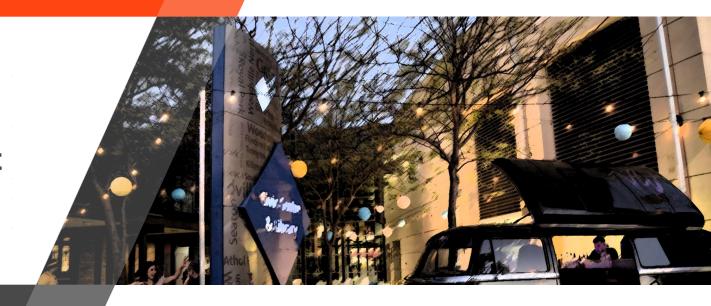
City of Charles Sturt Economic Trends and Forecast

March 2022







informed decisions

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Data sources and definitions

- The short term economic and employment forecast of the City of Charles Sturt is developed by NIEIR. For more information on NIEIR and their methodology please refer to the City of Charles Sturt Economic economy.id website.
- The following data is used in this report:
 - Australian Business Register, GST Registration (2021)
 - Australian Bureau of Statistics, Building Approvals (2021)
 - Australian Bureau of Statistics, Regional Population Growth (2021)
 - Australian Bureau of Statistics, Census of Population and Housing 2006, 2011 and 2016 estimates
 - Australian Bureau of Statistics, Weekly Payroll Jobs and Wages in Australia (2021)
 - Department of Employment, Small Area Labour Market (2021)
 - Department of Social Services, JobSeeker and Youth Allowance (2021)
 - PlanSA, Population projections for SA (2020)
 - Google Mobility (2021)
 - NIEIR (National Economics), Small area estimates of employment and economic value (2022)
 - Tourism Research Australia (2021)
- The following terms and acronyms are used in this report:
 - ABS: Australian Bureau of Statistics
 - **DZN:** Destination Zone (ABS Journey to Work small area geography)
 - Greater Adelaide: Geographic area classified as Greater Capital City Statistical Area by the ABS

- LGA: Local Government Area
- LQ: A Location Quotient is a way of seeing which are the main industries in an area, relative to a larger benchmark region. A number greater than 1 suggest the industry is over-represented locally and could be a specialisation
- **SA2:** Statistical Areas Level 2 (SA2) are medium-sized general purpose areas used by the ABS for statistical analysis purposes
- Western Adelaide Region: Local Government Areas including Cities of Charles Sturt, Port Adelaide Enfield, Holdfast Bay and West Torrens
- Broad industry classification to ANZSIC2006 1-Digit classification Concordance

Broad Industry	ANZSIC 2006 1 Digit Code Name
Business services	Information Media and Telecommunications
	Financial and Insurance Services
	Rental, Hiring and Real Estate Services
	Professional, Scientific and Technical Services
	Administrative and Support Services
Goods distribution	Wholesale Trade
	Transport, Postal and Warehousing
Goods transformation	Manufacturing
	Construction
Household services - essential	Electricity, Gas, Water and Waste Services
	Public Administration and Safety
	Education and Training
	Health Care and Social Assistance
Household services - non-essential	Retail Trade
	Accommodation and Food Services
	Arts and Recreation Services
	Other Services
Primary production	Agriculture, Forestry and Fishing
	Mining



Executive summary

Introduction

The City of Charles Sturt is located west of the Adelaide CBD along the coast and encompasses a diverse mix of residential, industrial and commercial activities. The City has been growing strongly, higher than the Greater Adelaide average over the last decade. However, the City is facing a range of economic challenges and opportunities and the economy has been substantially impacted by government enacted restrictions to curb the spread of COVID-19 in 2020.

This report provides a targeted economic analysis of the City of Charles Sturt economy. The report focuses on the period from 2016 to 2021 to assess recent economic performance, growth drivers and competitive advantages; assess the immediate impacts and recovery from COVID-19; the likely future economic outlook from 2021 to 2026 and the forces that will influence future growth; and concludes with long-term economic challenges and opportunities. This information can support the preparation of an Economic Development Strategy and help prioritise actions.

Economy adversely impacted by external forces in 2019 and 2020 Charles Sturt's economy rebounded in 2021 after low growth in 2019 and a hard fall in

Charles Sturt's economy rebounded in 2021 after low growth in 2019 and a hard fall in 2020

In 2021, the economic activity in Charles Sturt started to recover from the impacts of the weak South Australian economy in 2019 and the outbreak of COVID-19 in 2020. Over the period from 2016 to 2021, the GRP growth was 1.7% p.a., higher than the 1.3% p.a. growth from 2010 to 2015 as the economy rebounded strongly in 2021. Jobs growth was 0.3% p.a. from 2016 to 2021, significantly lower than the Greater Adelaide average (1.2% p.a.) but higher than the City's jobs growth rate from 2010 to 2015 (-0.6% p.a.).

Large jobs fall in population services, manufacturing and transport industries

Household consumption and business investment decreased due to the slow down in the state economy and the outbreak of COVID-19. This meant the jobs decreased in population services, manufacturing and goods transport industries.

Population growth was the main driver of economic growth

Population growth was the top contributor to economic growth over the period from 2016 to 2021. The productivity contribution to the growth decreased as productivities declined in high productivity industries. However, low jobs growth within the City meant resident workers finding jobs elsewhere, limiting the growth potential. Non-residential buildings approvals increased driven by the hospital, retail and wholesale, education and warehouses. The new buildings will provide important employment space for economic and jobs growth.

The slowdown in economic growth highlights key challenges faced by the Charles Sturt economy

The Charles Sturt economy faces challenges in generating higher jobs growth to match its growth in population. The recent slowdown in jobs growth highlights several challenges. They are:

- Reliance on population for job growth: Following the decline in industrial sectors, Charles Sturt's economic performance is reliant on population which drives demand for local Health, Retail, Hospitality, service industries and residential construction activities.
- Exposed to emerging forces: Charles Sturt's reliance on the population to grow its economy makes it exposed to a range of forces such as the shift to online shopping (retail), government spending (health sector) and more recently COVID-19 (services).
- Decline in specialised manufacturing industry: The manufacturing industry still remains a
 major job and economic value generator in Charles Sturt. The industry is major exporting
 industry with potential to grow beyond the population limit. However, the industry is at risk and
 needs support to maintain competitiveness.
- Large mismatch in jobs: The low jobs growth has increased the mismatch between local jobs and resident workers' skills and qualifications. The mismatch results in a large outflow of resident workers looking for higher income and skilled jobs.

Slow jobs recovery from the impacts of COVID-19

Large initial job impacts as the industry mix are more exposed to COVID-19

COVID-19 had a significant initial impact on Charles Sturt's economy. The job impacts were higher than other areas in Greater Adelaide as the economy has a high share of population serving industries affected by the social distancing measures. Subsequently, a relatively higher number of businesses were at risk and supported by JobKeeper payments.

Economic recovery driven by Construction and Health Care sectors

Strong construction pipelines, largely from the Queen Elizabeth Hospital redevelopment project, and an increase in health care jobs and economic activities are driving the economic recovery post COVID-19.

Many jobs were lost when JobKeeper ended, but the recovery resumed quickly

Despite a strong recovery in GRP, jobs recovery were slow. Many jobs were lost when the JobKeeper scheme ended in March 2021. However, the jobs recovery resumed in the next quarter, June 2021. The industries hit hard by the initial impacts, such as hospitality and retail have staged a strong recovery but are still below pre-pandemic level as of September Quarter 2021. Residents jobs conditions have improved with a decrease in the share of JobSeeker recipients and the unemployment rate. Building approvals activity remained steady with a strong boost from TQE Hospital redevelopment project, providing a good launchpad for growth.



Executive summary (cont)

The outlook suggests Charles Sturt will continue to face current challenges unless interventions are made

Jobs deficit forecast to remain

Charles Sturt job growth in the next 5 years to 2026 is forecast to be 2.4% per annum, higher than the pre COVID-19 growth rate. This growth rate is not enough to close the gap between local jobs and working residents given the strong population growth forecast in Charles Sturt.

Forecast continued reliance on population for jobs growth

Over 86% of the jobs growth from 2021 to 2026 is forecast to be from population serving industries, Health, Hospitality, Education and Other Services.

Retail industry is expected to decline further

Jobs in the retail industry have been significantly impacted by COVID-19. The economic outlook forecast a 9% decrease in retail jobs from 2021 to 2026.

Increase in demand for professional occupations and higher qualifications

The forecast estimates a strong increase in professional or community/personal service occupations and the greater demand for workers with higher qualifications in the next five years.

Need to preserve employment lands for future growth

The forecast growth in jobs will be limited if it is not matched by a comparable growth in commercial and industrial space. Particularly, commercial office space in key employment areas, developing new or enhancing existing white collar precincts (e.g. hospital), and/or protecting the appropriate industrial areas is required.

COVID-19 will present new and accelerate long term challenges and opportunities

The future trajectory of the City of Charles Sturt's economy will be influenced by several regional, national, and global trends that drives change in the environment in which the City is located. These trends present both challenges and opportunities to the City's potential future growth. The key challenges and opportunities include:

Challenges

- Substantial job deficit in knowledge based business service industries due to lack of jobs and larger commercial enterprises. The City lacks commercial office space to drive growth in professional and business services.
- Losing employment land due to continued redevelopment of industrial and vacant land for residential development, constraining economic growth. This will also impact existing manufacturing, wholesale and construction service operations.
- Intensifying development of employment hubs across the City have the potential to attract new businesses and/or inner metro relocations as well as tap into benefits from agglomeration spillovers.
- New technology may increase automation which places lower skilled working residents at risk of job losses.
- Low levels of digital literacy in small businesses may be negating the potential to grow sales/market beyond the City limits.
- International travel restrictions limit international visitation and reduce the potential length of stay of visitors.
- Health/aged care growth may contribute to lower productivity going forward unless higher value services are focused on.

Opportunities

- · A strong non-residential building pipeline will support economic activity over the coming years.
- Population ageing and new health and aged care facilities (e.g. TQEH redevelopment) will help further growth in the Healthcare industry.
- Continued revitalisation projects such as ToD in Bowden will hopefully attract commercial investment from white collar industry areas and diversify the economy.
- An increase in remote working for white collar office based employees may keep skilled residents in the City supporting local retail and providing incentives for new coworking facilities.
- New technology such as AI and 5G connected systems have the potential to substantially
 grow the value of advanced manufacturing, defence and construction related areas, as well as
 generate new opportunities.
- Australia is increasingly shopping online and supporting growth in Charles Sturt's specialised wholesale trade industry.



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Challenges and opportunities for the City of Charles Sturt going forward



01 How is the economy performing?



The economy is recovering from the slowdown in the state economy in 2019 and the outbreak of COVID-19 in 2020

Charles Sturt generated \$6,031m in GRP and supported an estimated 46,743 jobs in 2020/21. This represents 6.5% of Greater Adelaide's economy in terms of GRP (6.8% in terms of local jobs).

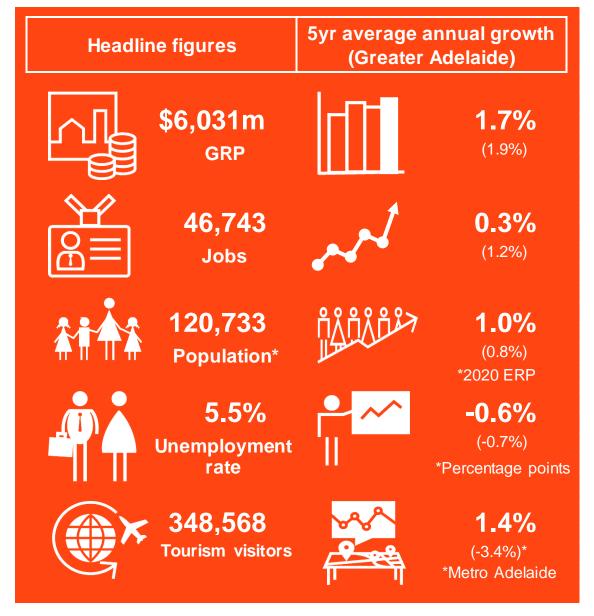
The economy in terms of GRP has been expanding over the last 5 year with annual average GRP growth rate of 1.7%. The number of local jobs increased at an average of 0.3% per annum during the same period.

Population wise Charles Sturt represents 8.8% of Greater Adelaide's total population. Population increased by 1.0% per year between 2016 and 2020, above the Greater Adelaide average.

The unemployment rate was 5.5% as at June 2021, relatively lower than Greater Adelaide (6.7%). It has decreased by -0.6% points in the last 5 years.

Tourism visitation grew by 1.4% per year between 2016 and 2021, well above the Greater Adelaide average of -3.4% per year.

Charles Sturt economy in 2020/21





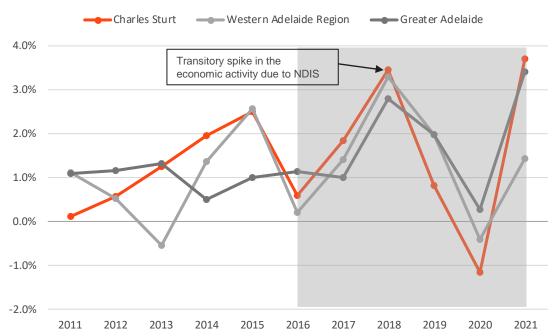
GRP growth has trended down prior to COVID-19, but recovered strongly in 2021

Over the decade to 2021, Charles Sturt GRP grew at 1.5% per annum, the same as the Greater Adelaide average (1.5% per annum). Recent growth has been even higher driven by the strong increase in 2020/21 of 3.7%. In the last 5 years, the region's GRP has increased by 1.7% per annum.

Compared to Metro LGAs, Charles Sturt GRP growth over the period from 2016 to 2021 (1.7% per annum) has been lower, the average annual GRP growth rate of surrounding Metro LGAs during the same period was 1.9% per annum.

Growth in GRP - Charles Sturt

% per annum

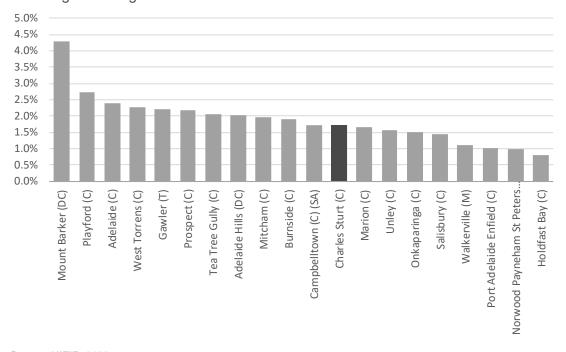


Source: NIEIR, 2022

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Growth in GRP - Metro LGAs, 2016 to 2021

% average annual growth rate



Source: NIEIR, 2022

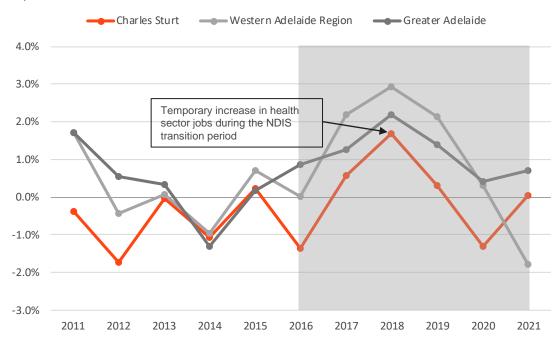
Jobs condition improved, but remains weak and lower than the metro average

From 2011 to 2021, Charles Sturt local jobs decreased by -0.3% per annum, below the Greater Adelaide average growth rate of 0.7% per annum. In the last 5 years, Charles Sturt local jobs growth has been higher compared to the period from 2011 to 2021. From 2016 to 2021, local jobs has increased by 0.3% per annum despite the drop in 2019/20.

The Charles Sturt local jobs growth under performed compared to surrounding Metro LGAs, where over the period from 2016 to 2021, the average local jobs growth rate was 1.2% per annum.

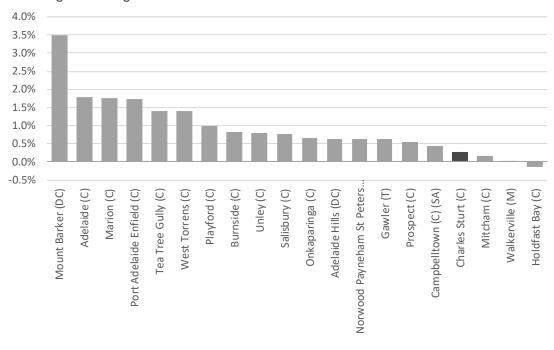
Growth in Local Jobs - Charles Sturt

% per annum



Growth in local jobs - Metro LGAs, 2016 to 2021

% average annual growth rate



Source: NIEIR, 2022





Unemployment rate has dropped below the metro average. But residents left the labour market as jobs condition worsens in the second half of 2019.

Over the last ten years to June-2021, the unemployment rate in Charles Sturt averaged at 5.5%, below the Greater Adelaide average (6.3%). Since peaking in 2017, the unemployment rate has been trending down. The unemployment rate in Charles Sturt reached a low of 4.6% in June-2019. However, the recent slowdown in the state economy and the impacts from COVID-19 has increased unemployment. By June-2021 the unemployment rate increased back to 5.5%.

Compared to surrounding Metro LGAs, the Charles Sturt average unemployment rate over the last 5 years to June-2021 (5.9%) was similar to the surrounding Metro LGA average unemployment rate during the same period (5.9%).

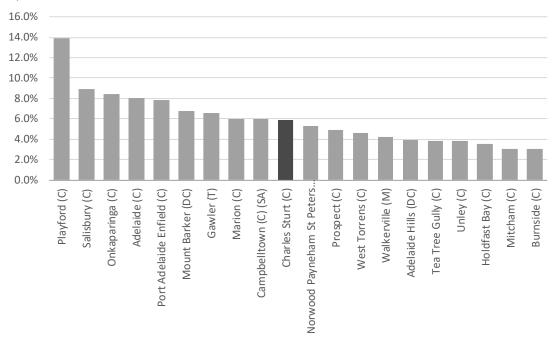
Unemployment rate - Charles Sturt

% Greater Adelaide 8.0% 7.0% 6.0% 3.0% 2.0% 1.0% 0.0% 2011 2012 2013 2014 2015 2017 2021 2016 2018 2019 2020

Source: ABS Labour force survey (2022); Department of Employment SALM (2022)

Average unemployment rate - Metro LGAs

%, from June-2016 to June-2021



Source: ABS Labour force survey (2022); Department of Employment SALM (2022)



02 What is driving recent economic conditions?



Growth was driven by population and productivity increase. But the outflow of labour limits the growth potential.

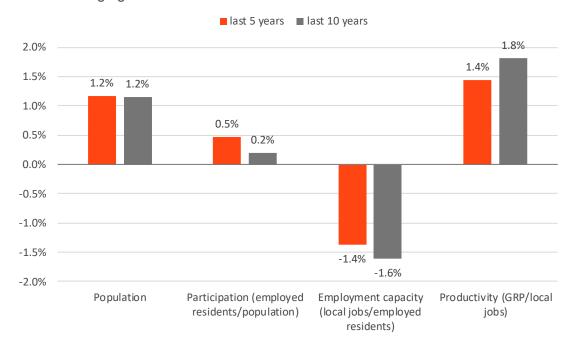
Over the last 5 years to 2021, the main contributor to economic growth in the Charles Sturt was change in productivity which averaged 1.4% per annum. This figure was above average figure for the period from 2011 to 2021

During the same period, the main detractor from growth was employment capacity which averaged -1.4% per annum.

Compared to the Greater Adelaide, Charles Sturt had higher components of growth in population, participation, productivity, and lower components of growth in employment capacity, during the period from 2016 to 2021.

Components of growth - Charles Sturt

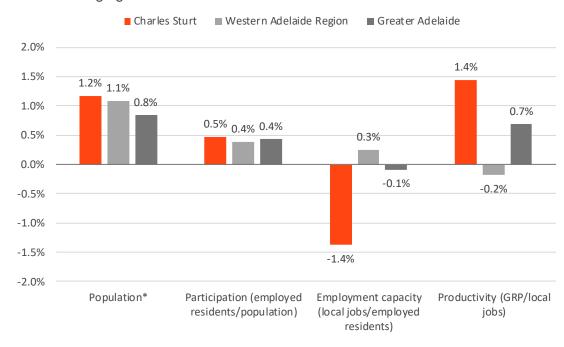
Annual average growth %



Source: NIEIR, 2022

Components of growth - Charles Sturt, last 5 years

Annual average growth %



Source: NIEIR, 2022 | Based on estimated 2021 population



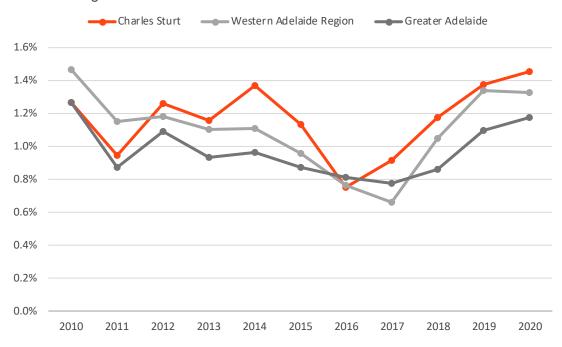
International migration driving population growth

Over the decade to 2020, Charles Sturt's population growth has been above the Greater Adelaide average.

The main contributor to population growth in the last year was net overseas migration (people arriving from overseas minus those leaving). An estimated 4,662 net new residents came from this component between 2016 and 2020.

Recent population growth - Charles Sturt

Annual Change in ERP %

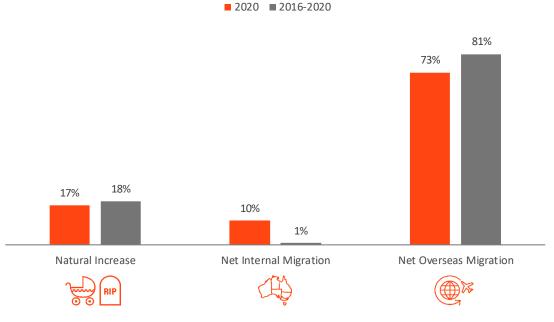


Source: ABS, 2021, Cat: 3218.0 - Regional Population Growth, Australia, 2019-20

The lowest contributor to growth was net internal migration (people moving in minus those moving out of the LGA within Australia). The component's contribution to population growth was 10% in 2020, significantly higher than the average between 2016 and 2020. The other factor influencing population growth was natural increase (births minus deaths) and its impact was positive.

Population growth components 2016-2020 - Charles Sturt

Change in component as a % of total change in population in the year to June



0 Source: ABS, 2021, Cat: 3218.0 - Regional Population Growth, Australia, 2019-20



Employed residents are increasingly working in areas beyond Charles Sturt as jobs growth is not keeping up with population growth

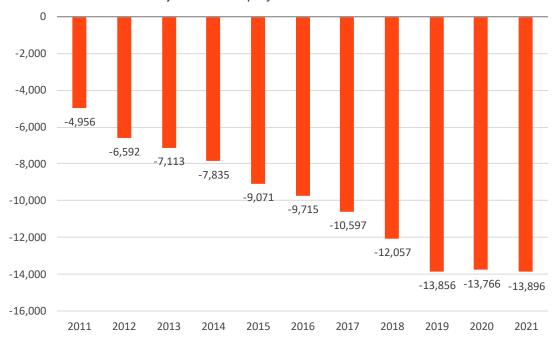
In 2021, there were 13,896 less jobs than employed residents. This suggests the region is not generating enough jobs to support its residence base, or neighbouring regions provide better opportunities.

This jobs 'deficit', difference between jobs and residents, has grown by 8,940 over the last ten years.

The share of residents working outside the LGA increased between 2011 and 2016. This suggests more residents are looking elsewhere for opportunities possibly because local jobs are not matching their needs.

Employment capacity - Charles Sturt

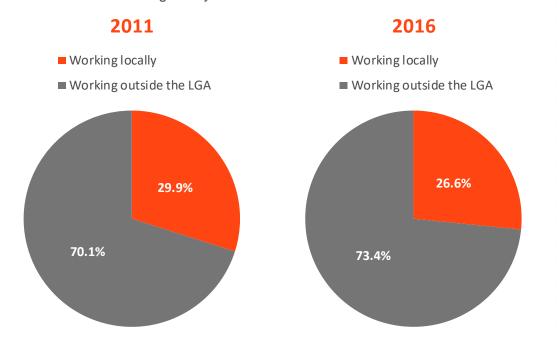
Difference between local jobs and employed residents



Source: NIEIR, 2022

Employment self containment - Charles Sturt

Share of residents working locally



Source: ABS Census of Population and Housing, 2011 and 2016



Strong growth in building approvals since 2016. Growth in Non-residential building approvals will provide construction jobs and employment land for future jobs growth.

The average value of non-residential building approvals over the last five financial years (\$158M) has been above the decade long average (\$109M). In this recent period, the total value of residential building approvals (\$1,706M) has outweighed total non-residential building approvals (\$791M).

The leading driver of non-residential building approvals value in the last five years has been Health buildings, followed by Retail and wholesale trade buildings and Education buildings.

Building approvals - Charles Sturt

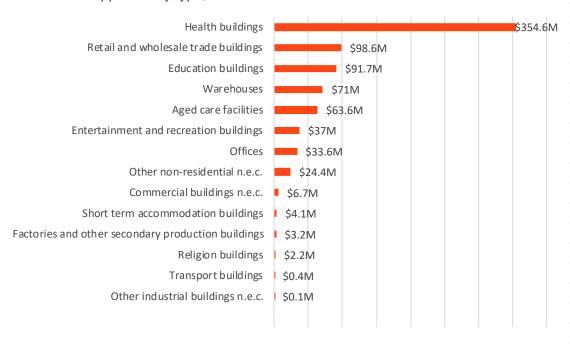
Annual value approved



Source: ABS, 2022, Cat: 8731.0 - Building Approvals, Australia

Non-residential approvals - Charles Sturt, last 5 years

Annual value approved by type, Jun-2016 to Jun-2021



Source: ABS, 2022, Cat: 8731.0 - Building Approvals, Australia



Productivity growth slowed from 2016 to 2020 after a period of strong growth. The productivity bounced up in 2021 driven by a spike in construction activities in South Australia.

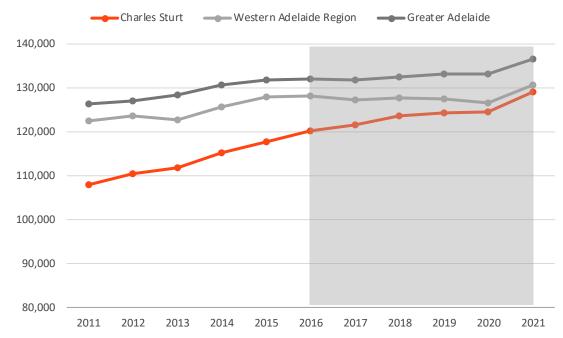
Charles Sturt's average worker productivity has increased strongly over the decade to 2020/21. However, the average worker productivity in 2020/21 was around \$7,606 per worker less than the Greater Adelaide average. This difference has decreased over the decade.

Charles Sturt's productivity is lower than the Greater Adelaide average as the City has less share of high productivity white collar industries, such as Finance, Public

Administration and Professional services.

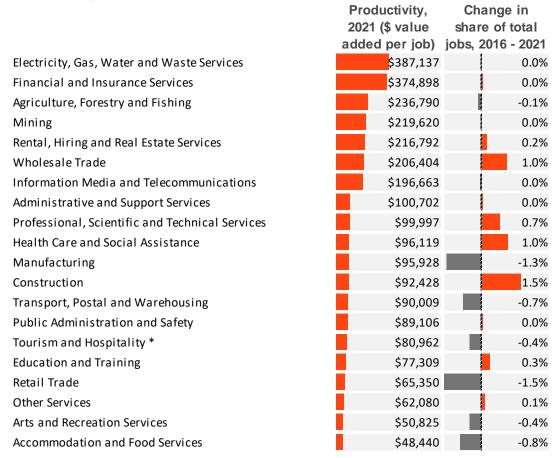
Worker productivity - Charles Sturt

\$ GRP per worker



The industries that have the largest productivity per job is Utility, followed by Financial and Insurance Services and Agriculture, Forestry and Fishing.

Job change by productivity - Charles Sturt





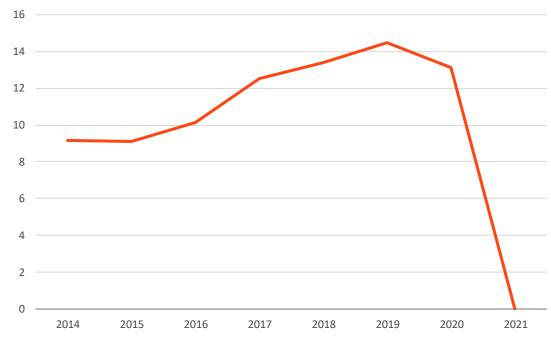
Domestic and international visitation is trending up. Visiting friends and relatives in Charles Sturt main reason for the visit.

Pre COVID-19 international visitors growth in Charles Sturt averaged at 6.1% per annum from 2014 to 2020. The growth in international visitors was higher than the Greater Adelaide average of 1.5%.

During the same period, domestic overnight visitors grew at 2.8% per annum while domestic daytrip visitors grew at 3.1% per annum. COVID-19 had a negative impact on domestic visitation. In 2020/21, the domestic overnight visitors decreased by 12% while the daytrip visitors decreased by 6%.

International visitors - Charles Sturt

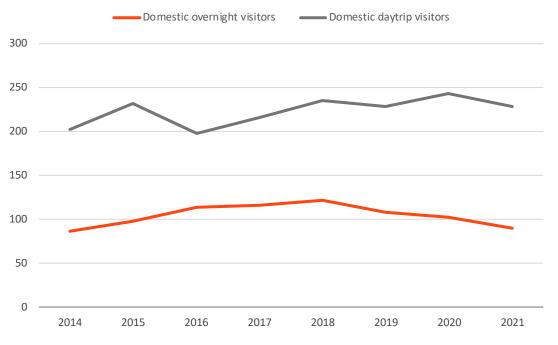
,000s (3 year rolling average excl. 2021)



Source: Tourism Research Australia, 2022

Domestic visitors - Charles Sturt

,000s (3 year rolling average)



Source: Tourism Research Australia, 2022



03 Which industries are driving recent growth?



Economy is dominated by Household Service industries. However, Manufacturing and Construction also make an important contribution.

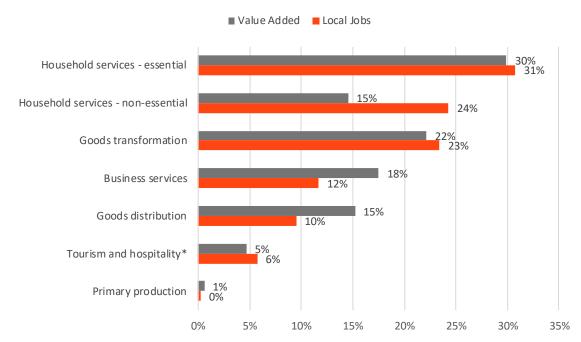
Charles Sturt's economy leans towards population servicing sectors, supporting over 50% of all jobs in 2021. Most value is generated in industries related to essential household services and the secondary transformation of goods.

The industries that were the top for jobs and productivity included: Health Care and Social Assistance, Manufacturing, Retail Trade, Construction, Wholesale Trade.

Top economic values producing industries included three goods related industries: Construction, Wholesale Trade and Manufacturing.

Industry profile - Charles Sturt

% of total, 2021



Source: NIEIR, 2022 | * Includes activities from other industries

Top 4 Industries in 2021

Jobs

Health Care and Social Assistance	Construction	Retail Trade	Manufacturing		
		8			
8,781 jobs	6,033 jobs	5,487 jobs	4,914 jobs		
(18.8%)*	(12.9%)*	(11.7%)*	(10.5%)*		
Value Added					
Health Care and Social Assistance	Construction	Wholesale Trade	Manufacturing		
\$844m	\$558m	\$542m	\$471m		
(18.2%)**	(12.0%)**	(11.7%)**	(10.2%)**		

Source: NIEIR, 2022 | * % of local jobs in Charles Sturt; ** % of value added in Charles Sturt

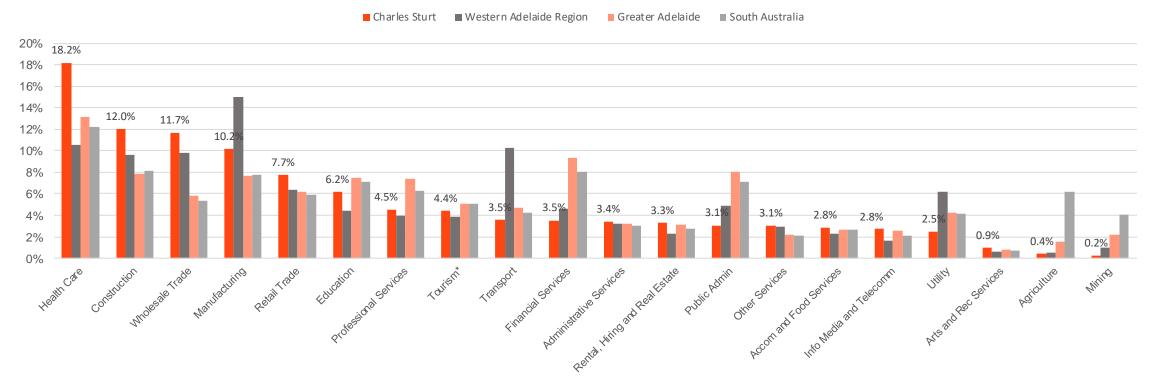


High share of economic value generated by health, construction, wholesale and manufacturing sectors compared to the metro and state averages. White collar industries are under-represented.

The health care sector generated almost one fifth of all economic value in Charles Sturt, significantly higher than other benchmark areas. The construction, wholesale and manufacturing sectors generated over 10% of the City's total economic value, well above the metro averages. White collar industries, such as Public admin, Finance, Professional and business services, were significantly lower than the Greater Adelaide average.

Share of value added by industry sector

% of total, 2021



Source: NIEIR, 2022 | * Includes activities from other industries; Preliminary Value

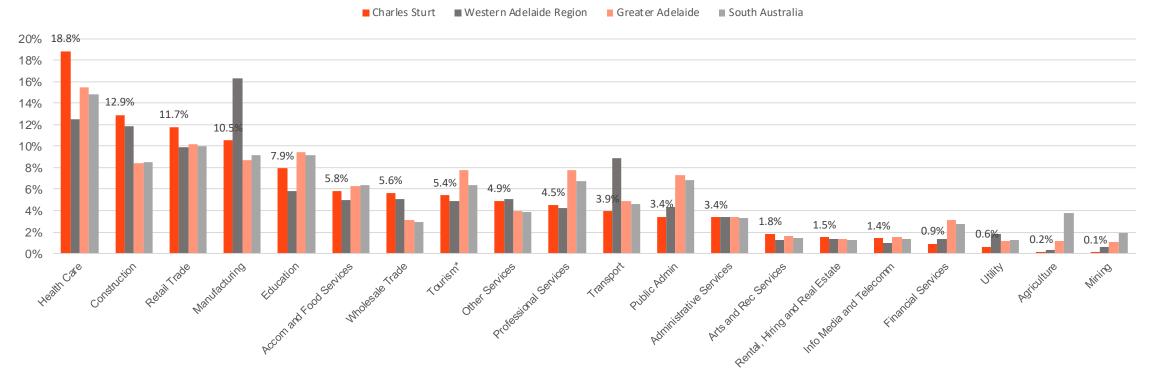


Population serving industries dominate jobs in Charles Sturt but are underweight on public administration and business service jobs

High share jobs in population serving sectors, such as health, construction, retail and education. With 10.5% of total jobs, the manufacturing sector supported a significant share of jobs in the City. Jobs in high value generating Finance, Public Administration and Professional services was significantly below the Greater Adelaide and the state averages.

Share of total jobs by industry sector

% of total, 2021



Source: NIEIR, 2022 | * Includes activities from other industries; Preliminary Value



Large jobs fall in Retail, Hospitality, Manufacturing and Transport industries due to slow down in the state's economy from 2019 and the outbreak of COVID-19

Over the last 5 years, the major drivers of productivity and job growth included: Construction, Health Care and Social Assistance, Wholesale Trade, Professional, Scientific and Technical Services, Education and Training.

Industry performance - Charles Sturt

Last 5 years (2016-2021)	Jobs	Value Added \$m
Retail Trade	-60	-6
Manufacturing	-54	-84
Accommodation and Food Services	-33	8 -17
Transport, Postal and Warehousing	-29	-155
Arts and Recreation Services	-18	0 -8
Tourism and Hospitality *	-16	6 -25
Agriculture, Forestry and Fishing	-4	9 -7
Information Media and Telecommunications	-1	3 29
Electricity, Gas, Water and Waste Services	-	3
Mining		1 2
Financial and Insurance Services	1	9 6
Administrative and Support Services	3	3 -6
Public Administration and Safety	3	7 12
Other Services	8	2 -10
Rental, Hiring and Real Estate Services	9	2 39
Education and Training	18	4 19
Professional, Scientific and Technical Services	34	9 41
Wholesale Trade	47	7 145
Health Care and Social Assistance	58	0 198
Construction	77	5 81

Source: NIEIR, 2022 | * Includes activities from other industries; preliminary value

Over the last 5 years, the main detractors of productivity and job growth included: Agriculture, Forestry and Fishing, Tourism and Hospitality, Arts and Recreation Services, Transport, Postal and Warehousing, Accommodation and Food Services.

The good news

- · Construction activity level increased significantly in 2021 following the commencement of the Queen Elizabeth Hospital redevelopment project. Building and housing construction jobs increased as residential building activities remained stable. Strong building activity in 2019/20 and 2020/21 will support construction jobs in the immediate term.
- Health Care and Social Assistance value added increased significantly driven by the hospital and residential services. The relative increase in jobs was lower than value added growth as the socialdistancing restrictions during the COVID-19 period decreased non-essential health services (e.g. dental, child, aged, disabilities care, welfare and counselling services).
- Wholesale Trade employment increased significantly in the last five years to 2021. The growth in precincts, such as ISPT Industrial Estate is positive for the industry.
- After a period of moderate growth, **Professional Service** employment has increased significantly over the last five years. This is in line with strong growth in Management Advice and Consulting Service businesses during the same period. The future growth in professional services needs growth in commercial, mixed use and business parks in the City.

The bad news

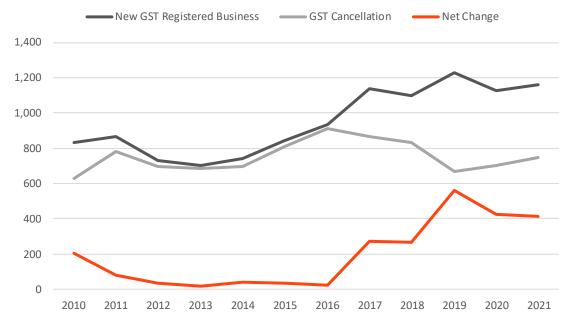
- · Retail trade, Accommodation and Food Services and Tourism employment decreased significantly due to the outbreak of COVID-19. However, the Retail trade industry was already experiencing a decline since September Quarter 2019. By March Quarter 2020, employment in the industry was already down by 127 jobs compared to March Quarter 2019.
- Manufacturing employment decreased from 2016 to 2021 driven by the fall in the food product manufacturing sector jobs since the outbreak of COVID-19.
- · After peaking in 2018, Transport, Postal and Warehousing industry declined as the slowdown in the state's economy decreased the logistics demand.
- Jobs in Arts and Recreation Services sector decreased significantly from 2016 to 2021, driven by a significant fall in the Sports and Recreation Activities industry.

Net new businesses increasing again after a period of no growth

The net increase in businesses were almost zero in Charles Sturt over the 5 year period from 2011 to 2016. From 2016, the net increase has started trending up driven by favourable economic and jobs conditions in the City and Greater Adelaide. The gap between new business GST registrations and GST cancellations widened from 2016 to 2019. From 2016 to 2021, the annual average increase was 327 businesses. This increase was over 160% of the annual average over the decade to 2021 (197 businesses).

Business entries and exits - Charles Sturt

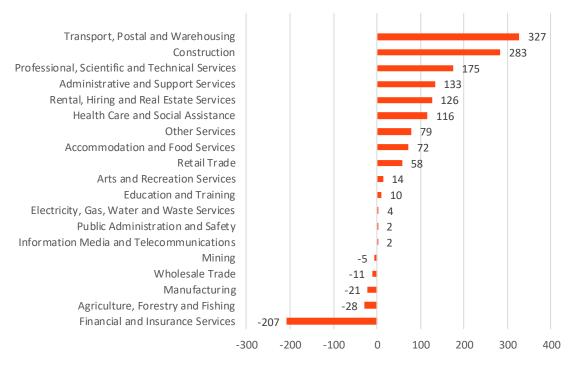
Number of businesses



Source: Australian Business Register, 2022

Professional, Scientific and Technical Service businesses increased significantly in line with a strong jobs increase in the industry in the last two years. However, the increase in Transport businesses is contrary to the job decrease in the industry as the increase was driven by taxis and Uber driver/delivery businesses. The construction business increase was driven by house construction businesses during the same period. Almost all of the new businesses in these industries were from non-employing businesses.

Net change in GST registered businesses - Charles Sturt From 2019 to 2021



Source: ABS Business Entries and Exits, 2022



04 What happened during the COVID pandemic shock?



Impacts from COVID-19

In March 2020, the Commonwealth and State Governments launched unprecedented public-health and economic responses to combat the growing pandemic threat.

Along with international passenger and trade restrictions, social distancing measures implemented towards the end of March had the greatest impact on employment and economic growth outcomes going forward.

Social distancing and 'isolation' was introduced to reduce the infection rate, slow deaths and ensure hospitals maintain sufficient ICU bed capacity to deal with COVID-19 cases as well as normal emergency medical demand. The alternative option of limited social restrictions ran the risk of potentially overrunning ICU units leading to thousands of deaths (as experienced in some countries overseas) and the need for an even larger 'lock down' at a later stage.

The largest negative impacts for the State and National economies occurred in the second quarter of 2020 (final quarter 2019/20 FY) as rigid social distancing measures were maintained for months.

Following this, falling infections lead to eased restrictions but waves of infections forced the reintroduction of stricter measures. However, economic activity was less severely impacted because the measures became more effective in containing the virus relative to the cost to economic activity.

However, it should be noted that actual results are entirely uncertain, given the fact there is no historical event comparable with what is currently occurring.

Economic policy responses

A number of responses were enacted by government to address the likely negative impacts of the social distancing policies.

- RBA reduced interest rates (official and quantitative easing) and demand side
- Wage subsidy boost cash flow for businesses
- Increases in working age and non-working age social security benefits
- Loan guarantee for small and medium businesses.
- Jobkeeper payment scheme businesses effectively playing a centrelink role. But fine print impacted effectiveness – e.g. Australian citizen and casual employee >12 months
- Childcare payments

The majority of these measures, especially stimulus spending, helped address worker incomes but had limited impact on Gross Product due to the fact that most employees were at home and effectively not producing goods and services.





Impacts on local jobs higher than resident workers as the industry mix are more exposed to COVID-19 – a high share of non-essential population service industries

The outbreak of COVID-19 had a significant impact on the City of Charles Sturt's economy. The June Quarter 2020, saw an estimated \$90m fall in quarterly GRP and 2,494 jobs were lost in Charles Sturt.

The City of Charles Sturt experienced an estimated 6.1% fall in GRP in the June Quarter 2020, similar to the Greater Adelaide average (-6.0%). Local jobs fell by 5.3%, significantly higher than other benchmarks. Conversely, employed resident jobs were less impacted, dropping by 4.2%, similar to other benchmark areas.

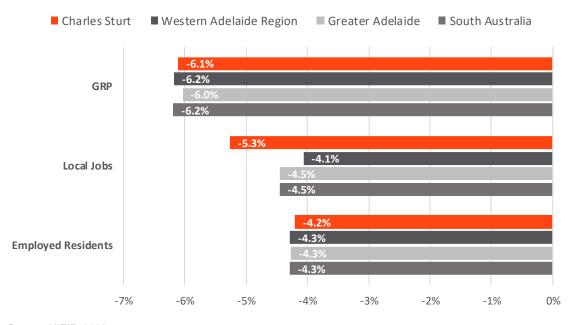
Quarterly GRP and Jobs - Charles Sturt

GRP \$M (bar grath left axis), Local jobs (line graph right axis)



Source: NIEIR, 2022

March 2020 to June 2020 Change - Charles Sturt



Source: NIEIR, 2022



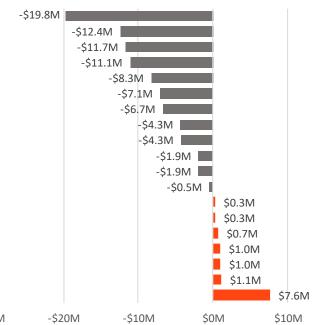
Disproportionate impacts on hospitality, retail and education sectors due to social distancing measures

The economic impact of the pandemic varied significantly across industries. In terms of value added, the main industries impacted in the June Quarter 2020 were Health Care and Social Assistance, Accommodation and Food Services, Transport, Postal and Warehousing and Manufacturing. The large decrease in Health Care and Social Assistance sector is driven by non-essential services such as child care and residential care services.

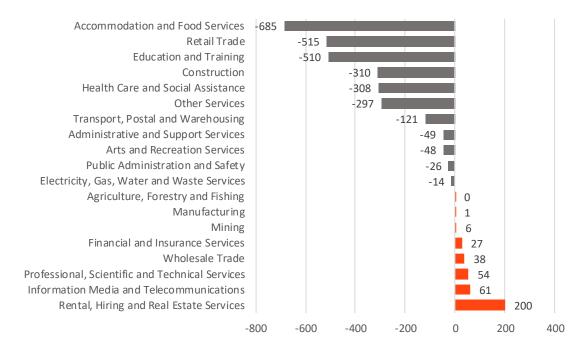
In terms of jobs, the main industries impacted in the June Quarter were Accommodation and Food Services, Retail Trade and Education and Training.

March 2020 to June 2020 Change, Value Added - Charles Sturt \$M





March 2020 to June 2020 Change, Local Jobs - Charles Sturt Number of Jobs



Source: NIEIR. 2022 Source: NIEIR. 2022

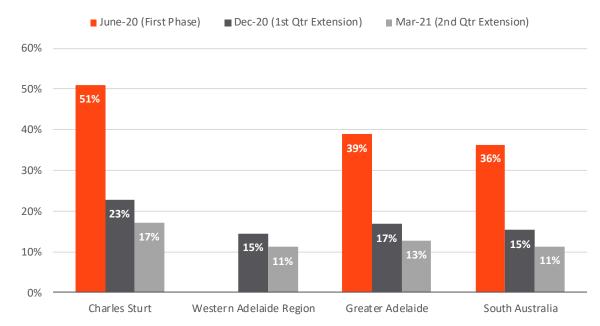


Businesses receiving JobKeeper support was much higher than other benchmark areas as the businesses are operating in the sectors more exposed to the impacts of COVID-19

Around 51% of all local businesses in Charles Sturt applied for JobKeeper support in June 2020. This rate was significantly higher than the Western Adelaide Region (33%), Greater Adelaide (39%) and South Australia (36%). This is due to businesses in Charles Sturt being in industries more exposed to the impact of COVID-19. The businesses accessing extended JobKeeper support decreased significantly but remains higher than the other benchmark averages.

Businesses Accessing JobKeeper

% of total businesses



Source: Treasury, 2021



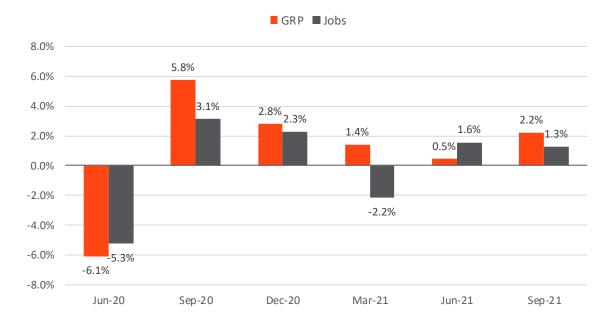
05 How is the recover from the COVID pandemic going?



Many jobs were lost when JobKeeper ended. But the economy bounced back quickly

The City of Charles Sturt's GRP and Jobs were estimated to have staged a rebound in September Quarter 2020. GRP was estimated to have experienced a strong recovery, rising above the pre COVID-19 level in December Quarter 2020. After a mild rebound of 3.1% in the September Quarter 2020, jobs fell significantly as JobKeeper scheme ended. However, the jobs growth rebounded in June Quarter 2021 and resumed the economic recovery.

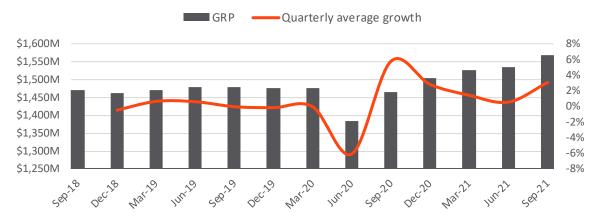
Economic and Job Recovery Estimates - Charles Sturt Quarterly % Change



Source: NIEIR. 2022

GRP Estimate, Quarterly - Charles Sturt

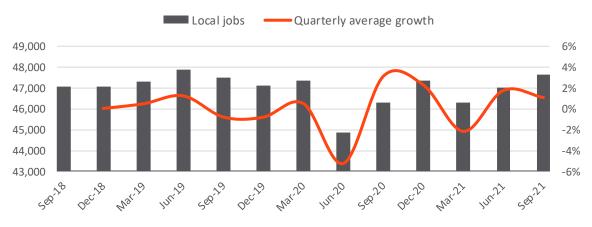
\$M (left axis), Quarterly % Change (right axis)



Source: NIEIR, 2022

Local Jobs Estimate, Quarterly - Charles Sturt

Jobs (left axis), Quarterly % Change (right axis)



Source: NIEIR. 2022

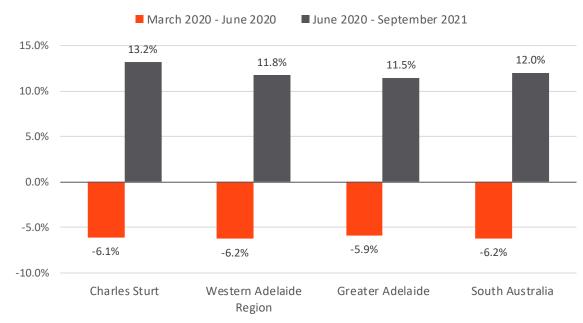
Jobs recovery lower than the metro and state averages

GRP was estimated to grow by 13.2% over the period between June 2020 to September 2021. This rate was higher than other benchmark areas.

Local Jobs were estimated to grow by 6.2% over the period from June 2020 to September 2021. The jobs recovery rate during this period was slightly lower than the Greater Adelaide and the state averages despite the largest fall in jobs from March 2020 to June 2020.

GRP Recovery Estimates - Charles Sturt

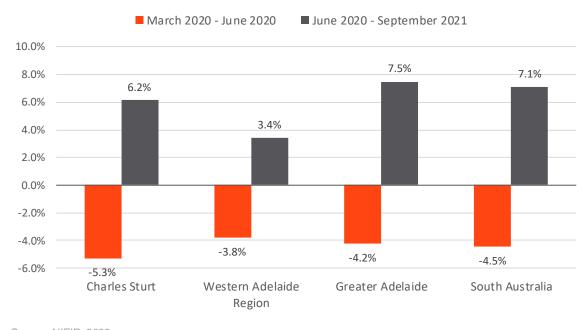
% Change



Source: NIEIR, 2022

Job Recovery Estimates - Charles Sturt

% Change



Source: NIEIR, 2022

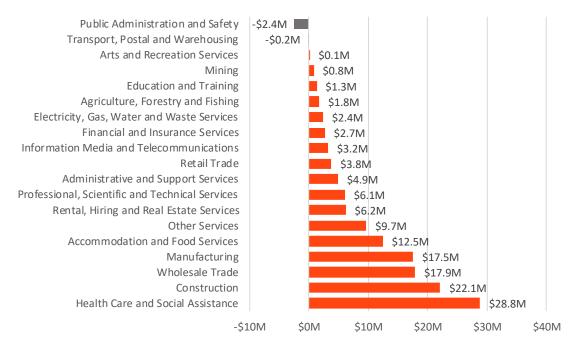


Strong recovery in hardest hit industries

Most industries staged a recovery in economic value over the period from June 2020 to September 2021. The top three growth industries were Health Care and Social Assistance, Construction and Wholesale Trade. The Health Care industry was the most negatively impacted immediately following the outbreak of COVID-19.

Estimated Value Added Change by Industry - Charles Sturt June 2020 to September 2021

\$M



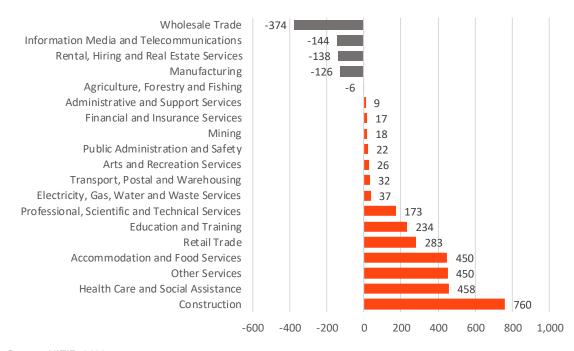
Jobs in Accommodation and Food Services recovered strongly over the period from June 2020 to September 2021.

The construction industry jobs and value added increased over the same period driven by strong construction activities.

The jobs in the industrial sectors, manufacturing and wholesale industries decreased during the same period as these industries continue to be impacted by COVID-19.

Estimated Job Change by Industry - Charles Sturt June 2020 to September 2021

Number of Jobs





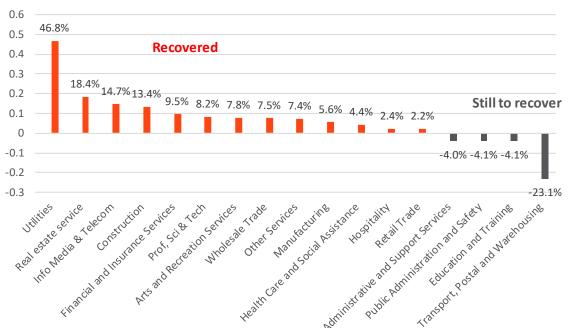
Source: NIEIR, 2022

Jobs in many industries still below the pre COVID-19 level by September 2021

In September 2021, the value added in many industries had recovered and was above the pre COVID-19 (March Quarter 2020) level. However, Transport and logistics industry were well below the pre COVID-19 level as the value added in the industry further deteriorated.

Recovery in Value Added by Industry - Charles Sturt September 2021 compared to March 2020

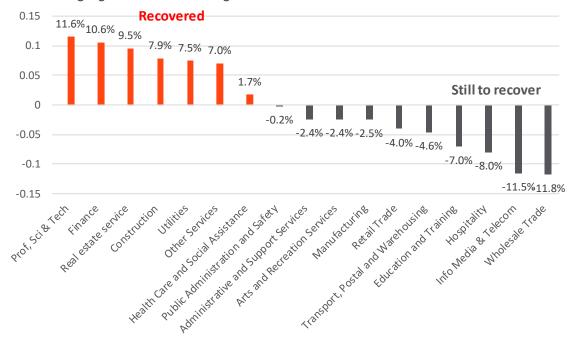
%, excluding Agriculture and Mining industries



Jobs in some industries recovered above the pre COVID-19 level in September 2021. The industries that are most impacted in June 2020 was still well below the pre COVID-19 level in September 2021.

Recovery in Local Jobs by Industry - Charles Sturt September 2021 compared to March 2020

%, excluding Agriculture and Mining industries





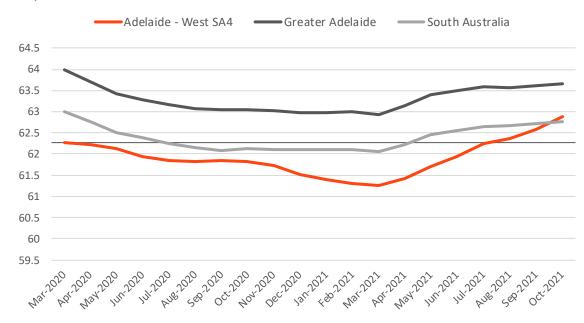


Residents are re-entering the jobs market. Retail, Transport, Administration, personal service and labour occupations are still below the pre COVID-19 level.

The labour force participation rate reached the lowest level of 61.3% in March 2021. Subsequently, the rate bounced above the pre COVID-19 level in August 2021 in the Adelaide - West SA4. The rate was higher than the South Australia average.

Labour Force Participation Rate by SA4

%, pre COVID-19 benchmark = March 2020

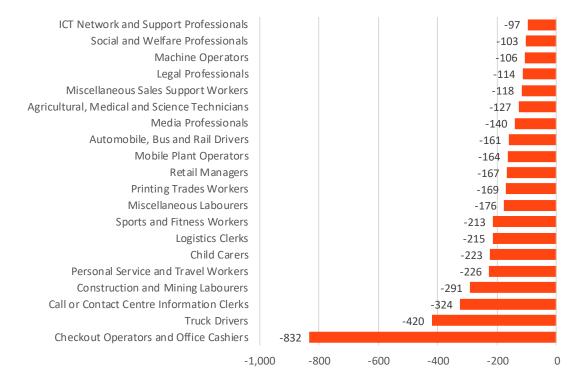


Source: ABS Labour Force, Australia, Detailed, 2021

The occupations that were most impacted by the recent lockdowns in Adelaide -West SA4 were Checkout Operators and Office Cashiers, Truck Drivers, Call centre clerks, and laborers. Generally, the most impacted occupations were in administration, transport, construction, general labour and sales occupations.

Most Impacted Occupations

Adelaide - West, 15th March 2021 compared to 15th October 2021



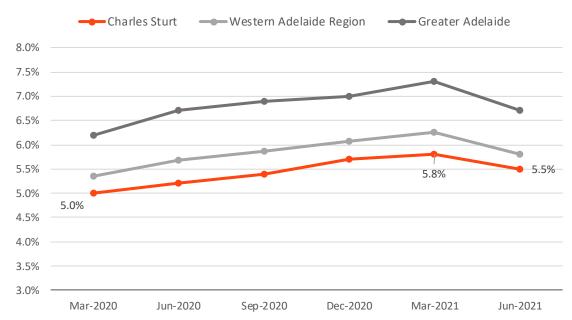


Resident's jobs condition has improved

The City of Charles Sturt's unemployment rate steadily increased by 0.8% in a year since the COVID-19 outbreak, from 5.0% in March 2020 to 5.8% in March 2021. This increase was slightly lower than the Western Adelaide Region average (+0.9%) and the Greater Adelaide average (1.1%). By June 2021, the unemployment rate in the City was 5.5%, 1.2% lower than the Greater Adelaide average.

residents on JobSeeker had fallen back to 6.1%, marginally higher than the rate observed in March 2020.

Unemployment rate - Charles Sturt



Source: ABS Labour force survey (2021); Department of Employment SALM (2021)

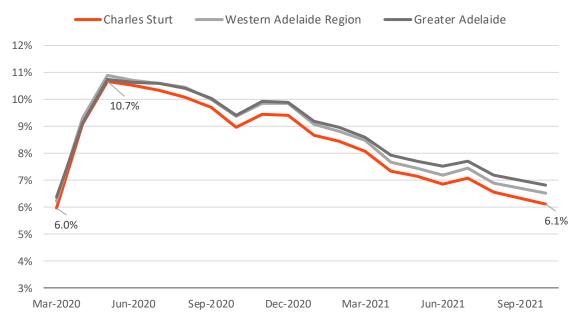
Share of residents on JobSeeker - Charles Sturt

The percentage of 15 to 64 years old residents on JobSeeker payments in Charles

Sturt peaked at 10.7% in May 2020. This is an increase of 4.7% (+4,351 residents)

from the March 2020 level. By October 2021, the percentage of 15 to 64 years old

%



Source: Department of Social Services - Job Seeker and Youth Allowance recipients

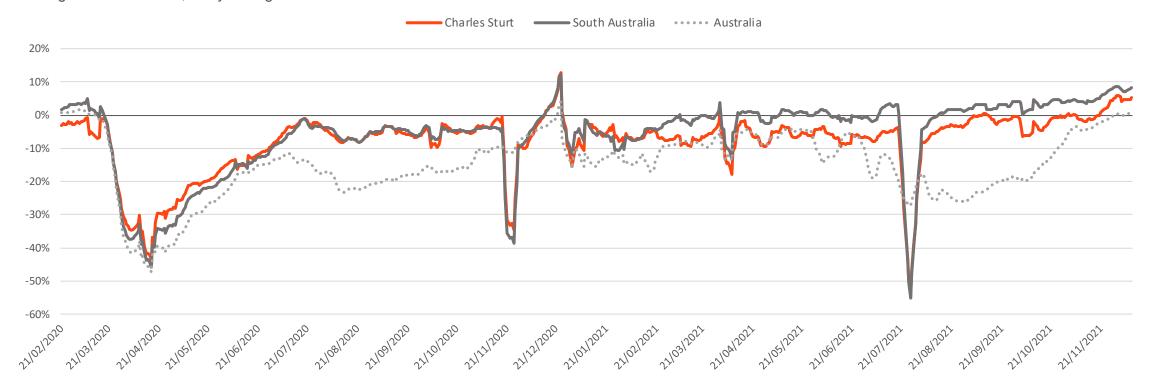


Visits to shops, hospitality and entertainment places fell by 40% in April but recovered almost back to pre-COVID level by August 2020

In the month of April 2020, travel movements to places of retail, recreation, hospitality and entertainment fell by around 40% compared to pre COVID benchmark level. The fall in movements was on par with the South Australia average. By August 2020, the movements recovered almost back to the pre COVID baseline level. Since then, the movements are fluctuating in line with the series of lockdown travel restrictions. In December 2021, mobility was around 5% higher than the baseline.

Travel movements to retail and recreation venues - Charles Sturt

% change from base week, 7 day average



Source: Google Mobility Data, 2021



Strong Non-Residential building approvals in December 2020 driven by the hospital redevelopment project. The project will provide construction and strategically important health jobs.

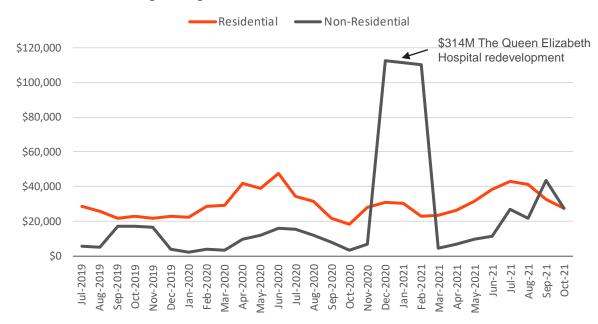
The non-residential building approvals activity remained relatively flat from July 2019 until December 2020. Residential approvals activity remained range bound between \$20 million to \$40 million.

Non-Residential building approvals started trending up in December 2020. This was driven by a \$314 million hospital redevelopment project.

The strong Non-Residential building approvals activity in FY2021 were driven by \$314 million The Queen Elizabeth Hospital redevelopment project approval in December 2020.

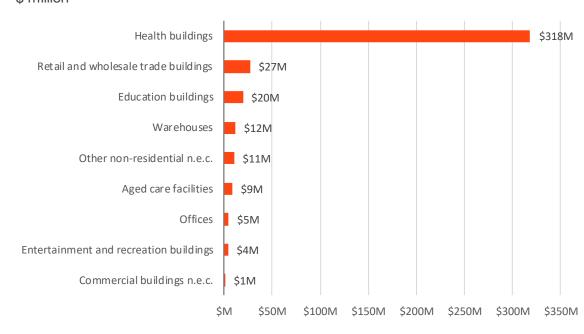
Monthly Value of Building Approvals - Charles Sturt

\$'000, 3 months rolling average



Source: ABS Building Approvals, 2021

Non-Residential Building Approvals Value 2020/21 \$ million



Source: ABS Building Approvals, 2021

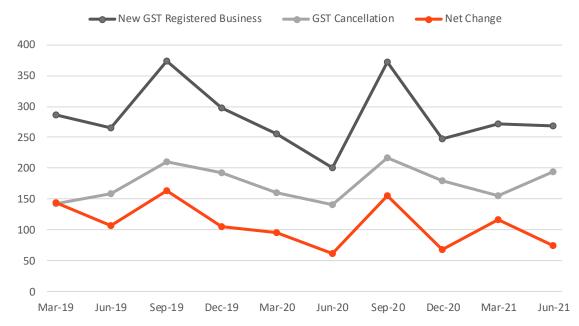


New business registration remain stable

After experiencing a strong growth until September Quarter 2019, the net change in businesses started to grow at a slower pace following the weakening of the economy. The net change in businesses reached a low of 61 in June Quarter 2020, 46 new businesses lower than a year before. After a strong surge in new businesses in September Quarter 2021, the decrease in net change in businesses appears to have stopped.

Business entries and exits - Charles Sturt

Number of businesses



Source: Australian Business Register, 2021



Domestic tourism is trending up again

Domestic overnight visitation started to trend down after peaking in March Quarter 2019. Following a steep decline in March and June Quarters 2020, the visitation recovered strongly in December Quarter 2020. The recovery continues in 2021 with estimated 30,000 domestic overnight visitors to Charles Sturt in June 2021.

Visitation - Charles Sturt

Estimated number of visitors



Source: Tourism Research Australia, 2021



Charles Sturt's longer-term economic vulnerability is relatively high. But the resident vulnerability appears low.

The COVID-19 pandemic has a dynamic nature and its short and long term impact on the economy is entirely uncertain. Although there is no historical event that we can compare against, there is a high possibility of Charles Sturt's economy facing further slowdowns in the coming years as rising inflation and falling national investment impact the broader economy.

Charles Sturt's economy was in a relatively vulnerable position pre COVID-19 as GRP and Jobs growth was already declining despite low unemployment and high construction activities. The economy also has a relatively higher post COVID-19 vulnerability as international immigration contributes a significant share of the population, where population growth is the main driver of economic growth. However, residents appear to be less vulnerable as they are employed in less exposed industries and lower share of at-risk groups.

	Indicator	Charles Sturt	Greater Adelaide	South Australia	Lower (compared to the state)	Vulnerability score (L - M -H)
	GRP Growth (2018/19, 3-year AAG)	1%	2%	2%	Lower	н
Pre-COVID	Job Growth (2018/19, 3-year AAG)	1%	2%	2%	Lower	н
vulnerability	Unemployment Rate 2019	5%	6%	6%	Lower	L
	Building Approvals (2018/19 compared to 2015/16 - 3-year average)	43%	33%	28%	Higher	L
	Share of main impacted industries	9%	8%	8%	Higher	M
	International export exposure	6%	7%	9%	Lower	L
Post-COVID Economic	Share of visitation related to international	56%	48%	31%	Higher	M
Vulnerability	Contribution of international migration to pop growth	84%	103%	100%	Lower	н
,	Youth share of workforce	16%	14%	14%	Higher	M
	Part time workers	40%	38%	38%	Higher	M
	Share of main impacted industries	9%	8%	8%	Higher	M
	Youth share of employed residents	14%	14%	14%	Higher	L
Resident	Part time employed	37%	38%	38%	Lower	M
vulnerability	Disengaged youth	8%	10%	10%	Lower	L
	Mortgage exposure (low income)	10%	16%	16%	Lower	L
	Private rent exposure (low income)	21%	25%	24%	Lower	L
	Private rent exposure (low income)	21%	25%	24%	Lower	L



Higher/

06 Which industries are competitive and how is this changing?



Developed specialisations in goods manufacturing and sales as well as population servicing sectors

Charles Sturt has a major comparative advantage in Wholesale Trade, Manufacturing, Construction, Arts and Recreation Services, Retail Trade, Other Services and Health Care and Social Assistance industries.

Level of specialisation - Charles Sturt

Compared to Creater Adelaide (in 1 O terms)	laha	Value	Addad Cm
Compared to Greater Adelaide (in LQ terms)	Jobs	_	Added \$m
Wholesale Trade		1.79	2.00
Construction		1.54	1.53
Other Services		1.23	1.39
Health Care and Social Assistance		1.22	1.39
Manufacturing		1.21	1.33
Arts and Recreation Services		1.15	1.18
Retail Trade		1.15	1.26
Rental, Hiring and Real Estate Services		1.07	1.05
Administrative and Support Services		1.00	1.06
Accommodation and Food Services		0.93	1.06
Tourism and Hospitality *		0.91	0.90
Information Media and Telecommunications		0.90	1.10
Education and Training		0.84	0.82
Transport, Postal and Warehousing		0.81	0.76
Professional, Scientific and Technical Services		0.58	0.61
Electricity, Gas, Water and Waste Services		0.53	0.59
Public Administration and Safety		0.47	0.38
Financial and Insurance Services		0.30	0.38
Agriculture, Forestry and Fishing		0.14	0.25
Mining		0.11	0.11

At a detailed industry level, industries with the highest specialisations were Pulp, Paper and Converted Paper Product Manufacturing driven by major companies, DetPak, Paper Pak and Ball & Doggett.

Specialisation by detailed industry - Charles Sturt

Compared to Greater Adelaide (in LQ terms)

		% of	
Industry	Jobs	total	Specialisation
Pulp, Paper and Converted Paper Product Manufactu	519	1.1%	5.09
Commission-Based Wholesaling	104	0.2%	3.09
Other Transport	150	0.3%	2.93
Gas Supply	157	0.3%	2.75
Grocery, Liquor and Tobacco Product Wholesaling	824	1.8%	2.75
Non-Metallic Mineral Product Manufacturing	395	0.8%	2.37
Other Goods Wholesaling	567	1.2%	2.24
Printing (including the Reproduction of Recorded Me	265	0.6%	2.21
Broadcasting (except Internet)	225	0.5%	2.08
Furniture and Other Manufacturing	351	0.8%	1.62
Building Construction	1,795	3.8%	1.60
Construction Services	3,825	8.2%	1.58
Sports and Recreation Activities	627	1.3%	1.54
Polymer Product and Rubber Product Manufacturing	305	0.7%	1.52
Machinery and Equipment Manufacturing	860	1.8%	1.48

Source: NIEIR, 2022

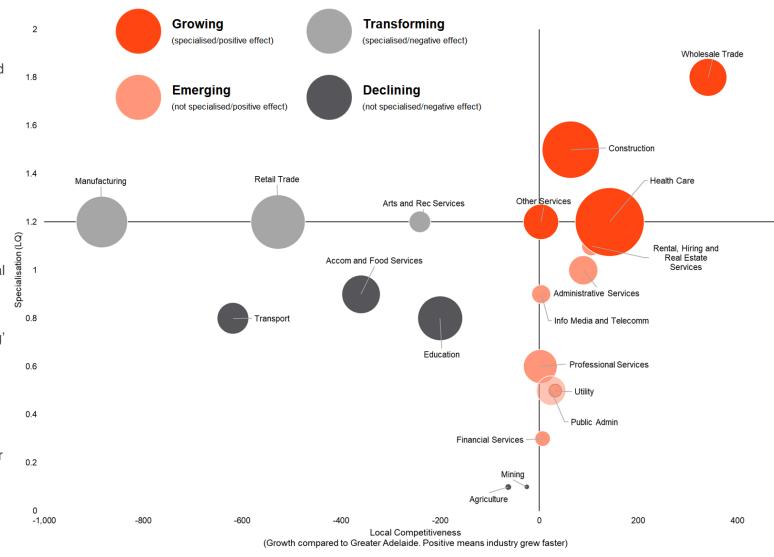
Source: NIEIR, 2022 | * Includes activities from other industries; preliminary value



Population service sectors are driving growth

Charles Sturt's sectors can be categorised into four stages of development relative to their recent performance, size and degree of specialisation. The chart on the left displays which stage of the development each industry is in based on the specialisation in 2021 and the jobs growth from 2016 to 2021 attributed to the local factor and advantage*.

- Growing established with strong growth potential: Sectors in this category are well established, specialised and have strong growth potential based on recent trends. Charles Sturt's 'growing' sectors include Health, Construction, Wholesale trade and Other services compared to Greater Adelaide.
- Emerging growing with potential to become specialised: Despite a low specialisation in jobs, sectors in the 'emerging' category have grown faster than Greater Adelaide and may have the future potential to thrive. The top two 'emerging' sectors are Rental, hiring and real estate services and Administrative services.
- Transforming established but facing challenges: The 'Transforming' sectors are specialised but are not growing as fast as the Greater Adelaide averages. This suggests they are at risk and need support to maintain competitiveness with other regions. The sectors that fall into the 'transforming' category are Manufacturing, Retail, Arts and recreation services.
- Declining neither established nor growing: These sectors are either small and do not impact the overall competitiveness of the economy (i.e. agriculture and mining) or service sectors that are relatively less competitive against industrial LGAs (i.e. transport). However, the Accommodation and Food Service industry is an important industry that has been declining over the last two years. The industry may be at risk without intervention.



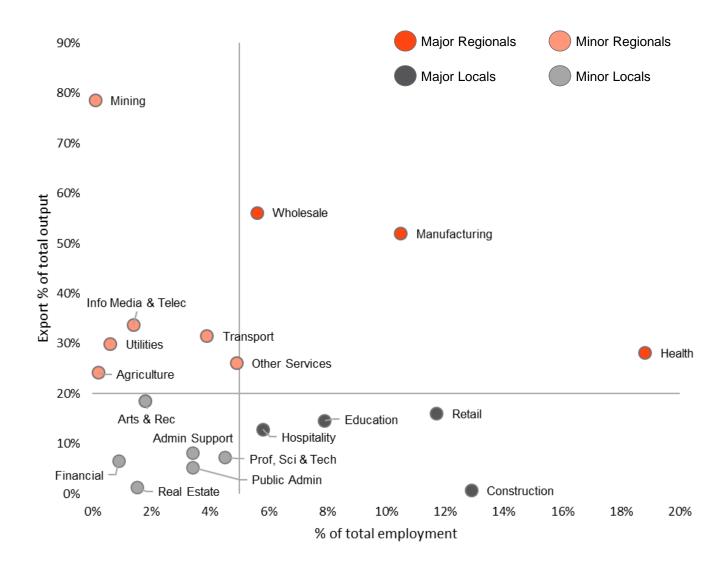


Major export sectors include manufacturing, wholesale and health. Strategies should seek to improve the competitiveness and supply chains of these sectors.

The local economy benefits from the export of goods and services outside the City's boundary. The export sectors are less reliant on the local population to grow. The sectors can be categorised into four based on the export share of total output and the industry's share of the total LGA employment.

Importantly, there are four industries in the Charles Sturt economy with major regional exposure (i.e high export and a high share of total employment). These are manufacturing, wholesale, health and retail trade industries.

- There are two export oriented major regional industries in Charles Sturt. Wholesale trade has a strong regional market position, exporting 56% of its output and categorised as a growing industry. Manufacturing has a considerable regional market position, exporting 52% of its output, or 30% of the City's total exports, and has an important role in employment generation. However, the industry is categorised as 'Transforming' industries in Charles Sturt and need special attention.
- · A major regional industry with a local focus but have a high share of exports and employment is Health care industry. Health is the largest industry in Charles Sturt, employing 19% of all jobs and exporting 28% of its output. The industry is in the 'Growing' category and are important drivers of future growth.

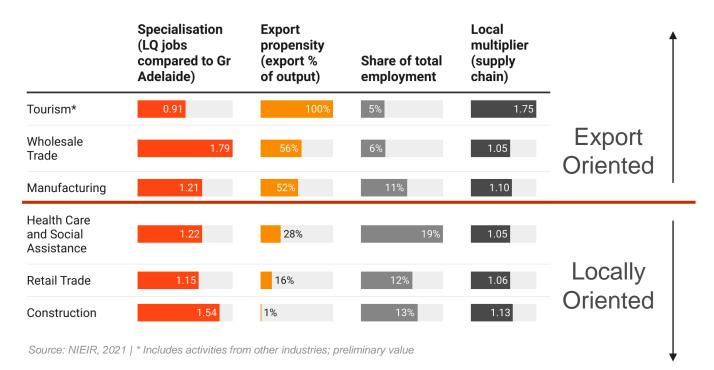




Leverage strategic industries to drive the Economic Development key focus areas

Strategic Industry Analysis

Charles Sturt, 2020/21



Export sectors

- Less reliant on local population limits
- · Can help grow jobs faster than the population
- Supply chain opportunities to capture more local spend and expenditure
- Related specialisation around manufacturing and wholesale
- Tourism Infrastructures (Coopers Stadium, Adelaide Entertainment Centre and Titanium Security Arena)

Locally oriented

- Health large institutions + anchors (e.g. TQEH)
- Retail Trade important place making role
- Construction a high multiplier effect

Economic Development Opportunities

- Encourage projects that help improve competitiveness and increase export potential
- · Clustering opportunities in related specialisations (e.g. Health, Advanced Manufacturing and Research)
- · Working with institutions to magnify their impact
- Opportunities to improve local supply chains and increase local procurement
- Using anchors to activate places



Industry snapshot - Health Care and Social Assistance

Jobs Number of perso	ons	Economic activity Value added			Worker productivi Value added per v		
8,781	1.4%	\$844m		5.5%	\$96,118		4.1%
	Greater Adelaide 1.0%			Greater Adelaide 5.2%		(Greater Adelaide 4.1%
	p.a. growth 2016 - 2021		р	.a. growth 2016 - 2021		p.a. gr	owth 2016 - 2021
Health Care and	Social Assistance industries			Recent performance	e		
Employment, 2021						Specialisation (LQ)	5 yr change
	Social Assistance Services		2,735	Social Assistance Services		1.4	608
	Hospitals		2,733	Hospitals		1.3	143
	Medical and Other Health Care Services		1,830	Medical and Other Health (Care Services	0.9	-18
	Residential Care Services		1,483	Residential Care Services		1.2	-153

- Population growth
- 65+ year olds
- Health risk factors
- Government spending



Industry snapshot - Retail Trade

	Worker productivity		Economic activity		Jobs
	Value added per worker		Value added	,	Number of persons
1.8%	\$65,349	-0.3%	\$359m	-2.1%	5,487
Greater Adelaide 1.7%		Greater Adelaide 1.4%		Greater Adelaide -0.3%	
p.a. growth 2016 - 2021		p.a. growth 2016 - 2021		p.a. growth 2016 - 2021	
		1 0		, ,	

Retail Trade industries

Employment, 2021

Other Store-Based Retailing 2,839 Food Retailing 2,199 Motor Vehicle and Motor Vehicle Parts Retailing 289 129 Fuel Retailing 32 Non-Store Retailing and Retail Commission Based Buying

Recent performance

	Specialisation (LQ)	5 yr change	
Other Store-Based Retailing	1.1	-157	
Food Retailing	1.3	-333	
Motor Vehicle and Motor Vehicle Parts Retailing	0.9	-69	
Fuel Retailing	0.8	-20	
Non-Store Retailing and Retail Commission Based Buyin	0.5	-29	

- Population
- Demographics
- Discretionary income
- Competition from online shopping



Industry snapshot - Construction

Jobs Number of persons		Economic activity Value added		Worker productivity Value added per worker			
6,033	2.8%	\$558m		3.2%	\$92,428		0.4%
	Greater Adelaide 2.6%			Greater Adelaide 0.4%		Gre	eater Adelaide -2.1%
	p.a. growth 2016 - 2021		ŗ	.a. growth 2016 - 2021		p.a. gro	owth 2016 - 2021
Construction in	dustries			Recent performand	ce		
Employment, 2021						Specialisation (LQ)	5 yr change
	Construction Services		3,825	Construction Services		1.6	150
	Building Construction		1,795	Building Construction		1.6	459
	Heavy and Civil Engineering Construction		413	Heavy and Civil Engineerin	g Construction	1.1	166

- Residential demand
- Macro economic outlook
- Government spending
- Credit availability



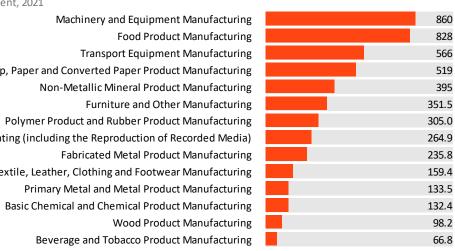
Industry snapshot - Manufacturing

Jobs		Economic activity		Worker productivity	
Number of persons		Value added		Value added per work	er
4,914	-2.1%	\$471m	-3.2%	\$95,927	-1.2%
	Greater Adelaide 1.2%		Greater Adelaide 0.1%		Greater Adelaide -1.1%
	p.a. growth 2016 - 2021		p.a. growth 2016 - 2021		p.a. growth 2016 - 2021

Manufacturing industries

Employment, 2021

Machinery and Equipment Manufacturing Food Product Manufacturing Transport Equipment Manufacturing Pulp, Paper and Converted Paper Product Manufacturing Non-Metallic Mineral Product Manufacturing Furniture and Other Manufacturing Polymer Product and Rubber Product Manufacturing Printing (including the Reproduction of Recorded Media) Fabricated Metal Product Manufacturing Textile, Leather, Clothing and Footwear Manufacturing



Recent performance

	Specialisation (LQ)	5 yr change
Machinery and Equipment Manufacturing	1.5	-103
Food Product Manufacturing	0.9	-77
Transport Equipment Manufacturing	1.1	30
Pulp, Paper and Converted Paper Product Manufacturin	5.1	-70
Non-Metallic Mineral Product Manufacturing	2.4	-107
Furniture and Other Manufacturing	1.6	10
Polymer Product and Rubber Product Manufacturing	1.5	-34
Printing (including the Reproduction of Recorded Media	2.2	-68
Fabricated Metal Product Manufacturing	0.9	-24
Textile, Leather, Clothing and Footwear Manufacturing	1.4	-50
Primary Metal and Metal Product Manufacturing	0.6	-25
Basic Chemical and Chemical Product Manufacturing	0.8	0
Wood Product Manufacturing	0.7	-29
Beverage and Tobacco Product Manufacturing	0.2	2

- Building construction
- Industrial demand
- Business inventories
- Discretionary income



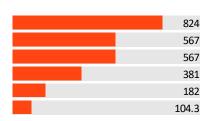
Industry snapshot - Wholesale Trade

Jobs Number of persons		Value added		Worker productivity Value added per worker		
	Greater Adelaide 1.2%		Greater Adelaide 3.7%		Greater Adelaide 2.4%	
	p.a. growth 2016 - 2021		p.a. growth 2016 - 2021		p.a. growth 2016 - 2021	

Wholesale Trade industries

Employment, 2021

Grocery, Liquor and Tobacco Product Wholesaling Other Goods Wholesaling Machinery and Equipment Wholesaling Basic Material Wholesaling Motor Vehicle and Motor Vehicle Parts Wholesaling Commission-Based Wholesaling



Recent performance

Grocery, Liquor and Tobacco Product Wholesaling Other Goods Wholesaling Machinery and Equipment Wholesaling Basic Material Wholesaling Motor Vehicle and Motor Vehicle Parts Wholesaling Commission-Based Wholesaling

Specialisati	on (LQ)	5 yr change		
	2.8		111	
	2.2		121	
	1.4		106	
	1.2		53	
	1.2		61	
	3.1		25	

- Demand from residential construction
- Demand from non-residential construction
- Population
- Demand from supermarkets



Industry snapshot - Tourism and Hospitality*

Food retailing

Accommodation

Heritage activities

Jobs Number of persor	าร	Economic activity Value added			Worker productiv Value added per v		
2,524	-1.3%	\$204m		-2.3%	\$80,962		-1.0%
	South Australia -0.3%			South Australia -2.8%		S	South Australia -2.5%
	p.a. growth 2016 - 2021		p	.a. growth 2016 - 2021		p.a. gro	owth 2016 - 2021
-	pitality* industries			Recent performance	е		
Employment, 2021	Food and beverage services		2,490	Food and beverage services		Specialisation (LQ) 0.9	5 yr change

2,199

232

21

Accommodation

Heritage activities

Key drivers

- Discretionary income
- International tourism
- Domestic tourism
- Exchange rate

Food retailing

0.9	-29
1.3	-333
0.8	-39
0.2	11

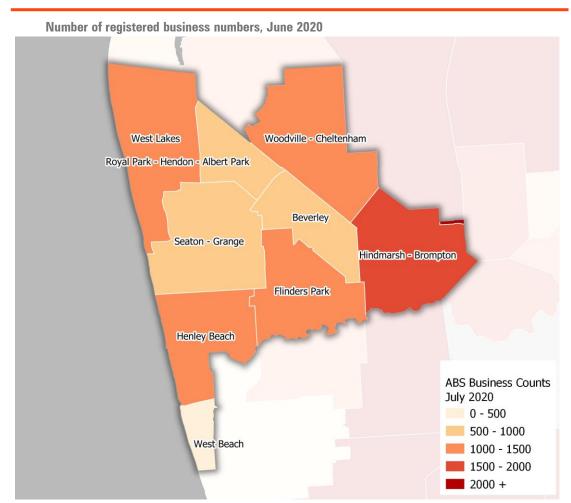
* Preliminary value

07 How does the spatial economy operate?

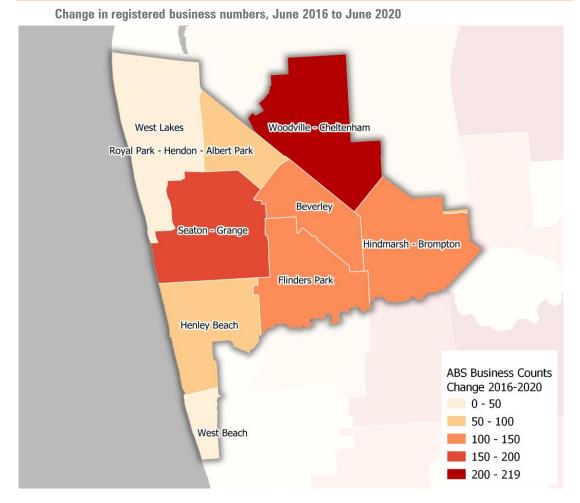


Spatial patterns - Business numbers

The two locations with the most amount of GST registered businesses in 2020 were Hindmarsh - Brompton (1,862) and Woodville - Cheltenham (1,427).



The two locations with the largest change in business numbers between June 2016 and 2020 were Woodville - Cheltenham (+219 businesses) and Seaton - Grange (+175 businesses).





¹All references to areas in this section refer to ABS Small Area Level 2 (SA2) geographies

²The change in businesses is analysed from 2016 to 2020 as 2021 Counts of Australian Businesses, including Entries and Exits dataset can not be compared against the previous release of the same dataset due to the methodological change in 2021.

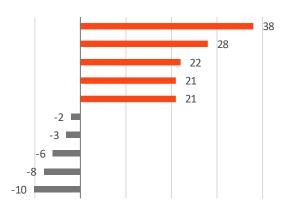
Growth in business numbers in Hindmarsh - Brompton was driven by Transport, Postal and Warehousing, Rental, Hiring and Real Estate Services, Professional Services and Construction over the period from 2016 to 2020.

Increase in Transport, Postal and Warehousing sector businesses were significantly higher than the other sectors in Woodville - Cheltenham. However, majority of these businesses were Taxis and Uber drive/delivery services.

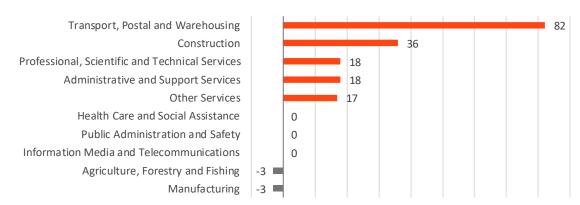
Change in business numbers - 2016 to 2020

Hindmarsh - Brompton

Transport, Postal and Warehousing Rental, Hiring and Real Estate Services Professional, Scientific and Technical Services Construction Administrative and Support Services **Education and Training** Financial and Insurance Services Manufacturing Wholesale Trade Retail Trade



Woodville - Cheltenham



Source: ABS, 2020, Cat: 8165.0 - Counts of Australian Businesses, including Entries and Exits

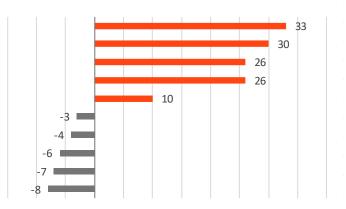
Henley Beach experienced a strong business number growth in Professional, Scientific and Technical Services, Health Care and Social Assistance, Finance and Insurance and Rental, Hiring and Real Estate Services.

Transport, Postal and Warehousing businesses increased significantly higher than other businesses in Flinders Park. Similar to Woodville - Cheltenham, majority of these businesses were Taxis and Uber services.

Change in business numbers - 2016 to 2020

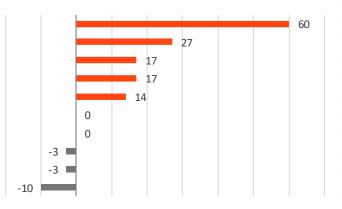
Henley Beach

Professional, Scientific and Technical Services Health Care and Social Assistance Financial and Insurance Services Rental, Hiring and Real Estate Services Administrative and Support Services Transport, Postal and Warehousing Arts and Recreation Services Construction Wholesale Trade Agriculture, Forestry and Fishing



Flinders Park

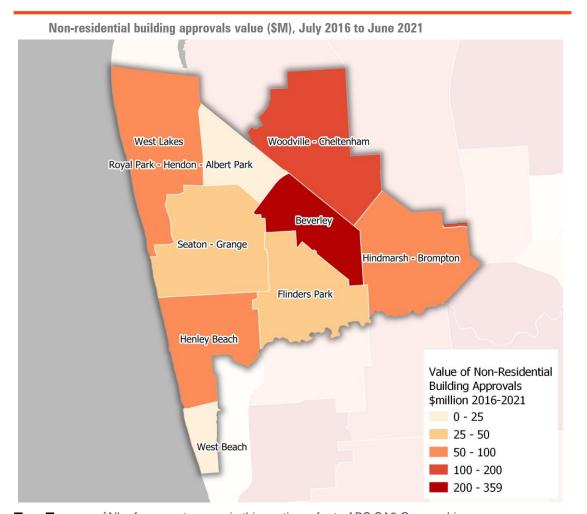
Transport, Postal and Warehousing Construction Financial and Insurance Services Administrative and Support Services Professional, Scientific and Technical Services Information Media and Telecommunications Retail Trade Agriculture, Forestry and Fishing Other Services Accommodation and Food Services



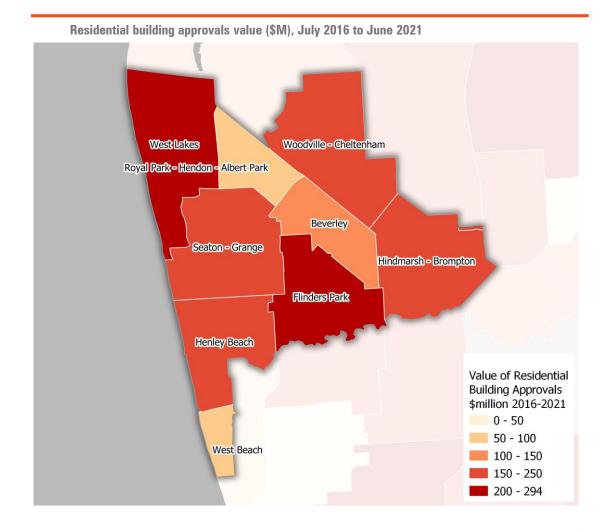
Source: ABS, 2020, Cat: 8165.0 - Counts of Australian Businesses, including Entries and Exits

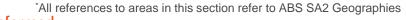
Spatial patterns - Building approvals

The area with the largest value of non-residential building approvals from 2016 to 2021 was Beverley (\$359M) driven by the Queen Elizabeth Hospital redevelopment project, followed by Woodville - Cheltenham (\$131M).



The area with the largest value of residential building approvals from 2016 to 2021 was Flinders Park (\$294M), followed by West Lakes (\$288M).





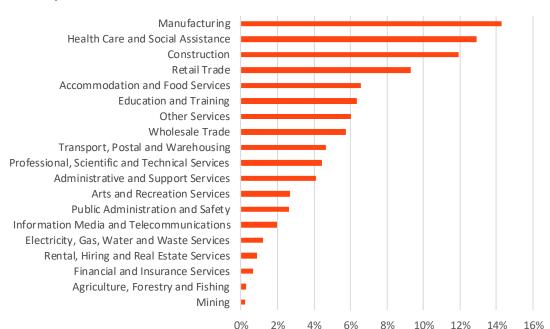
Hindmarsh – Brompton maintains its industrial background but Bowden is now the site of the medium density TOD redevelopment. Woodville - Cheltenham has a mixture of residential, commercial and industrial characteristics.

As with any large region, specific locations within Charles Sturt perform different economic roles. The two largest job locations within the LGA are Hindmarsh -Brompton and Woodville - Cheltenham.

Hindmarsh - Brompton accounts for 24% (9,635 jobs) of Charles Sturt's total local jobs and Woodville - Cheltenham accounts for 19% (7,655 jobs) of Charles Sturt's total local jobs.

Share of local jobs - Hindmarsh - Brompton

% of total jobs in the location



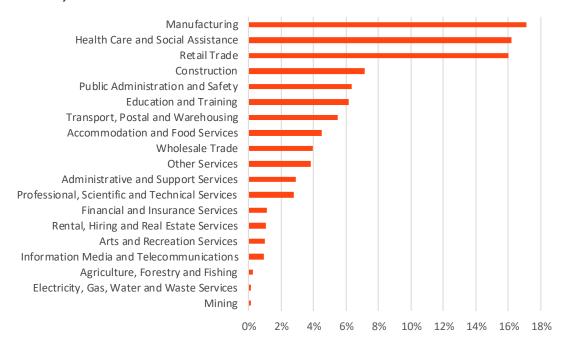
Source: ABS Census of Population and Housing, 2016

Hindmarsh - Brompton supports a range of commercial and industrial jobs. The top three industries in the location is Manufacturing (1,373 jobs), Health Care and Social Assistance (1,244 jobs) and Construction (1,144 jobs).

Woodville - Cheltenham has a high share of Manufacturing (1,307 jobs), Health Care and Social Assistance (1,238 jobs) and Retail Trade (1,222 jobs) jobs.

Share of local jobs - Woodville - Cheltenham

% of total jobs in the location



Source: ABS Census of Population and Housing, 2016



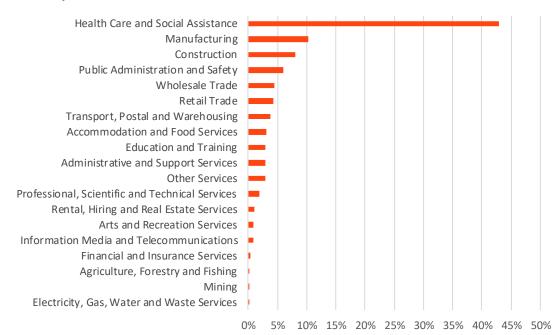
Health Care activities dominate Beverley; Flinders Park is a largely residential area and has a large population serving sector jobs

The next two largest locations within the LGA are Beverley and Flinders Park.

Beverley accounts for 16% (6,231 jobs) of Charles Sturt's total local jobs and Flinders Park accounts for 11% (4,290 jobs) of Charles Sturt's total local jobs.

Share of local jobs - Beverley

% of total jobs in the location



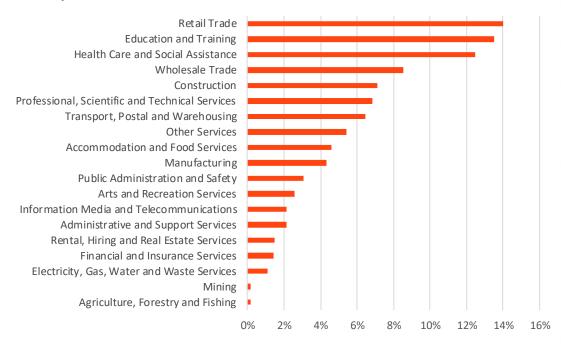
Source: ABS Census of Population and Housing, 2016

Jobs in Beverley is dominated by The Queen Elizabeth Hospital. The top three industries in the location is Health Care and Social Assistance (2,673 jobs), Manufacturing (633 jobs) and Construction (501 jobs).

A large share of jobs Flinders Park is in population serving sectors. The top three industries in the location is Retail Trade (599 jobs), Education and Training (578 jobs) and Health Care and Social Assistance (535 jobs).

Share of local jobs - Flinders Park

% of total jobs in the location



Source: ABS Census of Population and Housing, 2016



08 What do the demography and Socioeconomics look like?



Charles Sturt is characterised generally by more multi-cultural, average educated, slightly older residents and lone person households than the Greater Adelaide average

The residents in Charles Sturt are relatively older with a median age of 41 years, compared to 39 years of age for Greater Adelaide. The resident's median age remain unchanged from Census 2011 to Census 2016.

In 2016, the households in Charles Sturt made \$1,228 median weekly income, \$210 more than the median weekly household income in 2011. The household income was relatively lower than the median Greater Adelaide weekly household income of \$1,261 in 2016.

The share of overseas born residents was similar to the Greater Adelaide as a whole at 27.5% in 2016, where the level has increased by +0.2% since 2011.

Around 20.3% of the residents had a university qualification compared to 21.2% in the Greater Adelaide as a whole. However, the qualification level has increased since 2011 by 3.9%. In 2016, the proportion of residents with a trade qualification was 18.4% in Charles Sturt, lower than the Greater Adelaide as a whole.

The labour force participation rate in Charles Sturt was 59.0% in 2016, similar to Greater Adelaide as a whole. The participation rate has increased since 2011 by 0.8%.



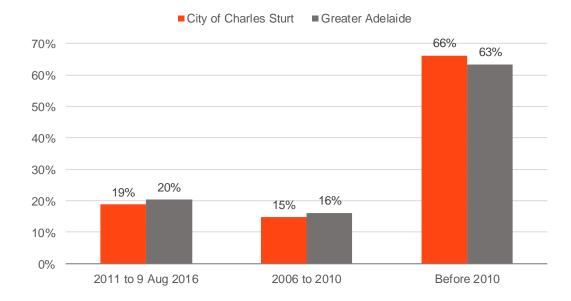
Charles Sturt demographic and socioeconomic profile in 2016

Headline figures (Greater Adelaide)	Change from 2011 to 2016
Median age (39)	0 no change
\$ Median weekly \$1,228 household (\$1,261)	+\$210 per week
ABC Overseas 27.5% born (26.3%)	+0.2% percent
University 20.3% qualification (21.2%)	+3.9% percent
Trade qualification (certificate) (19.3%)	+1.0% percent
Labour force 59.0% participation rate	+0.8% percent

Culturally diverse

Charles Sturt has a relatively high level of diversity. In 2016, 29% of the residents spoke a non-English language at home, significantly higher than the Greater Adelaide average of 21%. The city has a rich mixture of various ethnic backgrounds with a higher number of residents with Italian, Greek and Vietnamese languages spoken at home than Greater Adelaide. A higher number of international immigrants arrived before 2010 compared to the Greater Adelaide average.

Overseas born year of arrivals - Charles Sturt



Source: ABS Census, 2016

Non-English language spoken at home

	City of Charles Sturt	Greater Adelaide
Italian	4.9%	2.1%
Greek	4.1%	1.7%
Vietnamese	2.7%	1.4%
Mandarin	1.4%	2.1%
Serbian	1.2%	0.3%
Punjabi	0.9%	0.7%
Arabic	0.8%	0.7%
Cantonese	0.7%	0.7%
Polish	0.6%	0.4%
Filipino/Tagalog	0.6%	0.6%
Croatian	0.6%	0.2%
Malayalam	0.5%	0.3%
Hindi	0.5%	0.5%
Other	80.5%	88.3%



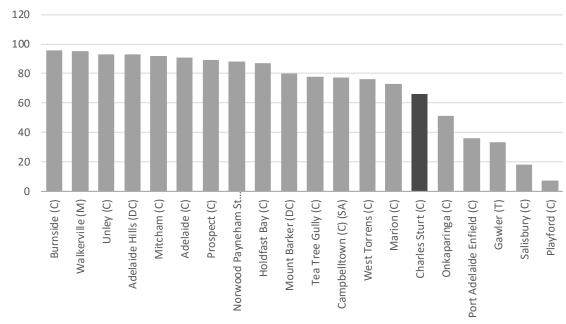
Charles Sturt has a high level of socio-economic disadvantage compared to Greater Adelaide and surrounding Metro LGAs. This contributes to a relatively lower household income.

Charles Sturt has a relatively high socio-economic disadvantage. In 2016, Charles Sturt had SEIFA advantage and disadvantage index percentile of 66, lower than surrounding metro LGA average (71). That is, Charles Sturt is relatively more disadvantaged than surrounding metro LGAs on average. In the same year, Charles Sturt ranked 15th out of metro LGAs around Charles Sturt in terms of the SEIFA index.

The below average socio-economic conditions all contribute to a relatively lower household income in Charles Sturt. Charles Sturt has a relatively higher share of households in low income brackets (less than \$26,000 per year) and a lower share of households in higher income brackets (greater than \$41,600 per year) compared to Greater Adelaide as a whole.

SEIFA relative socio-economic advantage and disadvantage

Percentile



Source: ABS Census of Population and Housing, 2016

Annual Household Income - Charles Sturt



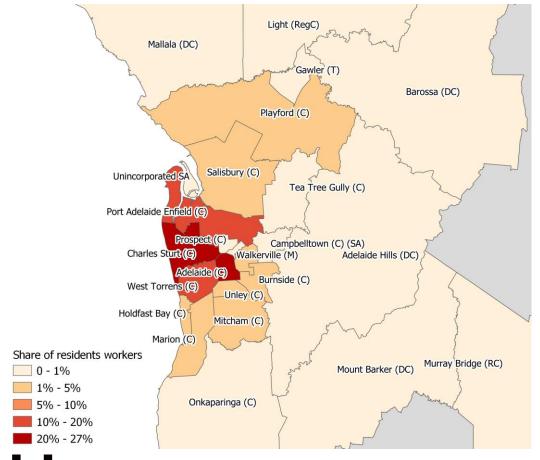




Large commuting population attracted to higher paying jobs

A jobs deficit obviously means that some residents are seeking employment outside the LGA. In 2016, 69% of residents travelled outside of Charles Sturt for work. Many commuters were working in nearby LGAs like Adelaide (21.9%), Port Adelaide Enfield (14.1%) and West Torrens (10.6%).

Employed residents place of work by LGA, ABS Census 2016

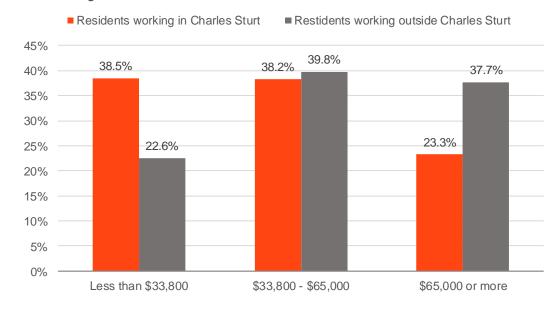


One of the obvious reasons for Charles Sturt residents to seek employment outside the LGA is that there is a chance to gain higher incomes. They are choosing to trade off longer commutes for higher wages, thus providing a real monetary benefit.

In 2016, 37.7% of the residents who left the LGA for work were earning \$65,000 or more per year, this compares to only 23.3% for those who worked locally.

Commuting residents income profile - Charles Sturt

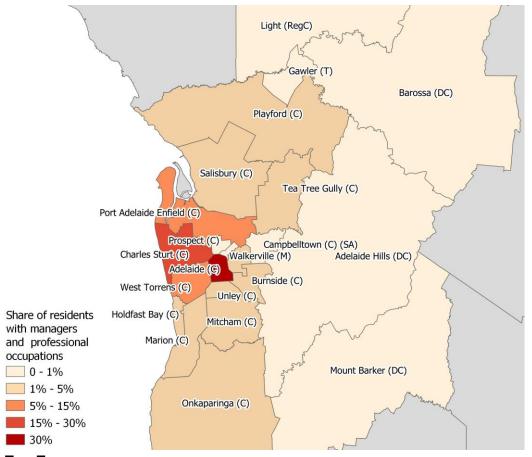
%, Annual gross individual income level



Commuting residents attracted to high skilled occupations

Many residents working as a manager or professionals are working outside the LGA. In 2016, 77.4% of manager and professional occupation residents travelled outside of Charles Sturt for work. Around 30.0% of the residents with manager and professional occupations worked in the City of Adelaide, followed by Port Adelaide Enfield (11.5%), West Torrens (8.8%) and Salisbury (4.9%).

Manager and professional occupation employed residents place of work by LGA

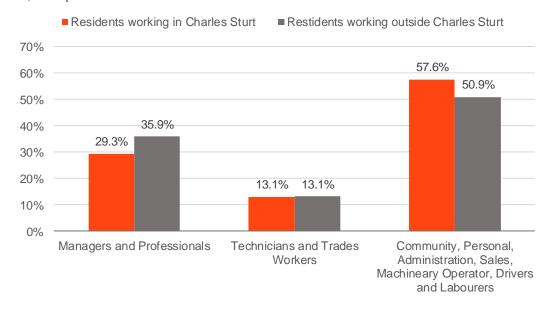


Residents who are commuting outside the LGA are more likely to be working in occupations that require a higher skill level and offer more full-time opportunities.

As illustrated in the chart below, residents with a manager and professional occupations are working outside Charles Sturt more than within in 2016. Conversely, residents with less skilled occupations (e.g. sales and labourers) are working inside Charles Sturt than outside.

Commuting residents occupation profile - Charles Sturt

%, occupation



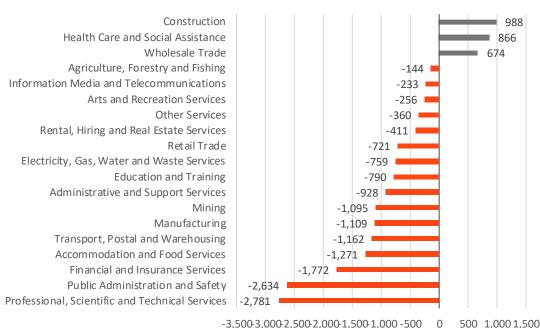
Shortfall in local jobs across almost all industries. Large job deficits are in white collar sectors like Government, Business Services and Finance.

Looking at job deficits by industry allows us to explore which ones have the potential highest imbalances. In 2020/21, the top three industries with the highest job deficits are professional service industries, Professional Services, Public Administration and Safety and Finance and Insurance.

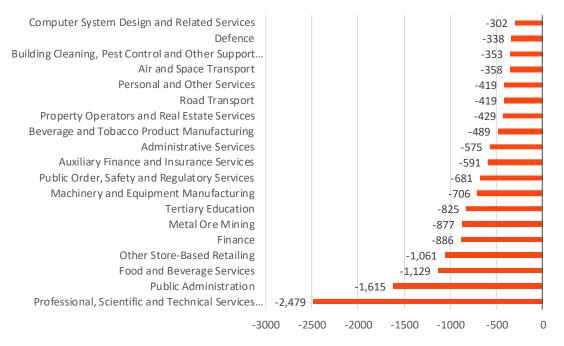
In terms of the detailed industry level, professional, scientific and technical services industries had the largest job deficit in 2020/21, closely followed by Public Administration.

Job deficit by industry - Charles Sturt, 2020/21

persons



Job deficit by detailed industry - Charles Sturt, 2020/21 persons



Source: NIEIR, 2022 Source: NIEIR, 2022



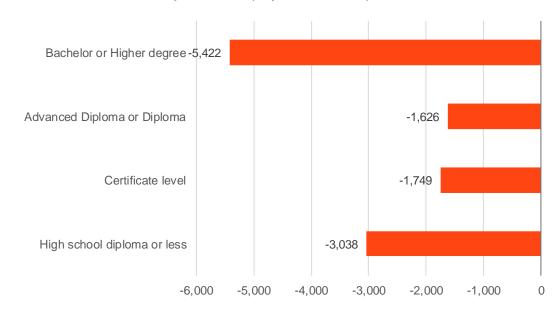
Significant gap in the skills level between local jobs and employed residents

Job gaps appear in terms of the industry profile as well as skill levels. In 2016, there were an estimated 7,048 more employed residents with degree level qualifications than local workers. Also, there was a gap of 1,749 employed residents with certificate level qualifications and a gap of 3,038 employed residents with a high school diploma or less in 2016.

There is a large gap in the field of qualifications between local jobs and employed residents. In 2016, the biggest difference between the local jobs and employed residents field of qualifications was in management and commerce with a gap of 2,775 employed resident workers, followed by 1,353 employed residents in society and culture, and 1,162 employed residents in engineering and related technologies field of qualifications.

Qualification deficit - Charles Sturt

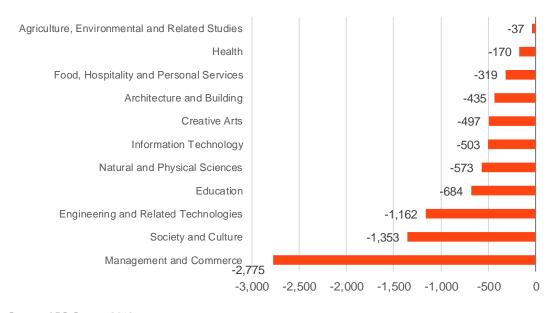
Difference between local jobs and employed residents qualifications



Source: ABS Census 2016

Top field of qualification with deficit - Charles Sturt

Difference between local jobs and employed residents field of qualifications





Large mismatch in occupations and field of qualifications

In 2016, there is a large gap of 5,318 employed residents in manager and professional occupations in Charles Sturt, followed by a gap of 3,047 employed residents in clerical and administrative occupations.

In terms of specific occupations, it appears key gaps are in general clerks, accountants, hospitality and finance workers. Similarly, the largest qualification gap was in Business and Management qualifications.

Occupation deficit - Charles Sturt

Difference between local jobs and employed residents occupations



Source: ABS Census 2016



Top occupation and qualification fields with job deficits

Occupation	Deficit	Qualification field	Deficit
General Clerks	-453	Business and Management	-1187
Accountants, Auditors and Company Secretaries	-445	Teacher Education	-553
Hospitality Workers	-444	Accounting	-533
Financial and Insurance Clerks	-444	Law	-367
Call or Contact Centre Information Clerks	-392	Banking, Finance and Related Fields	-360
Defence Force Members, Fire Fighters and Police	-384	Engineering and Related Technologies, nfd	-325
Information and Organisation Professionals	-366	Information Technology, nfd	-324
Miscellaneous Clerical and Administrative Workers	-351	Sales and Marketing	-306
Contract, Program and Project Administrators	-347	Electrical and Electronic Engineering and Technology	-302
Cleaners and Laundry Workers	-344	Building	-261
School Teachers	-313	Personal Services	-241
Business and Systems Analysts, and Programmers	-298	Justice and Law Enforcement	-212
Business Administration Managers	-293	Natural and Physical Sciences, nfd	-210
Accounting Clerks and Bookkeepers	-291	Management and Commerce, nfd	-203
Sales Assistants and Salespersons	-291	Inadequately described	-202

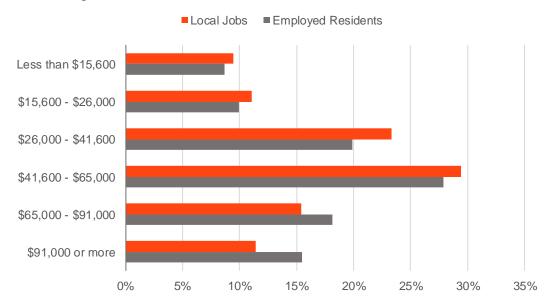
Local jobs not meeting residents' needs.

Employed residents in Charles Sturt are earning higher incomes than workers in local jobs. In 2016, more employed residents were in income brackets greater than \$65,000 per year than local jobs in Charles Sturt. Conversely, more local jobs were in income brackets less than \$65,000 per year than employed residents in 2016.

Workers in local jobs are working less hours on average than employed residents in Charles Sturt. This is likely due to a higher share of full-time jobs held by the residents. In 2016, 60% of the employed residents were working in a full-time job compared to 57% full-time workers in local jobs.

Individual income profile - Charles Sturt

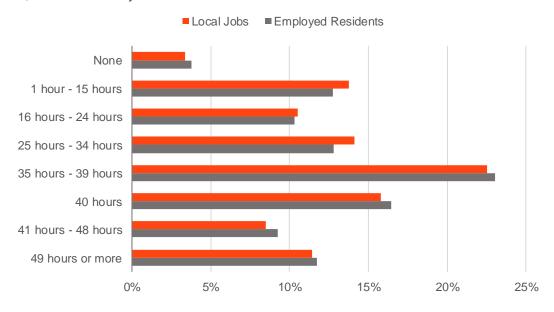
%, Annual gross individual income level



Source: ABS Census 2016

Hours worked - Charles Sturt

%, Share of weekly hours worked





09 What is the economic outlook?



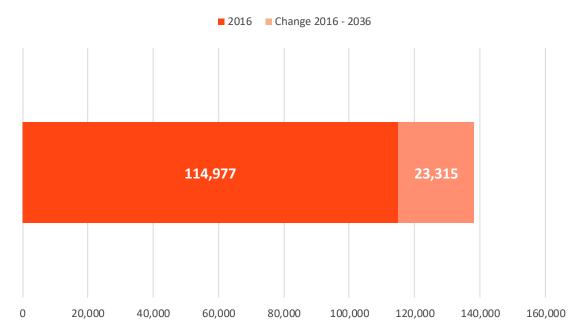
Future population growth is expected to be driven by seniors and the elderly. This is likely to drive demand for health, aged care and related services.

From 2016 to 2036, the population of Charles Sturt is expected to grow by 0.9% per annum. As at 2036, the population of Charles Sturt is expected to reach 138,292, growth of 23,315 people from 2016.

During the same period, the population in 75 and over and 35 to 44 age groups is forecast to have the largest increase with 7,288 and 4,166 people respectively. Conversely, the population in 15 to 24 and 55 to 64 age groups is forecast to have the smallest growth in population with 328 and 1,048 people respectively.

Population forecast - Charles Sturt

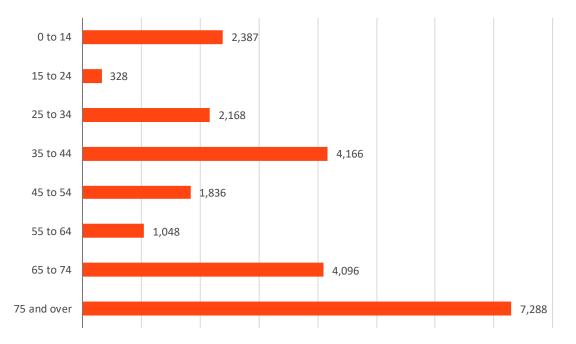
Person



Source: PlanSA (2020)

Change in population by service age groups - 2016 - 2036

Person



Source: PlanSA (2020)

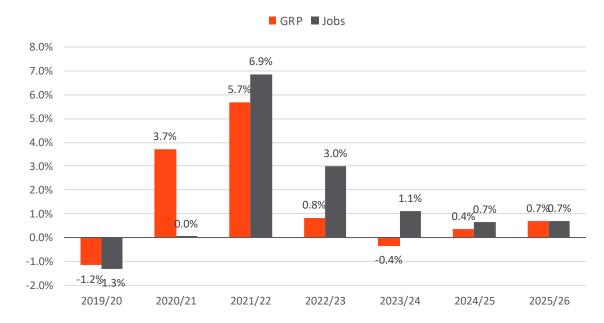


GRP and jobs forecast to stage a strong growth in 2021/22. Subsequent growth is forecast to be steady but lower.

Charles Sturt's GRP and Jobs are estimated to fall by, respectively, 1.2% and 1.3% in 2019/20. But GRP and Jobs are forecast to rebound from 2020/21. In 2021/22, annual GRP and jobs growth is forecast to be strong with the rates forecast to grow at 5.7% and 6.9% respectively. Subsequently, the growth rates are forecast to slow down, reaching 0.7% in 2025/06. By 2025/06, the forecast is \$6,472 Million in GRPs (+441 million compared to 2020/21) and 52,720 Jobs (5,976 jobs).

Economic and Job Recovery Forecast - Charles Sturt

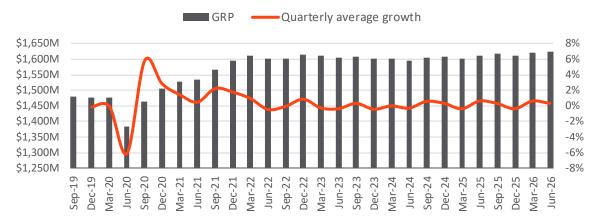
Annual % Change



Source: NIEIR, 2021; adjusted to 2022

GRP Forecast, Quarterly - Charles Sturt

\$M (left axis), Quarterly % Change (right axis)



Source: NIEIR. 2021: adjusted to 2022

Local Jobs Forecast, Quarterly - Charles Sturt

Jobs (left axis), Quarterly % Change (right axis)



Source: NIEIR, 2021; adjusted to 2022

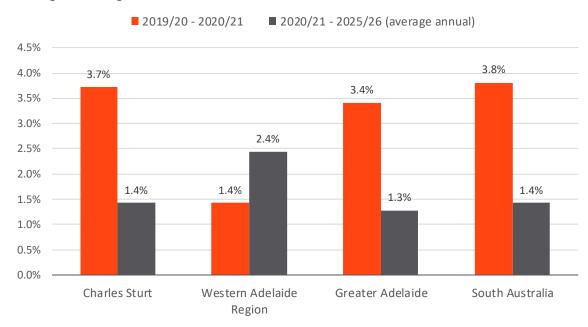
Strong jobs growth forecast higher than other benchmarks

GRP is forecast to grow by 1.4% p.a. between 2020/21 and 2025/26. This is lower than the growth rate of 3.7% p.a. during the COVID-19 period. This rate is similar to the Greater Adelaide and South Australia average.

Local Jobs is forecast to grow by 2.4% p.a. over the period from 2020/21 to 2025/26. This is significantly higher than during the COVID-19 period growth rate of 0.04% p.a. (between 2019/20 to 2020/21). The rate is higher than the metro Adelaide (2.0% p.a.) and the state (2.2% p.a.) average growth rate.

GRP Forecast - Charles Sturt

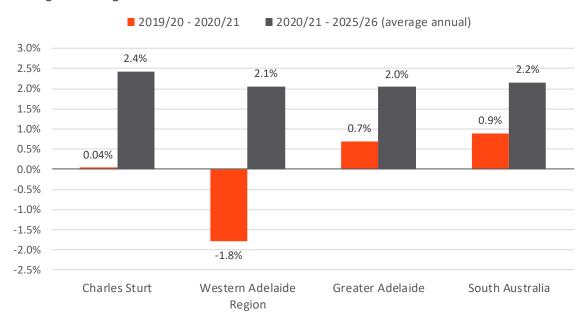
Average annual growth rate, %



Source: NIEIR, 2021; adjusted to 2022

Jobs Forecast - Charles Sturt

Average annual growth rate, %



Source: NIEIR, 2021; adjusted to 2022



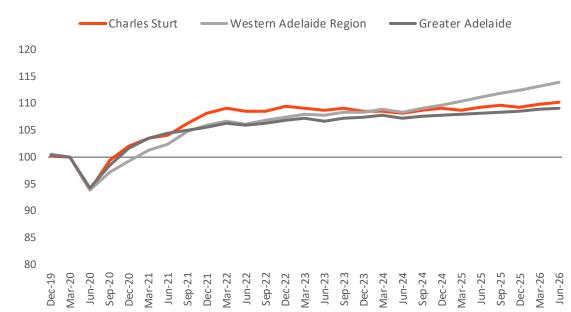
Jobs and GRP recover similar to the Greater Adelaide average

GRP recovered back above the pre COVID-19 levels by December Quarter 2020, similar to the Greater Adelaide average.

Jobs are back above the pre COVID-19 levels by June Quarter 2021 quarter, similar to Greater Adelaide.

GRP change forecast - Charles Sturt

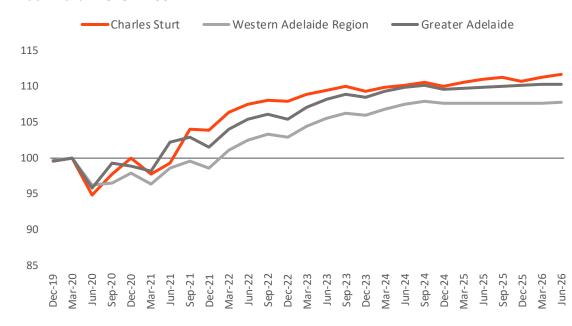
Index March 2020 = 100



Source: NIEIR, 2021; adjusted to 2022

Job change forecast - Charles Sturt

Index March 2020 = 100



Source: NIEIR, 2021; adjusted to 2022



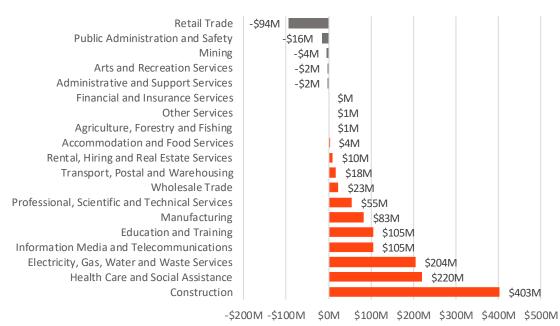
Population driven industries are forecast to provide strong growth in economic value in the next 5 years

Population driven industries are forecast to experience strong growth in the next 5 years to 2026. Construction output is forecast to grow considerably, followed by the health and utility sectors. However, Retail trade industry output is forecast to decline during the same period.

Value added growth is forecast to be driven by population serving industries. Health, utility, education and construction industries are forecast to grow strongly from 2021 to 2026. Similar to the output, the Retail Trade industry value added is forecast to decrease during the same period.

Forecast Output Change by Industry - Charles Sturt 2020/21 to 2025/26

\$M



Forecast Value Added Change by Industry - Charles Sturt 2020/21 to 2025/26

\$M



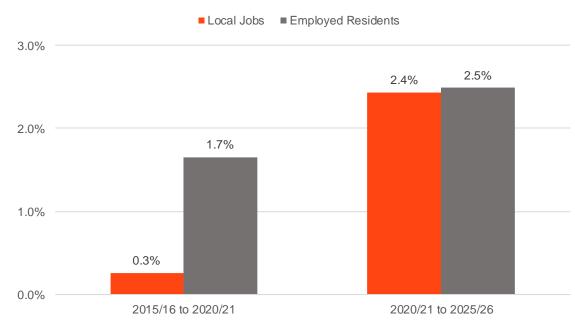
Source: NIEIR, 2021 Source: NIEIR, 2021



Local jobs are expected to grow at a similar rate as employed residents over the next 5 years, but not enough to decrease job deficits

The gap between the local jobs and employed residents growth is forecast to be 0.1% p.a. between 2020/21 and 2025/26. This difference is significantly lower than the 1.4% p.a. difference experienced in 2015/16 to 2020/21. The stronger local jobs growth forecast should help stop the further widening of the gap between local jobs and employed residents.

Forecast employment growth, 2016 to 2026 - Charles Sturt %

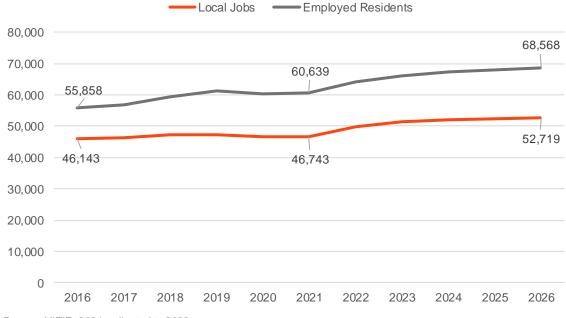


Source: NIEIR, 2021; adjusted to 2022

The total number of local jobs is estimated to reach 52,719 by 2026, while employed residents will reach around 68,568, creating a jobs deficit of approximately 15,849. This is a 1,953 increase in the current estimated jobs deficit with the jobs to employed residents' ratio of 0.77 in 2026, the same as the level in 2021.

Forecast growth in jobs and employed residents

persons



Source: NIEIR, 2021; adjusted to 2022



Local jobs and employed residents growth is forecast to continue to be driven by population servicing industries

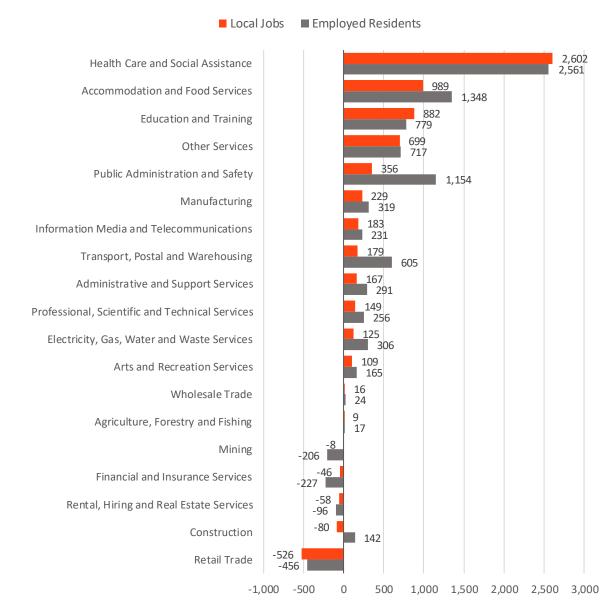
The growth in local jobs and employed residents is forecast to be driven by population serving industries in health, hospitality, education and other services (incl. personal and household services). Particularly, TQEH redevelopment will provide a boost in professional health jobs. Despite the significant COVID-19 impacts, the hospitality and other service jobs are forecast to grow as the population increase.

Employed residents are forecast to increase in professional and business service jobs. Particularly, residents working in Public Administration and Safety, Professional, Scientific and Technical and Administrative services industries are forecast to grow strongly compared to local jobs.

Manufacturing sector local jobs and employed residents are forecast to increase driven by the defence investment in Western Adelaide Region and resulting supply chain impacts.

Forecast Local Job and Employed Residents Change by Industry - Charles Sturt, 2020/21 to 2025/26

Number of Jobs





Increase in professional, community and personal service occupations. Significantly more jobs requiring higher qualifications

In the next 5 years to 2026, it is forecast that over 57% of the jobs growth will be in professional or community/personal service occupations. This share is significantly higher than 32% of total occupations in these industries in 2016.

During the same period, it is forecast that over 37% of the new jobs created will require Bachelor Degree or above level qualifications. This is over 3 times the 11% of the education level of Charles Sturt's workforce in 2016.

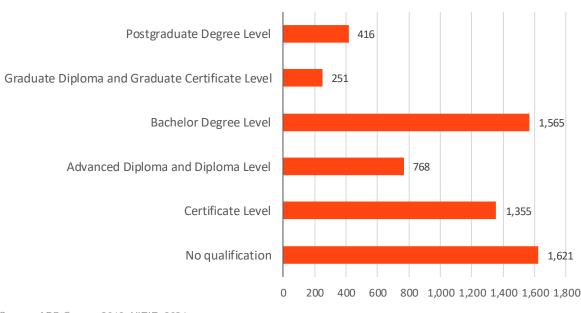
Occupation Demand Forecast - Charles Sturt 2020/21 to 2025/26

Persons



Skills/Qualifications Demand Forecast - Charles Sturt 2020/21 to 2025/26

Persons



Source: ABS Census 2016: NIEIR. 2021





Major projects included in the NIEIR forecast

.id's economists worked with the City of Charles Sturt's Economic Development team to understand the likely major project activity in the region and surrounds. The forecasts within this report rely on the National Economics (NIEIR) economic model and are based on the bottom-up development assumptions. The list below includes the projects included in the forecast.

Major projects in Charles Sturt

Project	Time frame	Value	Estimated Jobs (direct / supply chain)
Infrastructure projects			
Military Road & Main St Precinct Upgrade	2021-23	\$12.5 million	19 / 24
Woodville Road Streetscape Upgrade	2021-22	\$9 million	14 / 17
Torrens Road, Ovingham – Level Crossing Upgrade	2019-22	\$231 million	358 / 436
Coopers Stadium Upgrade, Hindmarsh	2021-23	56.5 million	90 / 112
Former 36ers Basketball Stadium Redevelopment, Crittenden Rd, Findon	2022-23	\$20 million	32 / 40
Torrens to Darlington, North/South Corridor Project	2023-31	\$9.9 billion	15,816 / 19,681
Major developments			
Bowden Village Development	2013-25	\$1 billion	2,046 / 3,263
The Square, Woodville West Redevelopment	2012-23	\$130 million	266 / 424
West Development, West Lakes	2015-27	\$1 billion	2,046 / 3,263
Apartments, 147 Brebner Drv, West Lakes	2022-23	\$12 million	22 / 33
Residential & Mixed Use Development, 78 Gibson St, Bowden	2022-23	\$5.3 million	42278
Residential, Retail and Child Care Dev, 46-52 Crittenden Rd, Findon	2022-23	\$20 million	37 / 56
Shopping Centre Redevelopment, 53-59 Tapleys Hill Rd, Hendon	2022-23	\$12 million	19 / 33
Queen Elizabeth Hospital Upgrade	2018 - 21	\$270 million	364 / 861
Retirement Facility, Aura, Findon	2020-21	\$55 million	113 / 179
Aged Care Facility, West Lakes	2019 -21	\$45 million	92 / 147
Retirement Village – Sportsmans Drv, West Lakes	2021 -22	\$8.1 million	17 / 26
Aged Care Facility Redevelopment, Sylvan Way, Grange	2022-23	\$85 million	158 / 237
Henley High School Redevelopment	2019-21	\$12 million	16 / 38
Seaton High School Redevelopment	2019-21	\$20 million	27 / 64
Woodville High School Redevelopment	2019-21	\$10 million	13 / 32
White Friars Catholic School Redevelopment, Woodville Park	2022-23	\$6.5 million	10 / 18

Source: The City of Charles Sturt Council



Major projects in proximity to Charles Sturt

Project	Time frame	Value	Estimated Jobs (direct / supply chain)
Infrastructure projects			•
Grand Junction, Hampstead & Briens Roads Intersection Upgrade	2019-21	\$19 million	29 / 36
Submarine Shipyard - Osborne	2019-23	\$1.5 billion	2,322 / 2,831
Stage 2: Further terminal expansion, expanded freight facilities, office	2020-34	\$1 billion	1,548 / 1,887
Brighton Road, Hove - Level Crossing Upgrade	2019-22	\$171 million	265 / 323
Glenelg Jetty redevelopment - tourism and economic hub	2015 – 30	\$280 million	378 / 893
Jetty Road Glenelg Master Plan	2018-28	\$19.3 million	30 / 36
Brighton Oval upgrade	2019-21	\$13.7 million	20 / 16
Glenelg Oval upgrade	2019-25	\$20 million	16 / 19
Holdfast Stormwater Management Plan	2017-27	\$26 million	40 / 54
Henley Beach Road Mainstreet Project	*	\$8 million	43070
Mile End Priceline Stadium Upgrade	*	\$12 million	19 / 25
Thebarton Oval Redevelopment	*	\$18 million	24 / 54
Adelaide Bio Hub, Thebarton	2021-23	\$350 million	468 / 1,057
Thebarton Theatre Redevelopment	*	\$27 million	36 / 82
Major developments			· · · · · · · · · · · · · · · · · · ·
Ocean View P-12 College Redevelopment	2019-21	\$5 million	7 / 16
Industrial and commercial developments (various projects)	*	\$1.2 billion	1,618 / 3,828
Lightsview Development	2008-21	\$1.05 billion	2,056 / 3,279
Port Plaza Shopping Centre Redevelopment	2018-21	\$50 million	58 / 137
Inner North Government Lands redevelopment (Oakden, Gilles Plains &	2016-26	\$350 million	716 / 1,142
Fort Largs Redevelopment	2016-21	\$90 million	184 / 294
Gilman, Dry Creek & Wingfield Employment Lands	10 yrs*	\$755 million	1,018 / 2,409
Port Direct & Osbourne Employment Lands	2015-25	\$100 million	135 / 319
Techport Employment Lands	2015-25	\$32 million	43 / 102
State Sports Park, Gepps Cross	2019-27	\$150 million	201 / 453
Marina South Development, North Haven	2020-23	\$40 million	53 / 121
Blair Athol Redevelopment – SA Housing Authority	2021	\$50 million	101 / 154
Woodville Gardens – SA Housing Authority	2021-23	\$23.5 million	47 / 72
Dock One - Residential & Accommodation Development	2019 - 22	\$168 million	344 / 548
Fletchers Slip – Residential Development	2019-22	\$160 million	327 /522
McLaren Parade, Port Adelaide - six storey Hotel	2020-22	\$60 million	80 / 181
Road Transport Terminal, Gillman	2019-21	\$12 million	19 / 23
Retail Store and Offices – Gepps Cross	2019-21	\$12 million	16 / 38
Minda Retirement Village & redevelopment, North Brighton	2014-2022	\$200 million	409 / 653
Langham Hotel Adelphi Tce, Glenelg	2020-21	\$110 million	148 / 351
Taplin Apartments, Brighton Rd/Jetty Rd, Glenelg	2020-21	\$15 million	31 / 49
Taplin Hotel, Jetty Rd/Colley Tce, Glenelg	2021-22	\$27 million	70 / 80
Brighton High School Redevelopment	2019-21	\$13.8 million	19 / 44
Underdale High School Redevelopment	2019-21	\$20 million	27 / 64
Ebor Ave, Mile End - Four storey development	2021-22	\$6.5 million	13 / 20
Apartments, 177-179 Henley Beach Rd, Mile End	2021-22	\$11 million	23 / 36
Apartments, 192 Anzac Highway, Glandore	2021-22	\$10 million	20 / 33
Multi- use Building, 12-22 Richmond Rd, Keswick	2021-22	\$18.5 million	25 / 59

10 Which macro forces may influence the economic outlook?



South Australia economy

South Australia was less impacted compared to the other states and made a strong recovery from the economic impacts stemming from the COVID-19 pandemic. This was driven by the effective response to COVID-19 and subsequent limited need for lockdowns.

In 2020/21, the state recorded a 3.9% increase in GSP, the strongest increase out of all states. The main driver of the increase was Agriculture, Manufacturing and Wholesale trade, where Charles Sturt has a strong specialisation in the latter two industries. Key 2020/21 quarter average economic indicators are all trending up with a strong increase in building approvals and retail trade.

Business confidence improved significantly in 2020/21 to 132.3, an increase of 29% compared to 2019/20. South Australia has a strong pipeline of planned public infrastructure projects that will maintain demand for large scale construction-related activities in the near future. Many of these projects are around Charles Sturt, supporting resident jobs.

Household dwelling construction and approvals rebounded strongly from February 2021 since the fall of June 2021. Dwelling approvals have benefited from government incentives, low interest rates and growing demand.

The state's economy will continue to recover in 2021/22, albeit at a slower rate. However, given the outcomes for global economic growth, rise in commodity prices, national economic and population growth, the South Australian GSP and population growth rate over the mid-2020s, on a trend basis, will be higher than the recent historical trends.

Industry wise, a higher exchange rate in the near future may have a negative impact on export based industries (e.g. grain, wine). However, some businesses will likely be impacted by decreasing the cost of key imported inputs.

Tourism still faces a challenging future. While domestic visitation has rebounded in some areas, restrictions on international and interstate travel remain (during covid outbreaks)

Although the labour market conditions improved in 2020/21, the employment growth has slowed down in the second half of the year. Skills and general labour shortages are a real challenge. A tightening labour market may lead to a modest rise in wages growth over the next year.

South Australia has made a small interstate migration gain in the latter half of 2020/21. However, slower international immigration will have a negative impact on population growth, especially in metro areas such as Charles Sturt with a high level of immigration.

The arrival of the Omicron variant of coronavirus adds a new layer of uncertainty to the state's economic recovery. The latest outbreak is likely to decrease the national and state's economic activity and slow down the ongoing recovery.



South Australia indicators

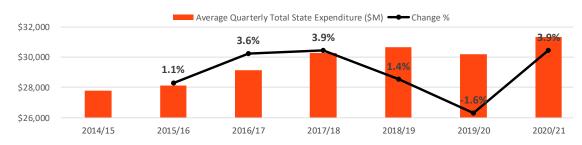
Building Approvals



Retail Trade



Total State Expenditure



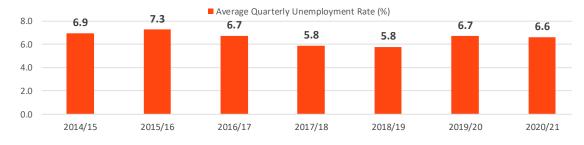
Inflation



Business Confidence



Unemployment





Macro economy

Before the COVID-19 crisis, there were indications that Australia and the Global economy was heading towards a more weakened economic environment than what we had experienced over the last decade. Some of these included:

- Ongoing US-China trade wars impacting world economic growth.
- The potential for higher interest rates in the US to address excess liquidity created by quantitative easing and likely changes in US fiscal policy at some point to address rising government deficits.
- The likelihood of higher US interest rates triggering an outflow of funds from emerging markets leading to potential exchange rate/banking crises in these countries
- A credit squeeze on local banks leads to constrained lending growth and in turn, lower residential development commencements going forward. However, this had been offset recently by changes to monetary policy.
- Excess supply in the housing market leads to slower price growth and a weaker market over the next five years before the cycle flips again.
- A reverse wealth effect, where declining (or weaker growth in) house values lead to increases in the household savings ratio and less consumption. However, there were signs that housing conditions in Sydney and Melbourne had stabilised with clearance rates starting to turn around (more potential buyers vs sellers).
- · Lower AUD exchange rate vs major currencies due to connection to emerging markets and changing interest rate levels between Australia and other economies, particularly the US. This may have counterbalanced weakened international demand due to trade uncertainty.

However, since the COVID impacts saw the economy bottom out in the June quarter of 2020, government spending and incentives have boosted the national economy and reversed some of these indicators.

- Housing approvals are at an all time high boosting construction employment but causing supply constraints and skill shortages
- Private investment in machinery and equipment has increased strongly due to policies such as instant asset write-offs. However, private non-residential building investment has not increased by as much and will face cost pressures due to residential building demands.
- House values have risen considerably, however household saving ratios have not fallen as much due to future uncertainty.
- The AUD exchange rate vs major currencies has risen due to strong international demand for commodities, the perception of a stronger domestic economy relative to other countries and higher interest rate levels between Australia and other economies.

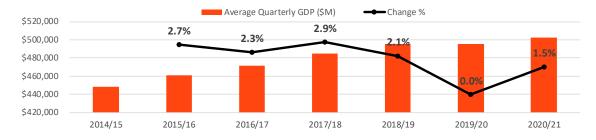
Unemployment has fallen in recent quarters and is supposedly back to pre-COVID levels as excess capacity is taken up by growth in the construction industry in particular. This has driven participation back in the labour force too.

The strong recovery pushed the average quarterly GDP well above the pre COVID-19 level in March and June Quarters 2021. However, in September 2021, the outbreak of COVID-19 Delta strain has sent many states into lockdown and, subsequently, the GDP decreased to the level just above the pre COVID-19 level.

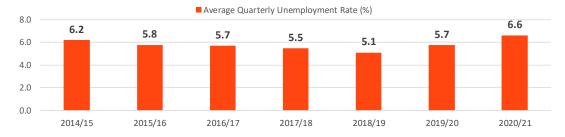


National indicators

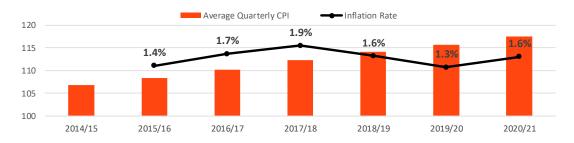
Gross Domestic Product



Unemployment Rate



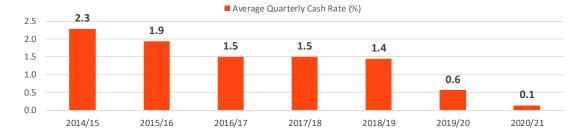
Inflation



Exchange Rate



RBA Cash Rate



Business Confidence





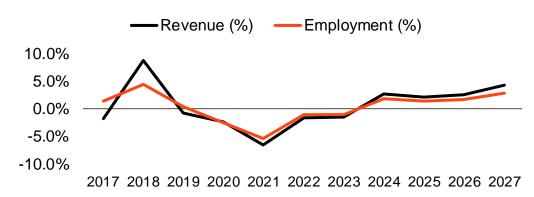
Construction

Construction industry's performance is forecast to gradually improve over the next five years at a national level, supported by solid growth in non-building infrastructure markets, recovering demand for new housing construction and improved opportunities for some specialised construction trades.

However, the economic fallout from the COVID-19 pandemic, the pace of recovery in the general economy and the capacity for households to invest in new building construction are anticipated to constrain the short-term performance of key building industries.

Demand from the non-residential building construction sector is forecast to decline over the next five years, as investor confidence in the commercial property market remains slow to recover and constrains the division's performance.

Construction forecasts – Australia



Source: Ibisworld.com. 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.09
Value Added	0.27
Jobs	3.5

Source: NIEIR

Upstream

- Finance
- Integrated Logistics
- **Bricklaying Services**
- Heavy Industry and Other Non-Building Construction
- Professional Services
- Concreting Services
- **Engineering Consulting**
- Iron Smelting and Steel Manufacturing
- **Accounting Services**
- Gravel and Sand Quarrying
- Legal Services
- Commercial Vehicle Wholesaling
- Structural Steel Fabricating
- Cement and Lime Manufacturing
- Clay Brick Manufacturing
- Copper Tubes and Wire Manufacturing
- Employment Placement and Recruitment Services
- Computer and Electronic Office Equipment Manufacturing

Downstream

- Architectural Services
- Engineering Consulting
- Surveying and Mapping Services
- Site Preparation Services
- Commercial and Industrial **Building Construction**
- Institutional Building Construction
- House Construction
- Retail Property Operators
- Office Property Operators

Source: Ibisworld.com, 2019

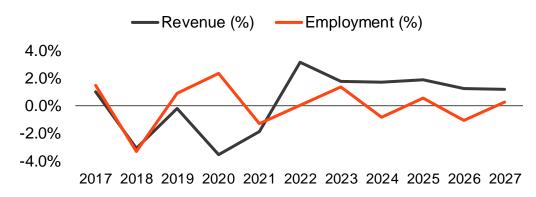
General Grocery Wholesale

The General Grocery Wholesale industry is expected to continue facing mixed business conditions over the next five years.

The industry is forecast to experience an increase in demand from the food services sector in the next five years as the recovery from the impact of COVID-19 continues and government social distancing restrictions ease. However, wholesale bypass trends and an increase in price competition are expected to limit demand for wholesalers that cater to general food and grocery retailers.

However, advances in inventory management, warehousing and global distribution system technology are anticipated to improve the efficiency of wholesaling operations over the next five years.

General Grocery Wholesale forecasts – Australia



Source: Ibisworld.com. 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.07
Value Added	0.56
Jobs	3.8

Source: NIEIR

Upstream

- Egg Farming
- Cereal, Pasta and Baking Mix Manufacturing
- Cake and Pastry Manufacturing
- Chocolate and Confectionery Manufacturing
- Seafood Processing
- · Tea, Coffee and Other Food Manufacturing
- Flour and Grain Mill Product Manufacturing
- Sugar Manufacturing

Source: Ibisworld.com, 2019

Downstream

- Fuel Retailing
- Restaurants
- · Fast Food and Takeaway Food Services
- · Supermarkets and Grocery Stores
- Convenience Stores
- · Consumers in Australia

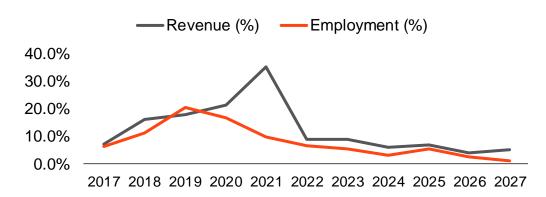


Online Shopping

Over the next five years, the Online Shopping industry is forecast to continue to grow strongly driven by the convenience and competitive prices the industry offer. Also, an increase in discretionary incomes and consumer sentiment is expected to provide a boost to the industry performance. However, increasing competition within the industry will constrain profitability.

The online shopping businesses are anticipated to reach wider customers with the NBN rollout completed driving faster broadband speeds, internet penetration and increased transaction security. Moreover, an increase in internet connectivity and improvement in IT will enable the businesses to provide better service and, subsequently, increase the average spend per customer.

Online Shopping forecasts – Australia



Source: Ibisworld.com. 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.11
Value Added	0.64
Jobs	11.0

Source: NIEIR

Upstream

- Household Appliance Wholesaling
- Clothing Wholesaling
- Cosmetics and Toiletry Wholesaling
- Toy and Sporting Goods Wholesaling
- Internet Service Providers
- Courier Pick-up and Delivery Services
- Wired Telecommunications Network Operation
- Wireless Telecommunications Carriers
- Communication Equipment Manufacturing
- Commercial Vehicle Wholesaling
- Fuel Retailing
- Clothing Manufacturing
- · Cosmetics, Perfume and Toiletries Manufacturing
- Household Appliance Manufacturing
- Toy and Sporting Goods Manufacturing

Source: Ibisworld.com, 2019

Downstream

· Consumers in Australia

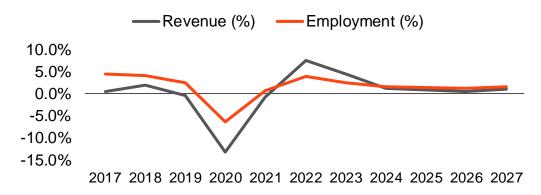


Food and Beverage Services

The Food and Beverage industry is forecast to recover over the next five years. as restrictions implemented in response to COVID-19 are gradually lifted with the increase in vaccination rate. Subsequently, consumers are anticipated to increase eating out over the next five years and the industry performance is projected to rise.

The two major trends currently affecting the industry are trendy food and beverage culture and health-conscious consumption. These trends present both a threat and an opportunity for the businesses in Food and Beverage industry and are anticipated to boost demand for higher margin premium products.

Food and Beverage Services forecasts – Australia



Source: Ibisworld.com. 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.08
Value Added	0.48
Jobs	10.2

Source: NIEIR

Upstream

- Meat, Poultry and Smallgoods Wholesaling
- Dairy Produce Wholesaling
- Fish and Seafood Wholesaling
- Fruit and Vegetable Wholesaling
- Soft Drink and Pre-Packaged Food Wholesaling
- Liquor Wholesaling
- · Tea, Coffee and Other Food Manufacturing
- Spirit, Beer, Wine Manufacturing
- General Line Grocery Wholesaling
- Temporary Staff Services
- Gaming and Vending Machines Manufacturing

Source: Ibisworld.com, 2019

Downstream

- · Consumers in Australia
- Domestic Airlines
- Education and Training
- Health Services
- Integrated Logistics

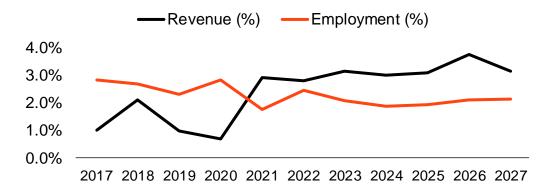
Health Services

The Health Services industry is forecast to continue to grow strongly over the next five years due to the ageing population, the increasing chronic diseases and rising private health insurance coverage. The majority of growth will be from general hospitals but growth in private health insurance coverage will likely continue to boost other allied health services that derive revenue from private health benefits.

The industry businesses and infrastructures are expected to increase over the next five years to meet the demands of the growing and ageing population, particularly in areas with high population growth and density. Although employment is forecast to grow, revenue growth is expected to increase at a higher rate as efficiency improves and technology usage increases.

Changes to government funding could substantially affect the health service industry. Currently, government funding accounts for just under 70% of all health services revenue. Moreover, a decrease in insurance rates for the young have placed cost pressures upward on the private health system, pricing more Australians out of private health insurance and causing severe issues for the long-term sustainability of Australia's private health services.

Health Services forecasts – Australia



Source: Ibisworld.com. 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.08
Value Added	0.63
Jobs	5.5

Source: NIEIR

Upstream

- Specialist Medical Services
- Pathology Services
- Other Health Services
- Pharmaceuticals Wholesaling
- · Medical and Scientific Equipment Wholesaling
- Commercial Cleaning Services
- General Practice Medical Services
- · Soap and Cleaning Compound Manufacturing
- · Adhesive Manufacturing
- Packaging Services
- Plastic Pipe and Plastic Packaging Material Manufacturing
- · Glass and Glass Product Manufacturing
- · Audio Visual Electronic Equipment Manufacturing
- Basic Organic Chemical Manufacturing
- Basic Inorganic Chemical Manufacturing
- Medical and Surgical Equipment Manufacturing
- Pharmaceutical Product Manufacturing

Downstream

- General Insurance
- Finance
- Consumers

Source: Ibisworld.com, 2019

Aged Care and Residential Services

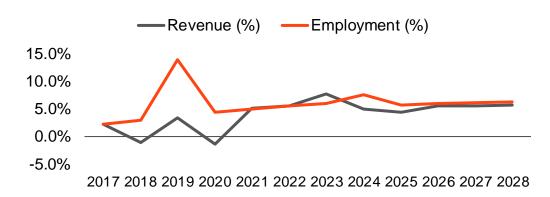
The Aged Care and Residential Services industry is forecast to continue growing over the next five years, as the aging population and the growing need for ageappropriate accommodation are projected to grow.

Regulatory reforms are set to occur over the next five years following the Royal Commission's seven volume final report, which calls for whole-of-system reform and redesign.

The dynamics of the industry are set to change in the next five years due to the structural reforms following the Royal Commission's report. The change will see the allocation of a residential aged care place shift to the person from 1 July 2024, rather than the aged care provider.

The current businesses in the industry are likely to face a more competitive residential care market and wage costs, limiting the profitability.

Aged Care and Residential Services forecasts – Australia



Source: Ibisworld.com, 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.05
Value Added	0.77
Jobs	6.2

Source: NIFIR

Upstream

- Pharmaceuticals Wholesaling
- Cosmetics and Toiletry Wholesaling
- · Medical and Scientific Equipment Wholesaling
- General Practice Medical Services
- Medical and Surgical Equipment Manufacturing
- Pharmaceutical Product Manufacturing
- Cosmetics. Perfume and Toiletries Manufacturing

Source: Ibisworld.com. 2019

Downstream

· Consumers in Australia

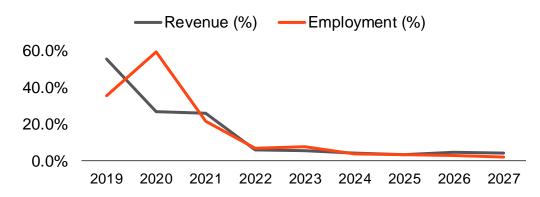
NDIS Providers

The National Disability Insurance Scheme (NDIS) Providers industry is forecast to grow over the next five years, as the government funding continues to rise and more disabled individuals are approved for the scheme.

The number of disabled individuals in Australia is anticipated to continue rising over the next five years, in line with general population growth. However, the NDIS providers are expected to continue to face challenges providing services due to the COVID-19 pandemic over the next five years.

According to the Federal Government estimates, over 475,000 people are being serviced by the NDIS in 2020-21 and is forecast to grow as more individuals are assessed for NDIS eligibility. The output/revenue of the NDIS providers is forecast to increase at an annualised 4.7% over the five years through 2025-26, to \$32.3 billion.

NDIS Providers forecasts - Australia



Source: Ibisworld.com. 2021

Multipliers – Charles Sturt 2019/20

Туре	Multiplier per \$1m additional sales
Output	1.06
Value Added	0.77
Jobs	10.8

Source: NIEIR

Upstream

- Construction
- Medical and Surgical Equipment Manufacturing
- Computer and Electronic Office Equipment Manufacturing
- Technical and Vocational Education and Training
- Specialist Medical Services

Source: Ibisworld.com, 2019

Downstream

- Consumers in Australia
- · Health Services

11 Challenges and opportunities for the City of Charles Sturt going forward



COVID-19 will present new and accelerate long term challenges and opportunities

Charles Sturt's economy has been shaped over the last decade or so by macro trends that influence headline and specific industry growth. Some of these trends are still relevant today and may be elevated or of greater importance due to COVID restrictions we have seen. For example, labour participation risks due to an ageing population have resurfaced as an issue due to the fall in migration of younger working age residents from overseas.

History also shows that the recovery period following economic downturns can accelerate the transition of industries or magnify trends that were already emerging in the economy. Some of these, such as the integration of 5G technology, still have a long way to go in terms of their impacts on sector or business transition.

Trends evolving over recent decades



Increasing demand for qualified workforce



Ageing population driving health services



Climate change influencing investment decisions



Urbanisation/agglomeration spillovers driving increases in employment density



International migration driving population growth



E-commerce becoming common place

Trends unfolding in the next few decades



Increase in remote working



5G, smart everything and IoT



Al and automation



Rebalanced supply chains



Circular economy

Existing trends will continue to shape the region



Increasing demand for qualified workforce

The City of Charles Sturt workforce is averagely educated. Around 29% of employed residents are degree educated in 2016, the same level as the Greater Adelaide average, but less than the Western Adelaide Region average (31%).

Implication

Industry growth and development, especially in professional business service areas, may be limited by education levels



Ageing population driving health care

Health care and social services, especially Hospitals, is the leading employer for the City and above the state and metro average. The redevelopment of TQEH will entrench this specialization.

Implication

Continued health industry growth expected, need to explore higher value health services or med-tech opportunities.



Climate change influencing investment decisions

Charles Sturt City Council has a strong commitment to the local environment plan e.g. Living Green, Smart City plan. Businesses are increasingly looking for sites that can allow for reduced emissions and/or have security in energy and water supply.

Implication

Access to infrastructure (e.g. electric car charging stations), access to renewable energy storage systems and optimisation of low emission transport networks across the region will become increasingly important.





Urbanisation/agglomeration spillovers driving density

Intensification of commercial and residential development at key transport nodes across Adelaide continues. Numerous locations are developing 'precincts' to better attract investment and encourage collaborations.

Implication

Leverage Transit-Oriented Developments in Bowden following the North-South Corridor infrastructure projects. Develop sports and entertainment precincts around Coopers Stadium, Adelaide Entertainment Centre and Titanium Security Arena



International migration driving population growth

Population growth in Charles Sturt has been above the Greater Adelaide average in recent years driven by international migration.

Implication

The short term restriction on international migration will have an impact on Charles Sturt.



E-commerce becoming common place

SA experienced a 46.6% YoY growth in online sales in 2020 and 35% of respondents to an ABS survey indicated they prefer to shop online now more than they did before the pandemic.

Implication

Support online stores to take up underutilised warehouse space. Provide support to the local businesses with low digital literacy and capture market opportunities. E.g. co-working place (Smart City Plan); Wholesale, warehousing and logistics demand in Charles Sturt will grow as online shopping and delivery needs increase.

Build on increasing SMEs and Professional business services



Increase in remote working

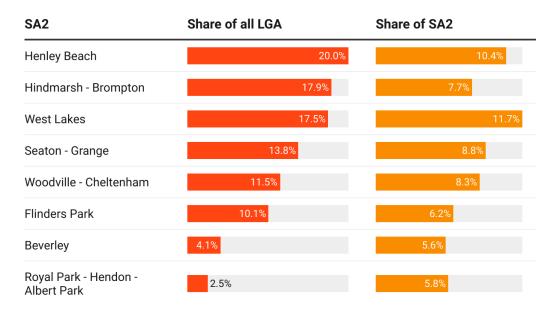
A McKinsey report showed that most professional business services work, up to 3/4 for financial services, could be done from anywhere without loss of productivity. A remote working survey for SA suggested most office workers would prefer a hybrid model – 2 to 3 days from home.

The City of Charles Sturt had a reasonably high share of working residents (11%) in professional knowledge-based business¹ roles working from home in 2016. The location with the largest amount of these working residents in 2016 was Henley Beach SA22 with 20% of all the LGA's working from home professionals in knowledge-based business industries. However, some areas like West Lakes had a higher proportion of professionals in knowledge-based business industries who worked from home (11.7%) at the time of the Census.

Implication

- · Clear base of residents who are already working flexibly or would benefit from remote working e.g. less commuting
- · Charles Sturt offers many facilities and close access to beaches and natural assets that could be attractive to residents considering a move to remote working
- Potential to re-purpose under-utilised office/retail space to support coworking facilities
- · Targeted marketing could be delivered aimed at people to stay at home or work at co-working facilities.

Employed residents working from home in knowledge based business services professional occupations by SA2, 2016



² SA2 is an ABS small area geography



¹ Finance and Insurance, Information Media and Professional, Scientific and Technical Services industries

Charles Sturt's manufacturing businesses can grow value from Industry 4.0 technology



5G, smart everything and IoT

Smart capabilities beyond home settings have been limited to date. With 5G, many companies in manufacturing, mining, construction, transport and agriculture will get a reliable alternative that enables the communication critical for mobile tools, machines, and robots. Industry 4.01 applications are set to grow substantially with manufacturing expected to benefit the most. However, other areas such as smart cities, smart energy grids and med-tech can all benefit.

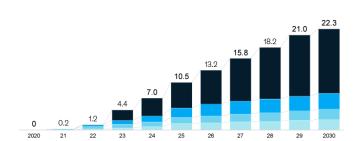
The City of Charles Sturt has the potential to generate substantial value from businesses adoption of these technologies. Manufacturing and Construction are well overrepresented compared to the Greater Adelaide average (1.7 times and 1.2 times value added share respectively).

Implication

- Industry 4.0 opportunities are strong in key sectors Construction, Manufacturing.
- · Explore collaborative industry relations within the city.
- · Leverage defence manufacturing opportunities to build smart capabilities.
- · Encouragement of upskilling of workers and support businesses to increase digital literacy.
- · Investigate and encourage collaboration with local suppliers who can support Smart City initiatives.

5G IoT advancements are set to impact manufacturing the most





Source: McKinsey & Co, The 5g era

Telstra 5G coverage map



Source: https://www.telstra.com.au/coveragenetworks/our-coverage

¹ Industry 4.0 refers to increased data exchange that allows machinery to adapt autonomously and achieve real-time optimization.

Al can support increased value in health and transport sectors



Al and automation

It is estimated that about half of the activities (not jobs) carried out by workers could be automated, but only about 5 percent of occupations could be fully automated by currently demonstrated technologies. This suggests job role changes will be more commonplace than job losses.

Al is already impacting industries via the way activities like tailored user specific marketing has occurred. The potential is still unravelling in many industries and some set to be impacted the most include health, logistics and finance.

The City of Charles Sturt has the potential to generate substantial value. Al technologies are supported in key industries such as healthcare and transport.

Implication

- Al opportunities are strong in key sectors Health and Social Services and Transport
- Opportunity to build a strong tele-health industry tested on the local market but exported anywhere
- · Identification of occupations at risk in the region from AI and automation is merited

¹ McKinsey & Co, Al, automation, and the future of work: Ten things to solve for

Key industries to benefit from AI impacts



Source: PwC, Sizing the prize What's the real value of AI for your business and how can you capitalise?



Support a reduction in local business supply chain costs



Rebalanced supply chains

Cost differences among developed and many developing countries are narrowing due to technological advances. The importance of local supply to offset disruptions, freight costs and improve national security is increasingly important.

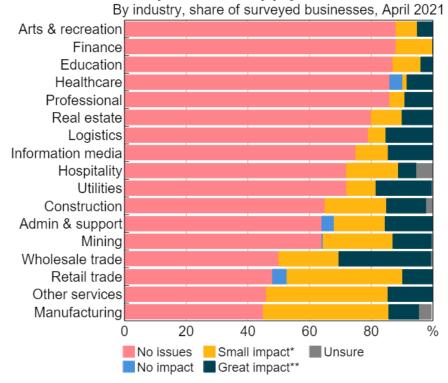
Consumers have shown willingness to adapt spending during the pandemic to 'buy local'. Businesses have demonstrated the capability to transform production or scale up to new demand.

The strong manufacturing, wholesale and transport sectors in Charles Sturt will increase opportunities for new logistics activities as well as potentially reduce costs for companies that rely on high value small quantity inputs.

Implication

- Identify mechanisms to support businesses that will continue to face cost pressures due to supply chain constraints
- Explore the establishment of platforms or networks to link local businesses along supply chains
- Identify opportunities for import replacement
- Support adoption of technology and automation by local businesses to reduce labour costs thereby making onshore production of components more competitive.
- Identify opportunities for businesses that rely on high value per unit or time-sensitive commodities. E.g. pharmaceuticals, production samples, electronics consumer goods, and perishable agricultural and seafood products.

Reports of Supply Chain Issues



- E.g. some delays but little impact on revenue
- E.g. major delays or cannot obtain certain items; significant impact on revenue Sources: ABS: RBA

Source: RBA, Statement on Monetary Policy - May 2021 Box B: Supply Chains During the COVID-19 Pandemic



Support initiatives to grow circular economy businesses



Circular economy

A 'circular economy' has been identified as a major (up to \$4.5 trillion) commercial opportunity with the concept that everything, even after its 'useful' life, can become a source for something else.

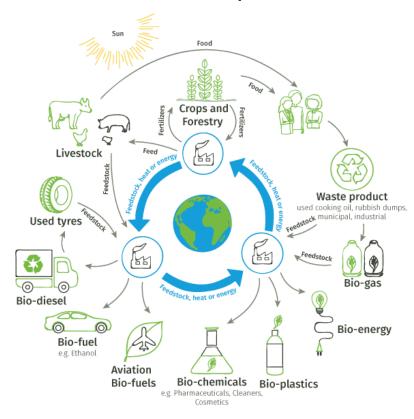
Waste export restrictions are driving federal and local investment in waste reuse solutions. The City of Charles Sturt has initiatives under the Living Green to 2020 plan to support waste and sustainability. A Materials Recovery Facility was constructed in 2021 in partnership with the City of Port Adelaide Enfield to process recycled materials for reuse. Also, the Bowden development includes leading green initiatives.

However, there is major potential in other areas such as plastics, organic waste, e-waste, lithium batteries etc. Closed loop or bio-industrial precincts that generate fuel/energy from waste are also attracting investment.

Implication

- Identify mechanisms to support and educate businesses to reuse waste material in a cost effective manner.
- Explore opportunities for the establishment of a bio-based precinct in the region and how to attract an anchor tenant.
- · Identify opportunities for collaboration between council and businesses to take better advantage of government run waste facilities.

Key industries to benefit from Al impacts



Source: Aurecon, The Circular Economy: the bioprecinct approach and showcase on the Mackay Isaac Whitsunday region





population

experts

experts