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COVID-19 and Potential Impact on South Australia's Population

An Insight into South Australia's employment for the youth cohort

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Introduction

In a recent working paper Borland and Coelli (2021) argued that employment outcomes for the young aged 15 to 24 years saw a "substantial deterioration" much worse than for other aged groups as a result of the Global Financial Crisis (GFC) and had yet to recover. The authors argued that the reasons for this included increased competition due to the strong growth in labour supply from "international students and working holidaymakers" as well as from higher retention rates in the workforce of prime age workers and the older population. Slower aggregate employment growth post the GFC may have had an impact on youth employment but this was not sufficient in itself to explain the poorer outcomes for youth aged 15 to 24 years. As a result, more young people were likely to be unemployed, employed in part-time work and were more likely to have dropped out of the labour force altogether.

In this paper we examine the impact of COVID-19 on employment in South Australia with reference to the young (but other age groups as well) where the impact appears to have been greatest for casual and part-time workers in activities with high face-to-face contact. Such contact intensive activities include tourism, the hotel and accommodation sector, food services and those in the personal services workforce.

Labour Market Experiences Prior to COVID-19

Before considering how the pandemic affected labour market outcomes for different age cohorts, it is worth reviewing the labour market experience of these cohorts over the longer term prior to COVID-19. In this section we briefly review the labour market performance of broad age cohorts based on data from the Labour Force Survey. Appendix A provides a more thorough analysis of longer-term demographic and labour market trends by age group.

Unlike what Borland and Coelli (2021) find for Australia, there was no apparent major deterioration in unemployment for persons aged 15 to 24 years in South Australia immediately following the GFC – see Figure 1, which shows unemployment rates for different age cohorts on a moving annual average basis. Notwithstanding some initial modest increase, unemployment rates remained relatively steady for 3 to 4 years post the GFC before they started to rise. Macroeconomic conditions in Australia in the aftermath of the GFC generally held up better compared to most other western economies. This relatively stronger economic performance can be attributed to several factors, including, but not limited to, considerable fiscal and monetary stimulus implemented by the Australian Government and Reserve Bank of Australia in response to the crisis; the limited exposure of domestic financial bodies to US housing markets and financial system which were the epicentre of the financial crisis; and large spillovers from expansionary fiscal policy and ongoing economic growth in China, which primarily manifest in terms of ongoing robust demand for resources.

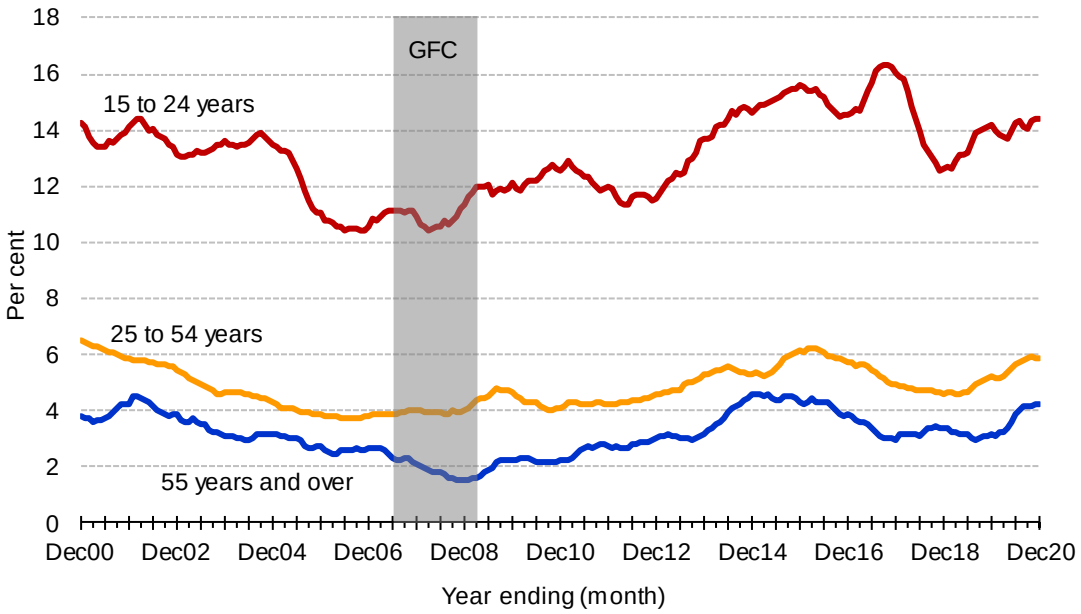
While overall unemployment rates for youth in South Australia remained stable in the immediate aftermath of the GFC, the crisis instigated some deterioration in the quality of employment. As the analysis in Appendix A shows, full-time employment for 15- to 24-year-olds started to decline with the GFC – a process that persisted for over a decade, which points to underlying structural factors contributing to this trend.[1] The share of employed 15- to 24-year-olds in full-time employment fell from 52 per cent in 2007 to 41 per cent in 2017. This trend may be partly explained by a shift toward participation in full-time education by young adults over this period which may have limited their ability to engage in full-time employment (see discussion further below).

Data on employment to population ratios as illustrated by Figure 2 reinforces the lack of any immediate negative impacts from the GFC on labour market outcomes for the various age groups. Employment rates remained relatively stable for the three broad age groups in the years immediately following the crisis. However, one of the most notable effects of the GFC was that it appears to have coincided or even contributed to a cessation in expanding employment participation among the oldest cohort. The employment to population

[1] Possible factors would include, inter alia, structural change in the economic base, especially the decline in manufacturing and erosion of large-scale resources projects; technological change including increasing automation; the rise in the 'gig' economy; and increasing participation in full-time education which limits ability to participate in full-time work.

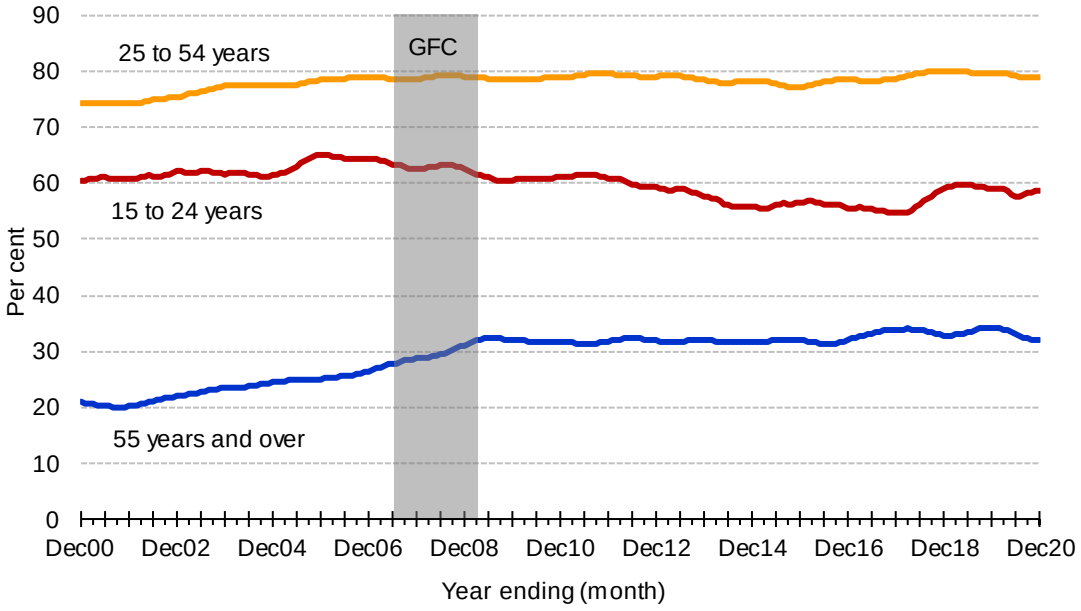
ratio for those aged 55 years and over had been growing steadily prior to the GFC, which would probably reflect cohort effects in terms of population ageing, including a greater desire and ability to work longer, and the impact of age pension restrictions. However, this trend soon flattened off following the deterioration in global financial markets – Figure 2. This outcome is somewhat surprising given that the GFC had a severe impact on superannuation balances in the short term, which would have encouraged some older people to return to work or work for longer than expected.

Figure 1: Unemployment Rates by Age Group, South Australia, Moving Annual Average



Note: GFC = Global Financial Crisis
Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

Figure 2: Employment to Population Ratio by Age Group, South Australia, Moving Annual Average



Note: GFC = Global Financial Crisis
Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

It should be noted that the high-level employment to population ratios for youth probably again overstate the health of labour market outcomes for this cohort following the GFC as there was a notable slowdown in population growth for this cohort around 2010-2011. This slowdown can be partly attributed to an increase in net outward interstate migration of young adults.

Several years after the GFC unemployment rates did start to rise across all cohorts, commencing from around 2011 for those aged 55 years and over, 2012 for those aged 25 to 54 years, and 2013 for those aged 15 to 24 years – Figure 1. And the employment to population ratio for 15- to 24-year-olds also started to decline from around 2011. This deterioration was brought about by a major weakening in macroeconomic conditions and confidence in South Australia, brought on by fading commodity prices and state-specific shocks, most notably BHP Billiton's cancellation in 2012 of a proposed $30 billion expansion of the Olympic Dam copper-uranium mine and Holden's announcement in December 2013 of its decision to cease local vehicle assembly by the end of 2017. The latter, which had considerable knock of effects through the supply chain, hastened the decline of manufacturing, while the Olympic Dam decision represented a major blow to consumer and business sentiment.

These events, couple with other underlying structural weaknesses, contributed to a major period of macroeconomic weakness for the state. Gross state product per capita, measured in real terms, actually fell by 0.7 per cent over the four years to 2014/15, the weakest result of any state or territory. In comparison, national level Gross Domestic Product per capita rose by 4.8 per cent over this period.

And it appears that this period of substantial economic weakness did indeed contribute to relatively poorer labour market outcomes for youth in South Australia. In year average terms, the unemployment rate for persons aged 15 to 24 years rose by 3.6 percentage points between 2011 and 2015. In comparison, unemployment among those aged 25 to 54 years rose by 2.0 percentage points, while for those aged 55 years and over it rose by 1.6 percentage points. Hence, it does appear that young adults did suffer some deterioration in employment outcomes between the GFC and outbreak of the pandemic relative to other aged cohorts, but this deterioration was not immediately attributable to the GFC as Borland and Coelli (2021) find for Australia. Rather, it appears other underlying factors, such as the state's greater reliance on manufacturing and less diversified economy, contributed the relatively poorer labour market performance for persons aged 15 to 24 years.

The Immediate Impact of COVID-19

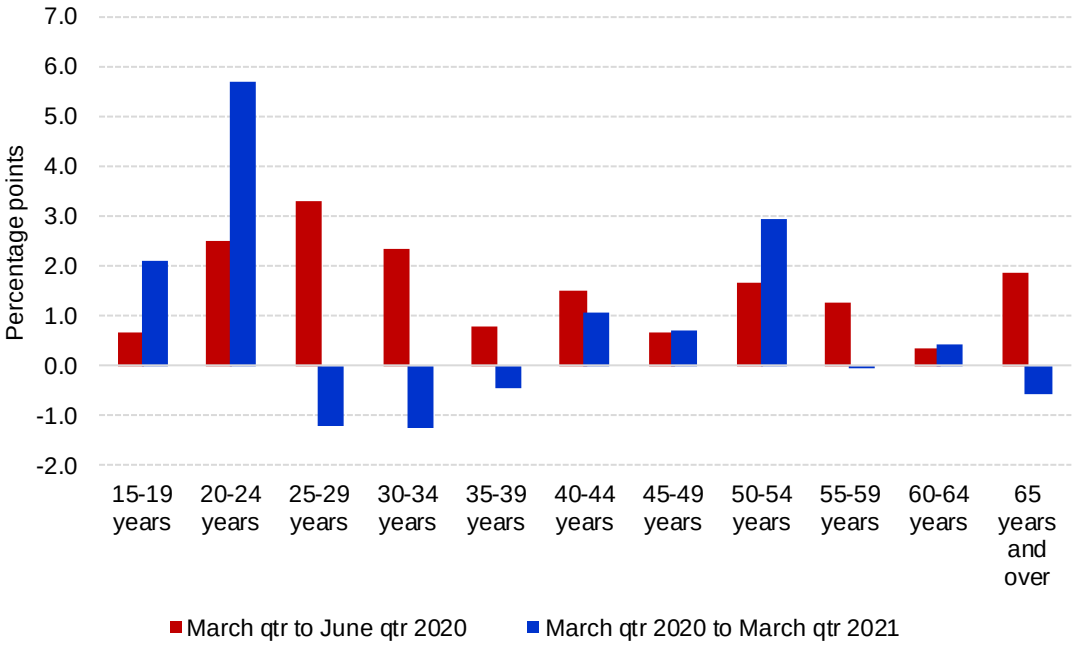
Turning to the impact of the COVID-19 outbreak on employment outcomes by age group, Figure 3 shows the percentage change in the unemployment rate by 5-year age group between the March and June quarters of 2020, and through the year to the March quarter 2021.

In the first full quarter of the COVID-19 outbreak (i.e. June quarter 2020) most but not all age groups experienced an increase in unemployment by between 1.5 and 2.5 percentage points. Younger prime-age adults were hit particularly hard by the initial outbreak and implementation of social distancing restrictions. The largest rise in unemployment occurred for those aged 25 to 29 years (up 3.3 percentage points), followed by those aged 20 to 24 years (up 2.5 percentage points), and 30 to 34 years (up 2.3 percentage points). Very young adults aged 15 to 19 years actually fared quite well, with their unemployment rate increasing by just 0.7 percentage points in the June quarter 2020, well below the average rise for the total labour force of 2.0 percentage points.[2] Only those aged 60 to 64 years (up 0.3 percentage points) and 45 to 49 years (up 0.7 percentage points) experienced equivalent or smaller increases in unemployment.

Younger prime-age adults were particularly affected by the pandemic because they are more likely to work in those social contact intensive industries which were most impacted by social distancing measures. As ABS data on payroll jobs illustrated in Figure 4 shows, employment fell quite sharply during the opening stages of the pandemic for accommodation and food services (down 41 per cent between the weeks ending 14 March and 11 April 2020), and arts and recreation services (down 40 per cent). There were also large declines for mining (down 16 per cent), rental, hiring and real estate services (down 11 per cent), other services (down 9.5 per cent), and to a lesser degree, retail trade (down 7.7 per cent).

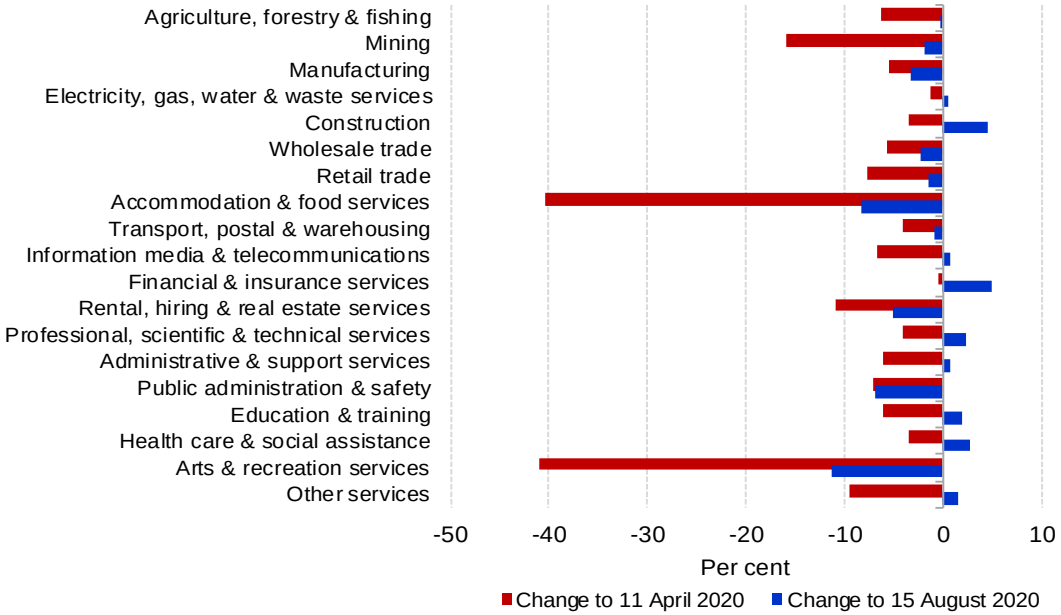
[2] Data for the total labour force based on seasonally adjusted data, while data for age groups is based on original data.

Figure 3: The impact of COVID on Unemployment by Age Group
Change in unemployment rate between selected quarters, South Australia



Note: Unemployment rates based on an average for the three months in the quarter.
Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

Figure 4: Change in Payroll Jobs from the Beginning of the Pandemic
South Australia – Change from Week Ending 14 March 2020



Note: The week ending 11 April 2020 corresponds to the low in payroll jobs after the outbreak of COVID-19, while the week ending 15 August 2020 corresponds to the point where total payroll jobs in South Australia returned to their pre-COVID level.
Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

Data from the 2016 Census indicates that compared to the total workforce persons aged 20 to 34 years were more likely to be employed in several of those sectors which suffered particularly large initial declines in employment. A larger share of persons aged 20 to 34 years were employed in both those two sectors which suffered the largest initial falls in employment: accommodation and food services (9.0 per cent compared to 6.7 per cent for all ages) and arts and recreation services (1.7 per cent compared to 1.4 per cent). They were also more likely to be represented in retail trade (13 per cent compared to 11 per cent) and other services (4.3 per cent compared to 3.9 per cent) which experienced some of the largest declines. On the other hand, people aged 20 to 34 years were under-represented in health care and social assistance (14 per cent compared to 15 per cent) – the largest employing sector which also experienced one of the smallest falls in employment. Figure 5 illustrates employment by industry for persons aged 20 to 34 years in 2016 while Figure 6 shows the corresponding data for all employed persons.

Given such sectoral differences in employment by age group it is surprising that young people aged 15 to 19 years did not suffer a relatively larger increase in unemployment during the COVID-19 outbreak given their even greater dependence on retail trade and accommodation and food services. Census data shows that 33 per cent of 15- to 19-year-olds in 2016 were employed in accommodation and food services while a further 31 per cent were employed in retail trade, well above the corresponding figures for all ages of 6.7 per cent and 11 per cent respectively. This discrepancy would be partly explained by intra-industry differences in employment representation and exposure to social distancing measures. For example, persons aged 15 to 19 years employed in retail trade are much more likely to be employed in supermarkets and grocery stores compared to all ages (47 per cent compared to 27 per cent in 2016), which are considered essential retail services permitted to remain open. Similarly, a larger proportion of 15- to 19-year-olds employed in accommodation and food services work in takeaway food services (56 per cent and 26 per cent) which are also typically treated as essential retail services and could more easily adjust to social distancing measures compared to other services such as indoor dining.

It also seems that unemployment estimates from the Labour Force Survey significantly overstate the relative performance of employment outcomes for youth aged 15 to 19 years during the outbreak of the pandemic. Actual employment levels and the employment to population ratio for this cohort actually fell to a larger extent that any other cohort with the exception of 20- to 24-year-olds between March and May of 2020. This pattern is illustrated by data on payroll jobs for South Australia that shows that persons aged 15 to 19 years experienced the largest decline in employment during the first couple months of the pandemic, followed by those aged in their twenties – see Figure 7. Hence, it does appear that industry characteristics contributed to a large temporary decline in employment for young adults.

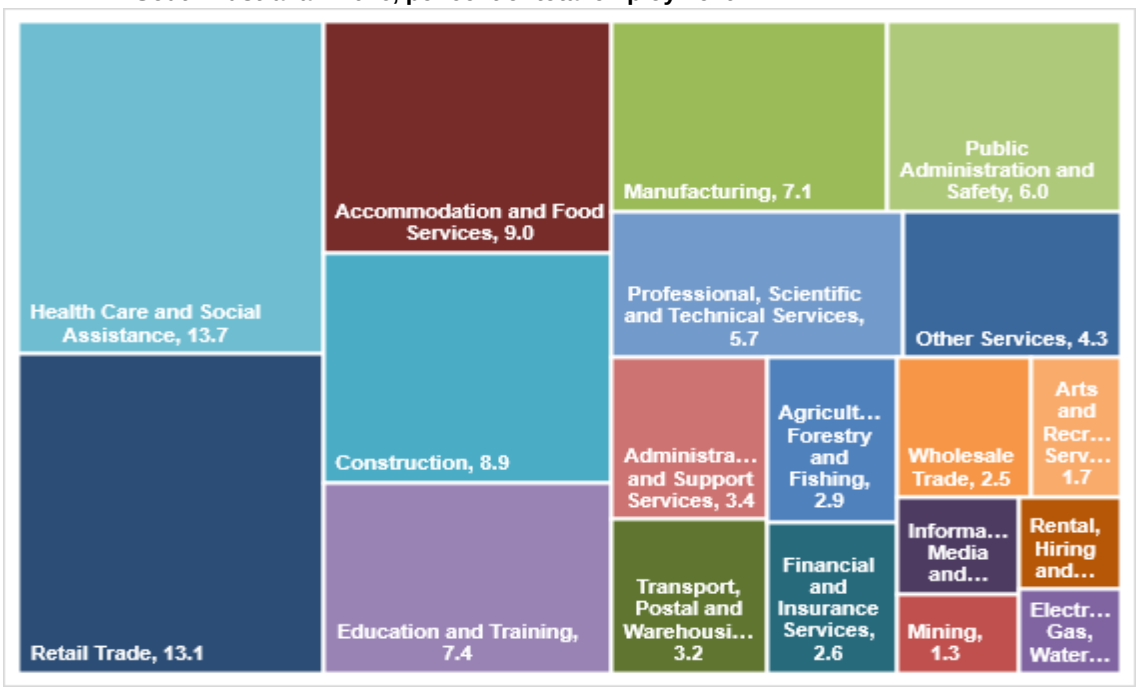
The lack of a one for one flow through to unemployment for younger adults can be partly explained by these individuals being more likely to leave the labour force during the initial stage of the pandemic. Between March and May of 2020 labour force participation rates fell most sharply for persons aged 15 to 24 years. To the extent that younger adults are engaged in study and live at home with their parents they have greater flexibility and financial capacity to deal with temporary leaves of absence from the workforce. Moreover, employment levels and labour force participation snapped back more quickly for these cohorts after the initial social distancing measures were relaxed.[3]

Eligibility requirements for the JobKeeper Payment may also have contributed to the relatively large decline in employment for young adults. While eligible employers were able to claim the wage subsidy for full-time and part-time employees, only long-term casual employees – defined as those that had been with the employer for at least 12 months – were eligible to receive the payment. Hence, short-term casual employees were not eligible for the wage subsidy, which would have encouraged employers to temporarily lay off casual workers. And since casual employment is a much more common form of employment for younger workers, this cohort would have been more severely affected by this phenomenon.[4]

[3] This sharp decline and quick snap back emphasises the need to exercise care when interpreting monthly labour force survey data. Much of the fine level Labour Force Survey data considered here is only available on an original basis (i.e. not seasonally adjusted) and subject to relatively high standard errors. While we prefer to use quarterly average to try and smooth for these limitations, doing so can hide abrupt changes in labour market performance which have been typical through the pandemic.

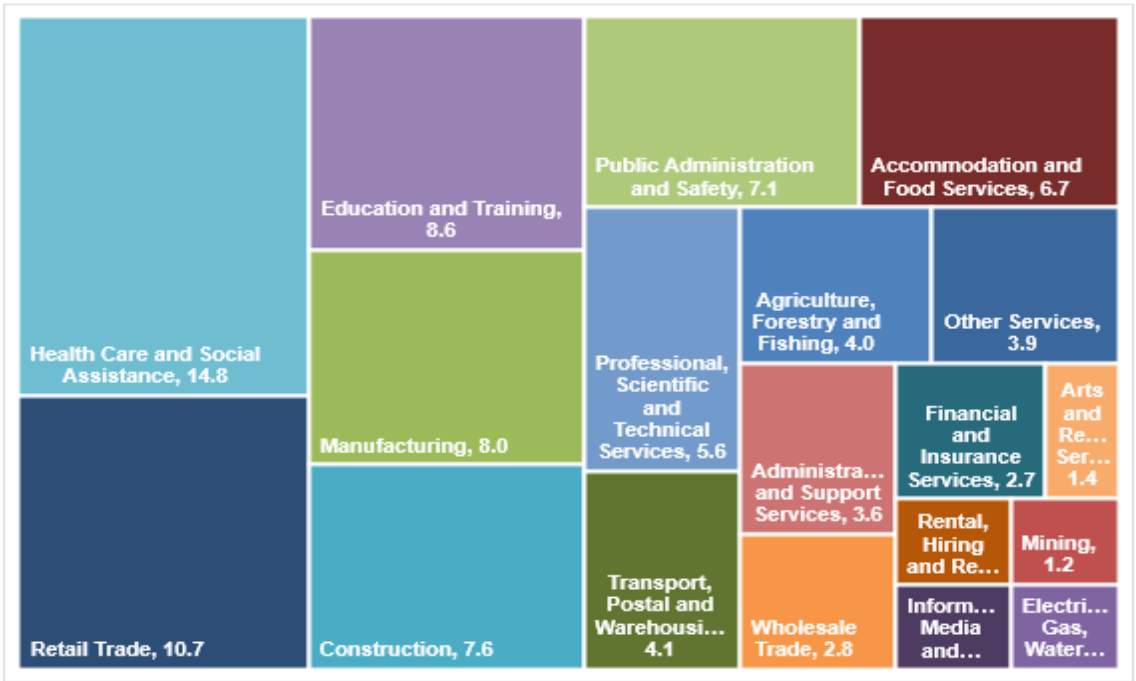
[4] For a breakdown of casual employment adoption by age group see Parliament of Australia (2018).

Figure 5: Employment by Industry of 20- to 34-year-olds
South Australia – 2016, per cent of total employment



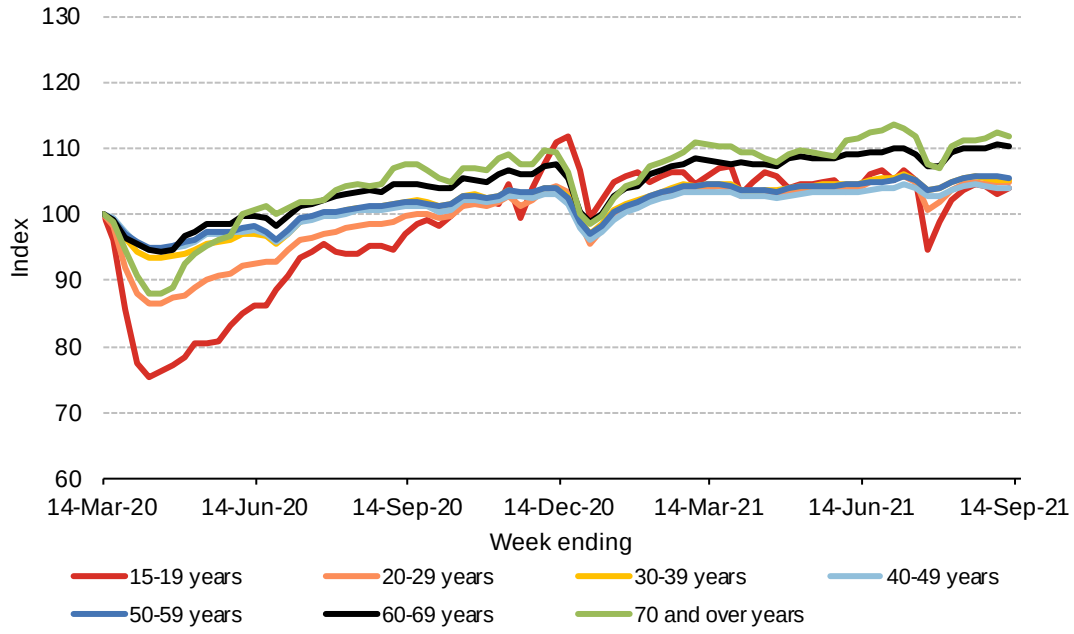
Source: Australian Bureau of Statistics, 2016 Census of Population and Housing: www.abs.gov.au

Figure 6: Employment by Industry of All Persons
South Australia – 2016, per cent of total employment



Source: Australian Bureau of Statistics, 2016 Census of Population and Housing: www.abs.gov.au

Figure 7: Index of Payroll Jobs by Age Group
South Australia – week ending 14 March 2020 to 11 September 2021



Source: Australian Bureau of Statistics, Weekly Payroll Jobs and Wages in Australia: www.abs.gov.au

Looking beyond the immediate impact of the pandemic, one year after the outbreak unemployment rates for prime adults aged 25 to 39 years had actually improved relative to pre-COVID levels as social distancing measures were relaxed and social intensive activities increasingly resumed – see Figure 3. On the other hand, unemployment for younger adults aged 15 to 24 years had actually deteriorated further, while older age cohorts such as those aged 50 to 54 and 60 to 64 had also seen an uptick in unemployment. But there have since been further large changes in labour market fortunes through the course of 2021.

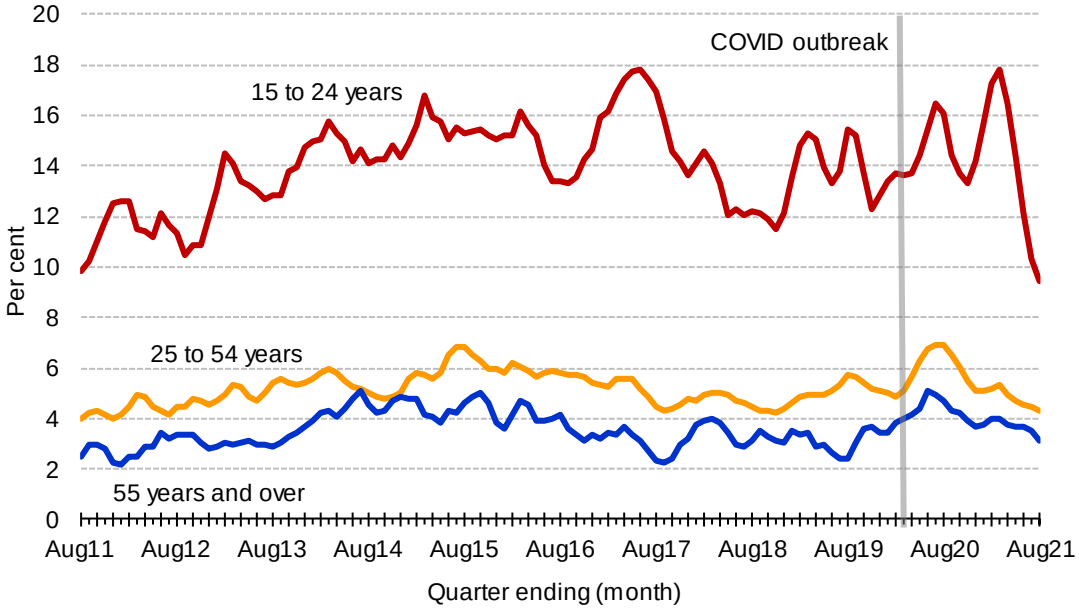
Latest Developments in Labour Market Outcomes by Age Group

One of the notable features of the pandemic has been large abrupt swings in labour market conditions due to the interplay of virus outbreaks, lockdown measures, voluntary social distancing, and reversal of these factors. The latest Labour Force Survey estimates are no different, pointing to a remarkably sharp decline in unemployment for young adults over recent months – see Figure 8. The average unemployment rate for people aged 15 to 24 in South Australia in the three months to August 2021 was down 8.4 percentage points from its peak of 17.8 per cent in the three months to March 2021, and down 6.7 percentage points compared to a year earlier. There were similar, but much smaller declines in unemployment for other age groups between these periods.

The recent improvement in unemployment for 15- to 24-year-olds in South Australia as indicated by the Labour Force Survey needs to be treated with some caution. The improvement represents a substantial shift by historical standards and there are no obvious factors to which the improvement can be attributed, such as a major relaxation of lockdown measures. However, similar though less pronounced declines have been observed in other states, which suggests that underlying factors have played some role. A relatively stronger performance for South Australia could in principle be explained by better management of COVID-19, but other states that have been relatively unaffected by social distancing measures such as Western Australia, Queensland and Tasmania have seen less dramatic improvements in youth unemployment. It should also be noted that the improvement for South Australia reflects divergent trends in terms of an increase in employment and a decline in labour force participation. The employment to population ratio for 15- to 24-year-olds rose by 3.6 percentage points between the three months to March 2021 and three months to August 2021, while labour force participation fell by 2.7 per cent over this period. Hence, the decline in unemployment for youth is not a wholly positive story to the extent that it has been partly driven by a decline in labour force participation.

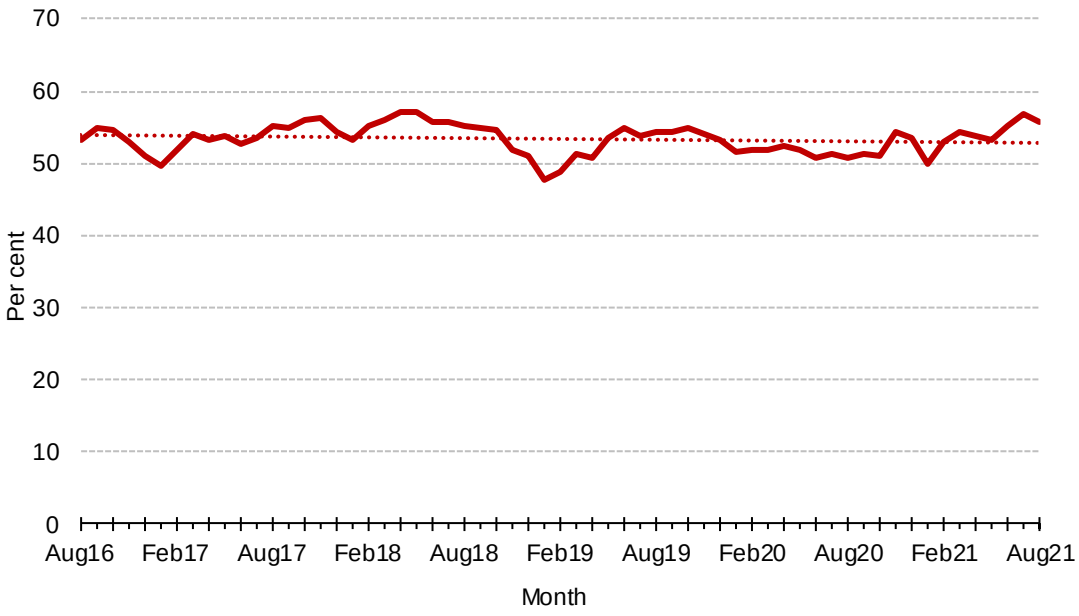
Part of the recent decline in participation may be explained by more young people opting for education and training rather than employment. As Figure 9 shows, the share of the civilian population aged 15 to 24 years attending full-time education increased noticeably in 2021. The proportion of youth attending full-time education rose by 5.0 percentage points through the year to the August quarter 2021. A lack of employment opportunities, both locally and interstate given disruption caused by further COVID-19 outbreaks, particularly in New South Wales and Victoria which tend to attract South Australian graduates, may have encouraged some youth to pursue further education rather than re-enter or remain in the labour force.

Figure 8: Unemployment Rates by Age Group, Persons Aged 15 to 29 Years South Australia – quarterly moving average



Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

Figure 9: Proportion of 15- to 24-year-olds Attending Full-time Education, South Australia, Monthly

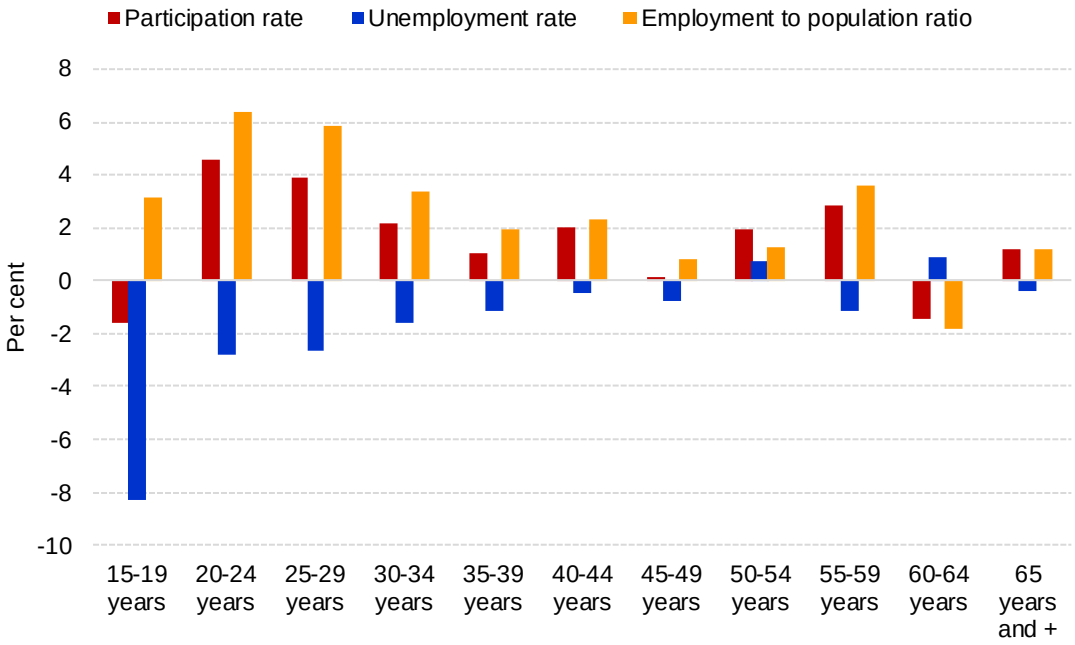


Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

Finally, it cannot be discounted that the relative strength of the recent improvement in unemployment for youth in South Australia in part reflects some temporary statistical aberration associated with natural sampling error or compositional effects associated with month-to-month rotation of part of the Labour Force Survey sample. We would consequently like to see the recent improvement be sustained for another six months before we can conclude that recent developments are truly representative of actual changes on the ground or are durable. Nonetheless, the latest results point to a welcome improvement in labour market conditions for youth.

The current state of play by age group measured by longer term performance is illustrated by Figure 10, which shows the change in participation rate, unemployment rate and employment to population ratio from the pre-COVID 5-year average level to the August quarter 2021. Employment conditions for younger adults aged 15 to 29 years are considerably improved, with unemployment well down on pre-COVID levels. A positive sign is that these declines in unemployment have been brought about by improvements in employment rather than any significant deterioration in labour force participation. The minor exception here is persons aged 15 to 19 years, for whom there has been a small decline in participation as previously noted. Nonetheless, unemployment for 15- to 19-year-olds has now fallen back to GFC lows.

Figure 10: Change in Participation Rate, Unemployment Rate and Employment to Population Ratio by Age Group South Australia – August quarter 2021 relative to pre-COVID 5-year average



Note: Pre-COVID 5-year average is the average over the five years to March 2020.
Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

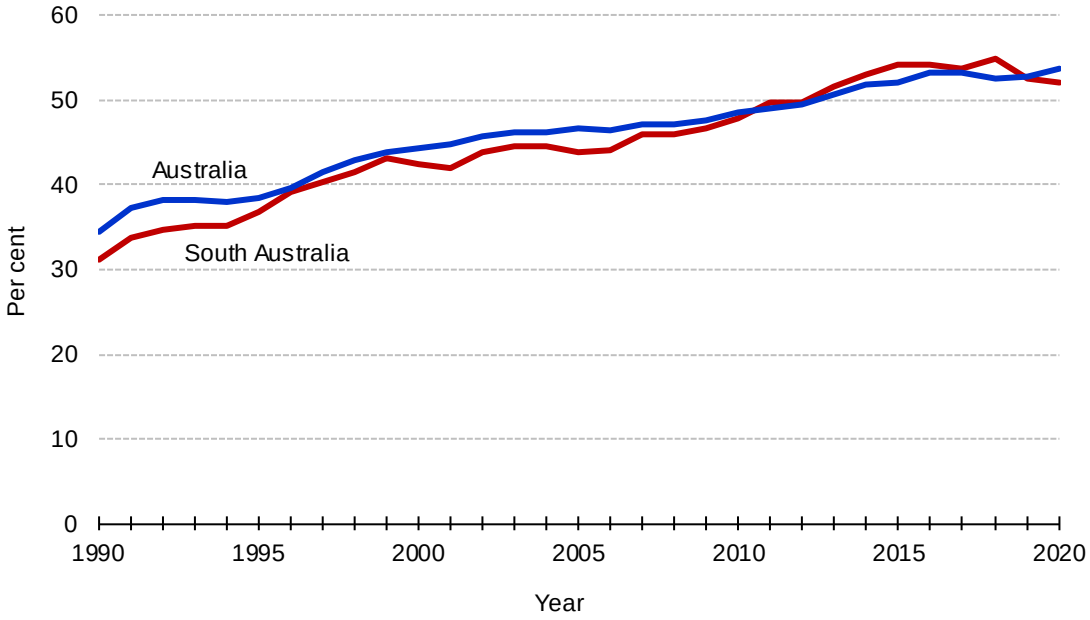
Education and Training

As we observed earlier, participation in full-time education among youth has improved in 2021. This is a welcome development given the importance of education and training to enhancing human capital – i.e. knowledge, skills, behaviours and health – which in turn contributes to productivity growth. Due to disruption to delivery of education and training in 2020, the pandemic delivered a significant setback to human capital formation. There is consequently a need to invest in education and training to ensure that the pandemic does not have a lasting effect on human capital formation, and an increase in full-time education will contribute to this goal.

It is worth putting the recent uptick in participation in full-time education into some historical context. As Figure 11 shows, participation in full-time education by 15- to 24-year-olds in South Australia was trending upward over time but flattened off over the last four to five years. This long-term trend, which has been mirrored at the national level, may partly explain the strong growth in part-time employment observed for 15- to 24-year-olds between the GFC and 2017. Part of the increase in full-time education participation has been driven by policy decisions. For example, South Australia raised the minimum compulsory education age from 16 to 17 years in 2009, while New South Wales raised the minimum school leaving age from 15 to 17 years in 2010.[5]

[5] In South Australia the compulsory schooling age lasts to 16 years, with a compulsory education age from 16 to 17 years during which teenagers must attend school or an approved learning program unless they gain full-time employment, SACE or some other qualification.

Figure 11: Proportion of 15- to 24-year-olds Attending Full-time Education South Australia and Australia – year average



Source: Australian Bureau of Statistics, Labour Force, Australia: www.abs.gov.au

Was the recent improvement in labour market outcomes for youth assisted by a temporary reduction in competition from overseas students?

As we noted at the start of this paper, Borland and Coelli (2021) argued that increased competition from overseas born individuals such as foreign students and holiday makers contributed to a deterioration in labour market performance for Australian youth after the GFC. Unfortunately, corresponding data for South Australia is not readily available to assess how such a dynamic has evolved in South Australia. Nevertheless, it is worth reviewing how labour market outcomes for overseas individuals evolved during the pandemic at the national level as this may give insight into corresponding developments in South Australia.

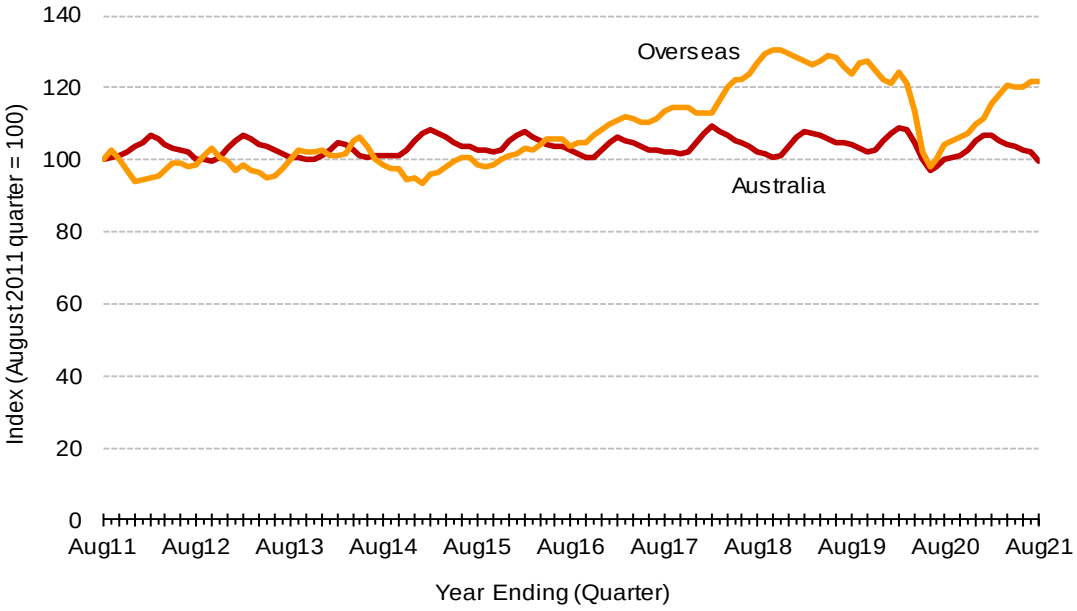
Figure 12 shows an index of labour force participation (i.e. those employed plus unemployed) for persons aged 15 to 24 years who were born overseas and in Australia over the decade to August 2021. In line with the findings of Borland and Coelli, there was a notable increase in labour force participation by overseas born individuals from 2015 to 2018, presenting locally born youth with increased competition within the labour market. Such enhanced competition may have indeed contributed to the deterioration in relative youth labour market performance during this period.

With the outbreak of the pandemic in Australia in March 2020 there was a marked decline in labour force participation from overseas born youth, which would not only reflect the effects of social distancing in furloughing jobs, but also reduced inflows to Australia due to international travel restrictions. The number of overseas born youth in the labour force fell by 19 per cent in the June quarter of 2020, whereas participation by Australian born youth fell by 10 per cent. It therefore appears that domestic youth faced a marked decline in labour market competition during the initial outbreak, which may have cushioned employment outcomes for locally born youth.

However, with the relaxation of the initial social distancing measures, labour force participation by overseas born youth has recovered more quickly. In fact, the divergence between Australian and Overseas born youth has returned near pre-COVID levels in spite of ongoing border closures.[6] This suggests that Australian born youth are once again facing enhanced competition within the labour market. While we do not have equivalent data for South Australia, we expect that local developments have followed a similar pattern through the course of the pandemic.

[6] A recent decline in labour force participation by Australian born youth would in part reflect seasonal factors associated with youth returning to education and schooling after the summer period.

Figure 12: Index of Labour Force Size by Place of Birth, Persons Aged 15 to 24 years Australia – Moving Quarterly Average



Source: Australian Bureau of Statistics, Labour Force, Australia, Detailed: www.abs.gov.au

Conclusion

In earlier papers in this series we pointed to the ageing of the South Australian population and the consequences for the labour force.[7] In the past fifty years (1971-2020) the proportion of persons who are 15 to 19 years has fallen considerably, from 9.1 per cent to 5.8 per cent of the total population. For those aged 20 to 24 the proportion declined from 8.5 to 6.5 per cent. On current trends the proportion of younger age groups continues to decline. COVID-19 has temporarily at least closed off overseas migration which will have the effect of worsening this trend as overseas migrants (and students) tend to be younger. One positive impact of COVID-19 is that net outward interstate migration has also mitigated the 'brain drain' of students and younger workers who have consistently migrated to the eastern states.

Recent events should cause a much deeper consideration of the persistently high youth unemployment rate and the suite of measures required to boost training rates and reduce youth unemployment. The transition from school to work should at the very least be based on a systematic suite of offerings for skills development, training, work exposure/experience that are not contingent on macro-economic considerations and employer willingness (and ability) to hire and train. These are critical formative years in which skills and interests are developed and good work patterns are established.

It is a stark reality that growth in employment has not kept pace with growth in population (even though that has slowed) for particularly those aged 15- to 24 years. In the past twenty years, the number of persons aged 15 to 24 increased by 19,321 persons (+9.8 per cent) while the number of persons who are employed in that age group increased by only 6,494 persons (+5.4 per cent). The State unemployment rate would be higher but for the high rate of outward interstate migration in previous years of those in this age cohort and the decline in the participation rate.

In 2001, more 15- to 24-year-olds were employed full-time compared to part time (55 per cent vs 45 per cent). However, by 2020, full-time employment for those aged 15 to 24 years had fallen to 39 per cent, with part time employment at 61 per cent. While this is indicative of broader structural changes in the labour market including the loss of manufacturing employment, much more needs to be done to support access to further education and training for younger entrants to the labour market.

[7] Paper No.1: Closed borders have economic and social implications
Paper No.2: Policy implications emerge in wake of migration changes
Paper No.3: Workforce shortages loom as the population ages

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Appendix A

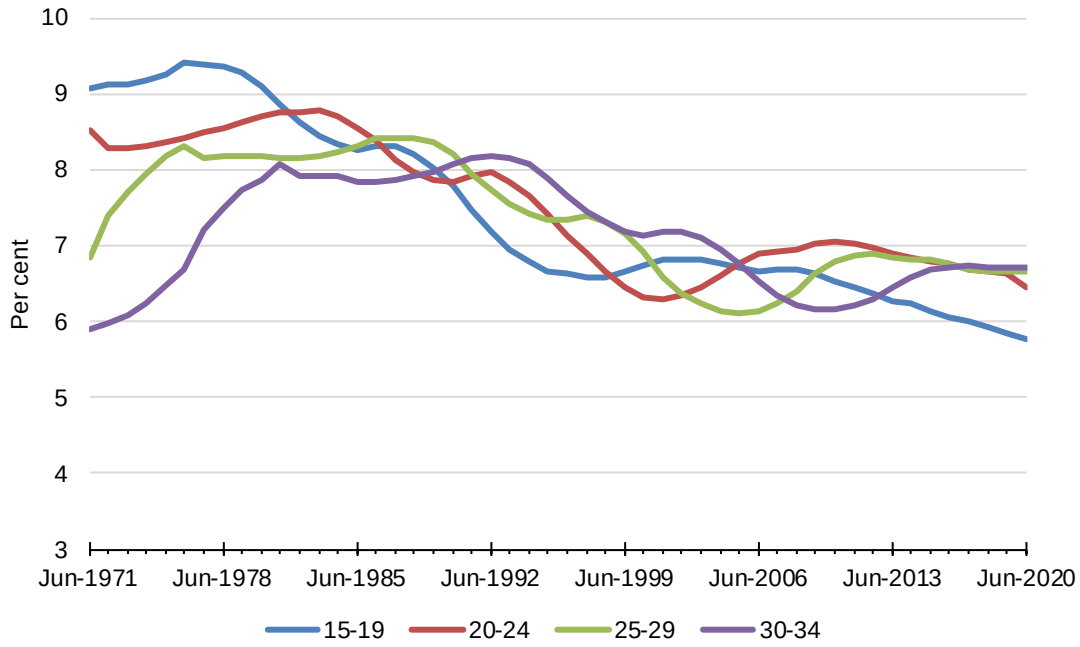
Long-term Demographic, Labour Market, Education and Training Trends Prior to COVID-19

The following appendix examines long-term demographic and labour market trends which helps to place recent labour market developments in perspective. A significant emphasis is placed on Census data which provides a high level of detail and reliability, but does not capture labour market developments during the COVID-19 pandemic. Developments in respect of participation in higher education and vocational education and training are also considered.

Demographic Composition

Tracing back fifty years of population data from the ABS for South Australia shows that for the young working age group, which we define as persons aged 15 to 34 years, the proportion of persons who are 15 to 19 years were the largest cohort in 1971, followed by those aged 20 to 24, 25 to 29, and 30 to 34 (see Figure A1). However, in the fifty years since, the proportion of persons who are 15 to 19 years has fallen considerably, from 9.1 per cent to 5.8 per cent of the total population. Meanwhile, those aged 20 to 24 dropped from 8.5 to 6.5 per cent. Even though the proportion of the population who are 25- to 29-years-old and 30- to 34-years-old have stabilised in the last decade, the proportion of younger age groups continues to decline. While the first can be attributed to increased migration of skilled labour force, the latter can be attributed to increased 'brain drain' as students and younger workers migrated to the eastern states for education and career opportunities.

Figure A1: Proportion of Population by Age Group (selected), South Australia



Note: Figure A1 rescaled for vertical axis to start at 3 to illustrate the change in proportion of population for the 15 to 19 year age group
Source: ABS, Australian Demographic Statistics. ABS Stat.

The compound annual growth rate (CAGR) for the past fifty years shows that while the growth rate for those who are 20 years and over has been positive, the young working age group of 15- to 19-year-olds has experienced a decline (see Table A1). In addition, the growth rate has been lower than the growth rate of the total South Australian population for those aged 20 to 24 and 25 to 29, while the growth rate for those who are 30- to 34-years-old has surpassed the growth in total population.

Table A1: Compound Annual Growth Rate for Young Working Age Population, 15-34 years, South Australia

CAGR	15-19 years	20-24 years	25-29 years	30-34 years	Total population
1971-80	0.9	1.1	2.7	3.8	0.9
1981-90	-0.5	-0.3	0.9	0.8	0.8
1991-00	-0.7	-1.9	-1.0	-1.0	0.3
2001-10	0.4	2.0	1.1	-0.7	0.8
2011-20	-0.1	0.0	0.1	0.4	0.2
1971-20	-0.1	0.2	0.7	1.0	0.8

Source: ABS, Australian Demographic Statistics. ABS Stat.

Labour Force Status

The unemployment rate has followed a similar pattern for those aged 15 to 24 and 25 to 34 over the past fifteen years. Figure A2 shows the unemployment rate has consistently been higher for those aged 15- to 24-years-old compared to those who are 25- to 34-years-old. The unemployment rate increased for both the age groups during the Global Financial Crisis (GFC), however while the unemployment rate improved somewhat earlier for 25- to 34-year-olds post the GFC, it took a longer time for the 15- to 24-year-cohort to recover.

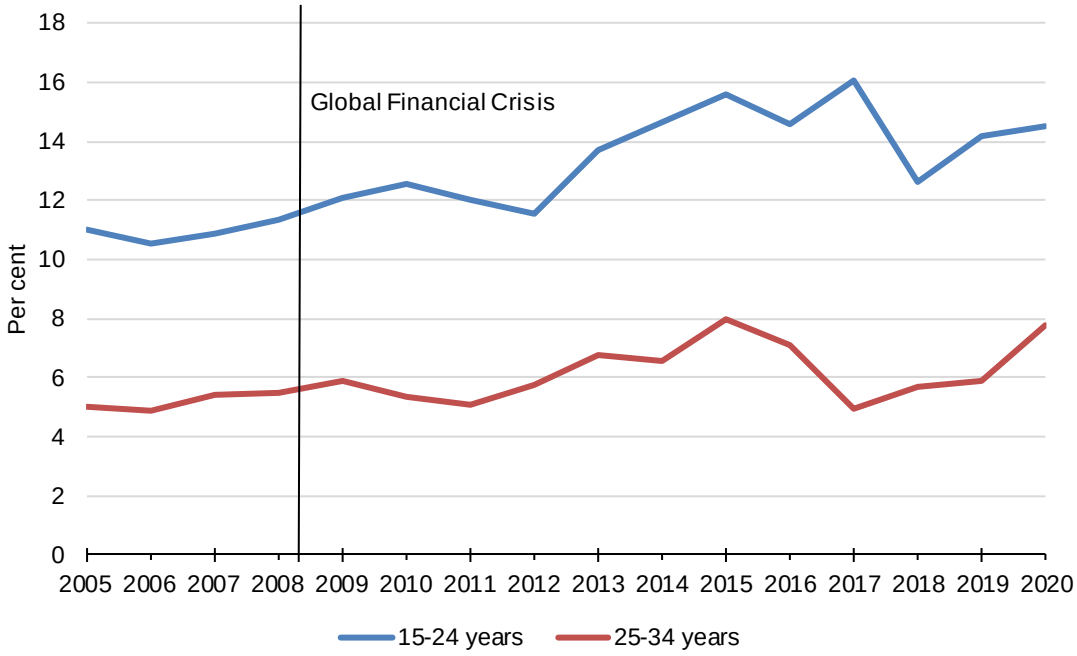
The demise of the motor vehicle manufacturing industry in South Australia in 2012-13 led to a sharp increase in unemployment for both age groups, peaking in 2015. The unemployment rate for the 15- to 24-years-old cohort rose to 15.6 per cent in 2015, while for those aged 25 to 34 it rose to 8 per cent.

During the COVID-19 pandemic, the unemployment rate for 15- to 24-year-olds increased by only 0.3 percentage points whereas it increased by 1.9 percentage points for 25- to 34-year-olds. Despite this, the 2020 unemployment rate among 15- to 24-years-old was almost double that of 25- to 34-years-old at 14.5 per cent.

Youth unemployment is clearly a deep-rooted and long-term phenomenon. Even though unemployment among 15- to 24-years-old is influenced partially by global and local events, it needs deeper policy consideration and a separate suite of measures compared to policy prescriptions for reducing the unemployment rate among 25- to 34-year-olds. The transition from school to work should at the very least be based on a systematic suite of offerings for skills development, training, work exposure/experience that are not contingent on macro-economic considerations and employer willingness (and ability) to hire and train.

These are critical formative years in which skills and interests are developed and good work patterns are established.

Figure A2: Unemployment Rate by Age Group, South Australia (per cent)



Source: ABS, Labour Force Status by Labour Market Region and sex

In the past twenty years, the number of persons aged 15 to 24 increased by 19,321 persons (9.8 per cent) while the number of persons who are employed in that age group increased by 6,494 persons (5.4 per cent).

During the same period the number of persons who are 25- to 34-years-old increased by 29,402 persons (14 per cent) while the number of persons who are employed in that age group increased by 28,276 persons (19 per cent). Growth in employment has not kept pace with growth in population for 15- to 24-year-olds. Over time their participation rate has decreased and their unemployment rate has remained high (See Table A2).

The State unemployment rate would be higher but for the high rate of outward interstate migration of those in this age cohort and the decline in the participation rate.

Table A2: Labour Force Status, South Australia

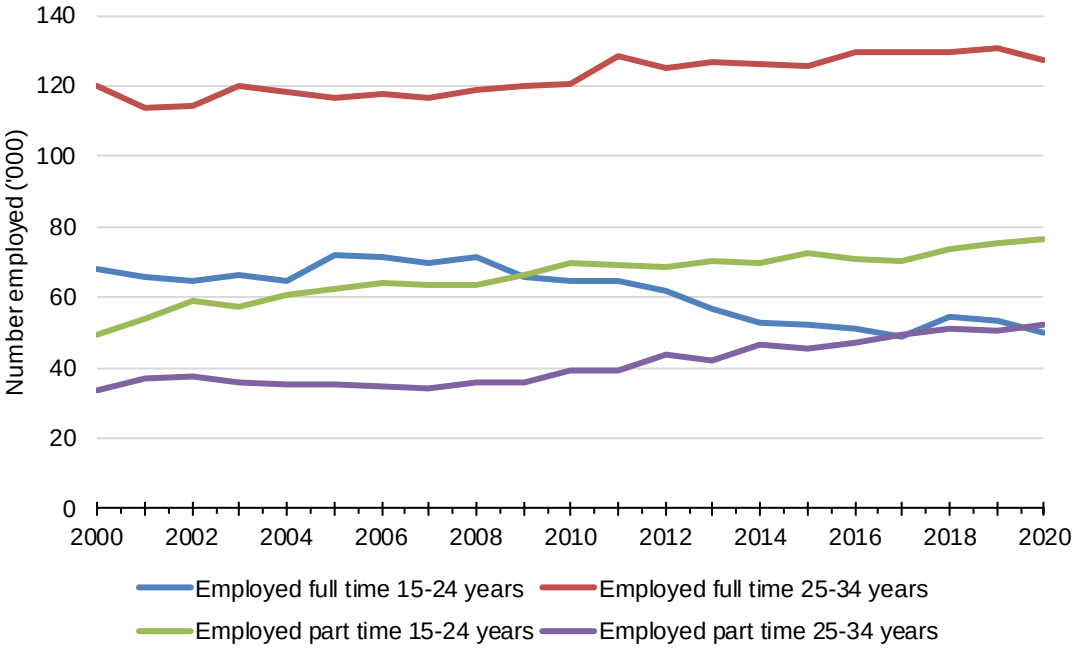
	15 to 24 years			25 to 34 years		
	Employed Total ('000)	Unemployment rate (%)	Participation rate (%)	Employed Total ('000)	Unemployment rate (%)	Participation rate (%)
2001	119.5	14.1	70.8	151.0	7.8	79.4
2002	123.2	13.1	71.5	151.8	7.0	80.0
2003	124.1	13.6	71.5	155.8	5.5	81.8
2004	125.1	13.5	71.0	153.6	5.1	81.3
2005	134.5	11.0	73.2	152.1	5.0	81.2
2006	135.0	10.5	72.0	152.7	4.9	81.8
2007	133.1	10.9	70.2	151.1	5.4	81.1
2008	134.8	11.3	70.5	154.5	5.5	81.8
2009	132.2	12.1	68.8	155.6	5.9	80.6
2010	134.7	12.6	70.0	159.6	5.4	80.3
2011	133.9	12.0	69.3	167.6	5.1	82.7
2012	130.5	11.5	67.2	168.5	5.7	82.3
2013	126.8	13.7	66.9	169.0	6.8	82.1
2014	122.5	14.6	65.3	173.2	6.6	82.7
2015	124.4	15.6	67.1	170.9	8.0	81.6
2016	121.6	14.6	65.0	176.9	7.1	83.1
2017	119.4	16.0	65.2	179.1	5.0	82.0
2018	128.6	12.6	67.6	180.7	5.7	83.0
2019	128.7	14.2	68.9	181.2	5.9	82.7
2020	126.0	14.5	68.5	179.3	7.8	83.0

Source: ABS, Labour Force Status by Labour Market Region and sex.

In 2001, more 15- to 24-year-olds were employed full-time compared to part time (55 per cent vs 45 per cent). The majority of the 25- to 34-year-olds were employed full-time (75 per cent vs 25 per cent). By 2020, the share of full-time employment for those aged 15 to 24 years had fallen to 39 per cent, while for those in the age group 25 to 34 years the share of full-time employment had fallen to 71 per cent.

In particular, there was a sharp drop in full-time employment (down 25 per cent) for 15- to 24-year-olds after the Global Financial Crisis and an increase in full-time employment for 25- to 34-years-old (up 12 per cent) in the past two decades. – see Figure A3. This is likely an indication of structural change leading to demand/ supply jobs that cannot offer or support full-time employment for 15- to 24-year-olds. A contributing factor is that 15- to 24-year-olds are opting for more higher education and hence working part-time to balance study and work.

Figure A3: Full-time and Part-time Employment by Age Group, South Australia 2001 to 2020



Source: ABS, Labour Force Status by Labour Market Region and sex.

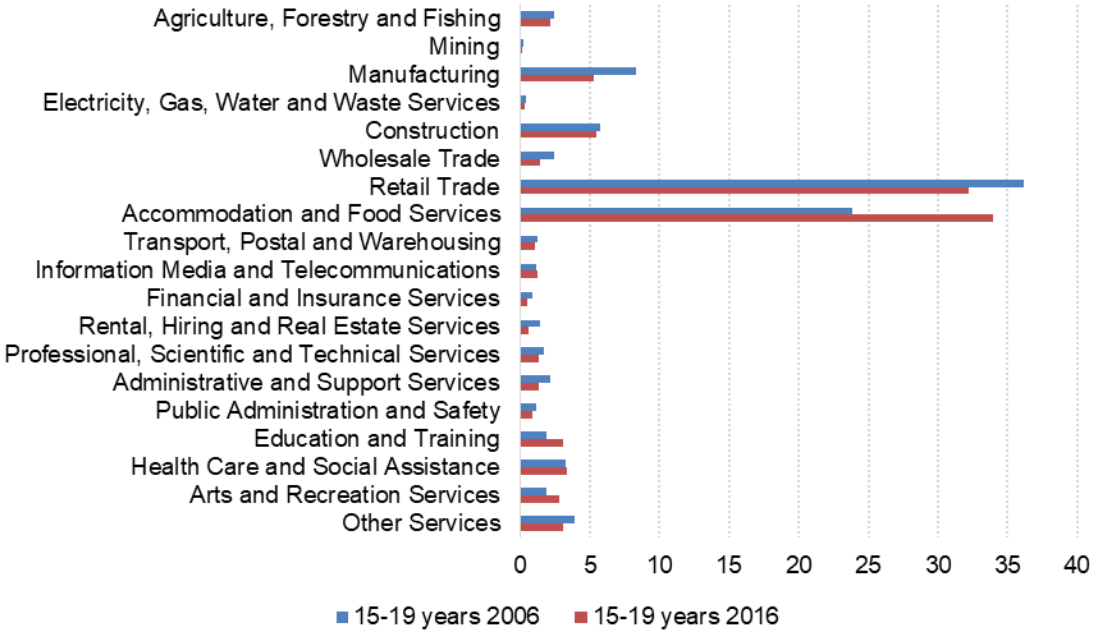
Employment by industry

The change in employment levels in various industries over time for different age groups can shed some light on these changes in the pattern of employment. Regional data disaggregated by age groups and industry is not available at the state level, hence Census data (while somewhat dated) is used to compare changes in employment across industries for various age groups. Figures A4a to A4d show the proportion of persons employed in various industries for five-year age groups for those aged 15 to 34 years in the Census years 2006 and 2016.

15- to 19-years-old

In 2006, the top industries for employment of 15- to 19-year-olds were retail trade, accommodation and food services, manufacturing and construction – Figure A4a. In 2016, accommodation and food services was the top employing industry for 15- to 19-year-olds, employing 34 per cent of the cohort population, up from 24 per cent in 2006. Meanwhile, the proportion of this cohort employed in retail trade fell by 4 percentage points to 32 per cent, the proportion of those working in manufacturing dropped to 5 per cent (down from 8 per cent in 2006), while the proportion of those working in construction remained stable.

Figure A4a: Employment by Industry for 15- to 19-years-old, 2006 and 2016
Proportion of population, South Australia

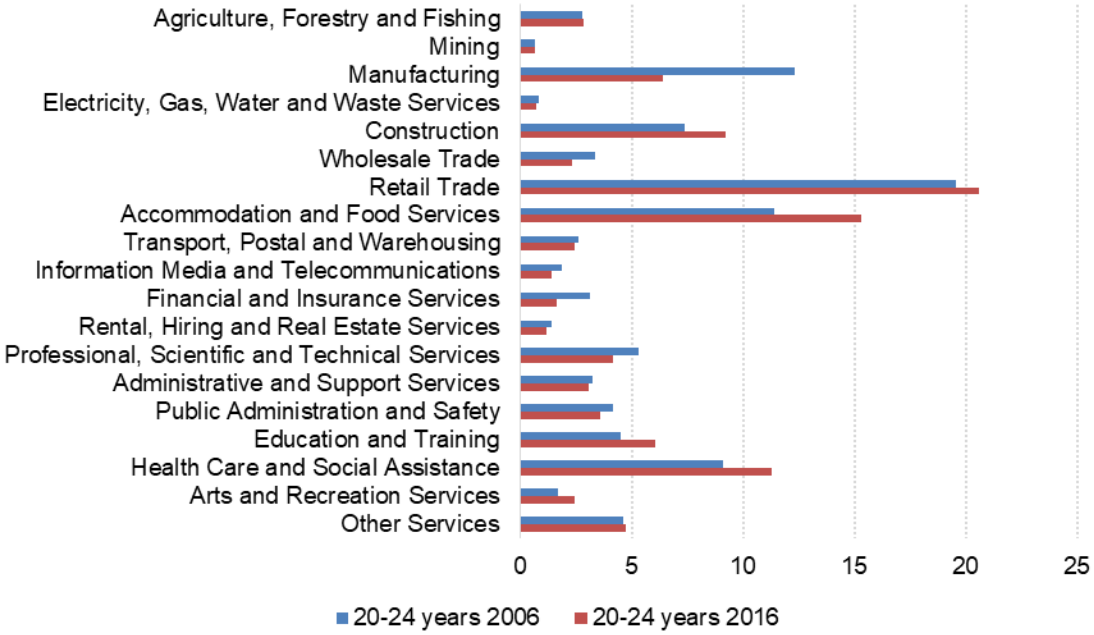


Notes: Inadequately described, not stated and not applicable not included in calculations
Source: ABS, Census data

20- to 24-years-old

Figure A4b shows that for the 20- to 24-year-old age group there is much greater diversification in employment. Retail trade is the top employing industry for 20- to 24-year-olds, employing 21 per cent of the population in 2016 followed by accommodation and food services (15 per cent), healthcare and social assistance (11 per cent) and construction (9 per cent). Manufacturing was the second largest employing industry for those aged 20 to 24 in 2006, but the proportion of those employed in manufacturing subsequently halved from 12 per cent to 6 per cent with the contraction of the automotive industry (and supply chains) in South Australia. Healthcare and social assistance has emerged as the third largest employer for the cohort aged 20 to 24, employing 11 per cent of the population in 2016 (up from 9 per cent in 2006).

Figure A4b: Employment by Industry for 20- to 24-years-old, 2006 and 2016
Proportion of population, South Australia



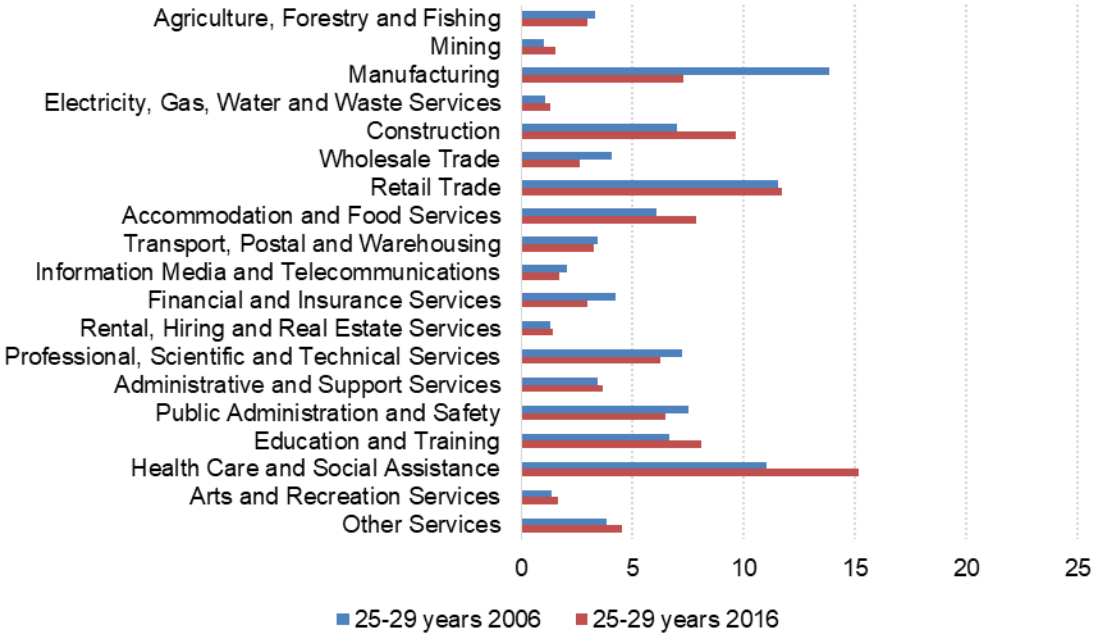
Notes: Inadequately described, not stated and not applicable not included in calculations
Source: ABS, Census data

25- to 29-years-old

In 2016, 25- to 29-year-olds were predominantly employed in healthcare and social assistance (15 per cent in 2016, up from 11 per cent in 2006), reflecting strong growth in employment within the sector over the intercensal period – Figure A4c. This is a considerable change in employment structure in just ten years. In contrast, manufacturing employment almost halved between the two Census periods for 25- to 29-year-olds.

Retail trade continues to be the second largest employer for this cohort employing 12 per cent of the population. Over the two Census years, a higher proportion of 25- to 29-year-olds are now working in construction, accommodation and food services and education.

Figure A4c: Employment by Industry for 25- to 29-years-old, 2006 and 2016
Proportion of population, South Australia

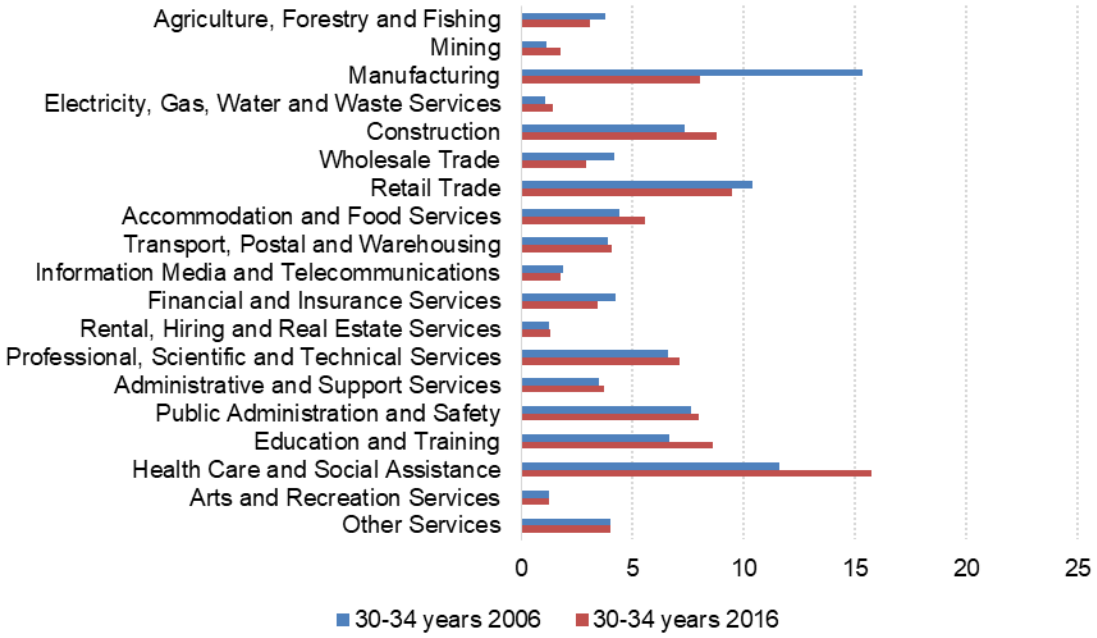


Notes: Inadequately described, not stated and not applicable not included in calculations
Source: ABS, Census data

30- to 34-years-old

Trends in employment for this cohort are somewhat similar to those aged 25 to 29. Healthcare and social assistance employed the highest proportion of 30- to 34-year-olds in 2016 (16 per cent, compared to 12 per cent in 2006), followed by retail trade, construction and education – Figure A4d. Manufacturing employment halved over the decade to 2016, largely mirroring the experience of the 20- to 24-year-old cohort and the 24- to 29-year-old cohort.

Figure A4d: Employment by Industry for 30- to 34-years-old, 2006 and 2016
Proportion of population, South Australia



Notes: Inadequately described, not stated and not applicable not included in calculations
Source: ABS, Census data

Higher Education and Vocational Education and Training

Table A3 shows the change in level of secondary education and non-school qualification between the Census years of 2006 and 2016. For 15- to 19-year-olds the number of persons with Certificate level III and IV increased by 1,805 persons, while for the age group 20 to 24 years, those with Certificate Level III and IV increased by 3,588 persons. Overall, the number of persons with a Bachelor Degree or higher (Advanced Diploma and Diploma Level, Postgraduate Degree, Graduate Diploma and Graduate Certificate) continued the upward trajectory in attainment of a post school qualification.

Table A3: Level of Secondary and Non-school Level Education for Persons Aged 15 to 19 and 20 to 24 Years South Australia and Australia – 2006 and 2016

	15-19 years				20-24 years			
	2006	2016	change (no.)	change (%)	2006	2016	change (no.)	change (%)
Secondary Education - Years 10 and above	75,524	74,815	- 709	- 1	89,611	98,850	9,239	10
Secondary Education - Years 9 and below	15,873	19,053	3,180	20	3,817	2,437	- 1,380	- 36
Secondary Education Total	**91,397**	**93,868**	**2,471**	**3**	**93,428**	**101,287**	**7,859**	**8**
Postgraduate Degree Level	9	8	- 1	- 11	362	702	340	94
Graduate Diploma and Graduate Certificate Level		9	9		207	451	244	118
Bachelor Degree Level	82	88	6	7	12,039	13,280	1,241	10
Advanced Diploma and Diploma Level	287	390	103	36	4,268	4,942	674	16
Certificate III & IV Level	3,039	4,844	1,805	59	15,088	18,676	3,588	24
Certificate I & II Level	1,813	1,703	- 110	- 6	3,490	3,182	- 308	- 9
Non-school Education Total	**5,230**	**7,042**	**1,812**	**35**	**35,454**	**41,233**	**5,779**	**16**

Note: a) Census data on postgraduate degree level, graduate diploma and graduate certificate level, bachelor degree level, advanced diploma and diploma level, certificate III & IV level and certificate I & II level have been extracted from QALLP-non-school qualification level: level of education.
b) Secondary education-year 10 and above has been derived by adding year 10 or equivalent, year 11 or equivalent and year 12 or equivalent; Secondary Education Year 9 and below has been obtained by adding year 9 or equivalent and year 8 or below; Secondary Education data has been extracted from HSCP: Highest Year of School completed.
c) ABS advises that no reliance should be placed on small cells.
Source: ABS, Census data 2016

Enrolment in Higher Education

Enrolment and completion rates in higher education in South Australia increased by 3.2 per cent on average over the period 2001 to 2019 compared to 2.6 percent nationwide. South Australia's share of national enrolments in higher education increased from 6.7 per cent in 2001 to 7.5 per cent. Prior to COVID-19 the number of enrolments in higher education by domestic students grew by 77 per cent over the period 2001 to 2019 and 215 per cent for international students. The relative growth rates resulted in a decline from 81 per cent in 2001 to 70 per cent in 2019 of the share of total enrolments held by domestic students and an increase in the share held by international students from 19 per cent to 30 per cent during this time.

Completion of courses in Higher Education

South Australia's share of completion of higher education qualifications increased from 6.9 to 7.5 per cent over the period 2001 to 2019 with completions rates for domestic students increasing by 72 per cent and by 234 per cent for international students.

Commencement and in training data in vocational education and training (VET) courses

National Centre for Vocational Education Research (NCVER) data shows that between 2016 and 2020, commencement in VET courses in SA increased by 21 per cent (highest among all states and territories). Data for students classified as 'in training' shows that the number of persons in training in VET courses increased by 31 per cent (highest among all states and territories) compared to 13 per cent nationwide.

The commencement data on apprenticeships and traineeships in South Australia shows that between 2016 and 2020 commencements in VET courses fell by 9.6 per cent for 19-year-olds and under and declined by 5.6 percent nationally. There has been a recent turnaround in 2020 with an increase in commencements in South Australia of 5.7 per cent. Overall, it is the older age groups, 25-44 years and those aged 45 years and over with the strongest growth in commencements.

In-training data on apprenticeships and traineeships in South Australia show an increase of 11 per cent for those aged 19 years and under in 2020 and a 5.5 per cent increase over the past five years. For those aged 20- to 24-years the increase in 2020 was 10 per cent and 19 per cent over the past five years.

Overall, the increase in commencements in 2020 can be attributed to the introduction of Australian Government's Boosting Apprenticeship Commencements wage subsidy. This wage subsidy reimburses 50 per cent of the wages employers pay a new or recommencing apprentice or trainee for a 12-month period from the date of commencement, to a maximum of $7,000 per quarter.

Table A4: Commencement Data in VET by Age Group, South Australia and Australia

	12 months ending 31 December 2016 to 2020						
Age group	**2016**	**2017**	**2018**	**2019**	**2020**	**2019 to 2020 (% change)**	**2016 to 2020 (% change)**
	South Australia						
19 years and under	4, 845	4, 760	4,055	4,145	4,380	5.7	-9.6
20 to 24 years	1,915	1,830	1,835	1,915	2,180	13.8	13.7
25 to 44 years	2,010	1,775	1,750	2,315	3,340	44.3	66
45 years and over	345	305	310	665	1,105	65.8	218.6
	Australia						
19 years and under	76,740	76,835	74,465	71,635	72,475	1.2	-5.6
20 to 24 years	35,480	34,415	33,025	31,500	33,885	7.6	-4.5
25 to 44 years	43,165	40,770	38,955	38,105	47,140	23.7	9.2
45 years and over	11,515	10,975	10,105	9,940	13,725	38.1	19.2

Source: NCVER

Table A5: In-training Data in VET by Age Group, South Australia and Australia

	12 months ending 31 December 2016 to 2020						
Age group	**2016**	**2017**	**2018**	**2019**	**2020**	**2019 to 2020 (% change)**	**2016 to 2020 (% change)**
	South Australia						
19 years and under	5,475	5,345	5,160	5,185	5,775	11.4	5.5
20 to 24 years	6,200	6,080	6,415	6,700	7,375	10.1	19
25 to 44 years	3,565	3,410	3,510	4,250	6,110	43.7	71.3
45 years and over	660	580	540	895	1,630	81.8	146.3
	Australia						
19 years and under	83,335	84,225	84,630	83,455	90,410	8.3	8.5
20 to 24 years	90,925	91,095	93,435	93,055	101,710	9.3	11.9
25 to 44 years	71,265	69,525	69,580	69,755	85,285	22.3	19.7
45 years and over	18,665	17,250	16,030	15,305	20,510	34	9.9

Source: NCVER

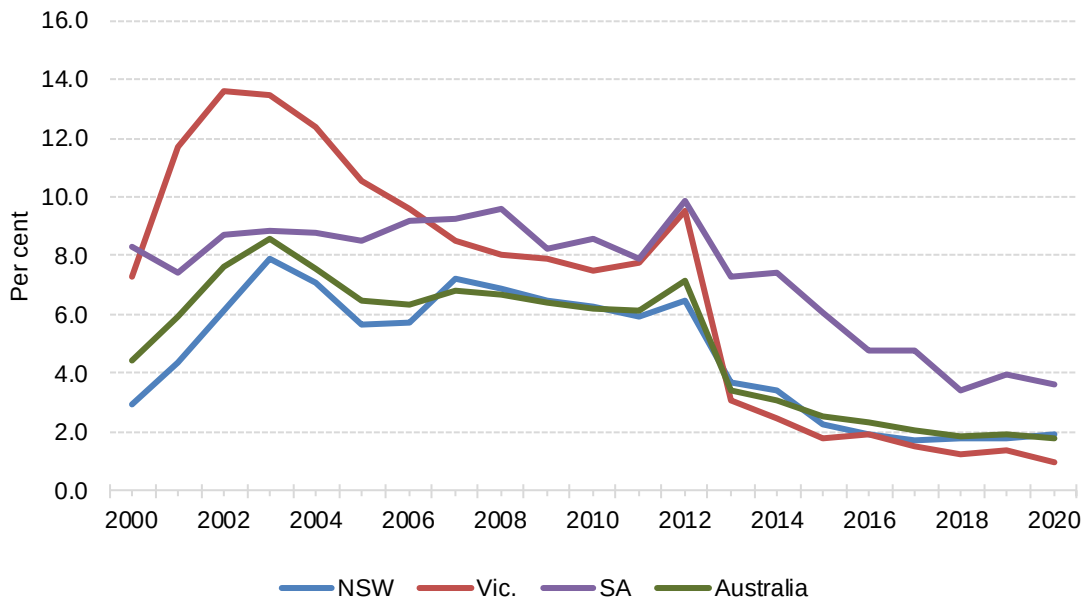
Training rate for Apprentices and trainees

The training rate represents the flow of newly trained workers relative to the existing stock of those employed in that occupation and provides an insight into future additions and replacement of skilled workers. The training rate gives the number of apprentices and trainees in-training (15 years and over) as a proportion of individuals employed.[8] The figures show the training rate for South Australia relative to the two largest employing states of New South Wales and Victoria, and the overall Australian training rate.[9] For selected occupations we show unusually high or low training rates for South Australia.

There are two occupations that have high training rates in South Australia, sales assistants and salespersons and protective service workers (the latter possibly related to occupations that have increased demand due to COVID-19) – see Figures A5 and A6.

Figures A7 through A10 show that South Australia has low training rates for carers and aides, hospitality workers, health and welfare support workers and construction and trades workers, yet these are some of the fastest sectors for employment growth across the state and national labour market.

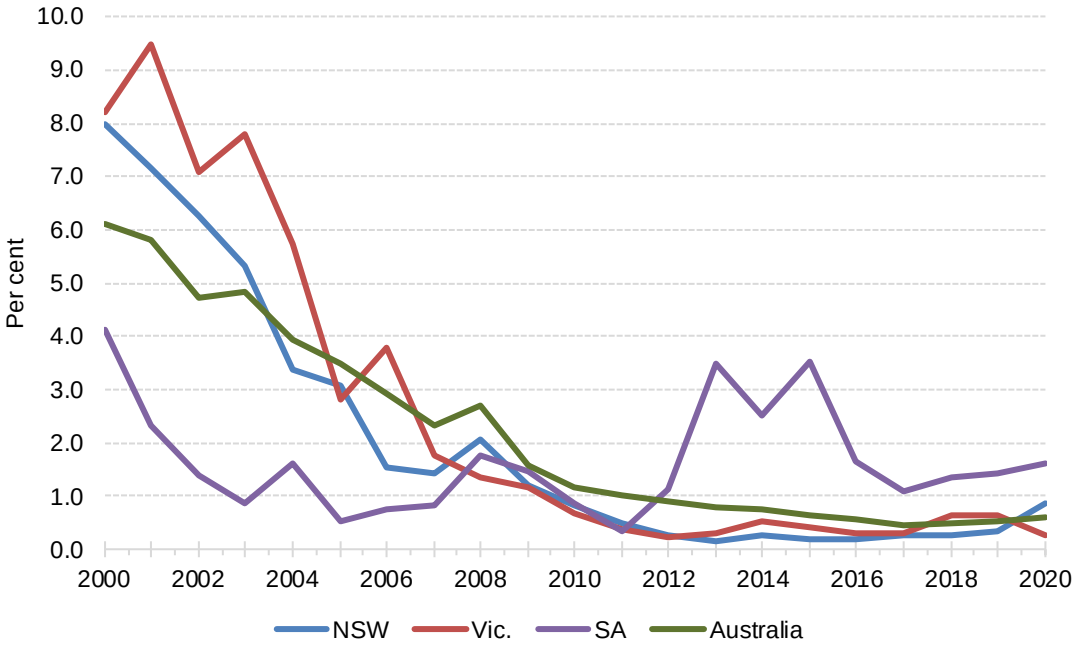
Figure A5: Sales Assistants and Salespersons, Training Rate by State and Australia



Source: NCVER 2020 Table 19 https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2020

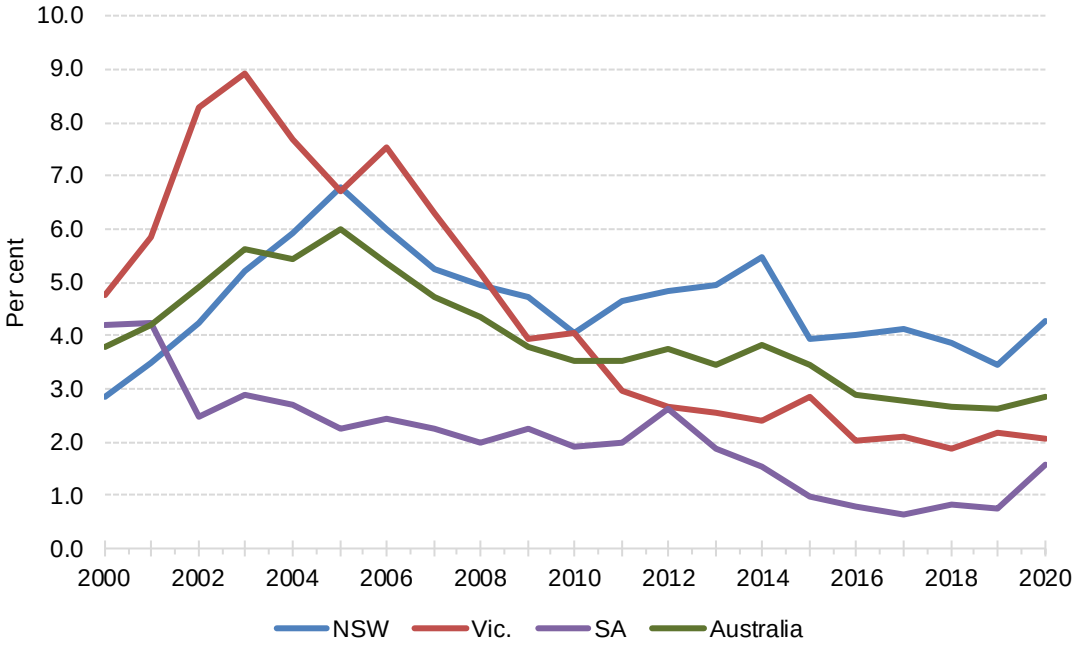
[8] Page 7, https://www.ncver.edu.au/__data/assets/pdf_file/0040/9666823/Terms-and-definitions-December-quarter-2020.pdf
[9] Pages 22 and 23 https://www.nationalskillscommission.gov.au/sites/default/files/2020-11/Australian%20Jobs%20Report%202020.pdf

Figure A6: Protective Service Workers, Training Rate by State and Australia



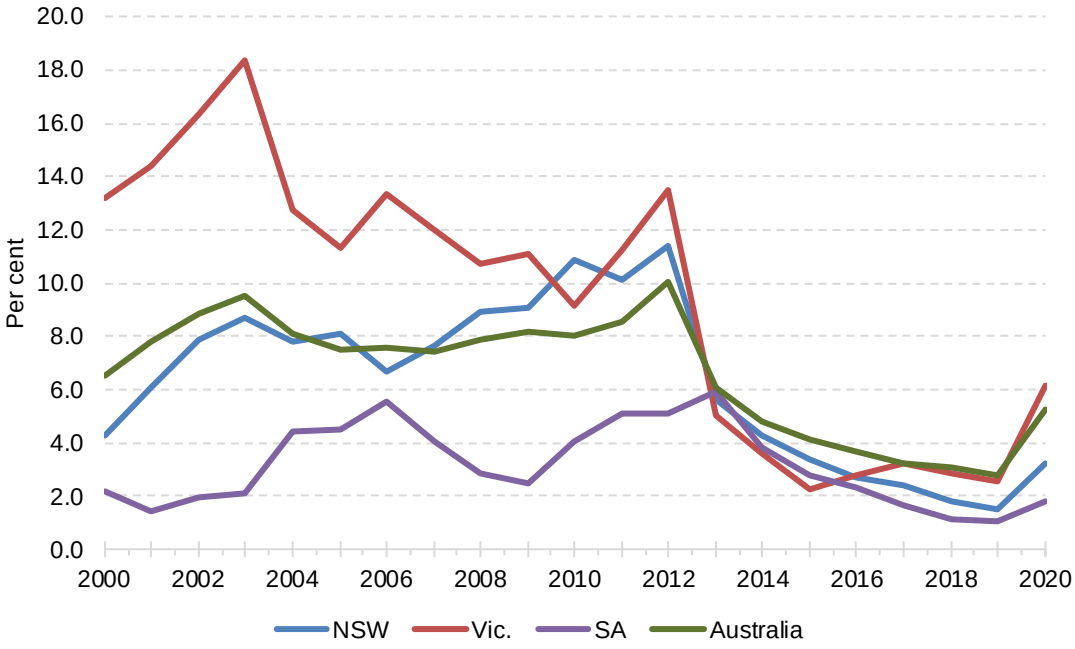
Source: NCVER 2020 Table 19 https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2020

Figure A7: Carers and Aides, Training Rate by State and Australia



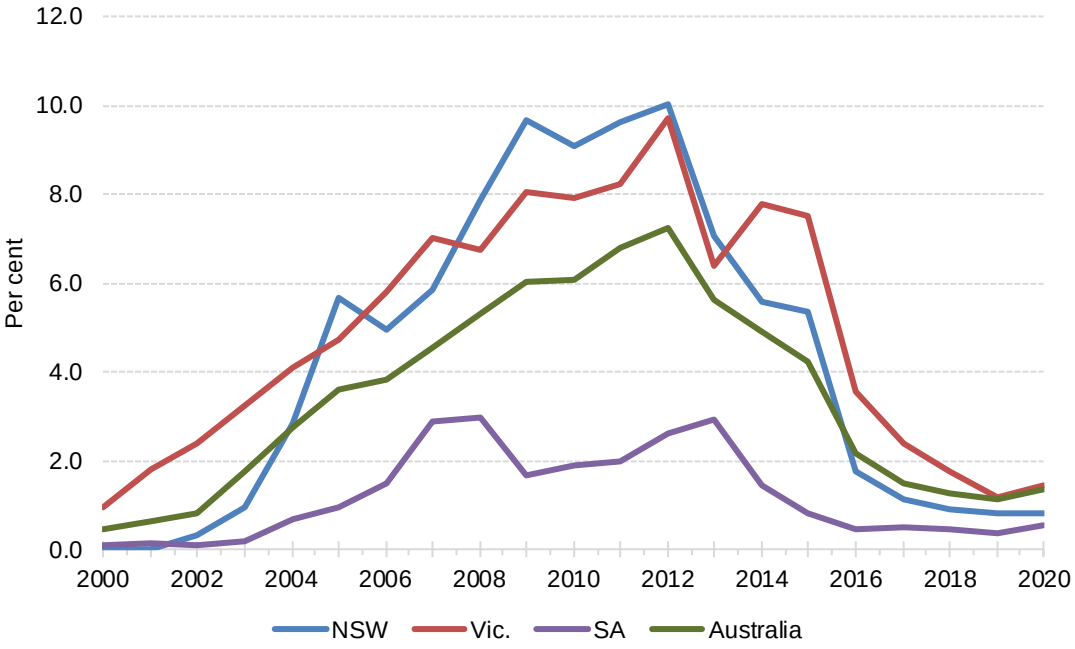
Source: NCVER 2020 Table 19 https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2020

Figure A8: Hospitality Workers, Training Rate by State and Australia



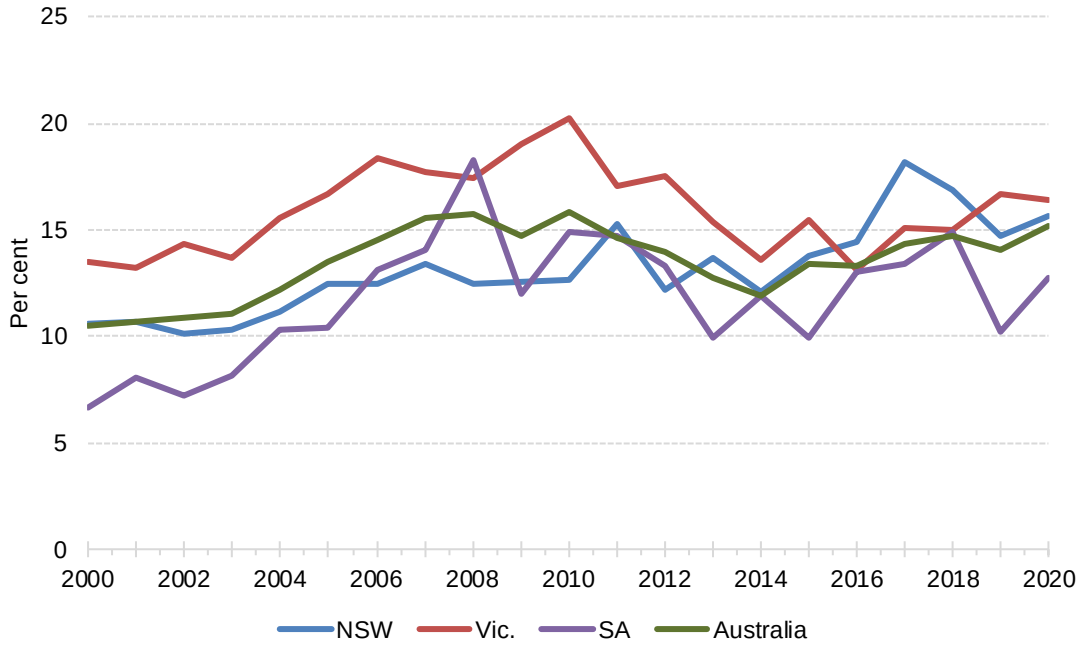
Source: NCVER 2020 Table 19 https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2020

Figure A9: Health and Welfare Support Workers, Training Rate by State and Australia



Source: NCVER 2020 Table 19 https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2020

Figure A10: Construction and Trades workers, Training Rate by State and Australia



Source: NCVER 2020 Table 19 https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2020