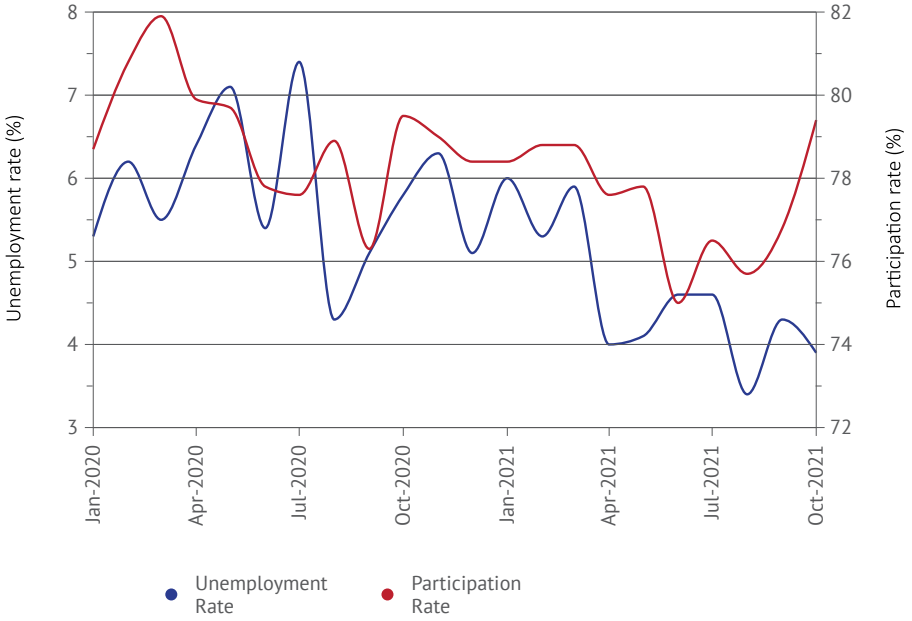
Figure 44: Economic growth in Northern Territory, 2010-21



Source: SGS, 2021

The impact of COVID-19 on unemployment and participation was comparatively mild in the NT. The participation rate declined but followed a steady downward trend from March 2020 to June 2021, rather than a sharp drop in response to the restrictions imposed in March/April 2021.

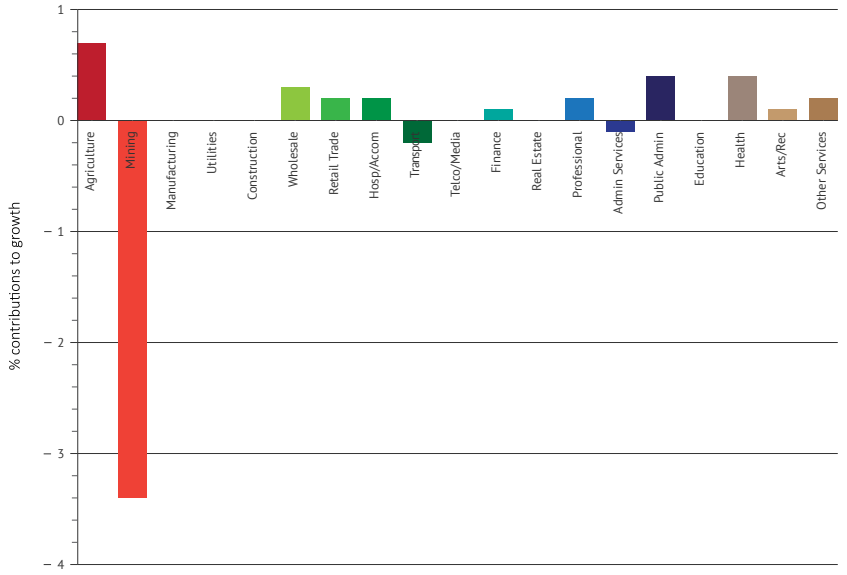
Figure 45: Participation and unemployment rate, Northern Territory 2020-21



Source: ABS, 2021

The decline in economic activity from Mining was the main driver of the NT's recession in 2020-21. Had Mining shown zero growth instead of a decline, the Northern Territory's economy would have grown by more than two per cent, supported by growth in Agriculture, Public Administration and Safety and Health Care and Social Assistance.

Figure 46: Northern Territory contributions to growth, 2020-21



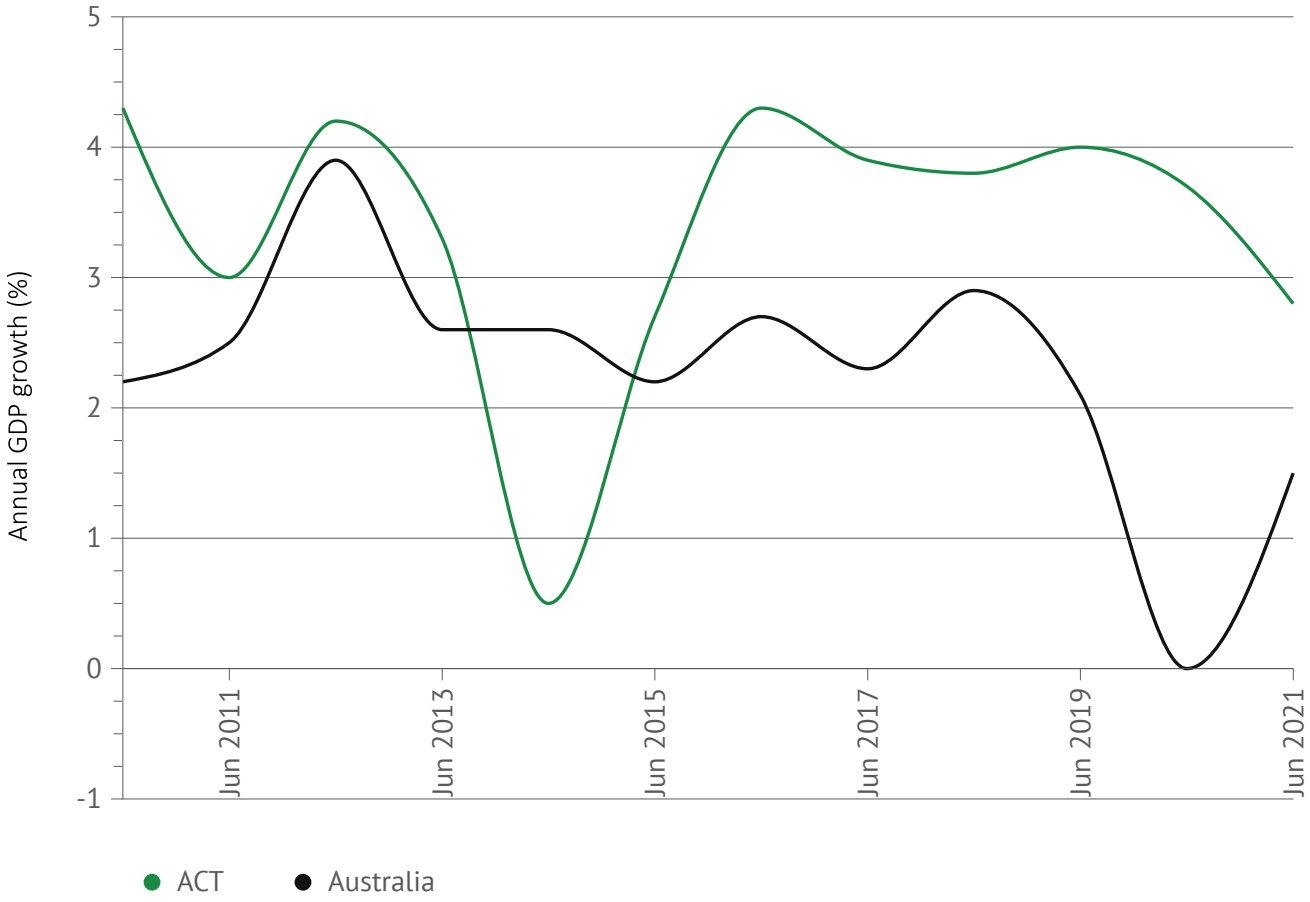
Source: SGS, 2021

Australian Capital Territory

3.8 Australian Capital Territory

The ACT's economy has grown strongly and steadily since 2015, following a stall in 2014 from cuts to the Public Administration and Safety, which makes up around 30 per cent of the ACT economy. ACT performed comparatively strongly in 2019-20, avoiding a COVID-19 recession, as the public service and supporting consultants were rapidly hired and deployed to process JobSeeker applications, support JobKeeper and enable other government programs to mitigate the crisis. In 2020-21, the need for this public sector support declined, and so the economy grew by a comparatively slower 2.8 per cent- which was still more than the Australian average. However, with the lockdowns from mid-August in 2021, ACT's state final demand contracted by 1.6 per cent (ABS, 2021) in the September quarter.

Figure 47: Economic growth in ACT, 2010-21



Source: SGS, 2021

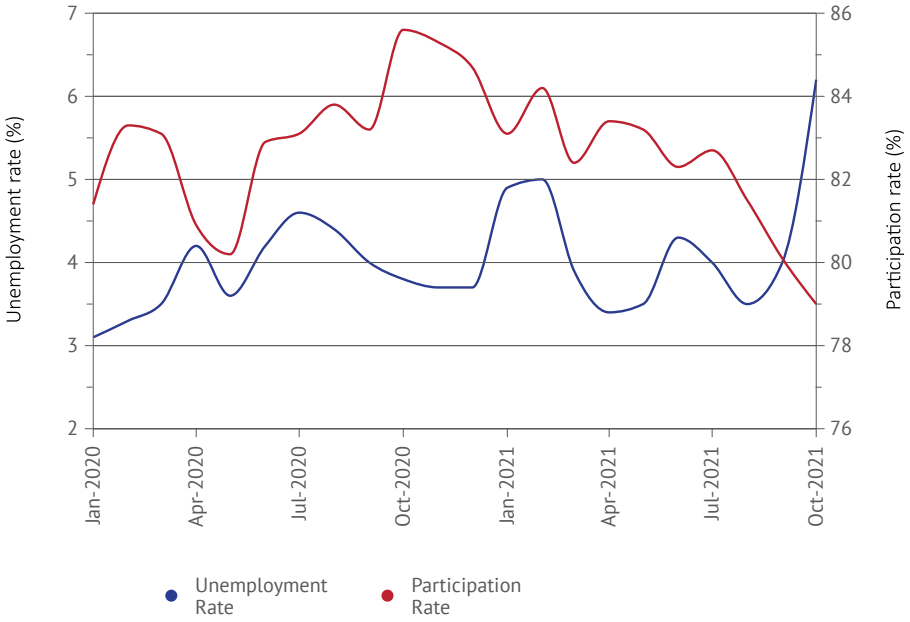
ACT saw a comparatively low drop in participation during the first wave of COVID-19 lockdowns (three per centage points) and unemployment grew from 3.1 per cent in January to 4.5 per cent in July. These measures returned to close to these pre-COVID-19 levels by the second half of 2020.

The labour force shock from the second wave of lockdowns in the ACT from August 2021 was far more severe, with participation falling to 79 per cent and unemployment rising to 6.2 per cent- the highest unemployment rate in the ACT since 1999.

Over 2020 and 2021, women made up the highest percentage of workers in the ACT than in any other region, representing 49.4 per cent of total employed.

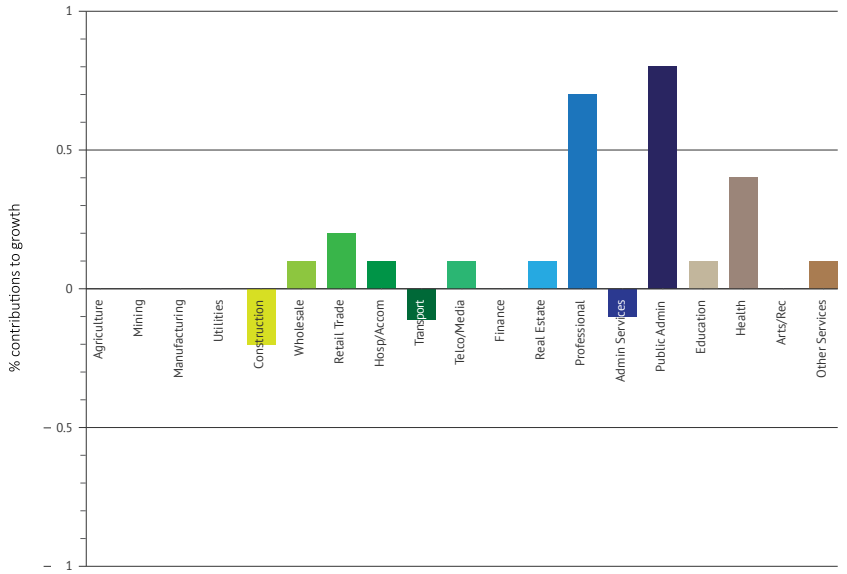
The major drivers for economic growth in the ACT were Public Administration and Safety, which contributed 0.8 points of growth, and Professional, Scientific and Technical Services (0.7 per cent).

Figure 48: Participation and unemployment rate, ACT 2020-21



Source: ABS, 2021

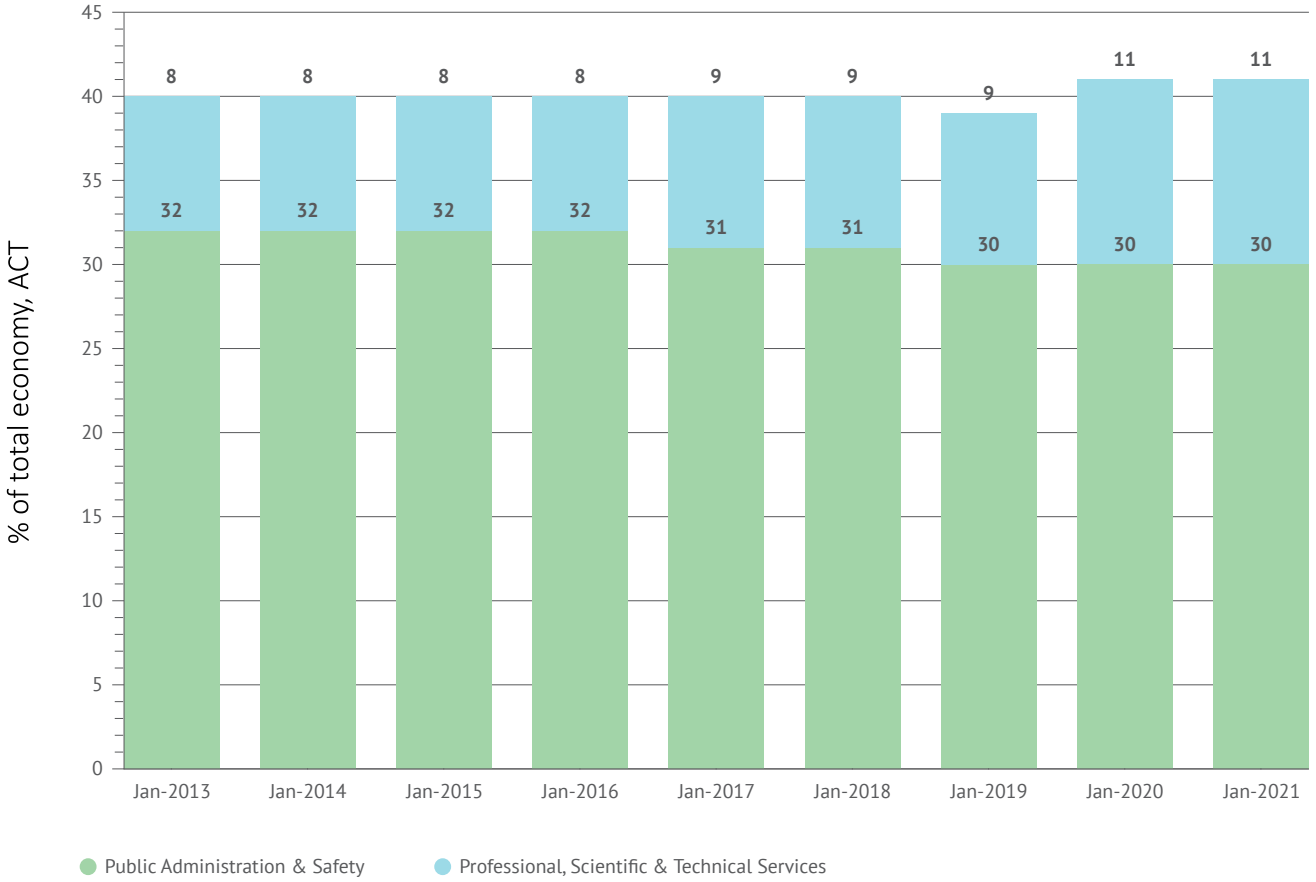
Figure 49: Contributions to growth, ACT 2020-21



Source: SGS, 2021

Part of the support for this growth has come from the growth in Professional, Scientific and Technical Services, which are commonly engaged to support the public service. Between 2010 and 2021, Canberra's economy grew by 43 per cent, Public Administration and Safety grew by 47.7 per cent and Professional, Scientific and Technical Services grew by 126 per cent. In 2010, Professional Services was the sixth largest contributor to the ACT's economy after Public Administration, Ownership of dwellings, Construction, Health, and Education. By 2021, Professional Services was the second largest sector of the economy, second only to Public Administration. The chart below shows how Public Administration has declined as a share of Canberra's total GDP while Professional, Scientific and Technical Services has grown.

Figure 50: Contribution to ACT economy, 2013-21



Source: SGS, 2021

4. Where to from here?

The shocks to economic wellbeing since early 2020 will take some time to process and build upon.

The 2020-21 financial year brought Australia's cities and regions hope that the worst of COVID-19 impacts on the economy and society were behind us. Agriculture, Forestry and Fishing's 22 per cent growth brought prosperity and growth to regional areas of Australia, or at the very least, kept them out of recession. Wholesale Trade, Retail Trade and Health Care and Social Assistance grew as the purchases and services delayed in the first half of 2020 were taken up. Those who had dropped out of the labour force in response to lockdowns taking their jobs gradually found work again. Women who found their jobs disappeared at a faster rate than men's jobs, or who could not work while supervising children at home in the absence of child care and schooling were able to re-enter the labour force. Socialising with friends and family at playgrounds, parks, pubs and holiday destinations became a possibility again.

The recent resurgence of COVID-19 in NSW, Victoria and ACT dashed these hopes temporarily, but Australia's admirable vaccine uptake – sitting at 87 per cent of Australians aged 16+ at the time of writing – is currently keeping COVID-19 infections and hospitalisations at a manageable level. Yet again, our lives appeared to be returning to normal. It remains to be seen if the Omicron variant will have an impact on this heading into 2022.

The impacts of the last two years are likely to have long lasting effects on Australia's economy and society. Some of the impacts we are seeing now include workers moving from the cities to the regions and keeping their city jobs through remote working, swapping business travel for Zoom meetings and more working from home. If these changes are sustained over the longer term, we could see trends in jobs and economic activity moving away from our CBDs to the suburbs, and from the suburbs to the regions.

The importance of protecting the environment that supports our Agriculture, Fisheries and Forestry industries cannot be overstated. Agriculture ranges from three per cent to up to 20 per cent of our regional economies, and its growth this past year kept Rest of NSW and Rest of Qld from scraping into recession. Protecting soil quality, water supply and surrounding forested areas in our regions, while monitoring carbon emissions to stabilize the climate, are essential measures to protecting one of our major export industries.

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6. Appendix: Methodology

There are three approaches to measuring Gross Domestic Product:

- **The Production Approach:** the sum of the Gross value added for each of the industries and taxes, less subsidies on products;
- **The Expenditure Approach:** measures final expenditure on goods and services; and
- **The Income Approach:** sum of income generated by all factors of production.

At the Australian level, the Production, Expenditure and Income approaches are averaged by the ABS to produce and estimate of GDP. However, at the State level, a lack of data on trade between the states results in the Expenditure and Income approaches being combined and averaged with the Production approach. The hybrid Expenditure and Income estimates of Gross State Product (GSP) have been published since the 1990s. The Production approach has only been estimated and published as part of the *Australian National Accounts: State Accounts (Cat. No. 5220.0) since 2007.*

In developing GDP[8] estimates for each major capital city (as defined by the capital city statistical divisions), the Production approach is used. This is used firstly because of the lack of data on interstate trade, and secondly because the data available to calculate the Production approach is more robust (and hence requires fewer assumptions to be made) than that available for the Expenditure or Income approaches. For each industry, wherever possible, the same data sources that have been used to produce industry gross value added at the state level are used to produce industry gross value added at the city level. Some of these data sources include:

- Agricultural Commodities: Small Area Data, Australia (Cat. No. 7125.0);
- Manufacturing Industry, Australia (Cat. No. 8221.0);
- Regional Population Growth, Australia (Cat. No. 3218.0);
- Household Expenditure Survey, Australia (Cat No. 6530.0);
- Education and Training Experience (Cat. No. 6278.0); and
- Labour Force, Australia, Detailed, Quarterly (Cat. No. 6291.0.55.003).

Via the use of the implicit price deflation technique, the Chain Volume Measures of the industry gross value added are converted into current prices. This method overcomes the non-additivity issue with the Chain volume measure and allows the aggregation of industry estimates of GVA to overall GDP. In order to maintain consistency with the wider National Accounts, the Production Approach estimate of city GDP is benchmarked to the state GDP.

For deriving labour productivity, the estimates of hours worked are taken from *Information Paper: Implementing New Estimates of Hours Worked into the Australian National Accounts, 2006* (Cat. No. 5204.0.55.003) which provides the total hours worked within the economy for 2004-05. The index of total hours worked from the *Australian System of National Accounts, 2018-19 (Cat. No. 5204.0)* has been used to advance the 2004-05 estimate for the years between 2005-06 and the most recent year. This Australian total hours worked figure has then been allocated for each industry in each capital city based on its share of total hours worked from the *Labour Force, Australia, Detailed, Quarterly (Cat. No. 6291.0.55.003).*

6.1 Industry methods

The gross value added for each industry for Australia is derived in the annual supply and use tables using the double deflation technique. That is, subtracting estimates of intermediate input from estimates of output. Where possible the same data has been used in estimating State level industry gross value added. The details of this estimation method are outlined in "Information paper: Gross State Product using the Production approach GSP(P)". In estimating the Capital City level industry gross value added, where possible, the same data sources have been used. The following section provides a summary of the data sources used to estimate gross value added for each industry. A quality assessment is also provided.

Agriculture, forestry and fishing

Method

Australian National Accounts: State Account (cat. no. 5220.0) provides a measure of Gross value added for the Agriculture, forestry & fishing industry in State. Data from the Agricultural Commodities: Small Area Data, Australia, 2006-07 (cat. no. 7225.0) provides information on the gross value of agricultural production within Capital City and Balance of the State.

The share of the gross value of agricultural production within Capital City is used to allocate the State Gross value added figure to Capital City for 2006-07. The Capital City share is altered in every other year using the hours worked from the Labour Force, *Australia, Detailed, Quarterly (cat. no. 6291.0.55.003).*

[8]GDP (Gross Domestic Product) refers to Australia, GSP (Gross State Product) refers to a State, while GCP (Gross City Product) refers to a city. However, for simplicity's sake in this paper all different measures are referred to as GDP.

Quality

The most reliable estimate would be for 2006-07, with the estimates based on the labour force survey being a slightly lower quality. The 2006-07 share based on the *Agricultural Commodities: Small Area Data, Australia* publication is 8.5 per cent and the Labour Force, *Australia, Detailed, Quarterly* estimate is 8.3 per cent. This indicates that the labour force survey is a good proxy of economic activity in the Agriculture, forestry & fishing industry.

This method would be unlikely to capture head office operations of Agriculture, forestry & fishing firms located in Capital Cities. This would have a very small downward bias on the estimates. Due to the relatively small size of the industry in the Capital City (0.2 per cent in 2006-07), it would have little impact on the quality of Capital City's GDP.

Mining

Method

The Gross value added per hour worked (labour productivity) for the Professional, scientific & technical services industry is multiplied by the total hours worked in the Mining industry in the Capital City. This is done as much of the Mining activity in the Capital City is often related to head office operations. The Professional, scientific & technical services Gross value added per hour worked is thought to reflect the type of activities carried out by head office operations.

Quality

Due to the conceptual issues with measuring mining production associated with city based workers and lack of data the Mining estimates of Gross value added are considered to be of a very low quality. The method would not account for direct mining operations (quarries, sands etc) which take place in the Capital City. This could have a very small downward bias on the estimates. Due to the relatively small size of the industry in Capital Cities (between 0.1 per cent and 0.4 per cent) it would have little impact on the quality of the Capital City's gross domestic product.

Manufacturing

Method

Data from the *Manufacturing Industry, State and Australian Capital Territory (cat. no. 8221.1.55.001)* publication provides information on the sales income share between Capital City and the Balance of State for 2001-02. *Manufacturing Industry, Australia, 2006-07 (cat. no. 8221.0)* provides the sales income spilt for 2006-07.

The share of the income within Capital City and the Balance of State is used to allocate the State Gross value added figure to Capital City for 2001-02 and 2006-07. The Capital City share is altered in every other year using the movements in hours worked from the *Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003) publication.*

Quality

The most reliable estimate would be for 2001-02 and 2006-07 with the estimates based on the labour force survey of a slightly lower quality. The 2001-02 income share for the Capital City is 69.8 per cent and the labour force hours worked is 72.8 per cent. The 2006-07 income share for the Capital City is 68.6 per cent and the labour force hours worked is 70.3 per cent. This indicates that the labour force survey is a reasonably good proxy of economic activity in the Manufacturing industry. The availability of detailed Manufacturing industry statistics data for 2001-02 and 2006-07 makes the estimates of Capital City's industry Gross value added of a good quality.

Electricity, gas, water and waste services

Method

National Gross value added for the two digit industry subdivisions from *Australian System of National Accounts (cat .no. 5204.0)* and the Census two digit industry subdivision place of work data is used to estimate an average Gross value added per worker. The Census place of work data for Capital City and the Balance of State is then applied to these averages. The share of the total estimated gross valued added is applied to the *Australian National Accounts: State Account (cat. no. 5220.0)* Gross value added for the Electricity, gas, water & waste services for State. This produces an estimate for 2005-06 for Capital City and Balance of State Gross value added for this industry. Population growth is then used to create a time series for industry Gross value added.

Quality

The quality for the Electricity, gas, water & waste services industry estimates would have to be seen as low. The lack of data is the key issue. The conceptual issue of splitting Gross value added between generators / water treatment plants and distribution networks is also challenging. The industry is estimated to represent around 2.0 per cent of a city's gross domestic product.

Education and training

Method

The Australian Bureau of Statistics publication, *Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)* provides a measure of Gross value added for the Education industry in Australia. *Government Finance Statistics, Education, Australia (cat. no. 5518.0.55.001)* is used to split the national estimates of Education Gross value added into School & Post School Education.

Australian National Accounts: State Account (cat. no. 5220.0) provides a measure of Gross value added for the Education industry in each State. The *Survey of Education and Training (cat. no. 6278.0)* provides data on people with education qualifications, and estimates of school aged population taken from *Population by Age and Sex, Regions of Australia (cat. no. 3235.0)* are used to allocate the State estimate of education by level to the capital city.

Quality

Given the detailed level of data being used and the fairly straightforward nature of the delivery of education and training services (in a spatial sense) lead to the quality of this industry estimated being classed as good.

Ownership of dwellings

Method
Average rents in Capital City and Balance of the State are derived from the *Housing Occupancy and Costs, Australia, 2005-06 (cat. no. 4130.0)* publication and combined with population data to estimate the share of Ownership of dwellings for the two areas. This is then applied to the Ownership of dwellings Gross value added from the *Australian National Accounts: State Account (cat. no. 5220.0).*

Quality
The quality of the available data and the clear conceptual boundaries lead to the quality of this industry estimate being classed as good.

All other industries

Method
In the absence of any data which would allow the share between the Capital City and Balance of the State to be estimated, the hours worked from the Labour *Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003)* is used. The industries which this method is applied to are:
- Construction
- Wholesale trade
- Retail trade
- Accommodation & food services
- Arts & recreation services
- Other services

For some industries one adjustment is made to the hours worked share. The hours worked are weighted by an average wage rate for Capital City and Balance of the State from the Census. This accounts for different economic structures within each industry in the Capital City and Balance of the State. For example, in Financial & insurance services the type of activities (from basic banking operations up to hedge funds) is much wider than in Balance of the State (where basic banking operations are the most common activities). The industries which this method is applied to are:
- Information media & telecommunications
- Financial & insurance services
- Rental, hiring & real estate services
- Professional, scientific & technical services
- Public administration and safety
- Health care and social assistance

Quality
The quality of the various industry estimates would vary and should be treated with some caution but in aggregate the method should be provide a good estimate of a Capital City's gross domestic product.

Taxes less subsides on products

Method
Australian National Accounts: State Account (cat. no. 5220.0) provides a measure of Taxes less subsides on products for the Agriculture, forestry & fishing industry in each State. The Capital City share of Agriculture, forestry & fishing industry Gross value added is used to split the value of Taxes less subsides on products this industry. The residual of the State Taxes less subsides on products is then spilt using the total industry value added (excluding Ownership of dwellings) for Capital City and the Balance of State.

Quality
This method should produce reasonable estimates of the split between Capital City and Balance of the State for Taxes less subsides on products.

Aggregation of industry estimates to Gross Domestic Product
Via the use of the implicit price deflation technique, the chain volume measures of industry Gross value added are converted into current prices. This method overcomes the non-additivity issue with the Chain volume measure and allows the aggregation of industry estimates of Gross value added to overall gross domestic product. In order to maintain consistency with the wider National Accounts, the Production approach estimate of Capital City gross domestic product is benchmarked to Gross State Product. An industry weighted GDP implicit price deflator is created to for the Capital City and Balance of State.

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