

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

Workforce shortages loom as the population ages

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The Commonwealth Government's just released 2021 Intergenerational Report focuses on national trends but has important implications for South Australia with its more rapidly ageing population and slower than average population growth.

The outlook, even on the 2021 Intergenerational Report's relatively high national population and economic growth assumptions, is that South Australia is likely to see looming workforce shortages in health, aged and disability care and associated personal and other services, and rising skills mismatches. This is due to projected continued strong demand in these sectors coming up against a marked slowing in the growth of the population aged 18 to 70 years, exacerbated by the current COVID-19 restrictions on international immigration. This is even with some offset from lower net migration losses interstate.

Some significant policy decisions at the Federal and South Australia Government levels therefore will be required to accommodate a likely sustained high level of net overseas migration (NOM) in a likely continued COVID-19 environment and increased education and training.

Over 26,000 jobs were created over the last decade in areas closely related to health, aged and disability care, including personal and other services – see Table 1. This was equivalent to 64 per cent of total jobs growth.

Table 1 Employment Growth in South Australia and Australia 2010-2020

| | 2010 | | 2020 | | Change: 2010 to 2020 | |
|--|-------------------|---------------------|-------------------|---------------------|----------------------|--------|
| | No. Employed '000 | % of Total Employed | No. Employed '000 | % of Total Employed | No. ('000) | % |
| South Australia | | | | | | |
| Hospitals | 33.1 | 4.1 | 32.5 | 3.9 | -0.6 | -1.7 |
| Medical and Other Health Care Services | 27.9 | 3.5 | 39.5 | 4.7 | 11.6 | 41.5 |
| Residential Care Services | 20.8 | 2.6 | 23.0 | 2.7 | 2.1 | 10.2 |
| Social Assistance Services | 22.8 | 2.8 | 34.6 | 4.1 | 11.8 | 52.0 |
| Health Care and Social Assistance nfd | 0.1 | 0.0 | - | - | 0.1 | -100.0 |
| Personal and Other Services | 15.5 | 1.9 | 16.8 | 2.0 | 1.3 | 8.5 |
| Total | 120.2 | 15.0 | 146.3 | 17.4 | 26.2 | 21.8 |
| Total Other Employment | 679.6 | 85.0 | 694.6 | 82.6 | 15.0 | 2.2 |
| Total Employment | 799.7 | 100.0 | 840.9 | 100.0 | 41.2 | 5.1 |
| | | | | | | |
| Australia | | | | | | |
| Hospitals | 371.5 | 3.4 | 494.0 | 3.9 | 122.5 | 33.0 |
| Medical and Other Health Care Services | 353.6 | 3.2 | 549.3 | 4.3 | 195.6 | 55.3 |
| Residential Care Services | 197.7 | 1.8 | 238.0 | 1.9 | 40.3 | 20.4 |
| Social Assistance Services | 308.4 | 2.8 | 478.8 | 3.8 | 170.5 | 55.3 |
| Health Care and Social Assistance nfd | 1.3 | 0.0 | - | - | -1.3 | -100.0 |
| Personal and Other Services | 222.4 | 2.0 | 234.0 | 1.8 | 11.6 | 5.2 |
| Total | 1,454.9 | 13.2 | 1,994.1 | 15.7 | 539.3 | 37.1 |
| Total Other Employment | 9,536.4 | 86.8 | 10,681.1 | 84.3 | 1,144.7 | 12.0 |
| Total Employment | 10,991.2 | 100.0 | 12,675.2 | 100.0 | 1,684.0 | 15.3 |

Source: ABS Cat 6291.0.55.001 - EQ06 - Employed persons by Industry group of main job (ANZSIC), Sex, State and Territory, November 1984 onwards, released 25/3/2021

The outlook is for growth of at least another 30,000 jobs in health, aged and disability care, and associated personal and other services, with increased qualifications and higher pay rates, by 2030. This projection of employment growth is based on assumptions of growth of 1 per cent per annum in real per capita South Australian Gross State Product (GSP) and the growth in the population 65 years and over as per the Australian Bureau of Statistics (ABS) Scenario C (i.e. low) in its 2017 population projections.

This projected jobs growth is likely to equal or exceed, depending on the assumptions used, the possible growth in the South Australian labour force, principally drawn from those aged 18 to 70 years.

For example, using the assumptions in the 2021 Intergenerational Report about net overseas migration returning in 2025/26 to a relatively high 235,000 per annum nationally, that South Australia gains 5.5 per cent of those net flows and South Australia's labour force participation edges back slowly from current relatively high levels, the projected labour force growth about matches the projected employment growth in the areas noted above.

Using the ABS assumptions in its Scenario C population projections of a return to net interstate migration (NIM) outflows of 2,500 to 3,000 per annum – under half of the average net losses from 2015 to 2019 – and a return to net overseas migration (NOM) inflows of 10,700 by 2025, the projected labour force scenario growth falls short of the projected employment growth in these areas by at least 5,000 to 6,000 per annum by 2030.

Since 2010, South Australia's employment growth has depended heavily on areas closely related to the state's rapidly ageing population.

Between 1971 and 1996, South Australia's population 65 years and over doubled to 205,900. In the next 24 years to June 2020, it increased a further 133,000 to an estimated 338,903 or 19 per cent of the total population, over double its share in 1971.

This increase in the share of South Australia's population reflects both the growth in the number of those aged 65 years and over and slowing growth in the population under 65 years, with falling births and sustained net interstate migration outflows weighing on growth among younger cohorts. Looking at the more recent past, between June 2010 and June 2020, the population under 65 grew by 59,102 or 4.3 per cent while the population 65 and over rose by 83,951 or 33 per cent.

This differential in population growth outcomes among age cohorts has impacted substantially on the composition of employment growth, particularly with the fall in employment in motor vehicle and other manufacturing since 2009.

Over the 10 years to 2020, total employment in South Australia, as measured as the average of the ABS quarterly estimates as shown in the source noted in Table 1, increased by around 41,000 or just over 0.5 per cent per annum.

Some 26,000 jobs, or 64 per cent of this employment growth, was accounted for by hospitals, medical and other health care services, residential care services, social assistance services, and personal and other services. Collectively, in 2010 these areas comprised 15 per cent of total employment. In 2020 the share was 17.4 per cent.

While all demographic groups would draw upon these services, the increased demand on services would be expected to be heavily influenced by an increased number and proportion of the population aged 65 years and over, particularly those aged 75 years and over, with the latter under the ABS Scenario C rising by around 60,000 or 72 per cent over the next decade.

While this outsized contribution in employment growth in part reflects the very slow growth in employment outside these five sectors (around 2 per cent), growth in these various health, disability and personal care sectors in South Australia has been quite rapid although generally, and surprisingly, slower than nationally. This slower growth, particularly in employment in hospitals, is a story for another time.

SACES estimates that on average through 2010 to 2020, for each 1,000 person increase in the population aged 65 and over, there were on average 240 jobs created across the five sectors noted above.

Time series regression for a period of 36 years from 1985 to 2020 shows that a 1 per cent increase in those who are 65 years and over resulted in a 0.8 per cent increase in employment in healthcare and social assistance areas as defined above. These results are statistically significant after controlling for income (real per capita GSP), net overseas migration and proportion of employment in manufacturing.

The average number of persons who were 65 and over between 1985 and 2020 was 233,040 and one per cent of this is 2,330. The average number of persons employed in healthcare and social assistance for the same period was 88,818 and 0.76 per cent of this is 675. Hence, an increase in those aged 65 years and over by 2,330 persons will lead to an increase in employment in healthcare and social assistance by 675. So for each 1,000 increase in population for the age group 65 years and over between 1985 and 2020 there was a correlated 290 increase in employment in healthcare and social assistance.

The ABS mid case scenario from its 2017 population projections is for the South Australia population aged 65 and over to increase by 82,600 between 2020 and 2030, broadly the same pace as between 2010 to 2020. ⁱ

It would be expected this scenario would not be significantly impacted by the recent effective stopping of overseas immigration or reduction in net population losses interstate as migration is predominantly undertaken by younger cohorts.

If that population increase occurred, we estimate at least a similar, and more likely, a greater increase in employment in South Australia to 2030 in the aged and disability care related sectors than seen between 2010 to 2020 (i.e. around 30,000). This would reflect, inter-alia, the underlying increase in demand, the stronger growth in the population 75 and over, the broader application of the National Disability Insurance Scheme (NDIS) arrangements and the increased staffing requirements that are likely to come out of the recommendations of the Aged Care and Disability Care Royal Commissions to increase the quality and standards of care.

Where would this workforce come from?

We have used the ABS Series C (i.e. a low case scenario, 2017 Population projections) for the projected growth in the South Australian population aged 18 to 70, the principal source of the labour force out to 2030. ⁱⁱ

This scenario's net natural increase (NNI) projections (i.e. the difference between births and deaths), appear likely on the various ABS population scenarios to be the closest to the actual outcomes since 2017. However, it should be noted the actual net natural increase since 2017 was lower than projected in this scenario. The net interstate migration (NIM) and net overseas migration (NOM) assumptions also appear closer to recent history prior to the COVID-19 induced disruptions.

We show in Table 2 our working assumptions about a path for net overseas migration and net interstate migration compared to the assumptions in the ABS low case scenario in order to illustrate a potential path for the South Australia's working age population under even what might now be considered relatively high growth assumptions in a continuing COVID-19 impacted environment.

Table 2: South Australia: Population and Labour Force Scenario 2021 to 2030

| | June Population 18 years to 70 years | June Labour Force (Seas Adj Actuals) Civilian population 15 years & over | June Labour Force Ratio to 18 years to 70 years population Rate (Seas Adj Actuals) | Net Overseas Migration (Actuals) | Net Interstate Migration (Actuals) |
|--------------------------|--|--|--|---|---|
| Estimated Actuals | | | | | |
| 2015 | 1,151,423 | 874,289 | 0.76 | 11,152 | -4,570 |
| 2016 | 1,155,771 | 873,559 | 0.76 | 11,283 | -7,212 |
| 2017 | 1,160,397 | 884,245 | 0.76 | 12,175 | -6,778 |
| 2018 | 1,163,953 | 892,881 | 0.77 | 12,724 | -5,151 |
| 2019 | 1,170,817 | 909,739 | 0.78 | 15,141 | -3,958 |
| 2020 | 1,178,551 | 899,967 | 0.76 | 15,052 | -2,160 |
| 2021 | na | 924,983 (May) | 0.79 | na | na |
| | SACES Adjusted ABS Low Case Scenario Population 18 years to 70 years | SACES Labour Force Scenario | SACES Working Assumption on total Labour Force to 18 - 70 years Population Ratio | SACES Assumption to 2025, ABS assumptions Series C, 2021 to 2024 | SACES Assumption to 2025, ABS assumptions Series C, 2025 to 2030 |
| 2021 | 1,179,045 | 926,140 | 0.79 | 3,000 | 600 |
| 2022 | 1,179,643 | 926,610 | 0.79 | 3,000 | 600 |
| 2023 | 1,180,929 | 927,620 | 0.79 | 3,500 | 600 |
| 2024 | 1,184,876 | 930,720 | 0.79 | 7,500 | 0 |
| 2025 | 1,189,476 | 934,333 | 0.79 | 10,738 | -3,500 |
| 2026 | 1,194,205 | 938,048 | 0.79 | 10,360 | -3,000 |
| 2027 | 1,198,517 | 941,435 | 0.79 | 9,975 | -2,500 |
| 2028 | 1,202,712 | 944,730 | 0.79 | 9,975 | -2,500 |
| 2029 | 1,206,466 | 947,679 | 0.79 | 9,975 | -2,500 |
| 2030 | 1,210,096 | 950,530 | 0.79 | 9,975 | -2,500 |

Sources: ABS Cat 3101.0 National, State and Territory Populations, Table 2 Population change, components - State and Territories, (Number) released 17/6/2021.,
ABS Cat 3222.0, Population Projections, Australia, 2017 (Base) - 2066. Table 11. Released 22/11/2018,
ABS Cat 6202.0 Labour Force, Australia, Table 7, released 17/6/2021

The ABS assumptions under Series C, a low growth outlook, was for average net overseas migration (NOM) of around 11,600 per annum for 2019-20 to 2023-24, and net interstate migration (NIM) averaging -4,600 per annum. For scenario building purposes, we assume net overseas migration (NOM) gains will slowly build from 2022 and be back at the ABS assumed levels from 2025 and net interstate migration (NIM) losses will start to occur from 2025 at ABS assumed levels. As noted, these are working assumptions only. We have retained the ABS birth and death assumptions.

What this adjusted scenario suggests is that even with relatively high growth assumptions on NOM and NIM and retaining relatively high labour force participation by 18 to 70 year olds, the growth in the labour force projected to 2030 of around 24,400 is well below the projected 30,000 growth in employment in the five sectors largely related to aged and disability care.

This would therefore suggest other sectors overall would need to be shedding labour, i.e. reducing employment, and presumably output unless there is offsetting productivity growth. Alternatively, the health, disability and personal care sectors may struggle to meet their labour and skill needs, which could extend or exacerbate existing pressures within these sectors (e.g. ramping in hospitals, poor quality care in aged care).

On a higher growth note, the 2021 Intergenerational Report assumes a return by 2025/26 to relatively high net overseas migration nationally of 235,000 per annum. Assuming South Australia was to get a relatively high 5.5 per cent share of this, (i.e. 12,925 per annum), and keeps net interstate migration losses relatively low, South Australia's population aged 18 to 70 under this scenario would be around 12,000 higher in 2030 than the adjusted ABS scenario. The labour force would in turn be around 10,000 higher than the other scenario.

Even on this higher growth scenario, however, the projected labour force growth to 2030 at 34,000 is still just 4,000 ahead of the projected increase in employment in health, aged and disability care.

Other assumptions about increased NOM and lower NIM losses and increased labour force participation can be made to see a faster lift in labour force growth but reasonable assumptions would seem to need some vigorous South Australian and Federal Government policy responses.

For example, the 2021 Intergenerational Report's 235,000 of net overseas migration in 2025/26 assumes gross overseas immigration of 270,000 per annum. At a share of 5.5 per cent, around 15,000 would be coming to South Australia each year. Assuming those immigrants would still need 14 days of quarantine, which would require 600 or so quarantine beds in medi-hotels or purpose-built quarantine facilities on an ongoing basis. Related policy decisions would be required if these facilities were to be located interstate or in South Australia and what role vaccine passports may play.

Another issue will be the likely increase in qualifications required of the aged and disability care workforces by 2030 as a result of expected recommendations from the aged care and disability care Royal Commission. While we are projecting a net increase of 30,000 in this workforce to 2030, the gross education and training load allowing for retirements, career changes etc. could well be double this.

ⁱ ABS Cat 3222.0 Population Projections, Australia, (See blog 30/6/2021)

ⁱⁱ ABS Cat 3222.0 Population Projections, Australia.