ACIL ALLEN

May 2021

Economic and Social Impact of the Aged Care Sector in Western Australia

Report to Amana Living, Baptistcare, Bethanie, Brightwater, Catholic Homes, Hall & Prior, Juniper, MercyCare, RAAFA WA and Rosewood.

About ACIL Allen

ACIL Allen is the largest independent, Australian owned economic and public policy consultancy. We specialise in the use of applied economics and econometrics with emphasis on the analysis, development and evaluation of policy, strategy and programs. Our reputation for quality research, credible analysis and innovative advice has been developed over a period of more than thirty years

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About this report

The aged care sector provides a vital support to the comfort and dignity of elderly West Australians. While many West Australian's acknowledge the positive contribution of the *Care Economy*, of which the aged care sector is a key part, an understanding of the social and economic magnitude of this impact is limited. Critically, the economic contribution of the aged care sector extends beyond a direct contribution through employment opportunities, but also indirectly by way of the wide range of suppliers across Western Australia that support the activities of aged care providers.

It is vital that the aged care sector is viable and sustainable into the future, underpinned by an understanding across government and the broader community of the economic and social contribution made by the aged care sector. Establishing this understanding will help to ensure that aged care providers receive the appropriate level of support to continue to deliver high-quality services for their residents.

In December 2020, a collective of Western Australian aged care providers engaged ACIL Allen to produce a detailed study quantifying the important economic and social impact of the Aged Care Sector to Western Australia's economy and society more broadly. Working in collaboration with the Sector, ACIL Allen developed an approach that encompassed three core modelling tasks:

— **Economic Contribution of the Aged Care Sector in 2019-20,** with financial information provided by participating Aged Care providers used as an input into ACIL Allen's economic model of the WA economy to estimate the direct and indirect impact of the Sector on the WA economy, in terms of its contribution to Gross State Product (GSP), to wages and salaries earned, the number of Full Time Equivalent (FTE) jobs created or supported by the Sector, and the estimated Commonwealth Government tax collections in 2019-20.

— **Economic Impact of the Aged Care Sector over the 10 years to 2029-30,** with financial projections provided by participating Aged Care providers used as an input into ACIL Allen's economic model of the WA economy to estimate the direct and indirect impact of the Sector to the WA economy over the 10 years to 2029-30 in terms of the impact on GSP, on wages and salaries earned, and the number of Full Time Equivalent (FTE) jobs created or supported by the Sector and the estimated Commonwealth tax collections.

— **Social Return on Investment of the Aged Care Sector,** which has been calculated through ACIL Allen's Social Return on Investment framework ('SROI') for the aged care sector in Western Australia. The SROI seeks to quantify the impacts of the activities of the aged care sector which go beyond the economic activity, employment and taxation revenue generated, to include a quantification of the impacts on those receiving services and supports, and their immediate family and carers, from the quantifiable health benefits and outcomes to people receiving care, to the benefits from additional labour force participation due to the provision of care that would otherwise be provided by family.

To provide a complete and comprehensive assessment of the aged care sector, ACIL Allen was able to build up a comprehensive financial profile of the WA Aged Care Sector through the participation in this study by the following 12 WA aged care providers:

- Amana Living
- Baptistcare
- Bethanie
- Brightwater
- Catholic Homes
- Hall & Prior
- Juniper
- MercyCare
- RAAFA WA
- Rosewood
- St Bart's*
- Umbrella Multicultural Community Care*

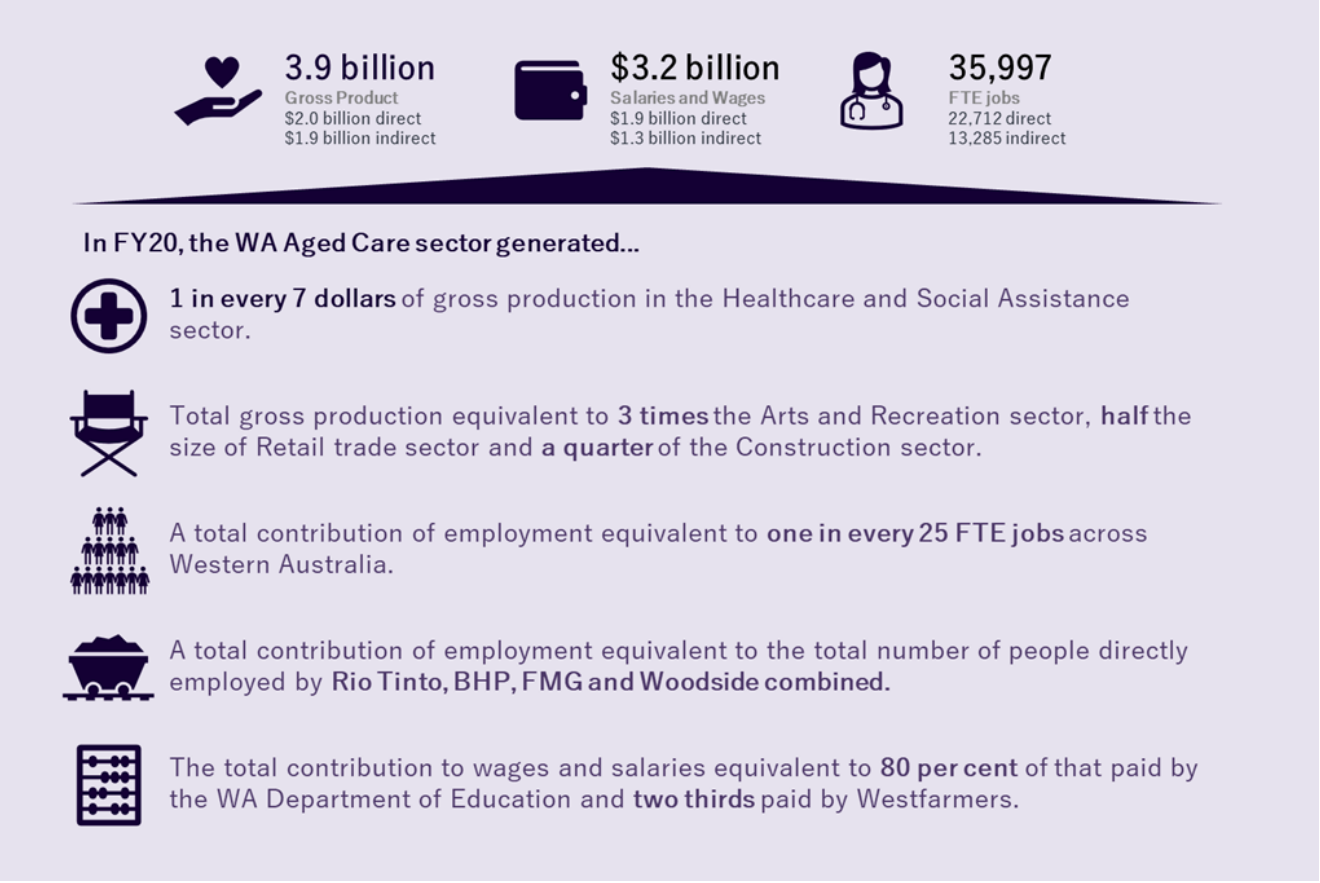
*Data partners

ACIL Allen estimates that **together these 12 providers are estimated to represent 34 per cent of the aged care market in WA**. By service line, the 12 providers are estimated to represent 42 per cent of the residential aged care, 21 per cent of home care, and nine per cent of home support services. To capture those providers in the aged care sector that did not participate in the study, ACIL Allen sourced sector-wide information from the Aged Care Financing Authority which enabled a comprehensive whole-of-sector financial profile of the WA Aged Care Sector to be developed.

Economic Contribution of the WA Aged Care Sector, 2019-20

A summary of the economic contribution of the Aged Care Sector to the WA economy in 2019-20 is presented in **Figure ES 1** below.

Figure ES 1 Economic Contribution of the Aged Care Sector in 2019-20, Summary Results



Source: ACIL Allen

Contribution to Gross State Product

The Aged Care sector is a significant component of the WA Economy. ACIL Allen estimates that the sector directly contributed $2 billion to the WA economy in 2019-20 – directly accounting for one in every seven dollars of activity across the entire Healthcare and Social Assistance sector ($15.1 billion).

When combined with the indirect economic activity generated by the Aged Care Sector ($1.8 billion), ACIL Allen estimates that its total contribution to the WA economy reached $3.9 billion in 2019-20. To put this value into perspective, **total contribution of the aged care sector is equivalent to three times the size of the Arts and Recreation sector, half the size of Retail trade sector and a quarter of the total activity from the Construction sector**.

ACIL Allen estimates that **for every $1 million of expenditure by the sector in delivering services and supports to its clients, an additional $1.5 million in total gross product is generated**.

By service line, ACIL Allen estimates that the largest contribution to the WA economy was through residential care services ($2.5 billion or 65 per cent of total direct and indirect contribution), followed by Home Care ($646 million, 16.6 per cent), Home Support ($432 million, 11.1 per cent) and Other[1] services ($279 million, 7.2 per cent).

Contribution to Employment

ACIL Allen estimates that there were **35,997 direct and indirect FTE jobs created** from the activities of the aged care sector across Western Australia in 2019-20. Based on Western Australia's average full-time workforce of 916,260 in 2019-20, ACIL Allen estimates that **one in every 25 FTE jobs across Western Australia were directly or indirectly supported by the Aged Care sector**.

To put these job numbers into perspective, the direct and indirect FTE jobs created as a result of WA's Aged Care Sector in 2019-20 was **equivalent to the total number of people employed by WA's "big 4" mining giants of Rio Tinto, BHP, FMG and Woodside combined**.

Of the total number of jobs created or supported by the sector in 2019-20, ACIL Allen estimates that 23,700 (66 per cent) of the jobs were a result of the activities in residential care services, followed by home care 5,891 FTE jobs (16 per cent), home support 3,928 FTE jobs (11 per cent) and other services 2,478 FTE jobs (7 per cent).

The Aged Care sector makes an oversized contribution to the WA workforce when compared to the relative size of the industry. ACIL Allen estimates, that **for every $1.0 million in expenditure, the Aged Care sector generates a total of 13.7 FTE jobs (directly and indirectly).**

Contribution to Incomes

Reflecting the significant levels of employment generated from the Aged Care sector, ACIL Allen estimates that there were $1.9 billion in wages and salaries directly paid by businesses across the sector and a further $1.3 billion in wages and salaries paid by other businesses across the State indirectly as a result of the activities of the sector. Overall, the **Aged Care sector supported the payment of some $3.2 billion in wages and salaries to workers across Western Australia in 2019-20**.

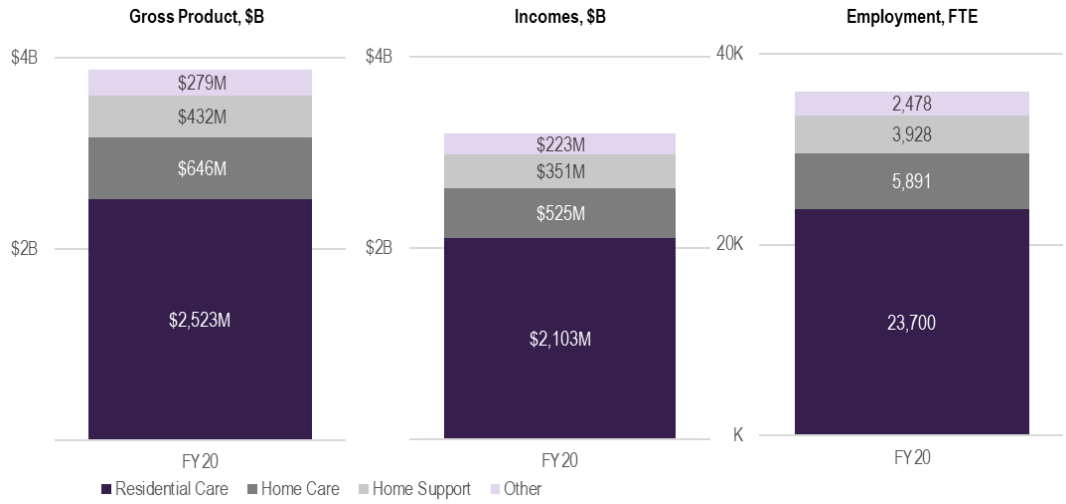
[1] Other services include adjacent services delivered by Aged Care providers, such as disability and retirement living services.

The total wages and salaries paid directly by the Aged Care sector, and indirectly through the flow on activity stimulated by the Sector's activity, is equivalent to 80 per cent of the wages and salaries bill paid by the WA Department of Education in 2019-20 and **two thirds the wages and salaries bill paid by Wesfarmers (which includes the key retail giants of Bunnings, Kmart, Officeworks and Coles).**

By service line, ACIL Allen estimates that the largest contribution to the WA economy was through residential care services ($2.1 billion or 65.7 per cent of total direct and indirect contribution), followed by Home Care ($525 million, 16.4 per cent), Home Support ($351 million, 11 per cent) and Other[2] services ($223 million, 7 per cent). These are presented in **Figure ES 2** below.

ACIL Allen estimates that for every $1.0 million in expenditure, the Aged Care sector generates a total of $1.2 million in salaries and wages directly to its employees and indirectly through the flow on activity generated by the Sector.

Figure ES 2 Economic Contribution of the Aged Care Sector, by service line, 2019-20



Source: ACIL Allen

Contribution to Taxation

While the majority of the organisations in the Sector are provided charity status for tax purposes, the high levels of employment supported by the Aged Care sector provides a significant boost to the Commonwealth's personal income tax coffers each year.

ACIL Allen has applied the assumptions from the Australia Tax Office based on tax brackets and average tax deductions claimed to estimate the income taxes paid from those directly employed and indirectly supported by the aged care sector.

Based on these assumptions, ACIL Allen estimates that $143.8 million was paid in income taxes by those directly employed in the sector, and a further $139.1 million was paid by those indirectly supported by the sector. In total, **it is estimated the sector generated $282.9 million in income taxes for the Commonwealth Government.**

Furthermore, applying assumptions on the marginal propensity to consume, GST paid on household consumption and GST relativities for WA, ACIL Allen estimates that $46.6 million was

[2] Other services include adjacent services delivered by Aged Care providers, such as disability and retirement living services.

generated in GST tax revenues by those directly employed in the sector, and a further $32.3 million was generated by those indirectly supported by the sector. **In total, it is estimated that the activities of the Sector generated $78.9 million in GST revenues for the WA State Government**.

There are a range of other tax payments that would arise as a consequence of the significant economic activity generated by the Sector. However, this has not been quantified in this study due to the complexities associated with the charity status of organisations in the sector.

Economic Impact of the WA Aged Care Sector, 2020-21 to 2029-30

Looking ahead, it is estimated that the contribution of the Aged Care Sector will increase over time in line with the projected increase in demand for aged care services. A summary of the projected growth in the Aged Care sector and its contribution to the WA economy is presented in **Figure ES 3** below.

Figure ES 3 Economic Impact of the Aged Care Sector 2019-20 to 2029-30, Summary Results

Source: ACIL Allen

Impact on GSP

ACIL Allen estimates that by 2029-30, the Aged Care sector will directly contribute $3.2 billion to the WA economy, with an additional $3.0 billion contributed indirectly. In total, the **Aged Care sector is projected to contribute $6.2 billion to WA's GSP by 2029-30.**

By service line, ACIL Allen estimates that over the assessment period:

— Residential care services will grow from $2.5 billion to $4 billion, an increase of $1.5 billion.

- Home Care services will grow from $646 million to $1 billion, an increase of $386 million.
- Home Support services will grow from $432 million to $690 million, an increase of $258 million; and
- Other services will grow from $279 million to $445 million, an increase of $167 million.

Based on these estimates, the size of the contribution of the Aged Care Sector to the WA economy by 2029-30 will be **larger than the total economic output from WA's agriculture sector** last financial year.

Significantly, the sector is **forecast to grow by 4.8 per cent per annum over the next 10 years, which is more than twice as fast as the forecast annual growth for the WA economy over the same period (2.2 per cent).**

Employment Impacts

ACIL Allen estimates that by 2029-30, the Aged Care sector will directly contribute 36,296 FTE jobs to the WA's workforce, with an additional 21,232 FTE contributed indirectly as a result of the Sector's activity. In total, it is estimated that the **Aged Care Sector will employ or support 57,528 FTE workers by 2029-30 – an increase of 60 per cent or 20,090 FTE workers on 2019-20 levels.**

By service line, ACIL Allen estimates that over the assessment period:

- Residential care services will grow from 23,700 FTE to 37,875 FTE, an increase of 14,175 FTE.
- Home Care services will grow from 5,891 FTE to 9,415 FTE, an increase of 3,542 FTE.
- Home Support services will grow from 3,928 FTE to 6,278 FTE, an increase of 2,350 FTE; and
- Other services will grow from 2,478 FTE to 3,960 FTE, an increase of 1,482 FTE.

Based on this growth profile, it is estimated that the sector will be required to directly employ an average of 106 FTE workers every month over the next 10 years.

Significantly, the **increase in FTE jobs that are expected to be created as a result of the Sector's activities over the next 10 years is greater than the total number of full time jobs that have been created in Western Australia over the past 4 years**.

In terms of the drivers of activity by service line, it is estimated that by 2029-30 there will be an additional 10,426 residential aged care places that will support an additional 14,175 FTE jobs, and an additional 46,266 community care packages that will support an additional 5,874 FTE jobs.

Impact on Salaries and Wages

ACIL Allen estimates that by 2029-30, the Aged Care sector will directly pay some $3 billion in wages and salaries to its workforce, with an additional $2.1 billion paid in wages and salaries to workers employed in other sectors of the economy that benefit from the activities of the Aged Care sector. In total, the **aged care sector is projected to generate $5.1 billion in wages and salaries directly and indirectly by 2029-30**.

By service line, and as presented in **Figure ES 4**, ACIL Allen estimates that over the assessment period:

- Residential care services will grow from $2.1 billion to $3.4 billion, an increase of $1.3 billion.
- Home Care services will grow from $525 million to $839 million, an increase of $314 million.
- Home Support services will grow from $351 million to $560 million, an increase of $210 million; and

— Other services will grow from $223 million to $356 million, an increase of $133 million.

By 2029-30, the Aged Care sector is projected to directly generate the same level of salaries and wages as the entire Accommodation and Food services sector generated in 2029-20 and the total wages bill of WA Health in 2020-21.

Figure ES 4 Economic Impact of the Aged Care Sector, by service line, 2019-20 to 2029-30

Source: ACIL Allen

Taxation Impacts

ACIL Allen estimates total **income taxes generated from the employment generated by the Aged Care sector will reach $452.1 million in 2029-30**, of which $229.7 million directly is expected to be paid across the Aged Care sector workforce, and $222.4 million paid by workers in other sectors of the economy that benefit from the activities of the Aged Care sector. This represents a 54 per cent increase in personal income tax payments from the levels estimated in 2020-21 ($294.2 million).

Furthermore, GST revenues collected by the **WA State Government are projected to reach $126.1 million in 2029-30**, of which $74.5 million will be contributed by those directly employed in the sector, and a further $51.7 million was generated by those indirectly supported by the sector.

There are a range of other tax payments that would arise as a consequence of the significant economic activity generated by the Sector. However, this has not been quantified in this study due to the complexities associated with the charity status of organisations in the sector.

Social Return on Investment of the WA Aged Care Sector, 2019-20

While the current economic contribution and anticipated future economic impacts of the growth and development of the aged care sector in Western Australia are significant in their own right, measuring the aged care sector in these purely economic terms is only part of the picture. The

provision of care and support by providers in the aged care sector is for social reasons, and measuring the impact of these is critical to providing a holistic perspective of the return on public and private sector funds.

To assist in the articulation and measurement of these broader impacts, ACIL Allen has developed and applied a Social Return on Investment framework ('SROI') for the aged care sector in Western Australia. **The SROI seeks to quantify the impacts of the activities of the aged care sector which go beyond the economic activity, employment and taxation revenue generated, to include a quantification of the impacts on those receiving services and supports, and their immediate family and carers.**

The output of a SROI exercise is similar to a benefit cost assessment, in that benefits are presented in a ratio relative to costs. An overall "SROI ratio" demonstrates the unit benefits achieved for every dollar of investment society has made in the delivery of the program, policy, investment or entity.

In order to assess the SROI of the Aged Care Sector, ACIL Allen has isolated the impacts of the Sector based on a hypothetical scenario where the Sector does not exist, leading to poorer outcomes for those receiving care and support through other means (such as through the primary health system, or through the direct care and support of family). In building up a scenario in which Aged Care does not exist, ACIL Allen has relied on desktop research and credible data sources. Given that this is a hypothetical scenario based on assumptions for which there is no demonstrable case study, ACIL Allen acknowledges there is a degree of uncertainty in the actual scenarios that may occur in the absence of aged care – a caution that necessarily applies to all studies of this nature. Notwithstanding this limitation, ACIL Allen has been able to build a credible, conservative estimate of the social impacts associated with the aged care sector.

Through consultation with the Aged Care Sector and through its own research, ACIL Allen determined five primary impact channels of the Sector through the SROI framework.

- **Healthcare cost savings:** the avoided cost of persons receiving care entering the primary health and hospital system due to services and interventions enabled by the aged care sector.
- **Improved health outcomes:** the improved quality of life experienced by individuals receiving targeted care and support through the aged care sector.
- **Direct value added:** the direct economic value derived through the expenditure on aged care services, principally through the creation of employment.
- **Carer labour force participation:** the improved ability for next of kin and other family members to engage in the workforce due to lessened burden of care requirements through engagement of their loved ones in the aged care sector.
- **Relief of direct care requirements for kin and family members:** the improved ability of kin and family members to engage in non-care activities across society due to the care and support provided through the aged care sector.

Through its SROI framework, ACIL Allen quantified the benefits and costs of residential aged care services and community aged care services provided by the Sector across each of the five impact channels in 2019-20, which has been summarised in **Table ES 1** and presented in **Figure ES 3**.

Table ES 1: Summary of Results – Social Return on Investment of Aged Care Sector, 2019-20

	Residential Aged Care	Community Aged Care	Total Aged Care
Benefit 1: Avoided healthcare expenditure	$278.5M	$181.2M	$459.7M
Benefit 2: Avoidance of disability	$17.4M	$11.3M	$28.7M
Benefit 3: Direct value added of aged care expenditure	$1,334.4M	$544.4M	$1,878.9M
Benefit 4: Avoided loss of productive labour resources	$1,242.3M	$538.5M	$1,780.8M
Benefit 5: Relief of care requirements for family members	$837.8M	$322.1M	$1,159.9M
Total Benefits (million)	**$3,710M**	**$1,598M**	**$5,308M**
Total Costs (million)	**$1,714.1M**	**$798.6M**	**$2,512.6M**
Net Benefit (million)	**$1,996.3M**	**$799.0M**	**$2,795.3M**
Social Return on Investment Ratio	**2.16**	**2.00**	**2.11**

Source: ACIL Allen

These results reveal the significant economic and social value the Aged Care Sector generates through its residential and community care services.

Across the five impact channels, it is estimated that **residential aged care services delivered $3.7 billion in benefits against a total cost of services of $1.7 billion, realising a net economic and social benefit to the WA community of $2 billion in 2019-20**.

For community aged care services delivered by the Aged Care Sector, it is estimated that a total benefit of $1.6 billion was delivered across the five impact channels against a total cost of $0.8 billion, realising a net economic and social benefit to the WA community of $0.8 billion in 2019-20.

While the avoided costs of health care and disability were estimated to realise a benefit of almost half a billion dollars to those receiving care and the WA community more broadly, the **largest benefits were through the economic and productivity benefits from the care and support provided by the Aged Care Sector**. In particular, ACIL Allen has estimated that the Aged Care Sector benefited the WA community through **economic benefits of its expenditure ($1.9 billion), the avoided loss of productive labour resources ($1.8 billion), and the relief of care requirements by family members ($1.2 billion).**

Considered against a scenario whereby there are no aged care services, and the next most likely outcome is realised (i.e. hospital or family care), ACIL Allen has estimated that the **sector delivered $2.11 for every dollar spent on aged care and community care services, delivering an estimated net benefit of $2.80 billion in 2019-20.**

For every dollar spent, ACIL Allen estimates that the Aged Care Sector returns $2.11 in benefits distributed as follows:

— 18 cents in savings to the funders of acute hospital services in WA via avoided healthcare expenditure (Benefit 1: 9 per cent).

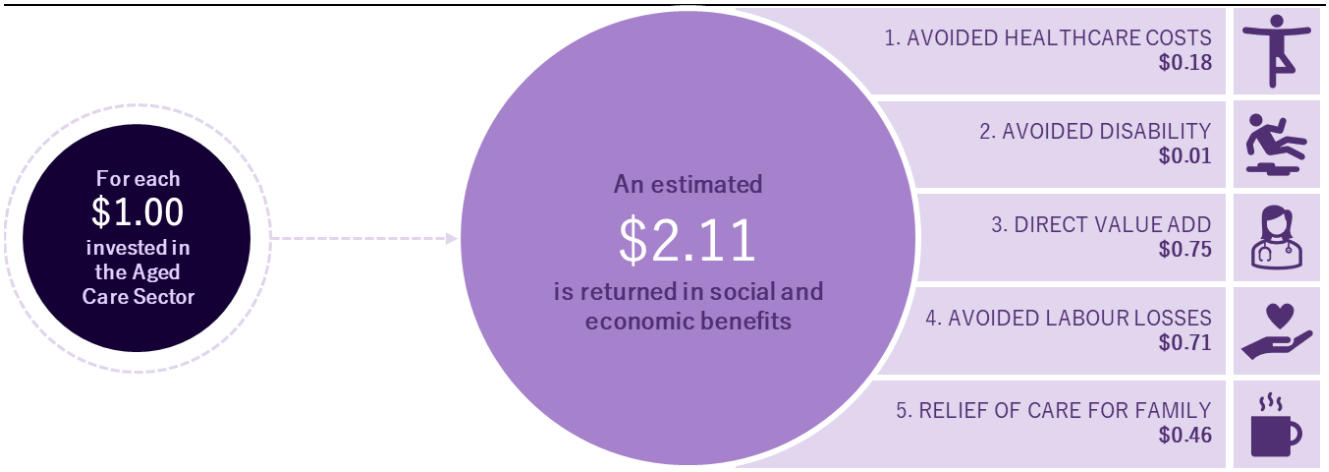
— 1 cent in averted suffering and pain to recipients of aged care service (Benefit 2: 1 per cent)

— 75 cents in economic value as measured by direct value add from the sector (Benefit 3: 35 per cent),

— 71 cents in salaries and wages to family members from avoided labour losses (Benefit 4: 34 per cent),

— 46 cents in non work time savings via relief of care requirements for family members (Benefit 5: 22 per cent).

Figure ES 5 Social Return on Investment of Aged Care in WA, 2019-20



Source: ACIL Allen

Given that the benefits associated with the Aged Care Sector far exceed the costs of providing residential aged care and community care services provided by the Sector, this highlights the demonstrable net economic and social benefits of the funding that is provided by Commonwealth and State Governments to the Sector to deliver services to those under its care.

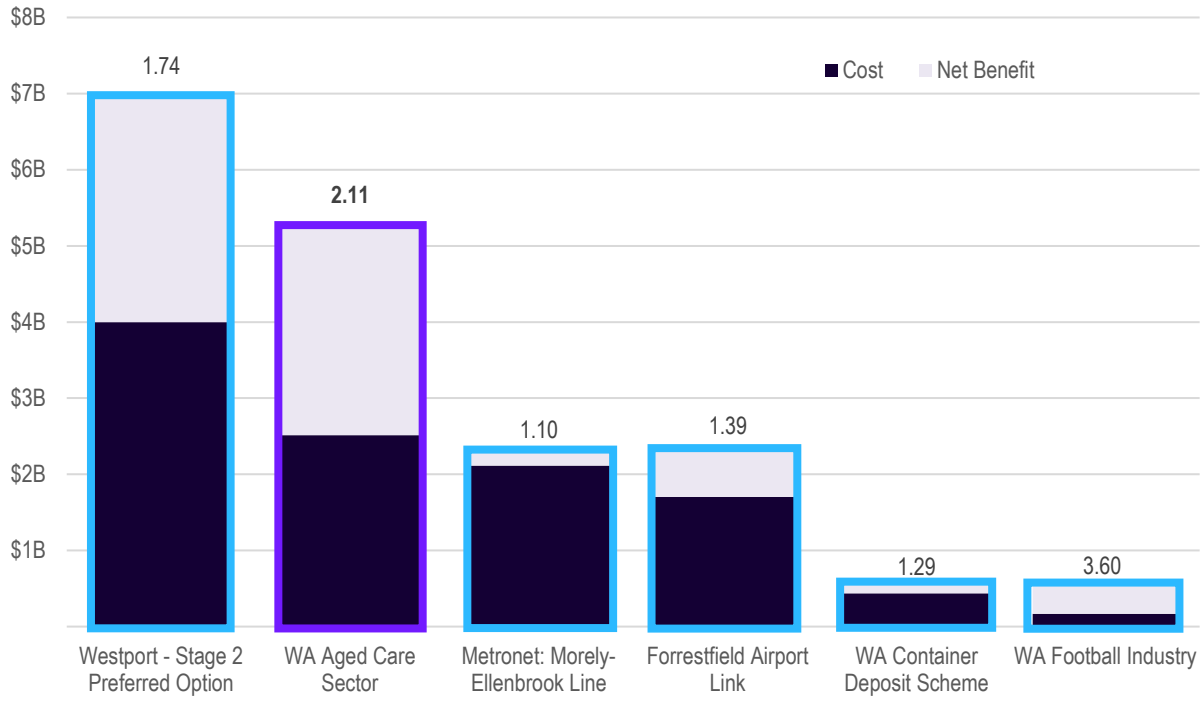
In this regard, **Benefit 1** accrues to the funders of WA hospitals. Applying rates of total funding for public and private hospitals, 41 per cent ($188 million) of this saving would accrue to the WA Government, 37 per cent ($170 million) to the Federal Government and 22 per cent ($102 million) to other payers such as private health insurers and individuals. Notably, **the estimated avoided hospital costs equate to 5 per cent of the State's total spending on health in WA**.

For funding requests to Commonwealth and State Governments, it is typically a requirement that the proposal must provide a clear demonstration of the net economic and social benefits of a policy, program or investment through a Benefit Cost Assessment (BCA). If a BCA associated with a policy, program or investment produces a Benefit Cost Ratio greater than one, then this suggests that the funding request represents a value for money proposition for funding agencies.

The significance of these results is further reinforced when compared against the net economic and social benefits of a number of recent projects funded by the WA Government in recent years (**Figure ES 6**).

These comparisons show that the aged care sector generated a significantly larger net benefit in 2019-20 (**$2.8 billion, BCR = 2.11**) than the estimated 20-year net benefit of the proposed METRONET Morley-Ellenbrook line (**$0.2 billion, BCR = 1.10**), the net benefit of the Forrestfield Airport Link (**$0.7 billion, BCR = 1.39)**, the net benefit of the WA Container Deposit Scheme (**$0.1 billion, BCR = 1.29**) or the net benefit of WA Football in 2017-18 (**$0.4 billion, BCR = 3.60**). The preferred option for the Westport project yields a higher net benefit than the aged care sector (**$3.0 billion**) although this is based on a 50-year assessment (rather than the single year assessment applied in this study) and returns a less favourable BCR (1.74 vs. 2.11).

Figure ES 6 Results Comparison – Aged Care Sector SROI compared to other assessments



Source: ACIL Allen

1 Introduction and Context

This section provides an overview of the objectives of the report and the approach to quantifying the economic contribution and economic impact of the aged care sector in Western Australia. This section also introduces the aged care organisations that have provided data and made a financial contribution towards the completion of the study.

1.1 About this Engagement

In December 2020, ACIL Allen were engaged by ten WA aged care providers to provide an assessment of the economic and social contribution of the aged care sector in WA.

The aged care sector provides a vital support to the comfort and dignity of elderly West Australians. While many West Australian's acknowledge the positive contribution of the *Care Economy*, of which the aged care sector is a key part, an understanding of the social and economic magnitude of this impact is limited. Critically, the economic contribution of the aged care sector extends beyond a direct contribution through employment opportunities, but also indirectly by way of the wide range of suppliers across Western Australia that support the activities of aged care providers.

It is vital that the aged care sector is viable and sustainable into the future, underpinned by an **understanding across government and the broader community of the economic and social contribution made by the aged care sector**. Establishing this understanding will help to ensure that aged care providers receive the appropriate level of support to continue to deliver high-quality services for their residents.

1.2 Overview of Approach

ACIL Allen's approach to the engagement is split into the three core components of an **economic contribution assessment**, **economic impact assessment** and **Social Return on Investment** (SROI) study. The three core components are underpinned by an overview of the current state of the aged care sector in Western Australia and emerging trends. To provide a complete and comprehensive assessment of the aged care sector, ACIL Allen adopted a top-down and bottom-up approach to prepare the data inputs for the economic modelling phase.

From a top-down approach, ACIL Allen was able to build a view as to the market share of the participating aged care providers relative to the entire WA aged care sector on a revenue basis, as well as across other key indicators. From a bottom up approach, ACIL Allen used the detailed financial and operational data submissions to build up a financial profile of each service type based on the nature of expenditure, source of production and employment profiles. When analysed at an aggregate level, the ten-year projections provided by the participating aged care organisations provide an outlook for operational and capital expenditure, and how this equates to additional capacity for the aged care sector in the form of residential care beds and other important resourcing requirements.

Using ACIL Allen's Input-Output model of Western Australia, the economic contribution of the aged care sector was estimated on the basis of its direct and indirect contribution to output (Gross State Product), income (wages and salaries earned), employment (FTE basis) and taxation payments made to the WA Government. An inclusion to this phase of the engagement is the development of an economic contribution tool which calculates the direct and indirect contribution the sector generates based on operational expenditure in each service line.

To project future activity, ACIL Allen has used forward guidance from participating aged care providers to estimate the economic impact of the aged care sector in Western Australia over the ten-year period from 2020-21 to 2030-31. The results of the economic impact assessment are presented in terms of direct and indirect contribution to output, income, employment and taxation.

The SROI study involves the development of a bespoke modelling framework to measure the benefits and costs related to the aged care sector. The results from the SROI assessment are presented through a ratio estimate of the combined value of benefits generated for every dollar spent in the aged care sector (SROI ratio), gross value of benefits by benefit type and benefits generated per aged care resident and per aged care residence.

There are ten aged care providers (**Figure 1.1**) that have submitted data and made a financial contribution towards the completion of the study. The aged care providers differ with respect to the services they offer, with not all of the aged care providers offering home support, home care and residential care. Furthermore, some of the aged care providers also offer ancillary aged care services such as retirement villages and transition care, in addition to other health and community services such as social housing and disability support.

The ten aged care providers who provided a financial contribution to the study have a total portfolio of 108 residential aged care facilities across the Perth metropolitan area and regional Western Australia. While not all of these aged care providers have residential aged care facilities in regional Western Australia, the facilities in regional Western Australia account for approximately 22 per cent of the total portfolio. Residential aged care facilities in regional Western Australia are located across the South West, Great Southern, Wheatbelt, Mid West and Kimberley regions.

In order to protect commercially sensitive information relating to the operations of each aged care provider, the modelling inputs (see Chapter 3) and the results of the economic contribution and economic impact assessments are presented in aggregate.

Leading Age Services Australia (LASA) and Aged & Community Services Australia (ACSA) supported ACIL Allen in collecting data inputs from additional aged care organisations by notifying their members about the study and the opportunity to be involved as a non-funding participant. As a result of this process, ACIL Allen received data inputs for the study from the following two aged care organisations:

— **St Bart's** – St Bart's is a not-for-profit organisation founded in 1963 by the Anglican Church as a small homeless shelter for men. In 2019-20, St Bart's supported 954 clients across four key service areas: transitional accommodation for people at risk of homelessness, people with mental health issues, aged care services and community housing.

— **Umbrella Multicultural Community Care** – Umbrella Multicultural Community Centre is not-for-profit organisation founded in 2000 that provides community aged care services for over 800 clients from 67 different countries in the Perth metropolitan and Peel region, including seniors from the LGBTI community.

Figure 1.1 Aged Care Provider Profiles

Total Revenue: $122.4M Total Workforce: 1,640

Home Care | Home Support | Residential Care

Amana Living was established by the Anglican Church in 1962. Amana Living has 11 residential care centres in Perth, one in Mandurah and one in Kalgoorlie providing permanent accommodation and 24-hour care and services. Amana Living also have 17 retirement villages, two transition care facilities and five day clubs across Western Australia.

Total Revenue: $86.3M Total Workforce: 1,400

Home Care | Residential Care

The Baptist Homes Board was established in 1972 in response to a need for suitable accommodation and nursing care for the elderly, with the first aged care facility opened in Salter Point in 1982. Baptistcare have 12 residential care facilities, 10 retirement villages and deliver home care services. Baptistcare's residential care facilities are located throughout WA metropolitan and regional areas

Total Revenue: $127.2M Total Workforce: 1,938

Home Care | Home Support | Residential Care

The Churches of Christ in WA (COCWA), the precurser of Bethanie, commenced the provision of aged care accommodation services in 1954. Bethanie have 12 residential care facilities located throughout the Perth metropolitan area, as well as the South West region of Western Australia. In 2019-20, Bethanie expanded their residential aged care portfolio following the acquisition of the Berrington .

Total Revenue: $161.6M Total Workforce: 2,054

Home Care | Home Support | Residential Care

Brightwater is a not-for-profit provider of aged care, disability and retirement services. Brightwater has been part of the WA community for 119 years. Brightwater have 10 residential care facilities located throughout the Perth metropolitan area, and one located in Mandurah. Brightwater at Home services are provided throughout the Perth metropolitan area and surrounding regions.

Total Revenue: $38.5M Total Workforce: 500

Home Care | Residential Care

Catholic Homes have provided aged care services in Western Australia for more than 55 years. Catholic Homes have 7 residential care facilities, 4 retirement villages and provide home care and support services across Western Australia. Home care services are provided throughout the Perth metropolitan area, as well as the South West, Great Southern, Wheatbelt and Mid West.

Total Revenue: $99.6M Total Workforce: 1,400

Home Care | Home Support | Residential Care

Hall & Prior was established in 1992 and have 14 residential aged care facilities located throughout the Perth metropolitan area and one in Albany. The Karingal Green aged care precinct located in High Wycombe opened in May 2020, delivering an additional 160 beds and providing specialist care and wellbeing services, including dementia and Parkinson's specific care.

Total Revenue: $160.3M Total Workforce: 1,930

Home Care | Home Support | Residential Care

Juniper are a provider of residential aged care services, home care programs and retirement villages. Juniper has 26 residential aged care facilities located across the Perth metropolitan area, as well as the Great Southern, Kimberley and Mid West regions of Western Australia. In 2019-20, Juniper opened two new residential care facilities – in Karrinyup and Albany.

Total Revenue: $103.9M Total Workforce: 1,280

Home Care | Home Support | Residential Care

MercyCare is a provider of aged care, family, community, early learning and disability services. MercyCare have five residential care facilities located throughout the Perth metropolitan area. MercyCare are a relatively new provider of aged care services in WA, with four residential aged care homes acquired in 2016.

Total Revenue: $61.0M Total Workforce: 700

Home Support | Residential Care

Air Force Association (Western Australian Division) Incorporated, trading as RAAFA, is a not-for-profit organisation committed to meeting the needs of its members rather than the profit requirements of shareholders. RAAFA have six retirement villages comprising 1,420 retirement living units and apartments, 19 assisted living units, 446 residential care places and 14 short stay units.

Total Revenue: NPA Total Workforce: 163

Residential Care

Rosewood have been providing aged care services for over 60 years.

Rosewood have two residential age care facilities in Leederville and West Perth. The West Perth facility is currently under construction and is scheduled to open in early 2021 and will become home to 152 residents.

Source: ACIL Allen

1.3 Report Structure

The report has been structured into six key sections and an **Executive Summary**.

- **Chapter 1: Introduction and Context** – This section provides an overview of the objectives of the report and the approach to quantifying the economic contribution and economic impact of the aged care sector in Western Australia. This section also introduces the aged care organisations that have provided data and made a financial contribution towards the completion of the study.
- **Chapter 2: Industry Overview and Outlook** – This section provides important economic context supporting the study, including a history of the aged care sector in Western Australia, an overview of the aged care sector and the identification of emerging industry trends that will impact on the aged care sector in the medium to long term.
- **Chapter 3: Modelling Methodology and Assumptions** – This section provides an overview of the modelling methodology and data collected from study participants to estimate the economic contribution and economic impact of the aged care sector in Western Australia.
- **Chapter 4: Economic Contribution of the Aged Care Sector, 2019-20** – This section presents the results for the economic contribution of the aged care sector in Western Australia in 2019-20, using ACIL Allen's Input-Output modelling framework.
- **Chapter 5: Economic Impact of the Aged Care Sector, 2020-21 to 2029-30** – This section presents the results for the economic impact of the aged care sector in Western Australia over the ten-year period from 2020-21 to 2029-30, using ACIL Allen's Input-Output modelling framework.
- **Chapter 6: Social Return on Investment in the Aged Care Sector** – This section presents the bespoke modelling framework and the results for the Social Return on Investment (SROI) assessment.

1.4 Glossary of terms of abbreviations

Throughout this report, ACIL Allen has used a number of economic and industry specific terms which have been outlined below.

Table 1.1 Glossary of Terms

Term Used	Description
Capital expenditure	This refers to all expenditures related to the development of capital assets such as buildings and infrastructure.
Commercial services	Commercial services includes other activities that fall outside the direct provision of services, such as laundry or food services.
Direct / Indirect economic contribution	The economic contribution is calculated on the basis of the Aged Care sector's direct activities (such as surpluses generated and wages paid to employees) and indirect activities (such as flow on impacts from payments made to suppliers and goods and services purchased by employees) to determine the full extent of the flow-on economic contribution.
Disability care	Disability care refers to care services provided to people living with a non age-related disability.
Full-Time Equivalent	ACIL Allen uses a definition for Full-Time Equivalent job consistent with that used by the ABS – namely people who work, or usually work, 35 or more hours per week for the full year. FTE figures used in this report reflect a full-time job over one full year.
Gross product or real economic output	Gross product is a measure of the output generated by an economy over a period of time (typically a year). It represents the total dollar value of all finalised goods and services produced over a specific time period and is considered as a measure of the size of the economy. At a national level, it is referred to as Gross Domestic Product (GDP); at the state level, Gross State Product (GSP); while at a regional level, Gross Regional Product (GRP).
Home and Community Care	A previous program that provided basic support and maintenance to people living at home to help avoid premature or inappropriate admission to long-term residential care.
Home Support	Home Support provides small amounts of services (entry-level services) designed to help older Australians continue living in their own homes.
Home Care	Home Care is arranged into four levels of care packages based on people's care needs (determined by an assessment conducted by an Aged Care Assessment Team) and covers personal services, support services, care-related services and care management.
Input-Output Tables	Input-Output (IO) tables capture the direct and indirect effects of expenditure by capturing, for each industry, the industries it purchases inputs from and also the industries it sells its outputs to. For example, the I-O model for Western Australia captures purchases from and sales to industries located in Western Australia, as well as imports from outside of Western Australia.
My Aged Care	The main entry point to the aged care system in Australia. My Aged Care aims to make it easier for older people, their families, and carers to access information on ageing and aged care, have their needs accessed and be supported to find and access services.
Residential care	Residential care provides accommodation and support for those who choose to live within residential aged care facilities.
Retirement living	Retirement living refers to residential villages occupied by people fully capable of living independently where no ongoing care is provided.
Target provision ratio	The Australian Government target of subsidised operational residential care places ad allocated home care packages. These targets are based on the number of persons for every 1,000 people aged 70 years or over.

Table 1.2 List of Acronyms

Abbreviation	Full Name
ABS	Australian Bureau of Statistics
ACAP	Aged Care Assessment Program
ACAR	Aged Care Approvals Round
ACAT	Aged Care Assessment Team
ACFA	Aged Care Financing Authority
ACSA	Aged & Community Services Australia
AIHW	Australian Institute of Health and Welfare
CACP	Community Aged Care Packages
CAPEX	Capital expenditure
CGE	Computable General Equilibrium
CHSP	Commonwealth Home Support Programme
COVID-19	Coronavirus Disease of 2019
DHS	Department of Human Services (now Services Australia)
EACH	Extended Aged Care at Home
EACH-D	Extended Aged Care at Home Dementia
FTE	Full Time Equivalent
GTAP	Global Trade Analysis Project
HACC	Home and Community Care
IO	Input-Output
LASA	Leading Age Services Australia
LLLB	Living Longer Living Better
NPA	Not Publicly Available
OPEX	Operational expenditure
PIAC	Pathways in Aged Care
SROI	Social Return on Investment

Industry Overview and Outlook 2

This section provides important economic context supporting the study, including a history of the aged care sector in Western Australia, an overview of the aged care sector and the identification of emerging industry trends that will impact the aged care sector in the medium to long term.

2.1 History of Aged Care in Western Australia

2.1.1 Major Developments in the Aged Care Sector

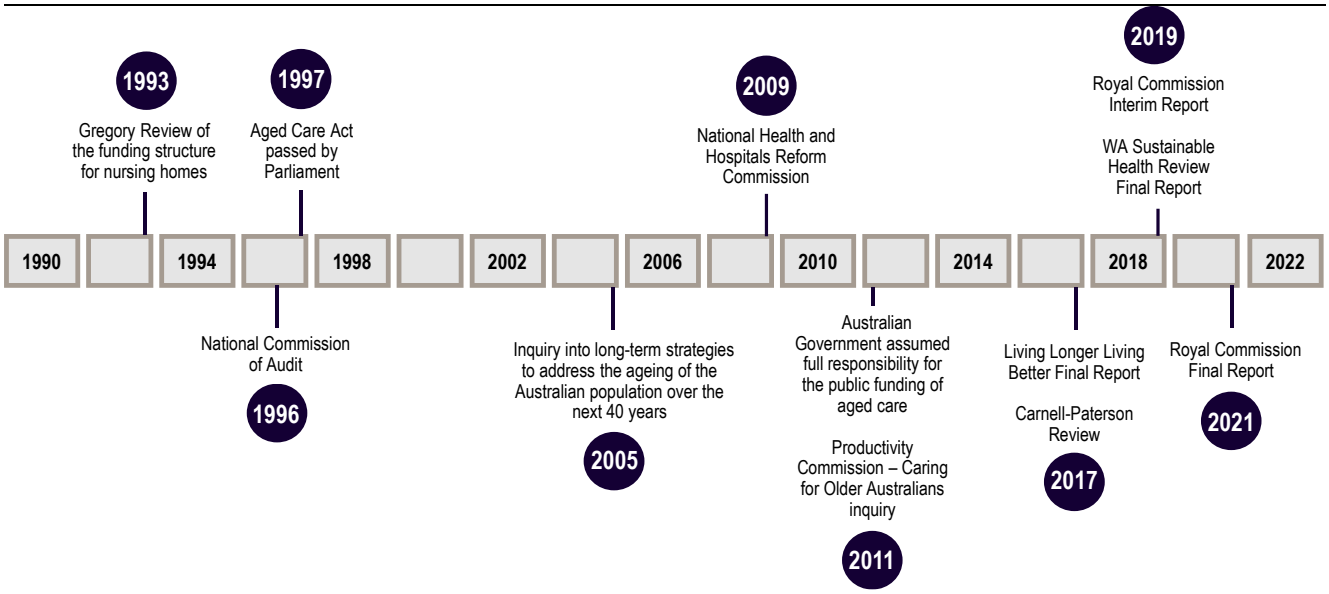
An overview of the major developments in the aged care sector provides important context on how the policy focus of the sector has evolved, and in turn instigated legislative and operational reform. It also lays the foundations for understanding how aged care providers have adapted their business models, particularly through the offering of a broader scope of services, both as an immediate response to legislative and policy changes, and also to position for medium to long-term market trends.

Figure 2.1 presents a timeline of the major developments in the aged care sector over the past 30 years, with a focus on the government reports and inquiries that have taken place over this period. A brief overview of three of the government reports and inquiries included in the timeline is provided in **Section 2.1.2**.

In the late 1980s and early 1990s, an increasing awareness of the ageing population and concerns around the capacity of the existing aged care system to cater for the future needs of older Australians developed, underpinned by the implications for the Federal Budget due to the expected growth in demand for aged care. These concerns laid the foundations for the 1993 Gregory Review which examined the funding structure for nursing homes and found the existing administrative and funding arrangements were incapable of responding effectively to the changing needs of older Australians and the aged care sector. The National Commission of Audit conducted in 1996 provided evidence in support of the case for increased efficiencies in the aged care system and expanding consumer choice.

The passage of the *Aged Care Act 1997* through Parliament introduced fundamental structural changes to the aged care system, with the funding system simplified so as to make it easier for more providers, including for-profit providers, to enter the residential aged care market. However, concerns about the sustainability of the aged care system and the cost to the Federal Budget remained. In 2005, the House of Representatives Standing Committee on Health and Ageing established an inquiry to explore long-term strategies to address demands associated with the ageing of the population. While the terms of the inquiry were broad and formal aged care was a relatively small part of the inquiry, a key finding was the need for better integration of services at all levels to achieve person-centred care.

Figure 2.1 Timeline – Major Development in the Aged Care Sector



Source: ACIL Allen

The National Health and Hospitals Reform Commission was tasked in 2009 with developing a long-term health reform plan for Australia. A key recommendation, which was subsequently agreed through the Council of Australian Governments in 2011, was the Commonwealth Government assumed full responsibility for the public funding of aged care services. Through the process of the Commonwealth Government formally assuming responsibility for aged care, the states and territories and local government have withdrawn from planning, funding, and system coordination. This reform was fully implemented in 2018 when Western Australia joined the national framework. In the period following the Productivity Commission *Caring for Older Australians* inquiry in 2011, the Commonwealth have centralised administration and regulation, and fragmented it across the Aged Care Quality and Safety Commission, the Aged Care Financing Authority and the Department of Health. In 2017, the Final Report of the independent review of the Living Longer Living Better (LLLB) reforms was released. The LLLB reforms refer to the changes to the aged care system recommended by the Productivity Commission in the *Caring for Older Australians* inquiry. The review was conducted by David Tune AO, PSM and found that the LLLB reforms have been successful in taking Australian aged care further along the road towards a consumer demand-driven and sustainable system that will meet both current and future aged care needs. The review also identified the need for further reforms in information, assessment, consumer choice, means testing, and equity of access.

In 2017, the WA Government commissioned the Sustainable Health Review to prioritise the delivery of patient-centred, high quality and financially sustainable healthcare across Western Australia. The Final Report of the Sustainable Health Review was released in 2019. A key recommendation of the Sustainable Health Review is the need to 'transform the approach to caring for older people by implementing models of care to support independence at home and other appropriate settings, in partnership with consumers, providers, primary care and the Commonwealth. Underpinning the implementation of this recommendation, among a range of other action items, is the need to negotiate with the Commonwealth to address the significant shortfall in residential aged care places in WA by adopting a flexible approach to ensuring there are enough places to meet population needs. Currently however, the WA State Government plays a limited role in the funding of aged care sector, contributing a total of $5.6 million to residential and home care service in 2019-20. The Transition Care Programme is a joint Commonwealth - State Government

funded program and may enable the State to play a more active role in the aged care sector going forward.

At a high level, the recommendations from government reports and inquiries over the past 30 years have put the aged care sector on a pathway away from an institutional service model and towards a more consumer-driven and market-based aged care system. In addition, a growing proportion of aged care providers have extended their service offering into retirement living, disability services, social housing and commercial services. Recent government reports and inquiries, namely the Carnell-Paterson Review and the Royal Commission into Aged Care Quality and Safety, have focused on the adequacy of regulatory processes to detect issues relating to quality and safety.

In 2020, aged care providers along with the broader health and social services sector, were presented with a set of unique challenges linked to the COVID-19 pandemic. While the health response to COVID-19 in WA has been constrained as a result of the comparatively limited number of confirmed cases and community transmission, as in other states and territories in Australia aged care providers in WA have established extensive operational procedures to ensure the safety of their residents and staff against the spread of the COVID-19 virus. While the enhanced operational procedures have impacted residential care services to the greatest extent, the delivery of home support and home care services have also been impacted. In conjunction to managing enhanced operational procedures, aged care providers have also sought to ensure that residents at residential care facilities have continued to be engaged in the local community and enjoying social activities.

2.1.2 Government Reports and Inquiries

There have been numerous government reports and inquiries calling for reform in the aged care sector over the past 30 years. Many of the issues identified in previous reviews and inquiries persist, despite the actions of successive governments. It is likely legislative change stemming from the inquiries will require aged care providers to increase their internal resources, both in terms of the scale and roles undertaken by their work force, as well as equipment and capital needs.

In this section, ACIL Allen have provided a high-level summary of three of the major government reports and inquiries that have taken place over the past decade.

Productivity Commission: Caring for Older Australians (2011)

In the early 2000s there was a renewed focus by all levels of government on home and community care. However by the end of the decade, despite attempts at streamlining and rationalising the system particularly in the provision of more intensive support for people with higher care needs, questions began to grow around the long-term sustainability of the system. As a result, the Australian Government tasked the Productivity Commission with inquiring into Australia's aged care system.

At a high level, the Productivity Commission favoured de-regulation and market-based measures in many areas of the aged care system, however it recommended that quality and safety standards and oversight remain in Government control.

The key recommendations from the Productivity Commission review relating to funding, regulatory and policy settings include:

— the establishment of an Australian Aged Care Commission responsible for quality and accreditation

— increased consumer contributions to care and accommodation costs, with protections for the family home and a safety net system for those with limited financial means

— providing care services based on individual need, with a focus on reablement

— removing limits on the number of residential places and care packages

Review of National Aged Care Quality Regulatory Processes (2017)

This review, carried out by Ms Kate Carnell AO and Professor Ron Paterson ONZM, was instigated by the revelations of abuse and neglect at the Oakden Older Persons Mental Health Facility in South Australia. The review explored why the Australian Government's regulatory processes failed to detect the systemic and longstanding failures at the Oakden facility and found that 'current regulatory mechanisms do not consistently provide the assurance of quality that the community needs and expects'.

The review recommended a number of changes to the aged care regulatory system including:

— better coordination of regulatory functions through the establishment of a single agency that regulates safety and quality in aged care – the Aged Care Quality and Safety Commission
— expanded intelligence-gathering capacity, including capturing resident, family and staff views, contemporising risk / quality indicators, increasing reporting of risk indicators and serious incidents and restraint practices by service providers, and developing risk profiling capability
— a better system for sharing information on provider performance with the public and aged care service providers to promote service improvement, including developing performance benchmarking and a star-rated system for providers
— changes to accreditation, compliance monitoring and complaints-handling processes to make them more responsive to emerging issues with care quality, including unannounced accreditation visits and increased powers of the Complaints Commissioner

The Australian Government announced broad support for the recommendations of the review, and have established the Aged Care Quality and Safety Commission.

Royal Commission into Aged Care Quality and Safety (2021)

The Royal Commission into Aged Care Quality and Safety has initiated public scrutiny on the operational processes and procedures of aged care providers, and is set to ensure the aged care sector is better equipped to suitably cater for the needs of ageing population. A number of the specific themes investigated in the Royal Commission, such as clinical and personal care, quality of care, palliative care, dementia care and regulation, have been considered through previous reviews and inquiries and have informed the direction of the Royal Commission's investigations.

In February 2021, the Royal Commission into Aged Care Quality and Safety presented its Final Report. At a high level, the 148 recommendations lay the foundations for a complete overhaul of the aged care system, centred on reforms relating to quality, flexibility and consumer control. While there was disagreement between the Commissioners with respect to the vehicle by which changes are delivered and funding models, the Commissioners were united on the need for major structural reform.

The recommendations of the Final Report address some of the following headline areas:

— **Governance of the new aged care system**: The Commissioners outline alternative approaches to govern the new aged care system. One approach is an Independent Commission model similar to the NDIA (Commissioner Pagone) and the other approach is a Government Leadership model (Commissioner Briggs). Further recommendations are for a Senior Cabinet Minister to be responsible for aged care and the Department of Health to be renamed as the Department of Health and Aged Care (under the Government Leadership model).

- **Legislation:** The Final Report recommends a new Aged Care Act providing a universal right to high quality, safe and timely support and incorporating reforms recommended throughout the Royal Commission.
- **Clearing of the Home Care waitlist**: The Final Report proposes clearing the home care waitlist by 31 December 2021, with all new entrants after this point to wait no longer than one month for a package.
- **Minimum staffing levels and qualifications**: To address concerns relating to the adequacy of staff resourcing to cater for a highly variable client base, the Final Report recommends minimum staffing hours linked to future funding. This approach was adopted as opposed to fixed staffing ratios, which were determined by the Commissioners to be linked to the risk of instituting rigid compliance structures, despite advocacy for this approach through some submissions to the Royal Commission. The Final Report includes recommendations which encourage better renumeration, sector promotion, training and professional development, in part due to the recognition of the limited availability of nurses in the aged care sector.
- **Transition away from refundable accommodation deposits (RADs)**: The Final Report discusses the unreliable nature of RADs as a capital financing mechanism and the risk it presents for provider liquidity. It is agreed by both Commissioners that a transition away from RADs should occur, however there is a lack of alignment on the timeframe as to when this should occur.
- **Younger people in residential aged care**: The Final Report recommends the removal of young people with disabilities from residential aged care by 1 January 2025.
- **Revision of Aged Care Quality Standards:** The Final Report recommends the National Health Reform Act 2011, which governs hospital standards, is amended to establish the Australian Commission on Safety and Quality in Health and Aged Care (ACSQHAC) to take on the functions of formulating standards, guidelines and indicators relating to aged care quality and safety.

2.2 Aged Care Sector Overview

2.2.1 Service Types

Australia has three main aged care programs, ranging from low-level at-home support to high-level residential care. There are also a range of smaller aged care programs catering for specific needs such as respite care and 'flexible care' which sit across the full severity continuum of client health needs.[3] These programs are provided by a number of the participating aged care providers for this study, however are not profiled in this section alongside the three major aged care service types of home support, home care and residential care.

Other services such as retirement living, disability care, social housing and commercial services are also provided by a growing share of aged care service providers. These providers have sought to build an integrated business model through the provision of these other services by building off shared labour and infrastructure requirements, as well as expertise in caring for different levels of health needs.

As consumers of aged care services get older, the service types they access change. The Pathways in Aged Care (PIAC) link map, managed by the AIHW, provides important insights on how people use aged care services as they get older, as well as the entry point for people

[3] Flexible care includes transition care, short-term restorative care, and the National Aboriginal and Torres Strait Islander Flexible Aged Care Program.

accessing aged care services for the first time. PIAC is underpinned by an integrated dataset of over 5 million people to analyse how people used aged care services in the period between July 1997 and June 2014.

The AIHW found that people took over 1,000 different pathways into aged care, but 76 per cent had first accessed home and community care (home support).[4] The three most common aged care pathways for 54 per cent of the 2013-14 cohort were:

— 26 per cent used home support services, then went into residential care

— 18 per cent used home support services, then respite care, then went into residential care

— 10 per cent went straight into residential care

The PIAC study highlights a clear pattern of 'moving up' through aged care programs, beginning with entry level programs to progressively higher levels of support and residential aged care as individuals get older. In addition, there is evidence within the study of people moving back and forth between programs as their need for care and support changed over the study period.

Outlined in the remainder of this section is a brief overview of the three major service types of home support, home care and residential care.

Home Support

Home Support, delivered through the Commonwealth Home Support Programme (CHSP), provides services for those who require basic services to assist with remaining in their own homes and staying connected with the local community. On 1 July 2018, HACC services in Western Australia were incorporated into the CHSP. Access to CHSP services is coordinated through My Aged Care and Regional Assessment Services. The CHSP is composed of the four sub-programs of community and home support, carer relationships and carer support, assistance with care and housing and service system development.

At a national level, CHSP services are predominantly provided by not-for-profit organisations (69 per cent), followed by government providers (24 per cent).[5] For-profit providers represent only 7 per cent of organisations delivering CHSP services. In Western Australia, there were a total of 60,066 clients that received home support services during the 2019-20 financial year.

Home Care

Home Care provides services for those who have greater care needs and wish to remain living at home. The Home Care Packages Program commenced in 2013, replacing the former home care programs of Community Aged Care Packages (CACPs), Extended Aged Care at Home (EACH) packages and Extended Aged Care at Home Dementia (EACH-D) packages.

Individuals with a home care package may use it to purchase personal services (eg. help with showering), support services (eg. housing cleaning), care related service (eg. physiotherapy) and care management. Home care packages are categorised across four levels, with level 1 for people with lower care needs and level 4 supporting people with higher care needs. Access to a home care package is coordinated through the Aged Care Assessment Team (ACAT). If an individual is assessed as eligible for home care, they're placed on the National Prioritisation System and offered a package when one becomes available.

[4] AIHW – Pathways to permanent residential aged care in Australia: a pathways in aged care (PIAC) analysis of people's aged care program use before first entry to permanent residential aged care in 2013-14

[5] ACFA – Annual Report on the Funding and Financing of the Aged Care Industry – 2020

At a national level, home care services are predominantly provided by not-for-profit organisations (52 per cent).[6] For-profit organisations accounted for 36 per cent of home care service providers in 2018-19, a significant increase on the 12 per cent share in 2013-14. In Western Australia, there were 232 aged care providers offering home care services to a total of 11,049 clients as of 30 June 2020.[7] Total clients receiving home care services in WA has increased by 64 per cent since 2016-17.

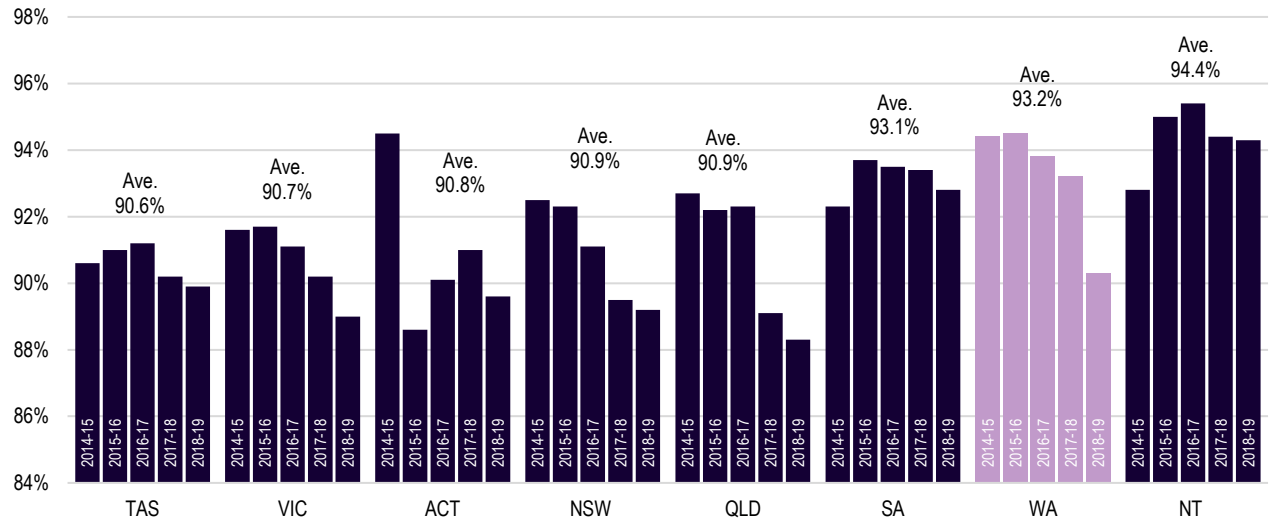
Residential Care

Residential care provides accommodation and 24 hour care for those who have greater care needs and choose, or need to be cared for, in an aged care facility. Residential care places are released by the Commonwealth through the Aged Care Approvals Round (ACAR).

In the period from when a residential care place is allocated to an approved provider and an existing facility is extended or a new facility is built, it is categorised as a 'provisional'. The residential care place becomes 'operational' once it is available to be occupied by a resident. ACFA estimates the average time it takes providers to bring residential care places to 'operational' status at around four years. As at 30 June 2019, across all states and territories, Western Australia has the highest proportion of provisionally allocated residential care places as a share of all allocated places at 27 per cent. Changes introduced in 2016 limit the provisional allocation period to four years. On top of this, up to two extensions of 12 months each may be granted by the Department of Health, as well as further extensions in exceptional circumstances.

As presented in **Figure 2.2**, Western Australia recorded the second highest average occupancy (93.2 per cent) for residential care over the five-year period between 2014-15 and 2018-19. The **high average occupancy in residential care facilities highlights the challenges expressed by WA aged care sector stakeholders in meeting demand and activating the provisionally allocated residential care places through new capital projects due to high construction costs**.

Figure 2.2 Five-year average occupancy in residential care, by state and territory, 2014-15 to 2018-19



Source: Aged Care Financing Authority (2020)

[6] ACFA – Annual Report on the Funding and Financing of the Aged Care Industry – 2020

[7] Commonwealth Government. 2020. *Aged Care Data Snapshot 2020*. Accessed online at http://www.health.gov.au/

Since 2014-15, at a national level, the number of providers of residential care services has declined by 10.2 per cent due to consolidation of providers in the sector, while the number of permanent residents has increased by 5.7 per cent. The majority of residential care providers (63 per cent) in Australia are operating only one residential care facility, highlighting further scope for consolidation in the aged care sector in the short to medium term.

At a national level, not-for-profit organisations account for the largest share of providers of residential care services at 56 per cent in 2018-19, followed by for-profit organisations which account for 33 per cent. The remaining providers are state, territory and local government-owned organisations.

In Western Australia, there were 247 aged care providers offering residential care services to a total of 15,901 permanent residential aged care clients as of 30 June 2020.[8] Total aged care providers offering residential care services has increased by 2.9 per cent since 2017-18, while total permanent clients receiving residential aged care services in WA has increased by 7.8 per cent since 2016-17.

2.2.2 Government Funding

The Commonwealth Government has oversight of aged care at the system level and regulates the supply of aged care by specifying a national provision target of subsidised operational places. Demographic change and population ageing will increase demand for aged care services, requiring the Commonwealth to be adaptable in the allocation of operational places to meet this demand.

The aged care system is capped, meaning the Australian Government supports only certain number of people at a given time, regardless of how many have been independently assessed as needing care. This approach seeks to ensure balance in the provision of services between metropolitan, regional, rural and remote areas, as well as among people needing differing levels of care.

The Australian Government manages the supply of aged care places by specifying a national target provision ratio of subsidised aged care places. As at 30 June 2020, the national target provision ratio is 78.4 operational aged care places for every 1,000 people aged 70 years and over.[9] The overall target provision ratio comprises residential care, home care, and restorative care places, however the reported 'operational provision ratio' refers only to places assigned to approved providers.

As presented in **Figure 2.3**, in 2018-19, Australian Government total expenditure on aged care was $19.9 billion, up from $18.1 billion in 2017-18.[10] Residential care receives the largest proportion of total Commonwealth expenditure on aged care (65.5 per cent).

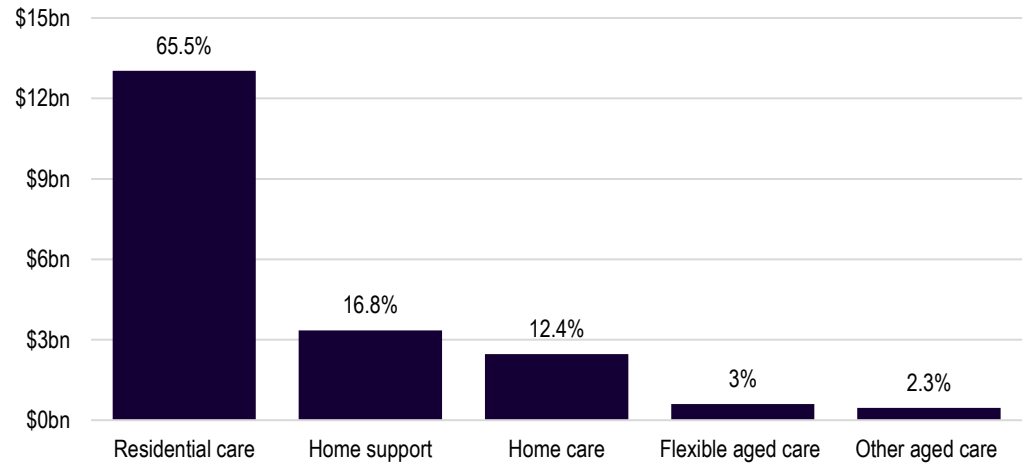
Funding for residential care is made up of operational funding and capital financing. Operational funding supports day-to-day services, such as nursing and personal care, and is provided through a combination of Australian Government and resident contributions. Capital financing supports the construction of new residential care facilities and the refurbishment of existing facilities. Capital financing is delivered through multiple sources such as lump sum accommodation payments by residents, capital grants through the ACAR, investors, donations and endowments, and loans from financial and other institutions.

[8] Commonwealth Government. 2020. *Aged Care Data Snapshot 2020*. Accessed online at http://www.health.gov.au/

[9] 2019-20 Report on the Operation of the Aged Care Act 1997

[10] ACFA – Annual Report on the Funding and Financing of the Aged Care Industry – 2020

Figure 2.3 Australian Government Total Aged Care Expenditure, By Major Program, 2018-19



Source: Aged Care Financing Authority (2020) – p.12

The Commonwealth Government has identified opportunities to reform the funding model for aged care services. While reform of the Commonwealth funding model and broader aspects of aged care services is delivered with the intent of supporting the long-term sustainability of the sector, there are flow-on impacts for providers in navigating these transition periods. For instance, some residential care providers have attributed the uncertainty associated with significant ongoing reforms in the sector, along with margin pressure, to decisions on putting investment projects on hold. The extent of this issue is heightened by the existing wide variability in the financial performance of aged care providers. As a result, some providers have chosen to invest in activities other than residential aged care in order to obtain higher returns, as well as diversify their income streams.

Payment arrangements for home care services

A measure outlined in the 2019-20 Budget was to improve the way home care providers are paid Government subsidies on behalf of home care package holders, and to bring these arrangements in line with contemporary business practice. At present, home care providers are paid the subsidy for the consumer's full entitlement at the start of the month. Any amount that is not spent providing care and services to a consumer in a month is held by the provider as unspent funds to be drawn upon by the consumer in the future.

The change in timing of the Government subsidy from payment in advance to payment in arrears for services actually provided does not impact the overall amount available to the consumer, and would align with other Government programs, such as the NDIS.

As outlined in **Table 2.1**, ACFA was tasked with providing advice on how this new payment arrangement would impact on providers' finances and whether the transition would present any significant challenges to providers in proving services to consumers and their ongoing financial arrangements.[11]

[11] ACFA – Consideration of the financial impact on home care providers as a result of changes in payment arrangements (2020)

Table 2.1 Payment Arrangements for Home Care Services

Phase	ACFA Impact Assessment
Phase 1 – Home care subsidies being paid after the month (in arrears)	Most home care providers should be able to accommodate the cash flow impact of the change. It is possible, however, that some smaller providers operating in thin or difficult markets and under financial pressure may face challenges in dealing with the change.
Phase 2 – Providers only paid the subsidy for the goods and services they actually provide to the consumers	A potential risk for providers and the Government. This is primarily due to the extent of new system requirements for both providers and DHS to deal with the changes and how smoothly these systems operate.
Phase 3 – Subsidy payments to providers for a consumer reduced by a portion of the unspent package funds held by the provider for that recipient	This change will be complex and increase administration costs for both providers and DHS.

Beyond changes relating to the timing of Government payments, it is possible that over time other aspects of aged care services will align with the NDIS. The NDIS is underpinned by the approach of individualised service planning and funding. Under the NDIS, people with a disability receive supports that help them to pursue their goals, live independently if possible, and be included in the community as fully participating citizens. The rights-based model of the NDIS requires that entitlement is defined not merely by clinical or health needs. As a result, 'need' is defined more broadly to consider what a person needs to live a meaningful life and pursue their goals. A person's 'needs' should be 'reasonable and necessary'. Reasonable and necessary services should represent value for money, be effective and take account of family and friend careers and other government services provided to recipients and their families.

2.2.3 Workforce

The capacity, aptitude and capability of the aged care workforce is extremely important. People receiving aged care services should feel confident about the skills and abilities of the people who are caring for them and feel secure regardless of where they receive that care. An aged care workforce which is properly trained, appropriately paid and given the opportunity for professional development will not only provide good care to older people, but also make it easier for employers to attract and retain staff.[12]

The aged care workforce is composed of a high proportion of overseas born workers. The proportion in residential direct care was highest with 32 per cent of workers born overseas, while in home support and home care the proportion was 23 per cent.[13] Travel restrictions due to the COVID-19 pandemic have raised concerns about a possible shortage of workers in the aged care sector, particularly in the short to medium term, which is likely to be heightened by possible changes to staffing level requirements stemming from the Final Report of the Royal Commission into Aged Care Quality and Safety.

Historically, relative to other major sectors of the WA economy, such as mining and construction, the aged care sector has faced difficulties in attracting and retaining workers. While this can be primarily linked to the relatively lower wage rates, there are also other factors attributed to this including work-related stress, lack of career progression and up-skilling opportunities.

In September 2018, the Australian Government released the Aged Care Workforce Strategy consisting of 14 actions to grow the professional workforce and attract, train and retain workers in

[12] Royal Commission into Aged Care Quality and Safety – Interim Report

[13] National Aged Care Workforce Census and Survey – 2016

aged care services. The Aged Care Workforce Industry Council is responsible for stewardship of the Strategy and the development of an implementation plan.

In March 2020, the Australian Government announced funding of $235 million for a COVID-19 retention bonus for direct care workers in residential aged care and home care. Additional funding was also provided to upskill aged care workers in infection control, enable residential and home aged care providers to hire extra nurses and aged care workers and increase aged care staff and training to facilities during an outbreak.

2.2.4 Emerging Industry Trends

ACIL Allen has identified a range of emerging industry trends that will impact the aged care sector in the medium to long term. The emerging industry trends require consideration in order ensure the sustainability of the aged care industry against the existing challenges relating to the financial pressures on providers and the anticipated major changes stemming from the release of the Final Report of the Royal Commission into Aged Care Quality and Safety.

The emerging industry trends outlined in this section build off the broader social, economic and demographic trends impacting on future demand for aged care services.

Increasingly complex care needs

People demanding aged care services are living longer with more complex health conditions, including increasing numbers of people living with dementia. The most well-known form of dementia is Alzheimer's disease. There is uncertainty about the number of people living with dementia in Australia, however it is estimated by the AIHW there are 400,000 to 459,000 Australians living with dementia in 2020.[14] Dementia was the second leading cause of death in Australia in 2018, while the number of deaths where dementia was an underlying cause increased by 68 per cent between 2008 and 2017.[15]

People with dementia experience the intersection of health services and aged care services, with the condition causing substantial illness and high levels of dependency. Age is the strongest known risk factor for dementia with the majority of people developing dementia aged 65 years or more. Since 2008-09, the proportion of people entering residential care with a diagnosis of dementia has been consistently between around 43-45 per cent of all permanent residents entering care.[16] Without a significant breakthrough in treatment, the number of people with dementia is expected to double by 2050, placing greater demand on Australia's health and aged care systems.[17]

The care required for people in residential aged care with dementia requires staff with specialist training, with evidence pointing to specialist training improving the quality of dementia care. One study has found that staff training can reduce behavioural and psychological symptoms.[18]

Changing consumer expectations

Medium to long-term economic and demographic changes are likely to impact on the type of aged care services demanded, as well as consumer expectations on service quality. In general, future generations are likely to be wealthier than current generations and consequently will be more

[14] Australian Institute of Health and Welfare (2020) – Australia's health 2020

[15] Australian Institute of Health and Welfare (2020) – Australia's health 2020

[16] ACFA – Annual Report on the Funding and Financing of the Aged Care Industry – 2020

[17] Australian Institute of Health and Welfare (2020) – Australia's health 2020

[18] A Spector, A Orrell and J Goyder, 'A systematic review of staff training interventions to reduce the behavioural and psychological symptoms of dementia' (2013)

demanding in the range and quality of services they're seeking, along with having greater capacity to pay for these services. Over the past five years, there has been an increase in the number of aged care service providers in WA offering residential care facilities at a premium or high-end standard. Historically, this level of service offering has been more common for retirement living facilities. It is foreseeable that in the future current residents of premium or high-end retirement living will demand a similar level of service in a residential aged care facility, as their health needs change to necessitate this transition.

Elderly people, as well as their families and carers, are looking for tailored services and a personalised and seamless experience. This is particularly important during the transition process between service types. As outlined in **Section 2.2.1**, it is not an infrequent occurrence for an elderly person to move back and forth between service types as their health needs change. As a result, aged care providers will need to continue to allocate resources towards individualised planning services that support the transition between service types and regular communication with families and carers during this process.

In the aged care market, there are increasingly more providers that consumers can choose from, particularly for home support and home care. A growing number of aged care providers and the competition this creates makes the choice to switch aged care provider easier in the event that service quality or value for money expectations have not been met.

Finally, consumer expectations will likely also increase in the short to medium term as a result of the anticipated operational and regulatory reforms stemming from the Royal Commission into Aged Care Quality and Safety.

The importance of changing consumer expectations to be recognised as an emerging industry trend across the dimensions outlined above is underpinned by the pathway the aged sector has been moving towards over the past 30 years away from an institutional service model and towards a more consumer-driven and market-based aged care system as has occurred in disability services.

Modelling Methodology and Assumptions 3

This section of the report provides an overview of the modelling methodology and data that has been collated from the participating aged care providers as well as public information to estimate the economic contribution of the aged care sector to the Wester Australian economy.

3.1 Methodology

To estimate the current and future economic significance of the Aged Care sector in WA, ACIL Allen has undertaken an economic contribution assessment for the 2019-20 financial year (FY20) and for the subsequent ten-year period from FY21 to FY30 based on the financial information provided by participating Aged Care providers as well as publicly available publications.

3.1.1 Modelling Framework

Economic Contribution Modelling

The FY20 economic contribution of the Aged Care sector in WA is examined using ACIL Allen's Input-Output (IO) modelling framework, with results produced in the form of the direct and indirect contribution of the sector to the Western Australian economy in terms of the contribution to:

- economic output (Gross State Product);
- income (wages and salaries earned);
- employment (Full Time Equivalent (FTE) jobs); and
- income taxation payments made to the Commonwealth Governments based on employment generated by the sector.

Further information on ACIL Allen's Input Output (IO) modelling framework is provided in **Appendix A.**

An economic contribution study takes the financial and employment data of the Aged Care sector organisations for the FY20 financial year to determine the overall size and scope or "footprint" on the economy. The economic contribution is calculated on the basis of the Aged Care sector's direct activities (such as surpluses generated and wages paid to employees) and indirect activities (such as flow on impacts from payments made to suppliers and goods and services purchased by employees) to determine the full extent of the flow-on economic contribution.

3.1.2 Key Assumptions

To support the IO modelling frameworks, ACIL Allen has established a set of key assumptions for this study. These assumptions include:

— Modelling of the FY20 financial year and projected ten-year period (FY21 – FY30) is completed using the combination of organisation-specific aged care provider financial information as well as publicly available sector data;

— Constant flat real prices, set at FY20 levels, over the forecast period to isolate the impact of changes in demand as opposed to fluctuations in prices;

— All values presented in this report are in real 2020 terms (inflation adjusted); and

— Annual modelling results are presented in financial years.

3.1.3 Data Inputs

The input data used for the economic contribution modelling in this report came from various sources to build up a comprehensive and reliable view of the sector in WA.

Source financial and operational information was collected from 12 aged care providers participating in the study. Each participant responded to a data request to provide financial information for the FY20 financial year as well as projections for the next 10 years. To protect the confidential information provided by participating members, ACIL Allen has aggregated all results across the data categories presented in **Table 3.1**.

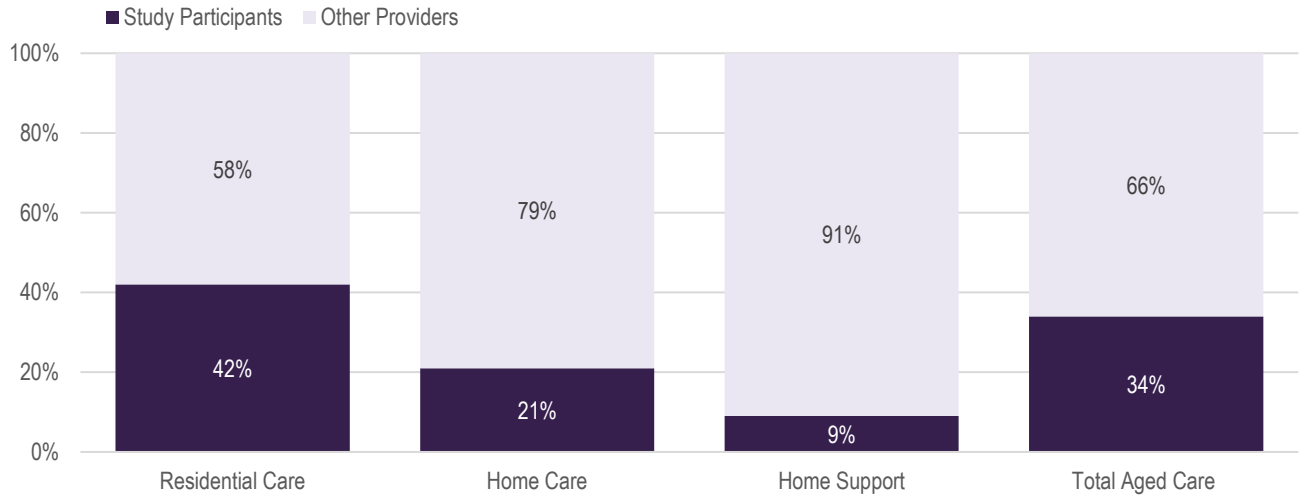
Table 3.1 Key Data Inputs

Data Category	Description	Why it's needed?
Revenue	Actual and projected revenue earned for each service line and itemised to a level determined by each participant	Input used in calculating Gross Product.
Operational Expenditure	Actual and projected operating expenditure for each service line and itemised to a level determined by each participant	Breakdown of operating expenditure is coded to individual industries and share of local production to understand how the economic activity flows through the economy over the study period.
Capital Expenditure	Actual and projected capital expenditure itemised to a level determined by each participant	Breakdown of capital expenditure is coded to individual industries and share of local production to understand how the economic activity flows through the economy over the study period.
Operational Employment	Actual and projected FTE numbers for key employment categories itemised to a level determined by each participant.	Provides estimates of the operating workforce directly employed by providers in the sector by occupation classification. The contribution of indirect employment from activities of the Aged Care sector are estimated using ACIL Allen's IO modelling framework.

Source: ACIL Allen

Figure 3.1 outlines the estimated market share (revenue-basis) that the study participants represented. In total, the providers are estimated to represent 34 per cent of the aged care market, with a higher overall percentage of residential care services (42 per cent) offset by lower overall market shares for home care (21 per cent) and home support (nine per cent).

Figure 3.1 Market share, by service line



Source: ACIL Allen, based on survey response data and the Australian Government Aged Care Funding Authority (2020) Eighth Report on the Funding and Financing of the Aged Care Industry.

To capture those providers in the aged care sector that did not participate in the study, sector-wide information was also gathered. The primary source of information was the Aged Care Financing Authority (ACFA), which provides a detailed breakdown of the estimates for the aged care sector in Australia. The remainder of this section outlines the assumptions and data used in estimating the size of the aged care sector in WA.

3.2 Projected Activity and Expenditure Profiles

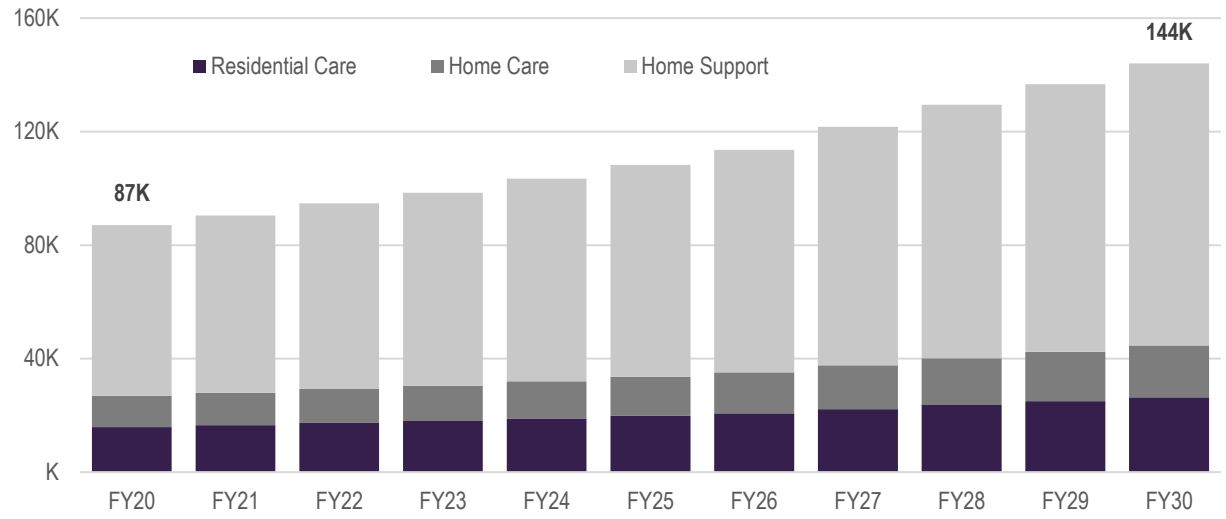
3.2.1 Consumer Demand

The demand for aged care services over the next ten years is a critical input into the economic modelling, as demand underpins the levels of operational and capital expenditure, income, and employment.

Current consumer data was available from the Australian Department of Health[19]. Based on the consumer age profile and age-based population projections for WA, ACIL Allen undertook modelling to forecast consumers of aged care services over the next ten years, as show in **Figure 3.2**. The growing demand is underpinned by an aging population – the cohort of those aged over 80 is expected to grow three times faster than the general population over this period.

[19] Commonwealth Government. 2020. *Aged Care Data Snapshot 2020*. Accessed online at http://www.health.gov.au/

Figure 3.2 Projected annual growth in consumers of aged care services



Source: ACIL Allen, based on Western Australian Planning Commission (2018), Western Australia Tomorrow, Population Report No. 11, Medium Term Population Forecasts for Western Australia 2016 to 2031. Note: consumer may access more than one service type – therefore these estimates are not necessarily unique individuals.

3.2.2 Operational Revenue

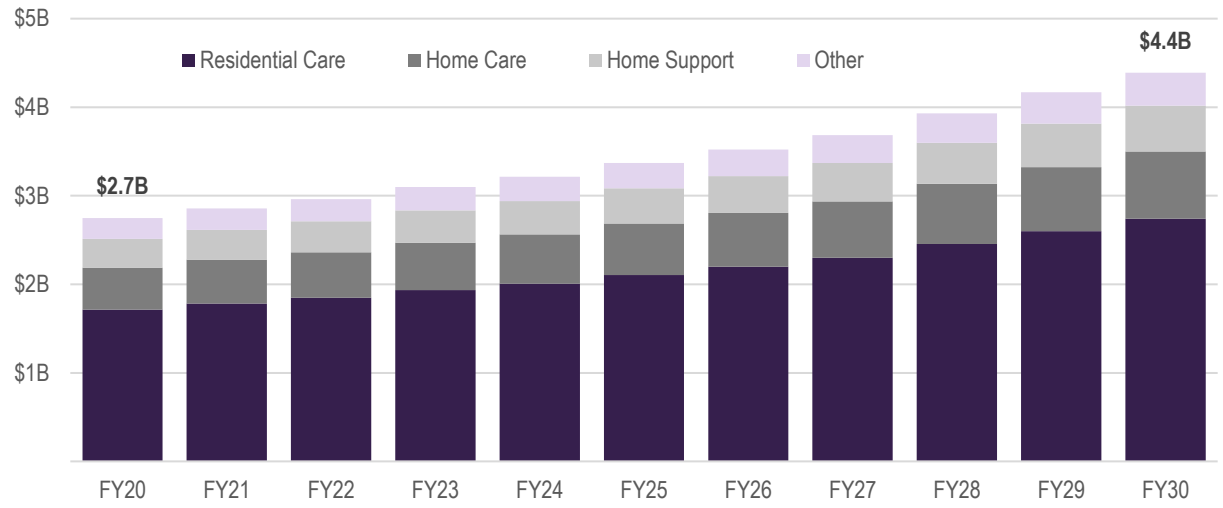
Providers in the **WA aged care sector are estimated to have generated $2.75 billion in revenue in FY20**.

This includes revenue generated from non-aged care related services such as disability care and retirement living. This revenue represents an estimate of the social and health services aged care providers deliver beyond those strictly within the aged care sector and have been estimated based on data provided directly by study participants. These activities outside of aged care services are estimated to generate $233.5 million in revenue (9 per cent of total revenue).

The aged care sector collects its revenue from two key sources – the Federal Government (73 per cent) and consumer fees (21 per cent). Other sources of revenue, such as investment activities account for the remaining 6 per cent of revenue.

The highest share of revenue from aged care service lines is generated in residential care (68 per cent), followed by Home Care (19 per cent) and Home Support (13 per cent). Within the service lines, over 90 per cent of revenue collected in Home Care and Home Support is from government sources. On the other hand, government revenue accounts for just over 70 per cent in residential aged care.

Figure 3.3 Projected annual aged care revenues, $B



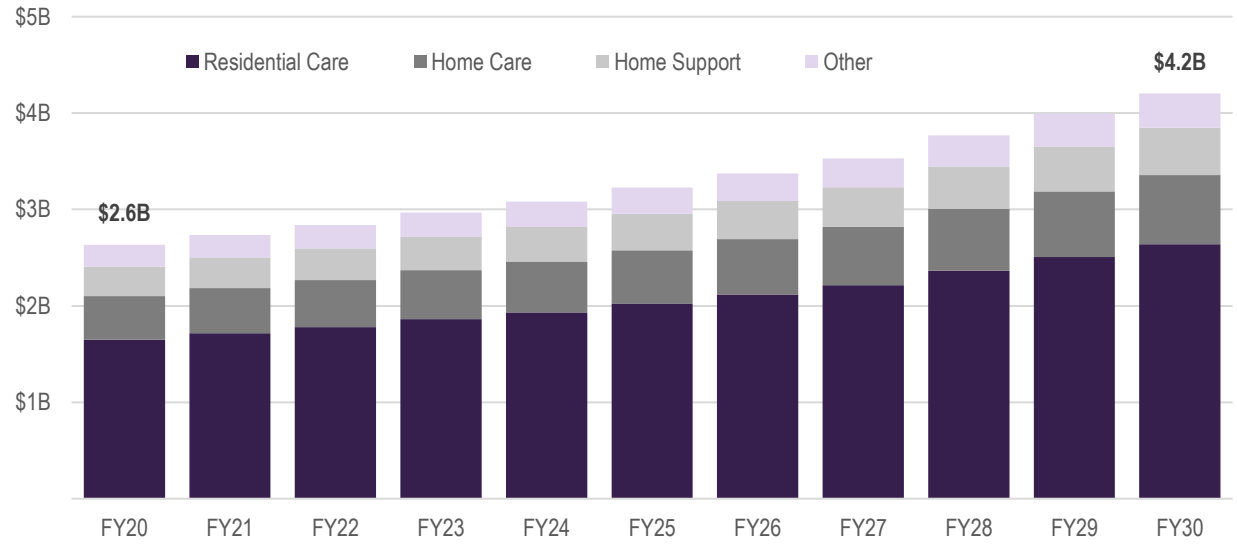
Source: ACIL Allen

3.2.3 Operational Expenditure

A combination of data submitted by study participants and public reports were used to estimate the profile of operating expenditures. Consistent with the trends in consumer demand, expenditure is projected to increase in all service lines over the period.

Across the aged care sector, **72 per cent of expenditure is directed towards salaries and wages for employees**. Consistent with revenue profile, activities outside of aged care services are estimated to account for 9 per cent of total expenditure and within the aged care service lines, the highest share of expenditure is on residential care (69 per cent), followed by Home Care (19 per cent) and Home Support (13 per cent). Over study period, expenditure is projected to grow by a cumulative annual growth rate of 4.8 per cent.

Figure 3.4 Projected annual aged care expenditure, $B



Source: ACIL Allen

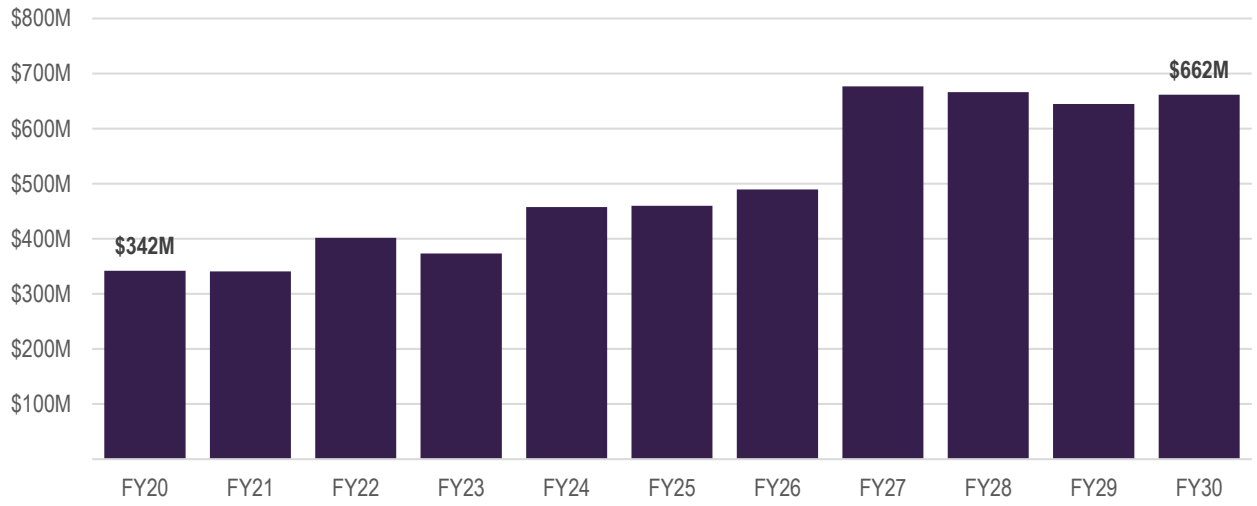
3.2.4 Capital Expenditure – Residential Aged Care

The forecast capital expenditure profile was also based on a combination of data submitted by study participants and public reports. The capital expenditure also follows the trends in consumer demand. The number of Western Australian's requiring residential care is projected to grow by 66 per cent from 15,901 in FY20 to 26,307 in FY30. This growth equates to an additional almost 90 residential care beds required every month over this period.

The additional demand will require significant capital expenditure over the period – modelling undertaken by ACIL Allen indicates an **estimated $5.2 billion will be invested in new and rebuilt residential care places in WA over the next decade FY21 – FY30**.

The timing an annual magnitude of this capital expenditure activity is presented in **Figure 3.5**.

Figure 3.5 Projected capital expenditure in residential care



Source: ACIL Allen

In total, these estimates also align to the forecast capital expenditure published by the Aged Care Financing Authority. The ACFA estimate that across Australia, $55 billion will be invested in new and rebuilt residential care places over the next decade. Western Australia currently represents between 8.5 – 9.5 per cent of the total Australian Aged Care sector on a participant and revenue basis. Applying this proportion to the investment requirement of $55 billion produces an estimate of between $4.7 billion and $5.2 billion for WA – a range for which the estimate of $5.2 billion applied in this study falls.

It should also be noted that estimates for the cost to build residential aged care beds vary and, as with any capital project, will depend on the quality of the infrastructure, the location of the build, the scale of the development and the supporting infrastructure required. One estimate provided in the Aged Care Royal commission[20] indicated that the average cost of building a new residential aged care bed in Australia is around $250,000. However, it was not clear whether this estimate included the cost of land, or the cost of supporting infrastructure. An analysis of current residential care projects in WA revealed a cost range of between $180,000 and $670,000 per bed[21]. Drawing on a

[20] The Royal Commission into Aged Care Quality and Safety (2020), Capital Financing for Residential Aged Care

[21] Business News (2020), Selection of Aged Care Developments

number of publicly available analyses and data sources, ACIL Allen suggests a reasonable estimate for total development costs in WA is $310,000 per residential care bed.

3.2.5 Operating Position

The operating position (gross operating surplus / deficit) is component of the direct gross product – a measure that is presented in the economic impact analysis in the following sections.

In this analysis, the entire **sector was estimated to run an operating surplus of $114.9 million, equivalent to 4.2 per cent of revenues**. However, underlying this sector average lies a high degree of variation between providers.

In a recent quarterly survey[22] of 1,140 residential care homes nationally, it was found that providers incurred an average operating loss of $5.60 per day but that 48 per cent generated an operating surplus, when excluding COVID-19 funding[23].

While this detail was not available at a state level, there were variations between state averages. Providers in WA reported the most favourable results nationally, although the **average operating surplus for the state was equivalent to just 3.0 per cent of revenue**.

While detail cannot be shared in the report given the confidentiality restrictions, a similar range of operating positions were found when analysing data submitted by the participants of this study.

3.2.6 Operational Employment

The aged care sector is a significant employer for Western Australians. As illustrated in **Figure 3.6**, there were an estimated 22,712 FTE jobs in the aged care sector in FY20. An estimated 65 per cent of these were in direct care roles (such as registered and enrolled nurses and personal care attendants), with administrative role (such as corporate and clerical roles) accounting for 22 per cent and domestic roles (such as cleaners, caterers and maintenance workers) accounting for 13 per cent.

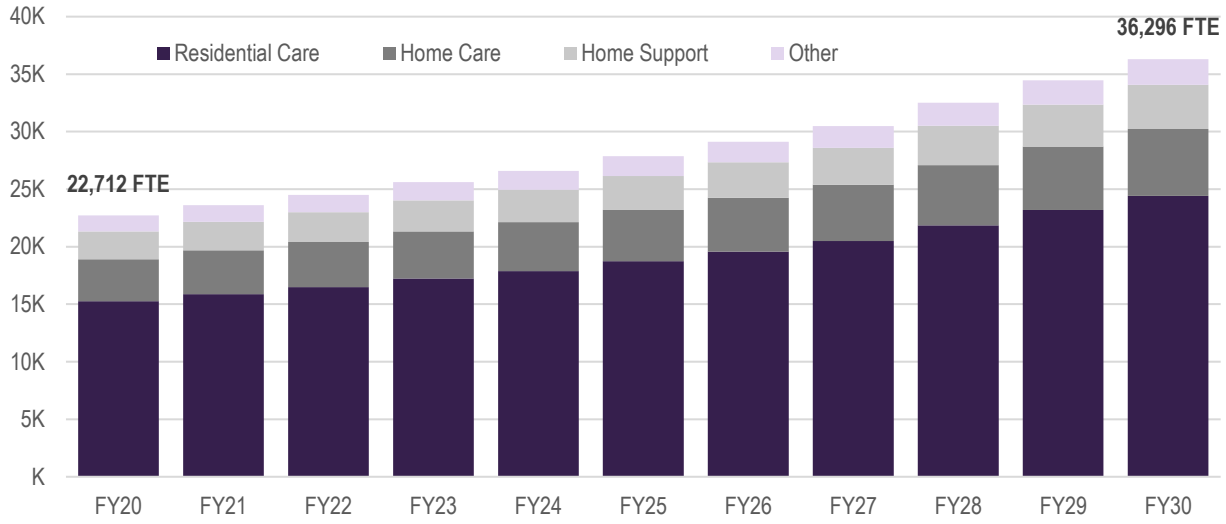
Given the casual nature of many of these roles, it is **estimated across the sector the average worker is employed in a 0.6 FTE role. Therefore, a total of 37,840 people were employed in the sector in FY20.**

The growing demand in the sector is projected to lead to an increase in the required workforce over the next 10 years. By FY30, the sector is projected to employ 36,296 FTE employees – which is an additional 13,585 FTE jobs (22,633 workers) that will be required in the aged care sector by FY30 beyond the levels currently employed.

[22] StewartBrown (2021), Aged Care Financial Performance Survey, 30 September 2020.

[23] When accounting for COVID-19 funding, the average operating position was a surplus of $2.60 and 56 per cent of providers generated a surplus.

Figure 3.6 Projected annual aged care operational FTE jobs



Source: ACIL Allen

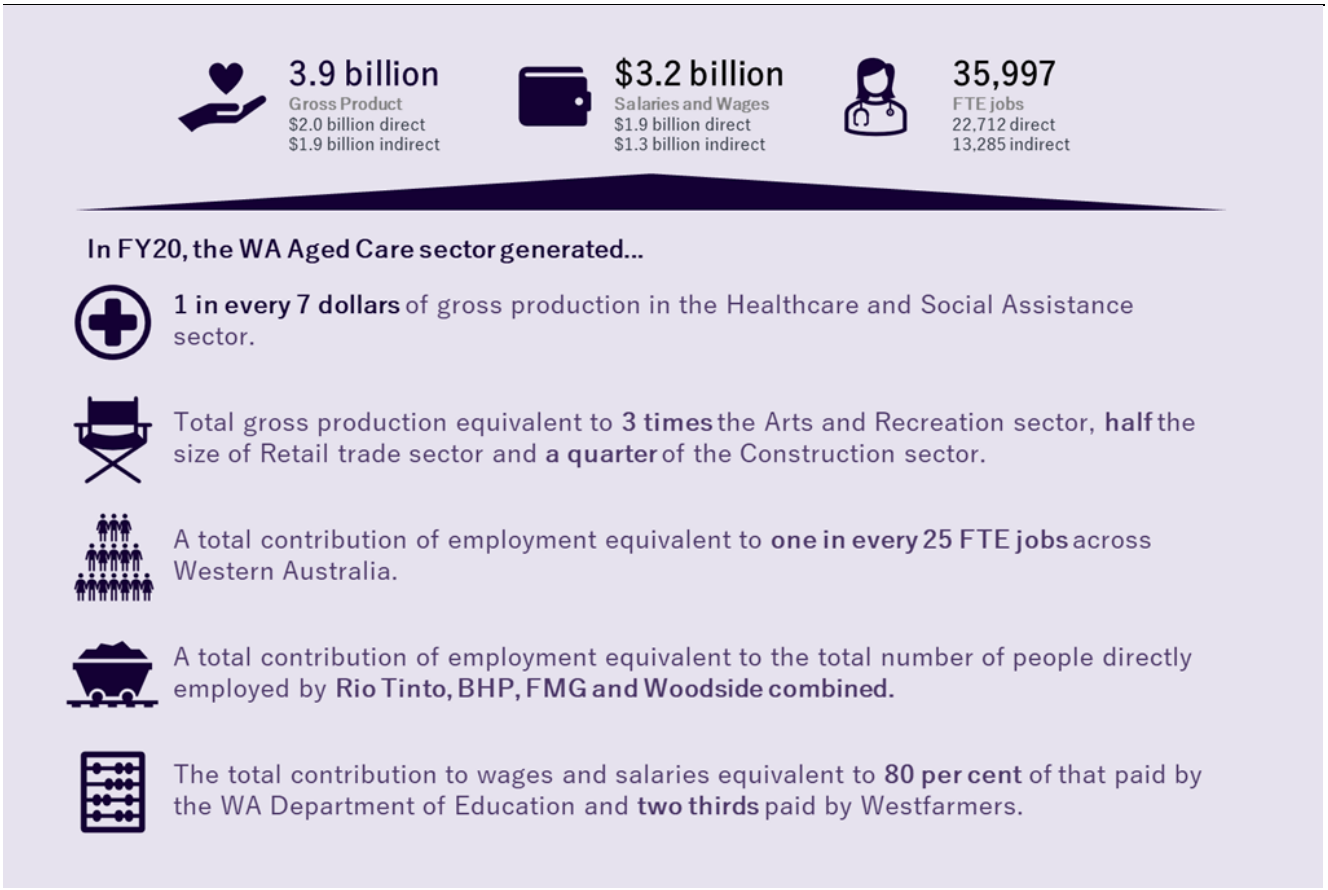
4 Economic Contribution of the Aged Care Sector

The results presented in this section articulate the economic contribution that the Aged Care Sector made to the Western Australian economy in FY20 using ACIL Allen's Input-Output modelling framework. The economic contribution has been measured in terms of the direct and indirect contribution to output (Gross Product), incomes (wages and salaries earned), employment (FTE basis) and taxation payments made to Commonwealth and Western Australian Governments.

4.1 Introduction

A summary of the significant contribution of the Aged Care sector to the WA economy is illustrated in **Figure 4.1** and discussed in further detail in this Section.

Figure 4.1 Economic Contribution of the Aged Care Sector FY20, Summary Results



Source: ACIL Allen

4.2 Gross Product

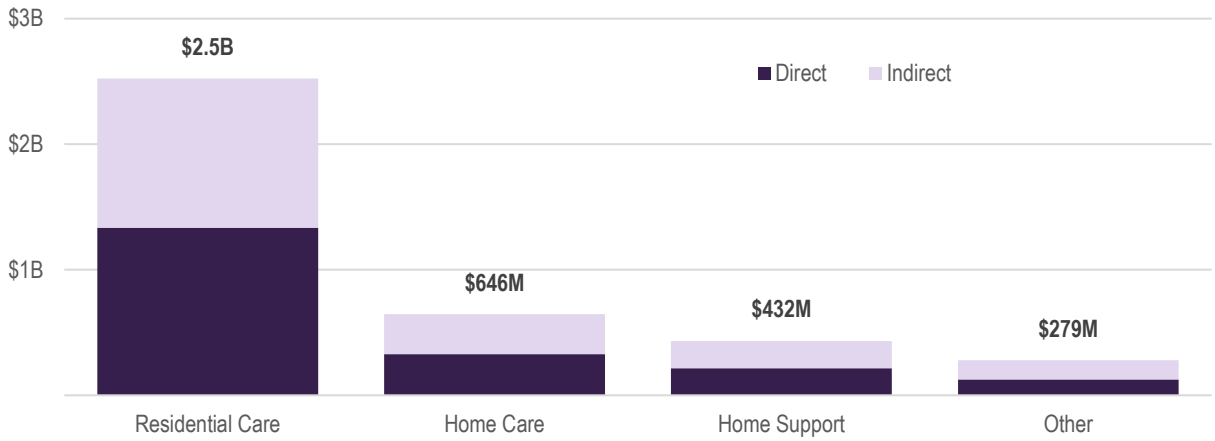
Aged Care directly accounts for 1 in every 7 dollars of activity across the Healthcare and Social Assistance sector.

The Aged Care sector is a significant component of the WA Economy. ACIL Allen estimates that the sector directly contributed $2 billion to the WA economy in 2019-20 – **directly accounting for one in every seven dollars of activity across the entire Healthcare and Social Assistance sector ($15.1 billion)**.

When combined with the indirect economic activity generated by the Aged Care Sector ($1.8 billion), ACIL Allen estimates that its total contribution to the WA economy reached $3.9 billion in 2019-20. To put this value into perspective, total contribution of the aged care sector is **equivalent to 3 times the size of the Arts and Recreation sector**, **half the size of Retail trade sector and a quarter of the Construction sector**.

ACIL Allen estimates that for every $1 million of expenditure by the sector in delivering services and supports to its clients, an additional **$1.5 million in total gross product** is generated.

Figure 4.2 Gross Product Contribution, by Service Line ($million)



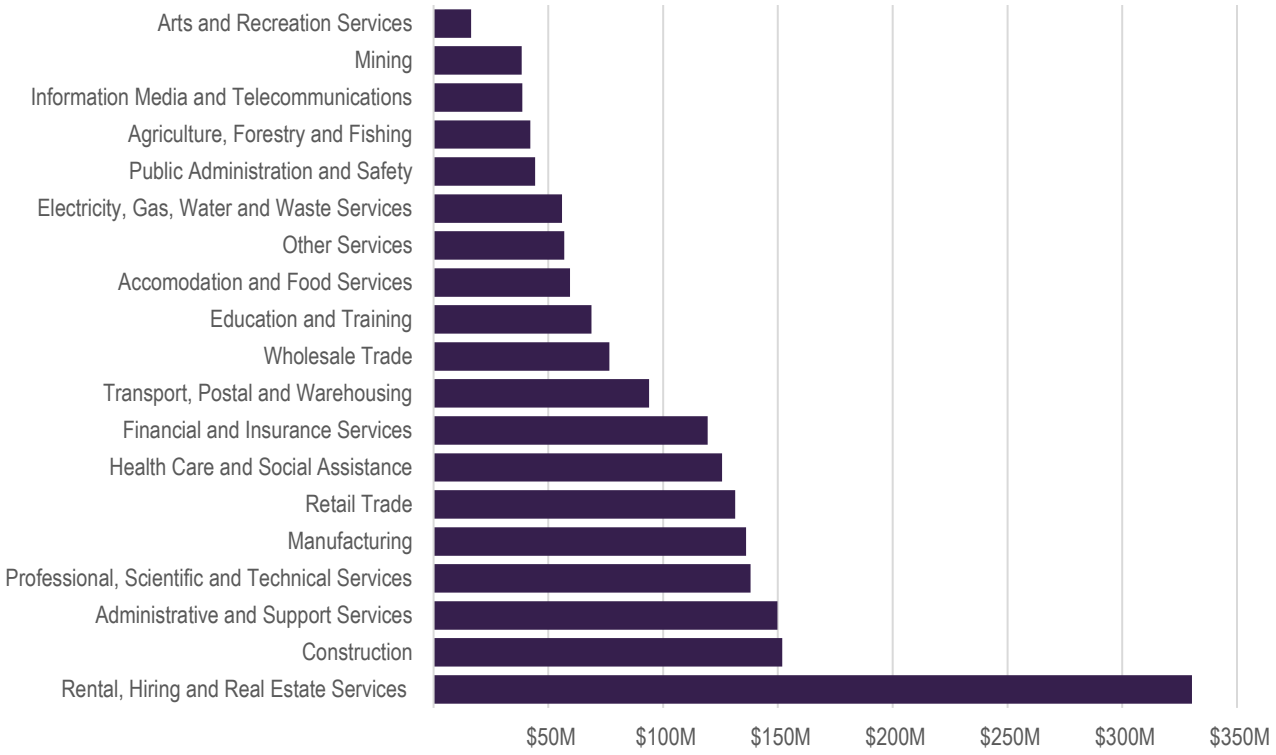
Source: ACIL Allen

The total contribution of the sector is equivalent to almost half of Retail trade sector and a quarter of the Construction sector.

The indirect contribution of the aged care sector is generated as a result of production and consumption induced economic activity throughout the economy. Production induced activity, which account for 30 per cent of the overall indirect contribution, arises from those firms supplying goods and services to the aged care sector. Consumption induced activity (70 per cent of total indirect contribution) arises from the economic activity generated by employees in the aged care sector spending their income.

Figure 4.3 outlines the sectors in which the indirect economic activity is taking place. Key sectors of the economy which benefit from the activities in the Aged Care Sector include Rental, Hiring and Real Estate Services (18 per cent, or $330 million in indirect economic benefits), followed by the construction sector (8 per cent, $151 million) and administrative and support services sector (8 per cent, $150 million).

Figure 4.3 Indirect economic contribution of the aged care – sectoral breakdown



Source: ACIL Allen

4.3 Employment

One in every 25 FTE jobs across Western Australia were directly or indirectly supported by the Aged Care sector

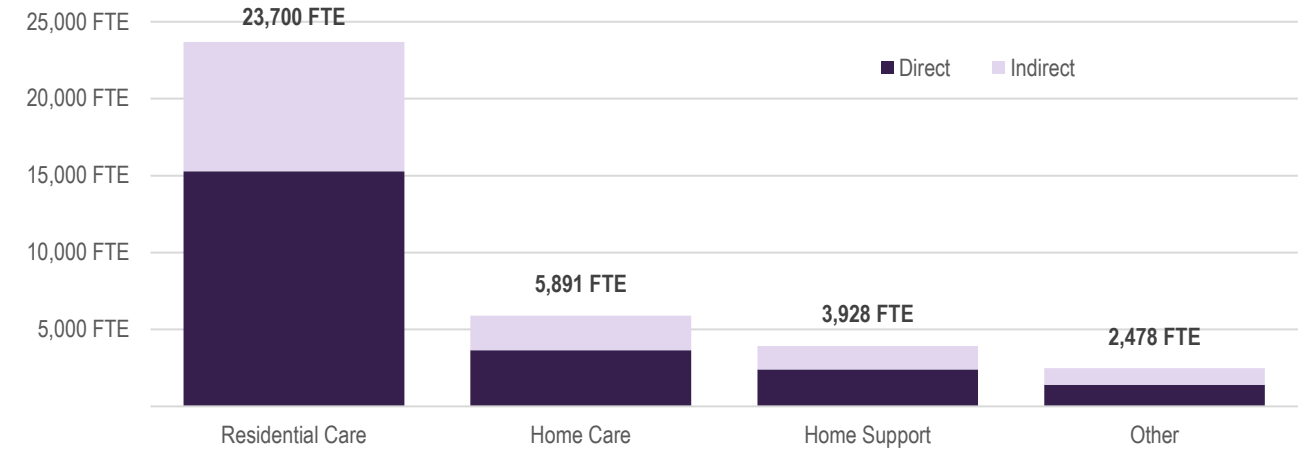
ACIL Allen estimates that the level of activity generated in the Aged Care sector supported some 22,712 direct FTE jobs across the State in 2019-20, with a further 13,285 FTE jobs indirectly created.

In total, ACIL Allen estimates that there were **35,997 direct and indirect FTE jobs created** from the activities of the aged care sector across Western Australia. Based on Western Australia's average full-time workforce of 916,260 in 2019-20, ACIL Allen estimates that **one in every 25 FTE jobs across Western Australia were directly or indirectly supported by the Aged Care sector**.

To put these job numbers into perspective, the direct and indirect FTE jobs created as a result of WA's Aged Care Sector in 2019-20 was **equivalent to the total number of people employed by WA's "big 4" mining giants of Rio Tinto, BHP, FMG and Woodside combined**.

As presented in **Figure 4.4**, 23,700 (66 per cent) of the jobs are directed to residential care services, followed by home care 5,891 FTE jobs (16 per cent), home support 3,928 FTE jobs (11 per cent) and other services 2,478 FTE jobs (7 per cent).

Figure 4.4 Employment Contribution, by Service Line (FTE jobs)



Source: ACIL Allen

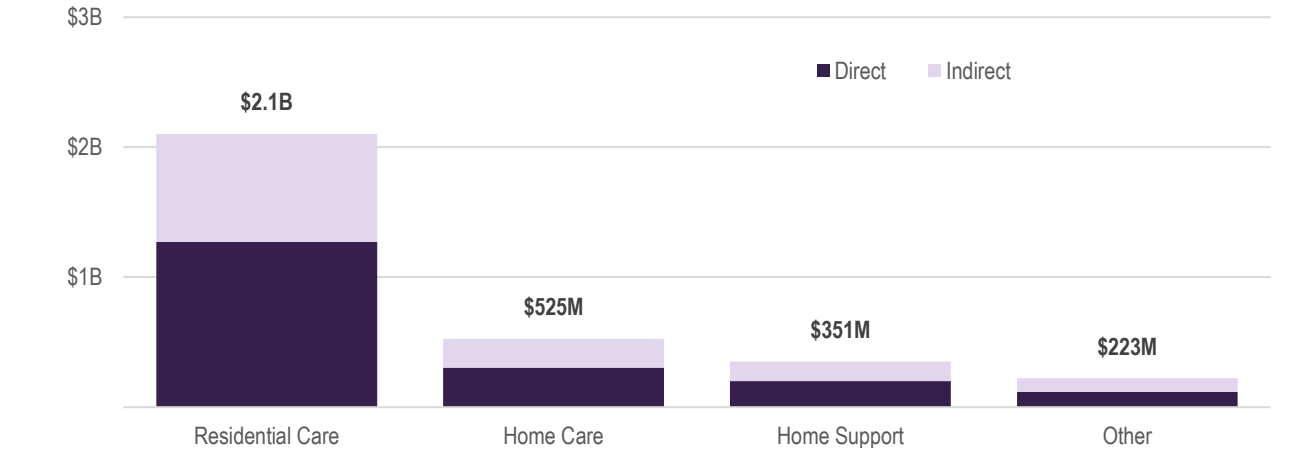
The Aged Care sector makes an oversized contribution to the WA workforce when compared to the relative size of the industry. ACIL Allen estimates, that for every $1.0 million in expenditure, the Aged Care sector generates a total of 13.7 FTE jobs (directly and indirectly).

4.4 Salaries and Wages

Reflecting the significant levels of employment generated from the Aged Care sector, ACIL Allen estimates that there were $1.9 billion in wages and salaries directly paid by businesses across the sector and a further $1.3 billion in wages and salaries paid by other businesses across the State indirectly as a result of the activities of the sector. Overall, the **Aged Care sector supported the payment of some $3.2 billion in wages and salaries to workers across Western Australia in 2019-20**.

The total wages and salaries paid directly by the Aged Care sector, and indirectly through the flow on activity stimulated by the Sector's activity, is equivalent to 80 per cent of the wages and salaries bill paid by the WA Department of Education in 2019-20 and **two thirds the wages and salaries bill paid by Wesfarmers (which includes the key retail giants of Bunnings, Kmart, Officeworks and Coles).**

Figure 4.5 Salaries and Wages Contribution, by Service Line ($million)



Source: ACIL Allen

The total wages and salaries paid directly by the Aged Care sector, and indirectly through the flow on activity stimulated by the Sector's activity, was equivalent to two thirds the wages and salaries bill paid by Wesfarmers (which includes the key retail giants of Bunnings, Kmart, Officeworks and Coles) in 2019-20.

From a sectoral perspective, the $1.9 billion in salaries and wages directly paid by the sector was greater than contribution made by entire Agriculture, Forestry and Fishing sector ($1.3 billion) and the electricity, gas, water and waste services sector ($1.5 billion).

As a component of total Gross Product, **salaries and wages comprise 83 per cent of total value add of the sector, reflecting the labour-intensive nature of the services and supports that are provided to clients in the Sector**.

ACIL Allen estimates that for every $1.0 million in expenditure, the Aged Care sector generates a total of $1.2 million in salaries and wages directly to its employees and indirectly through the flow on activity generated by the Sector.

4.5 Taxation

While the majority of the organisations in the Sector are provided charity status for tax purposes, the high levels of employment supported by the Aged Care sector provides a significant boost to the Commonwealth's personal income tax coffers each year.

ACIL Allen has applied the assumptions from the Australia Tax Office based on tax brackets and average tax deductions claimed to estimate the income taxes paid from those directly employed and indirectly supported by the aged care sector.

Based on these assumptions, ACIL Allen estimates that $143.8 million was paid in income taxes by those directly employed in the sector, and a further $139.1 million was paid by those indirectly supported by the sector. In total, it is **estimated the sector generated $282.9 million in income taxes for the Commonwealth Government**.

Furthermore, applying assumptions on the marginal propensity to consume, GST paid on household consumption and GST relativities for WA, ACIL Allen estimates that **$46.6 million** was generated in GST tax revenues by those directly employed in the sector, and a further $**32.3 million** was generated by those indirectly supported by the sector. In total, it is estimated the sector generated **$78.9 million** in GST revenue for the WA State Government.

There are a range of other tax payments that would arise as a consequence of the significant economic activity generated by the Sector. However, this has not been quantified in this study due to the complexities associated with the charity status of organisations in the sector.

4.6 Capital Expenditure Activity

As outlined in Section 3.2.4, the Residential Aged Care sector in WA drives significant activity in the construction sector. In 2019-20, it is estimated the sector invested $342 million in new and rebuilt residential care places.

The economic modelling applied in this analysis accounts for the value of this activity indirectly, as a measured by the Gross Operating Surplus of the sector (i.e., the returns to capital). To include the impact of the capital expenditure directly would be to double count this impact, albeit through an expenditure-based approach (rather than income-based approach, as applied in this analysis.

That noted, the capital expenditure of the sector does generate a significant impact and therefore this impact is estimated in this section. However, these results should not be added to the results presented previously in this report.

ACIL Allen estimates that the **$342 million in construction activity generated by the Aged Care sector in WA in 2019-20** generated a contribution of:

— $321 million in total gross product to the WA economy;

— $166 million in total income and wages to workers in WA; and

— 1,888 FTE in total jobs to the WA economy.

Based on an estimated total cost to build a residential care bed of $310,000 in WA, each built bed contributes a total of **1.7 FTE jobs, $290,000 in Gross Product and $150,000 in wages and salaries**.

5 Economic Impact of the Aged Care Sector

This section presents the 10-year forecast economic impact for the Aged Care Sector using ACIL Allen's Input-Output modelling framework. The results are presented to demonstrate the projected growth in the sector over the next 10 years. The economic impact has been measured in terms of the direct and indirect impact to output (Gross Product), incomes (wages and salaries earned), employment (FTE basis) and taxation payments made to Commonwealth and Western Australian Governments.

5.1 Introduction

A summary of the projected growth in the Aged Care sector and its contribution to the WA economy is illustrated in **Figure 5.1** and discussed in further detail in this Section.

Figure 5.1 Economic Impact of the Aged Care Sector FY21 – FY30, Summary Results

Source: ACIL Allen

5.2 Gross Product

The Aged Care sector is expected to contribute $6.2 billion to the WA economy by 2029-30, which for comparison purposes is larger than WA's agriculture sector in 2019-20.

ACIL Allen estimates that by 2029-30, the Aged Care sector will **directly contribute $3.2 billion** to the WA economy, with an additional **$3.0 billion contributed indirectly**. In total, the Aged Care sector is projected to contribute **$6.2 billion** to WA's GSP by 2029-30.

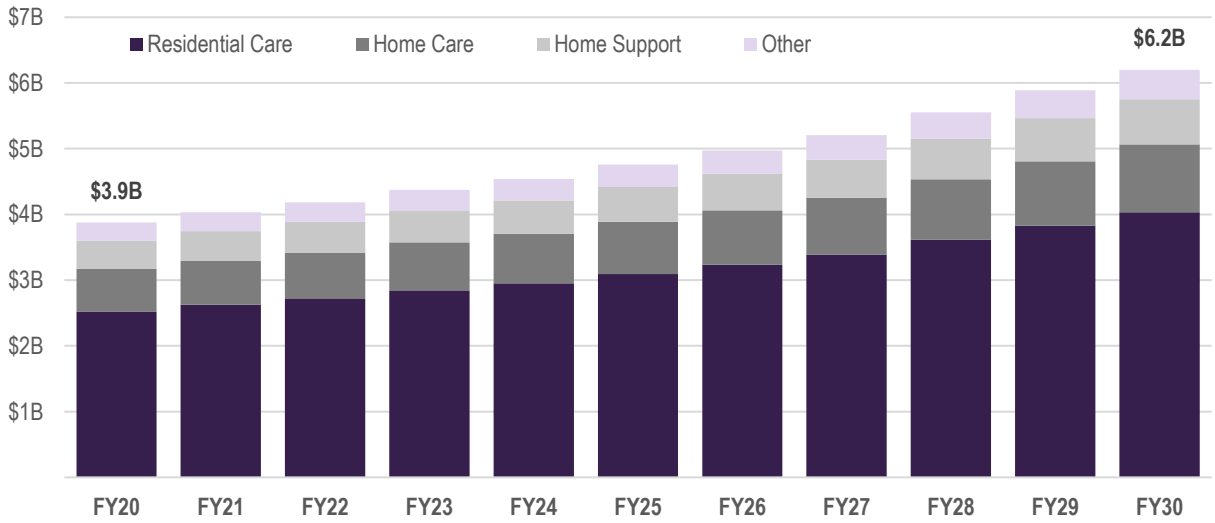
By service line, ACIL Allen estimates that over the assessment period:

- Residential care services will grow from $2.5 billion to $4 billion, an increase of $1.5 billion.
- Home Care services will grow from $646 million to $1 billion, an increase of $386 million.
- Home Support services will grow from $432 million to $690 million, an increase of $258 million; and
- Other services will grow from $279 million to $445 million, an increase of $167 million.

Based on these estimates, the size of the contribution of the Aged Care Sector to the WA economy by 2029-30 will be **larger than the total economic output from WA's agriculture sector** last financial year.

Figure 5.2 shows the growth in Gross Product generated in the sector by service line over the assessment period – **increasing by $2.2 billion from $4.0 billion in 2020-21 to $6.2 billion in 2029-30**.

Figure 5.2 Gross Product Impact, FY21 – FY30, $ Billion



Source: ACIL Allen

The Aged Care sector is forecast to grow more than twice as fast as the WA economy.

Significantly, the sector is forecast to grow by **4.8 per cent per annum over the next 10 years, which is more than twice as fast as the forecast growth for the WA economy (2.2 per cent[24])**.

5.3 Employment

ACIL Allen estimates that by 2029-30, the Aged Care sector will **directly contribute 36,296 FTE jobs** to the WA's workforce, with an additional **21,232 FTE contributed indirectly as a result of the Sector's activity**.

[24] Western Australian State Budget 2020-21, Budget Paper No. 3 - Economic and Fiscal Outlook

By 2029-30, the Aged Cares sector is expected to generate 57,528 FTE jobs, 21,232 FTE of which are expected to be indirectly supported as a result of the activities from the Sector.

Figure 5.3 shows the growth in FTE employment generated by the sector over the assessment period, with total FTE jobs generated both directly and indirectly in the sector projected to **grow from 35,997 in 2019-20 to 57,528 in 2029-30**.

This equates to an additional **20,090 FTE jobs** in total over the assessment period, or an estimated 33,480 workers based on the FTE to workers ratio (0.6) that applies to the Sector.

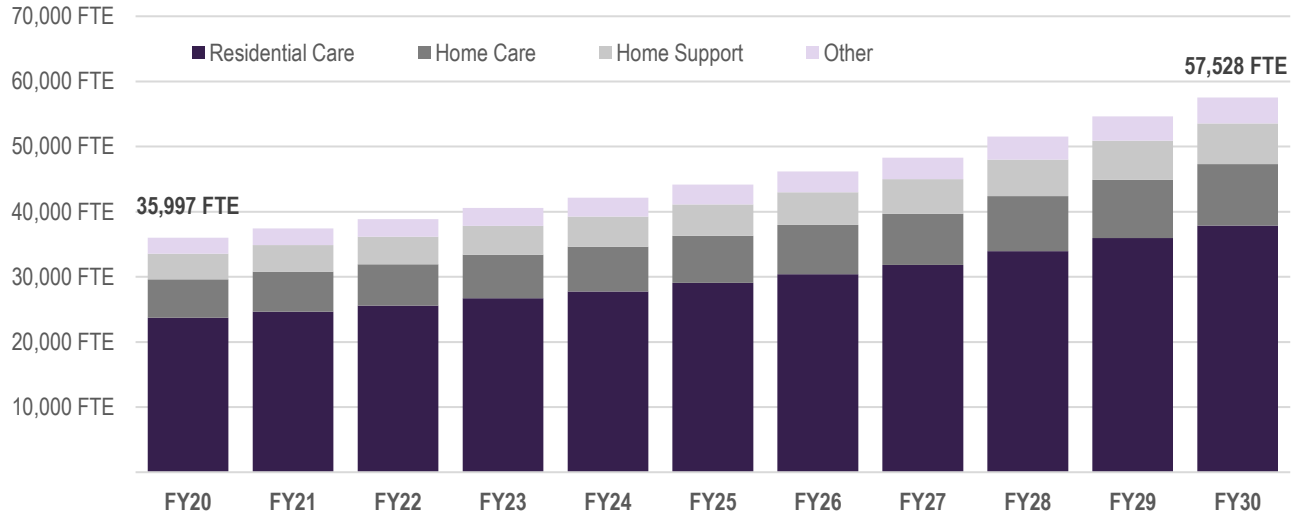
By service line, ACIL Allen estimates that over the assessment period:

- Residential care services will grow from 23,700 FTE to 37,875 FTE, an increase of 14,175 FTE.
- Home Care services will grow from 5,891 FTE to 9,415 FTE, an increase of 3,542 FTE.
- Home Support services will grow from 3,928 FTE to 6,278 FTE, an increase of 2,350 FTE; and
- Other services will grow from 2,478 FTE to 3,960 FTE, an increase of 1,482 FTE.

Based on this modelling, **the sector will be required to directly add an average of 106 FTE workers each month over the next 10 years**.

Significantly, the **increase in FTE jobs that are expected to be created as a result of the Sector's activities over the next 10 years is greater than the total number of full time jobs that have been created in Western Australia over the past 4 years**.

Figure 5.3 Employment Impact, FY21 – FY30



Source: ACIL Allen

In terms of the drivers of activity by service line, it is estimated that by 2029-30, across WA there will be an additional:

- 10,426 residential aged care places creating an additional 14,175 FTE jobs; and
- 46,266 community care packages[25], creating an additional 5,874 FTE jobs.

[25] Comprising an estimated 7,244 home care packages and 39,382 home support packages.

5.4 Salaries and Wages

Aged Care sector will directly pay some $3.0 billion in wages and salaries to its workforce, with an additional $2.1 billion paid in wages and salaries to workers employed in other sectors of the economy that benefit from the activities of the Aged Care sector.

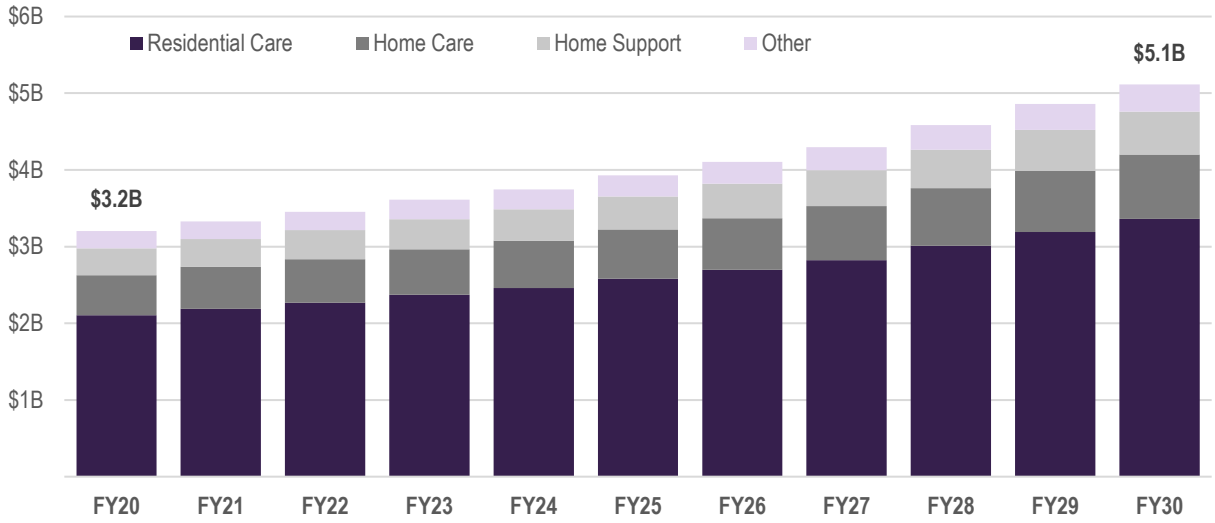
ACIL Allen estimates that by 2029-30, the Aged Care sector will **directly pay some $3 billion** in wages and salaries to its workforce, with an additional **$2.1 billion paid in wages and salaries to workers employed in other sectors of the economy that benefit from the activities of the Aged Care sector.** In total, the aged care sector is projected to generate **$5.1 billion** in wages and salaries directly and indirectly by 2029-30 (**Figure 5.4**).

By service line, ACIL Allen estimates that over the assessment period:

- Residential care services will grow from $2.1 billion to $3.4 billion, an increase of $1.3 billion.
- Home Care services will grow from $525 million to $839 million, an increase of $314 million.
- Home Support services will grow from $351 million to $560 million, an increase of $210 million; and
- Other services will grow from $223 million to $356 million, an increase of $133 million.

By 2029-30, the Aged Care sector is projected to directly generate the same level of salaries and wages as the entire Accommodation and Food services sector generated in 2029-30 and the total wages bill of WA Health in 2020-21.

Figure 5.4 Salaries and Wages Impact, FY21 – FY30



Source: ACIL Allen

5.5 Taxation

The sector's activity is projected to generate a total of $578 million in taxation revenues for the WA and Federal Government by 2029 - 30.

As with the assumption outlined is section 4.5, **ACIL Allen estimates total income taxes generated from the employment generated by the Aged Care sector will reach $452.1 million in 2029-30, of which $229.7 million directly is expected to be paid across the Aged Care sector workforce, and $222.4 million paid by workers in other sectors of the economy that benefit from the activities of the Aged Care sector.**

Furthermore, GST revenues collected by the WA State Government are projected to reach **$126.1 million** in 2029-30, of which **$74.5 million** will be contributed by those directly employed in the sector, and a further **$51.7 million** was generated by those indirectly supported by the sector.

This represents a 54 per cent increase in personal income tax and GST payments from the levels estimated in 2020-21.

There are a range of other tax payments that would arise as a consequence of the significant economic activity generated by the Sector. However, this has not been quantified in this study due to the complexities associated with the charity status of organisations in the sector.

Social Return on Investment in the Aged Care Sector

6

The results presented in this section articulate the social and economic contribution that the Aged Care Sector made to the Western Australian economy in FY20 using ACIL Allen's SROI modelling framework. The sector's social contribution has been measured in economic terms, by assuming the sector did not exist and was therefore unable to provide the care and support to the clients presently served. The SROI framework and quantification of benefits and costs is discussed in this section.

6.1 Introduction

While the current economic contribution and anticipated future economic impacts of the growth and development of the aged care sector in Western Australia are significant in their own right, measuring the aged care sector in these purely economic terms is only part of the picture. The provision of care and support by providers in the aged care sector is for social reasons, and measuring the impact of these is critical to providing a holistic perspective of the return on public and private sector funds.

To assist in the articulation and measurement of these broader impacts, ACIL Allen has developed and applied a **Social Return on Investment framework** ('SROI') for the aged care sector in Western Australia. The SROI seeks to quantify the impacts of the activities of the aged care sector which go beyond the economic activity, employment and taxation revenue generated, to include a quantification of the impacts on those receiving services and supports, and their immediate family and carers.

Introducing Social Return on Investment

SROI is an emerging form of Benefit Cost Assessment (BCA) analysis, which seeks to quantify benefits and costs which are typically excluded from traditional BCA due to their less economic or financial nature. It is a particularly useful form of analysis for not-for-profit or mission-based organisations, which seek to foster positive social change but have benefits which are difficult to measure in traditional financial means.

The SROI framework below represents a typical process for any rigorous benefit cost assessment.

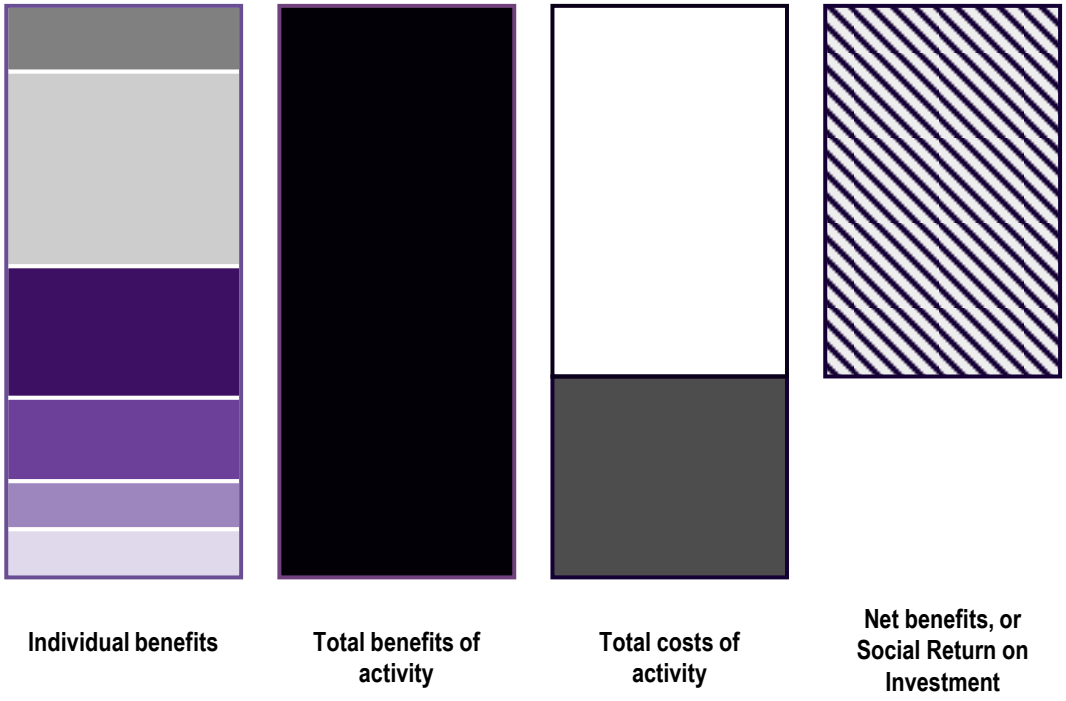
- Establishing scope and identifying key stakeholders
- Mapping outcomes
- Evidencing outcomes and giving them a value
- Establishing impact
- Calculating the SROI
- Reporting, using and embedding

SROI involves development of an overarching impact framework, which articulates how the activities of the program, policy, investment or entity contribute to changes experienced by the stakeholders they impact. A typical SROI study initially involves the determination of the changes fostered by the program, policy, investment or entity, and then undertaking a structured approach to determining whether the identified benefits can be converted into financial terms for the purposes of valuation.

In this case, the assessment is based on **a world in which there is no aged care sector.** In this hypothetical world, the outcomes for those receiving care and support through the aged care system are lessened, while society must use other resources to look after its ageing citizens.

The output of a SROI exercise is similar to a benefit cost assessment, in that benefits are presented in a ratio relative to costs. However in SROI, the value of non-financial inputs, which are principally volunteer hours contributed to deliver outputs, are also considered as part of the costs of the program, policy, investment or entity. An overall "SROI ratio" demonstrates the unit benefits achieved for every dollar of investment society has made in the delivery of the program, policy, investment or entity.

Figure 6.1 Calculating a SROI ratio



Source: ACIL Allen

6.2 SROI framework

ACIL Allen's SROI framework has been developed on a desktop basis, using publicly available information, and assumptions contextualised to the economic and financial analysis discussed earlier in this report. In building up a scenario in which Aged Care does not exist, ACIL Allen has relied on desktop research and credible data sources. Given that this is a hypothetical scenario based on assumptions for which there is no demonstrable case study, ACIL Allen acknowledges there is a degree of uncertainty in the actual scenarios that may occur in the absence of aged care – a caution that necessarily applies to all studies of this nature. Notwithstanding this limitation, ACIL

Allen has been able to build a credible, conservative estimate of the social impacts associated with the aged care sector.

To develop the initial benefits framework, ACIL Allen engaged the Project Working Group (comprised of representative members from the participating aged care providers) to compile a long list of benefits, costs and impacts for consideration in the framework. The group provided a comprehensive list of 23 benefits and impacts for consideration in the framework (**Figure 6.2**).

Figure 6.2 Long list of SROI Benefits and Impacts

Benefit name	Benefit description	Service lines	Benefit Type
Healthcare Cost Savings	Avoided health resources expended on those receiving regular, lower cost care	✓ Community Aged Care ✓ Residential Aged Care	Quantitative 1
Healthcare Cost Efficiencies	Transitional care for people recovering (i.e. receiving step down care)	✓ Community Aged Care ✓ Residential Aged Care	Quantitative 1
Improved Health Outcomes	Better health outcomes (mental and physical health - incl. loneliness and injury - particularly in regional and remote areas and physical health) from higher quality and more timely provision of care	✓ Community Aged Care ✓ Residential Aged Care	Quantitative 2
Direct Value Add of the sector	Employment benefits for those providing home maintenance	✓ Community Aged Care ✓ Residential Aged Care	Quantitative 3
Carer Productivity Benefits	Avoided burden of care on family members	✓ Community Aged Care ✓ Residential Aged Care	Quantitative 4 Quantitative 5
Greater options to participate in the community	Value of volunteering / contribution to community from those able to participate with the avoided burden of domestic tasks	✓ Community Aged Care	Qualitative
Avoided capital cost of residential facilities	Avoided capital cost of residential facilities	✓ Community Aged Care	Qualitative
Delay admission to residential care	Client utility from avoiding the need to be placed in residential care or other more intensive services	✓ Community Aged Care	Qualitative
Support in navigating access to the aged care services	Mediation / provide advice to families and clients to help navigate access to the aged care services	✓ Community Aged Care	Qualitative
Lower representation from the aged in communities	Lose the representation of the aged in communities and the benefits associated with this	✓ Community Aged Care	Qualitative
Greater engagement with aged family members	Freedom to engage with aged family members at any time without institutional constraints	✓ Community Aged Care	Qualitative
Energy cost efficiencies	Energy efficiencies as a result of reduced travel from aggregated services and lower energy requirements	✓ Residential Aged Care	Qualitative
Family / kin confidence in safety and comfort	Confidence in care and safety of aged family members	✓ Residential Aged Care	Qualitative
Community confidence in care for vulnerable citizens	Pride and confidence in high quality services for vulnerable citizens	✓ Residential Aged Care	Qualitative

Creating the opportunity for volunteers to contribute	Creating the opportunity for volunteers to contribute	✓	Residential Aged Care	Qualitative
Training partnerships	Partnerships with training agencies to accept, train and accredit students	✓	Residential Aged Care	Qualitative
Greater community amenity	Enhance amenity from high quality residential facility and grounds	✓	Residential Aged Care	Qualitative
Greater security	Greater security, personal safety and connectedness. fewer crimes	✓	Residential Aged Care	Qualitative
Community connectivity	Sense of community / people are independent longer / bring same aged people together	✓	Retirement Villages	Qualitative
Localised services	Tailored services / amenities based on aged population density – both within the village and in surrounding region	✓	Retirement Villages	Qualitative
Enhanced safety and wellbeing	Safety and wellbeing based on the reputation of the provider	✓	Retirement Villages	Qualitative
Keeping family members close	Proximity to next-step care, keeping family members (spouse) near each other	✓	Retirement Villages	Qualitative
Contribution to social housing	Contribution to social housing (mission-based, non-commercial) for aged customers	✓	Social Housing	Qualitative

Source: ACIL Allen

ACIL Allen then proceeded to filter the list down into impacts which could be readily quantified, those which could be quantified with adequate information and capacity, and those which were more likely to be non-quantifiable impacts. This resulted in the development of an SROI framework with five core quantifiable benefits, mapped to two client groups, as describe below.

Impact channels

The five primary impact channels identified below are discussed in greater detail in Section 6.3. Many of the benefits and impacts described in the long list are implicit in the five core impacts included in the quantitative SROI framework.

- **Healthcare cost savings:** the avoided cost of persons receiving care entering the primary health and hospital system due to services and interventions enabled by the aged care sector.
- **Improved health outcomes:** the improved quality of life experienced by individuals receiving targeted care and support through the aged care sector.
- **Direct value added:** the direct economic value derived through the expenditure on aged care services, principally through the creation of employment.
- **Carer labour force participation:** the improved ability for next of kin and other family members to engage in the workforce due to lessened burden of care requirements through engagement of their loved ones in the aged care sector.
- **Relief of direct care requirements for kin and family members:** the improved ability of kin and family members to engage in non-care activities across society due to the care and support provided through the aged care sector.

Client groups

It was decided that there would be two primary client groups to whom the five benefits are linked to the level of care required.

Given the similar nature of care provided under Home Care and Home Support services (albeit with services catered to a range of care requirements), these have been combined into **Community Aged Care**, with assumptions applied to segment the care needs of clients within this cohort, based on Home Care Level and the number of Home Support services provided.

Those accessing **Residential Aged Care** were assigned to the second cohort, with life expectancy applied as a proxy for the intensity of their care needs.

6.3 Assessment of Benefits

This section outlines the benefits that are attributable to the aged care sector in WA, including the rationale and evidence for each benefit type and methodology used to estimate and monetise the benefit.

6.3.1 Quantitative Benefit 1 – Avoided healthcare expenditure

This benefit is an estimate of the healthcare expenditures avoided as a result of the provision of aged care services. The basis for this benefit is that without residential and community aged care services and associated preventative and curative health supports, additional demand would be placed on WA hospitals.

Assumptions – residential aged care

As at June 2020, there were an estimated 16,210 people[26] receiving residential aged care services in WA. To estimate the outcomes of these people may have faced in the absence of residential aged care services, it was first estimated the proportion who had alternative care supports from kin and family members.

To determine this, ACIL Allen has relied on rates of social isolation[27] as a proxy for lack of kin or family member support. While difficult to estimate with strong confidence, this is deemed a reasonable proxy estimate of those with family members / social supports who could care for them in the absence of residential care. In reality, a lack of social isolation may not mean one has supports to provide equivalent residential care and therefore this assumption has a conservative impact on the benefit calculation.

Applying rates of social isolation by age category[28] proportionally to the cohort of residential aged care users yields a social isolation rate of 8.0 per cent – equivalent to 1,299 users of residential aged care services.

Next, outcome data[29] for those using residential aged care services in WA 2018-19 has been used to estimate the care requirements of residents.

[26] Commonwealth Government. 2020. *Aged Care Data Snapshot 2020*. Accessed online at http://www.health.gov.au/

[27] Social isolation is the state of having minimal contact with others (AIHW 2020).

[28] Relationships Australia (2018) Rates of Social Isolation and Loneliness, by age

[29] Australian Institute of Health and Welfare (2020) GEN data: People leaving aged care, Exits from residential aged care 2018-19

According to this data, 39.2 per cent of people who enter residential care pass away in care. The remaining 60.8 per cent are discharged to another residential care location, to home, to hospital or to another location and may return to residential care in the future.

Of those that pass away in residential care, 25 per cent do so within six months of admission, a further 12 per cent do so within 12 months and the remaining 63 per cent do so after 12 months.

ACIL Allen has applied the survival rate as a proxy for severity of care needs.

For the cohort without care support, it has been assumed that over the year:

— those that pass within 6 months are assumed to require an ongoing admission to hospital in the absence of residential care (either receiving palliative care or more acute care); and

— Those that pass within 12 months are assumed to require a 6-month admission to hospital; and

— those that pass after 12 months are assumed to require a 3-month admission to hospital.

Those receiving alternative care supports are also assumed to require interactions with the hospital system given that those providing care will not be as qualified as residential care staff, and the environments may be riskier in terms of infection and injury hazards.

For the cohort with alternative care supports, it has been assumed:

— those that pass away within 6 months would have required 3 admissions to hospital for the median admission length of stay for those over 65 of 5.7 days suffering a fall injury. Note that this only includes the duration of inpatient care, excluding those where a hospital transfer was required (12.8 days) or where rehab was also required (15.4 days) and therefore has a conservative effect on the benefit calculation.

— those that pass within 12 months are assumed to require 2 admissions to hospital; and

— those that pass after 12 months are assumed to require a 1 admission to hospital.

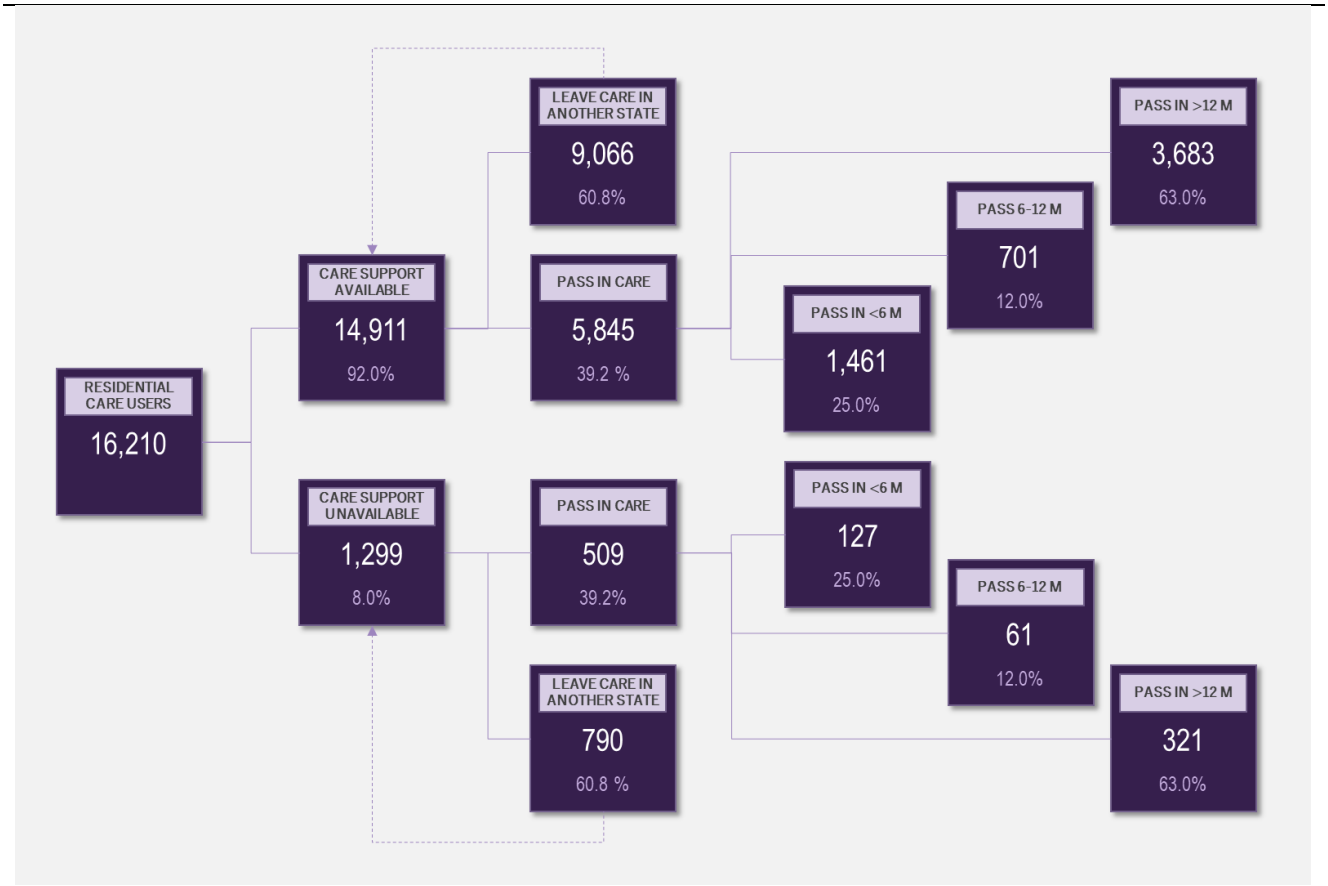
Our modelling methodology accounts for those that pass while admitted to hospital. While these assumptions are not underpinned by empirical estimates, which are not available, they are deemed a reasonable and conservative projection of the outcomes those without access to residential care services would likely face.

The average expenditure on admitted patient care per bed day adjusted to 2020 dollars is estimated at $1,978[30].

Figure 6.3 maps out the logic and assumptions applied in estimating the outcomes experienced by those without access to residential aged care services.

[30] Australian Institute of Health and Welfare (2013), Australian health expenditure — demographics and diseases: Hospital admitted patient expenditure.

Figure 6.3 Quantitative Benefit 1: Logic Tree for those receiving residential aged care services



Source: ACIL Allen

Assumptions – community aged care

For the purposes of this benefit calculation, Community aged care services includes both Home Support and Home Care services.

As at June 30 2020, there were 11,049[31] people using Home Care services in WA. Point in time service use data was not available for those using Home Support services, however an estimated 60,066 people[32] used the service throughout 2019-20. Assuming a similar service churn rate to Home Care (23 per cent), ACIL Allen estimates there were 46,249 people accessing Home Supports on June 30, 2020.

Of this total cohort (57,298), 5,226 (9.1 per cent) were receiving a Level 3 or 4 Home Care package – deemed a High Need cohort by ACIL Allen for the purposes of calculating this benefit; a further 5,823 (10.2 per cent) were receiving a Level 1 or 2 Home Care package – deemed a Medium Need cohort; and the remaining 46,249 receiving Home Supports were deemed a Low Need cohort.

Based on the social isolation methodology outlined above, and adjusting for the corresponding age profile of users, ACIL Allen estimates 8.1 per cent of those receiving community aged care services lack alternative care supports.

[31] Commonwealth Government. 2020. *Aged Care Data Snapshot 2020*. Accessed online at http://www.health.gov.au/

[32] Ibid.

Empirical estimates for health service utilisation in the absence of community care services were again unavailable and therefore based on ACIL Allen's understanding of the health sector and the care requirements for this cohort of people.

Community care services provide a range of supports that improve people's wellbeing and prevent their risk of injury, including domestic services such as cooking, cleaning, transport and home maintenance and preventative health services such as allied health and therapy services. Each service type confers a protective and enhancing effect on people's welfare and health status and therefore it can be assumed that in the absence of these services there would be a greater reliance on hospital care.

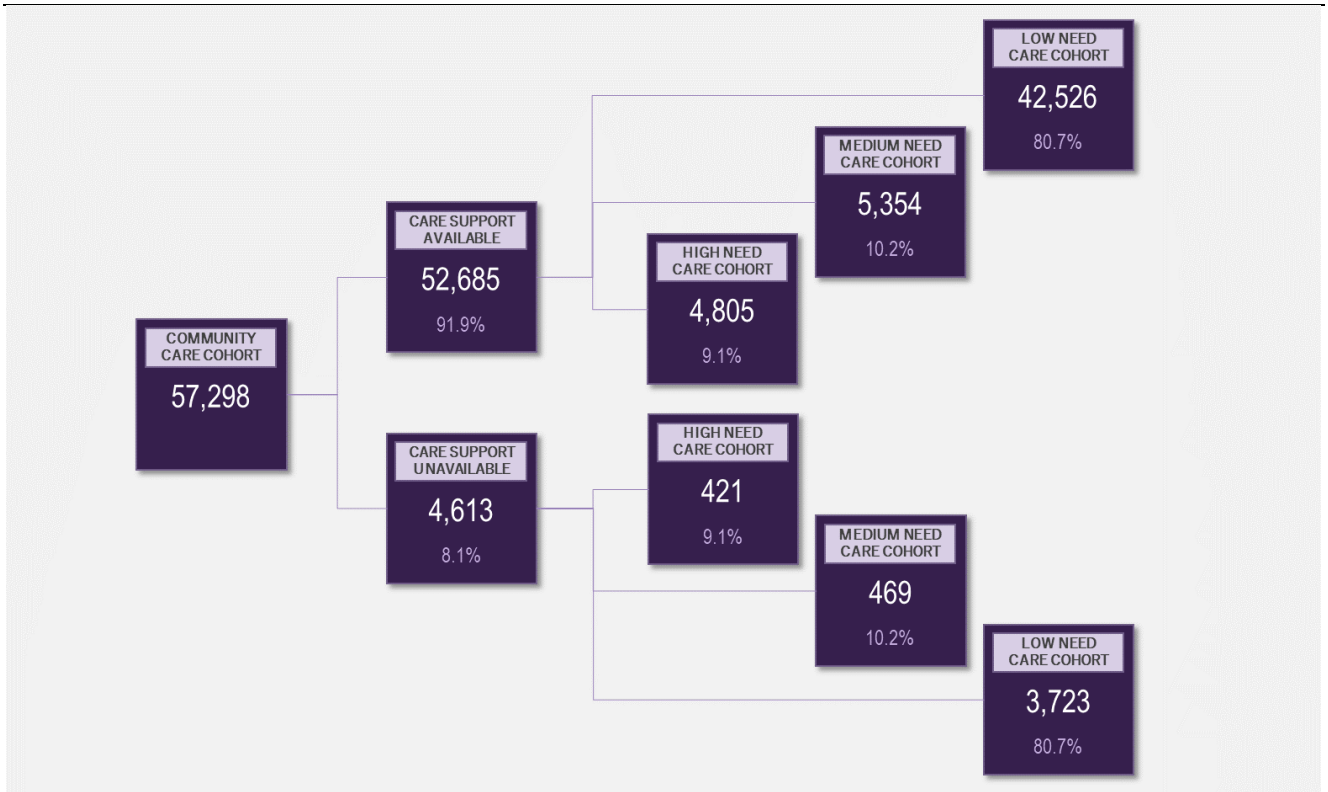
Those deemed a High Care cohort were assumed to require three hospital admissions each year for the median length of stay for those aged over 65 suffering a fall injury (5.7 days), while those in the Medium Care cohort were assumed to require two hospital admissions and one hospital admission was required for the Low Care cohort.

Furthermore, it was assumed that those with alternative care supports avoided 85 per cent of the care requirements of those without alternative care supports. While the care supports are assumed to confer a benefit greater than no care supports, given that they aren't as qualified as community aged care workers, the avoidance of hospital costs is not completely achieved.

The average expenditure on admitted patient care per bed day adjusted to 2020 dollars is estimated at $1,978[33].

Figure 6.4 maps out the logic and assumptions applied in estimating this benefit.

Figure 6.4 Quantitative Benefit 2: Logic Tree for those receiving community aged care services



Source: ACIL Allen

[33] AIHW, Australian health expenditure — demographics and diseases: Hospital admitted patient expenditure

Benefit Calculation

The WA Aged Care Sector prevented a total of $460 million in healthcare costs.

Based on the assumptions outlined above, it is estimated that residential aged care prevented $278.5 million, and community aged care services prevented $181.2 million in healthcare costs.

6.3.2 Quantitative Benefit 2 – Avoidance of disability

This benefit is an estimate of the value of disability avoided as a result of the provision of aged care services. The basis for this benefit is that without residential and community aged care services and associated preventative and curative health supports, additional disability would be suffered by those currently using the service.

Assumptions – residential aged care

Associated with the avoided healthcare expenditure outlined in Quantitative Benefit 1 is the avoided disability suffered by those that received residential care.

A Disability Adjusted Life Year (DALY) is a weighting used to express the relative burden associated with certain health conditions. A condition that deteriorates one's quality of life by 30 per cent is assigned a DALY of 0.3.

ACIL Allen performed an analysis of those health conditions that account for the highest share of DALYs for those aged 65 or higher[34]. ACIL Allen then mapped these conditions to the Global Burden of Disease Study 2019 to estimate the DALY associated with each condition. Based on this analysis, it was found that the average health condition suffered by those aged 65 and over imposes a DALY of 0.2119.

This DALY has been used and applied to the hospital episodes estimated in Quantitative Benefit 1.

To monetise the DALY estimate, the Australian Government[35] provides a guidance on the Value of a Statistical Life Year (VLY). In 2020, this is estimated to be $212,361.

Assumptions – community aged care

As with Quantitative Benefit 3, this benefit calculation seeks to estimate the avoided disability suffered by those that receive community care.

This benefit has been estimated using the same assumptions regarding the average DALY (0.2119) and VLY ($212,361) outlined previously and applying this to the cohort currently using community aged care services and the expected duration of health outcomes they would face in the absence of care as outlined in Quantitative Benefit 2.

Benefit Calculation

The WA Aged Care Sector prevented a total of $29 million in disability burden for its consumers.

Based on the assumptions outlined above, it is estimated that residential aged care services prevented $17.4 million, and community aged care services prevented $11.3 million in disability burden for those that received the service.

6.3.3 Quantitative Benefit 3 – Direct value added of aged care expenditure

This benefit is intended to capture the direct economic impacts associated with the activities of the aged care sector in Western Australia. This captures the immediate or "first round" effects of the

[34] Australian Institute of Health and Welfare (2020) – Australia's health 2020

[35] Australian Government (2019) Best Practice Regulation Guidance Note Value of a statistical life.

activities of the aged care sector in the provision of services and supports, including the associated employment and other direct expenditure.

Assumptions

To measure this benefit, ACIL Allen brings the direct gross value added of the aged care sector in Western Australia into the scope of the SROI calculation. The value was derived as part of the economic contribution study, discussed in detail in Section 4.

Benefit Calculation

The WA Aged Care Sector contributed $1.9 billion in direct value add to the WA economy.

Based on the results of the economic contribution study, the direct economic value added of the aged care sector flowing from the expenditure of the sector is valued at $1,878.9 million.

6.3.4 Quantitative Benefit 4 – Avoided loss of productive labour resources

This benefit is intended to capture the benefits to society of the ability for the kin and family members of persons receiving services and supports in the aged care sector to participate in the labour force. The basis for this benefit is that without an aged care sector the care and non-medical support needs for people engaged in the aged care sector would fall to kin and family members, reducing the ability for them to engage in the labour force.

Assumptions

To measure this benefit, ACIL Allen applies the aged care client cohort analysis introduced in Section 6.3.1 with respect to persons engaged in the residential care and home care / home support services respectively. For each client, it was assumed that in the absence of the aged care sector the burden of care and non-medical support would fall to one kin or family member. From here, the annual hours available to this individual care-giver were apportioned as follows:

- Total hours in year: 8,736
- Total hours of sleep (where no activity occurs): 2,912 (eight hours * 365 days)
- Total hours available for activities: 5,824 (being the residual)

From here, the kin / family member providing support was initially split into a category of being a member of the labour force or not in the labour force. The ratio of employment to population was derived for each of the four client types, based on analysis of the Commonwealth Government's Aged Care Data Snapshot report for 2020[36] which was used to estimate the distribution of the age of kin or family members impacted.

ACIL Allen then contextualised the estimated distribution of the age of kin or family members providing support to the employment to population ratios for all persons in five year age brackets, as defined by the Australian Bureau of Statistics. This allowed for the calculation of weighted average employment to population ratios for the four service type categories, splitting each cohort's kin / family support in two: persons who would otherwise be engaged in the labour force but are now substantively engaged in providing care and non-medical support, and persons who would otherwise not be engaged in the labour force.

This analysis yields assumed employment engagement rates of 52.5 per cent for kin and family supporting a person with high needs, and 60.9 per cent for kin and family supporting a person with

[36] Commonwealth Government. 2020. *Aged Care Data Snapshot 2020*. Accessed online at http://www.health.gov.au/

moderate to low needs. By way of comparison, the average employment to population ratio for all Western Australians aged 15 to 64 was 74.1 per cent in FY20.[37]

For the individuals who are assumed to be otherwise engaged in the labour force, it is assumed they have the capacity to work up to 40 hours per week (or 1,920 hours per annum) if they choose, reflecting the average maximum hours which could be expected for a full time equivalent worker. This time is subtracted from the Total Hours Available for Activities assumption described above, with the residual (3,904 hours per annum) available to the individual for other activities.

The final calculation assigns an additional care requirement for each kin or family member who is now more fully engaged in care and non-medical support. It is assumed that individuals across each cohort require the following levels of care and non-medical support in a world where no aged care sector exists:

— Residential care: 5,824 hours per annum
— High need home care / home support: 2,921 hours per annum
— Medium need home care / home support: 1,456 hours per annum
— Low need home care / home support: 728 hours per annum

It is assumed for the purposes of this study that the impacted kin or family member is already providing some level of care and non-medical support in the base case, meaning that not all of this care and non-medical support requirement is met on an incremental basis. For Residential care, High need home care / home support and Medium need home care / home support individuals that an average of two hours per day of care and non-medical support is already provided, while for Low need home care / home support one hour per day is provided.

The incremental care and non-medical support needs of each person met by a kin or family member are then distributed according to the labour force status of the individual providing support. Each hour of labour engagement is valued at the rate of WA's Gross State Product per hour worked for FY20 ($141.55 per hour), while each hour of "Other" time is valued at the WA minimum wage for FY20 ($20 per hour) in line with the approach to valuation of leisure time adopted in previous studies.[38]

This effective "crowding out" of the kind or family members' time due to the need to provide care and non-medical support which would otherwise be provided by the aged care sector creates a social loss across the State, which is avoided through the provision of aged care services.

In this benefits stream, ACIL Allen calculates the avoided social losses associated with the labour force component of this burden of care calculation only. The methodology and assumptions introduced and discussed in this section are also used to value the non-labour force hours which are spent providing care and non-medical support to the individual in lieu of the aged care sector.

Benefit Calculation

The WA Aged Care Sector prevented the loss of $1.8 billion in direct labour productivity.

Based on the assumptions outlined above, it is estimated that residential aged care services avoided the loss of $1,780.9 million in direct labour productivity in FY20.

[37] Australian Bureau of Statistics. 2020. *ABS Labour Force Statistics, LM1 datacube*. Accessed online at http://www.abs.gov.au/

[38] See WA Football Commission & ACIL Allen (2018): *The Social Return on Investment of Club-based Football Participation in Western Australia*.

6.3.5 Quantitative Benefit 5 – Relief of care requirements for kin and family members

This benefit is intended to capture the benefits to society of the ability for the kin and family members of persons receiving services and supports in the aged care sector to participate in non-labour force activities across society. The basis for this benefit is that without an aged care sector the care and non-medical support needs for people engaged in the aged care sector would fall to kin and family members, reducing the ability for them to engage other activities including leisure time.

Assumptions

ACIL Allen has applied the methodology presented in Section 6.3.4, but in this impact stream values the non-labour hours for all kin and family members who would be otherwise engaged in care and non-medical support in lieu of an aged care sector. Hours are valued at the WA Minimum Wage ($20 per hour), and avoided costs arise for both labour force and not in labour force kin and family members (noting not in labour force kin and family members have larger non-labour hour availability than those engaged in the labour force).

Benefit Calculation

The WA Aged Care Sector prevented the loss of $1.2 billion in non-labour time.

Based on the assumptions outlined above, it is estimated that residential aged care services avoided the loss of $1,159.9 million in non-labour hours including leisure time in FY20.

6.3.6 Qualitative Benefits

As mentioned, a range of other benefits attributable to the aged care sector (including residential and community aged care as well as adjacent services in retirement living and social housing) were identified but for a range of reasons were not able to be expressed quantitatively in this report.

These reasons included:

- **Frame of Reference Limitation:** Given that the study is centred on a comparison of scenarios where the aged care sector does and does not exist, benefits that pertain to marginal improvements in the performance of the sector were not assessable.
- **Data / Methodological Limitations:** While this study has attempted to measure a number of benefits relying on a logical analysis of probable outcomes, in other cases it was not possible to obtain data or to develop an approach to measure the value of the outcome.
- **Immaterial Anticipated Benefit:** Some benefits were deemed to deliver an immaterial benefit as they either did not yield a sufficiently large benefit, or that the benefits attributable with how the sector currently operates would be offset by the next most likely outcome.

A description of these benefits, and the reasons for why they have been expressed qualitatively are expressed in **Figure 6.5** below.

Figure 6.5 Overview of Qualitative Benefits attributable to the Aged Care Sector

Benefit Type	Reason for Exclusion as a Quantitative Benefit
Residential Aged Care	
Family / kin confidence in safety and care provided An important value proposition of residential care is confidence in the care and safety of aged family members. Having an aged family member in residential care can instil a sense of confidence for the immediate family network who can reduce their primary carer needs and allocate greater time to work and time with other family members. The confidence in care is particularly important during the night and early hours of the morning where if a major issue presents itself it can be attended to immediately by staff on site. The family of the individual in aged care may also be more likely to be comfortable to travel and go on holidays in the comfort of knowing the support services being provided through the residential aged care system.	*Data / Methodological Limitations*
Community confidence in care for vulnerable citizens An important value proposition of residential care is pride and confidence in high quality services for vulnerable citizens within the community. The provision of high-quality residential care facilities can instil pride and confidence within the community that the health and mental wellbeing needs of elderly individuals are being catered for to an adequate standard. It is possible this sense of pride and confidence can extend beyond the primary family networks that have a relative in the residential aged care system, and be of particular importance to individuals approaching retirement age and subsequent entry to the aged care system in the medium to long term.	*Data / Methodological Limitations*
Training partnerships Some residential care providers facilitate partnerships with training agencies and pathways to train and accredit students. These partnerships help to foster the potential workforce for the aged care sector in the future and supports the early learning needs of students. Partnerships with training agencies help to ensure the workforce are equipped with the important attributes for working within residential care which include flexibility, sensitivity, people skills, honesty, dedication and rapport with the elderly. Critically, training can help to increase confidence and communication skills, which are critical to interacting effectively with residents, family members and other staff. Workforce levels for residential care can be impacted by fluctuations in demand for residential aged care places, as well as changing workforce compliance requirements. Partnerships with training agencies help to mitigate this risk by developing a steady flow of students across the various phases of the training pathway at any one time.	*Data / Methodological Limitations*
Greater community amenity High quality facilities and grounds, particularly gardens, can add to the amenity of the neighbourhood in which the residential facility is located. The upkeep of facilities and grounds by residential care providers are generally supported by structured maintenance and investment programs. This can confer a benefit to those living in and travelling through the area.	*Data / Methodological Limitations*

Greater security An important value proposition of residential care is greater security, personal safety and connectedness. The personal safety of an elderly individual can be increased by involvement in the residential care system. Elderly individuals, particularly those living by themselves in their own home, can be a target for crimes such as burglaries, home invasions and physical assaults. Living in a residential aged care facility reduces, but does not necessarily remove the risks and consequences associated with these crimes. Being the victim of a crime can have significant negative psychological effects on an elderly individual, particularly with respect to their confidence to engage and participate in their local community. Residential aged care providers dedicate resources to ensuring the safety and security of their facilities, particularly late at night and in the early hours of the morning. The architectural design of residential aged care facilities can also mitigate against safety and security risks.	*Data / Methodological Limitations*
Creating the opportunity for volunteers to contribute Volunteering at a residential aged care facility can enable an individual to contribute by helping others in their local community. For elderly people, social interaction is highly valuable and helps to minimise the health implications associated with social isolation. Volunteers may have particular skill sets, such as music or cooking, that they can share with residents. For the volunteers, their contribution can provide a sense of purpose and benefits their wellbeing. Through meeting people from all walks of life, with different backgrounds, personalities and aspirations, volunteers get to step into someone else's shoes and share their perspectives.	*Immaterial Anticipated Benefit*
Energy cost efficiencies The concentration of residential aged care service users collocated in purpose-built residence can deliver energy efficiencies. The centralisation of domestic services (such as cooking and cleaning), home maintenance service and health service can be delivered in a more energy efficient manner than if residents were to have these services delivered in the community. Furthermore, the modern and energy-efficient designs of many residential buildings may also deliver efficiencies when compared to large older homes in which many older people occupy. On the other-hand, in the absence of residential care, many users (an estimated 92%) will reside with their kin and family in existing homes which may be comparable to the energy consumption of residential aged care sites.	*Immaterial Anticipated Benefit*
Community Aged Care	
Lower representation from the aged in communities Elderly individuals receiving home support and home care are often able to maintain an active presence in the local community. An elderly individual may be a member of a number of local community groups, and in some cases may hold additional responsibilities such as a leadership role. The flexibility associated with the delivery of home support and home care services can help ensure elderly individuals have the capacity to dedicate time to fulfil these responsibilities. Elderly people can make an important contribution to the community fabric. They are also an important community stakeholder and by actively participating and being represented at the various tiers of government can ensure that infrastructure and other important government services and programs are designed to meet the needs of elderly people.	*Data / Methodological Limitations*
Greater engagement with aged family members An important value proposition of home support and home care is the freedom to engage with aged family members. This is highly valued by immediate family members, particularly when it can be arranged at any time, beyond the necessary visit time constraints imposed within residential aged care facilities. This freedom helps to support the wellbeing of both the elderly individual and immediate family members, facilitates social engagement and mitigates against loneliness. Elderly individuals are at an increased risk of loneliness, relative to other age cohorts, as they are more likely to face factors such as living alone, the loss of family and friends and chronic illnesses or impairments that can limit capacity for social engagement.	*Immaterial Anticipated Benefit*

Greater options to participate in the community Receiving home support or home care services can help to provide elderly people with greater capacity and time to contribute to the local community through volunteering. Elderly people receiving home support or home care are also provided with greater flexibility with respect to the times at which they can volunteer, relative to when in residential care where care or supervision requirements may be prohibitive for participation in volunteer activities. Volunteers can impart human capital to a volunteering activity through the utilisation of their own existing skills and knowledge, or equally they can improve their own capabilities and pick up new skills. The social aspect of volunteering is important for elderly people. Opportunities to be social can lower the risk of depression often caused by feelings of isolation, while being a part of meaningful activities keeps the brain active.	*Immaterial Anticipated Benefit*
Delay admission to more intensive services An important value proposition of home support and home care is the delayed onset of admission to more intensive services, such as residential aged care, primary health services or a hospital. Elderly people have a strong preference to stay living in their own home should they ever need support or care. For elderly people, there is a comfort and familiarity associated with living in their own home. A significant proportion also have strongly held views around wanting to maintain their independence and don't want to be overly reliant on the support of other people. Furthermore carers for home support and home care play a critical role in this through the possible early identification of health needs and the reduction of potential long-term health implications when these issues are not addressed. It is possible delayed admission to more intensive aged care and health services represents a cost saving for both the WA Government and the Commonwealth. There is interest from government and aged care service providers to understand how further investment in home support and home care can ease the pressure on the health and aged care sectors, particularly with respect to the provision of places in the residential aged care system.	*Frame of Reference Limitation*
Avoided capital cost of residential facilities High participation rates for home support and home care results in an avoided capital cost relating to the construction of residential facilities. As noted in Section 3.2.4, ACIL Allen suggests a reasonable estimate for total development costs for a residential care bed in WA is $310,000. While there are economic benefits associated with this economic activity, these are primarily funded through revenues collected from the Federal Government.	*Frame of Reference Limitation*
Support in navigating access to the aged care services Carers providing home support and home care can provide information to elderly people and their families to help them navigate the aged care system and ensure that the required services are being delivered to meet health care needs. It is critically important that information relating to a step up in the level of care delivered is communicated to an elderly individual and their family in an efficient manner. Generally, carers are well informed on the specific care needs of an individual on the basis of the existing service relationship, and as such can deliver tailored information and informed recommendations. Service recipients require access to clear and comprehensive information about aspects of the aged care system such as fees and charges.	*Frame of Reference Limitation*
Retirement Villages	
Community connectivity An important value proposition of retirement living is the sense of community for the residents, underpinned by bringing same aged people together. The sense of community can be fostered by high levels of engagement and communication between local residents, which in turn helps to ensure they maintain an active lifestyle and don't become limited in their social interactions or experience feelings of loneliness. Interacting with other residents helps individuals to become independent for longer, knowing that if needed they have a support network of other residents from the retirement village who can assist with tasks and duties where required.	*Data / Methodological Limitations*

Localised services A high density of elderly individuals within a retirement village can encourage the provision of tailored services and amenities in the surrounding area. This can ensure that residents are not required to travel long distances in order to undertake social activities or to access essential services, such as medical appointments. Age-appropriate, tailored services can help elderly individuals to be physically and mentally active which has a positive overall impact on their health and wellbeing. The involvement of other individuals of the same age demographic in these activities helps to encourage high participation.	*Data / Methodological Limitations*
Enhanced safety and wellbeing An important value proposition of retirement living is enhanced safety and wellbeing. Like residential aged care providers, retirement living providers dedicate resources to ensuring the safety and security of their facilities, particularly late at night and in the early hours of the morning. A sense of safety and security for residents is also likely supported by the higher population density of a retirement village, relative to the surrounding suburban neighbourhood, which results in greater awareness around any emerging security risks, particularly if it is of the severity to be reported to the police or other authorities.	*Data / Methodological Limitations*
Keeping family members close An important value proposition of retirement living is proximity to next-step care and keeping family members near each other. The planning of retirement villages seeks to ensure that next-step care is located in close proximity. By keeping elderly family members near each other and in close proximity to next-step care it helps to provide confidence for the extended family network that their health care needs will be attended to efficiently if needed, relative to elderly people living in their own house where there may be additional time and effort required to find the most appropriate health service provider to meet an emerging health need. As the severity of health needs increase, proximity to next-step care is important as it supports early intervention to address health conditions that may go unidentified without access to health specialists.	*Immaterial Anticipated Benefit*
Social Housing	
Contribution to social housing Upon reaching retirement age, some people may be in a poor financial position and may not own their own home. For elderly people with unpredictable housing arrangements, there are some aged care service providers that offer social housing options to help deal with this issue. Adequate housing is critical to supporting the physical and mental health needs of elderly people. People's housing needs change with age. Social housing provisioned by aged care providers are able to incorporate custom design elements for elderly individuals. Without appropriately-designed homes connected to transport and local community services, elderly person's capacity to live independently can reduce. Social housing provisioned by aged care providers can reduce the financial burden on the WA Government. To highlight the scale of existing government investment, and the benefits of social housing provisioned through aged care service providers, in the 2020-21 Budget, the WA Government allocated $319 million to the Department of Communities for the Social Housing Economic Recovery Package (SHERP). This package consisted of the building or purchase of about 250 dwellings, refurbishments to existing public and supported residential houses and community housing organisation houses and targeted maintenance programs for regional social housing properties.	*Data / Methodological Limitations*

Source: ACIL Allen

6.4 Assessment of Costs

This section outlines the estimated costs attributable to the aged care sector in WA.

The attributable costs captured in this study represents the amount paid by users and funders to access the services, rather than the costs incurred by providers to deliver the services. Therefore, it is actually the revenues collected by aged care providers that represent the cost of the service.

These are outlined earlier in in this report in Section 3.2.2. As presented, it is estimated that:

— Residential Care generated $1.714 billion in revenues in 2019-20; and

— Community Care (including Home Support and Home Care) generated $798.6 million in revenues.

While the sector also collected an estimated $233.5 million in revenues from other activities such as retirement living and disability care, the benefits associated with these have not been included quantitatively and neither should the value of these costs.

6.5 Findings and Results

6.5.1 Summary of Results

Through its SROI framework, ACIL Allen quantified the benefits and costs of residential aged care services and community aged care services provided by the Sector across each of the five impact channels in 2019-20, which has been summarised in **Figure 6.6**and presented in **Figure ES 3**.

Figure 6.6 Summary of Results – Social Return on Investment of Aged Care Sector, 2019-20

	Residential Aged Care	Community Aged Care	Total Aged Care
Benefit 1: Avoided healthcare expenditure	$278.5M	$181.2M	$459.7M
Benefit 2: Avoidance of disability	$17.4M	$11.3M	$28.7M
Benefit 3: Direct value added of aged care expenditure	$1,334.4M	$544.4M	$1,878.9M
Benefit 4: Avoided loss of productive labour resources	$1,242.3M	$538.5M	$1,780.8M
Benefit 5: Relief of care requirements for family members	$837.8M	$322.1M	$1,159.9M
Total Benefits (million)	**$3,710M**	**$1,598M**	**$5,308M**
Total Costs (million)	**$1,714.1M**	**$798.6M**	**$2,512.6M**
Net Benefit (million)	**$1,996.3M**	**$799.0M**	**$2,795.3M**
Social Return on Investment Ratio	**2.16**	**2.00**	**2.11**

Source: ACIL Allen

These results reveal the significant economic and social value the Aged Care Sector generates through its residential and community care services.

Across the five impact channels, it is estimated that **residential aged care services delivered $3.7 billion in benefits against a total cost of services of $1.7 billion, realising a net economic and social benefit to the WA community of $2 billion in 2019-20**.

For community aged care services delivered by the Aged Care Sector, it is estimated that a total benefit of $1.6 billion was delivered across the five impact channels against a total cost of $0.8 billion, realising a net economic and social benefit to the WA community of $0.8 billion in 2019-20.

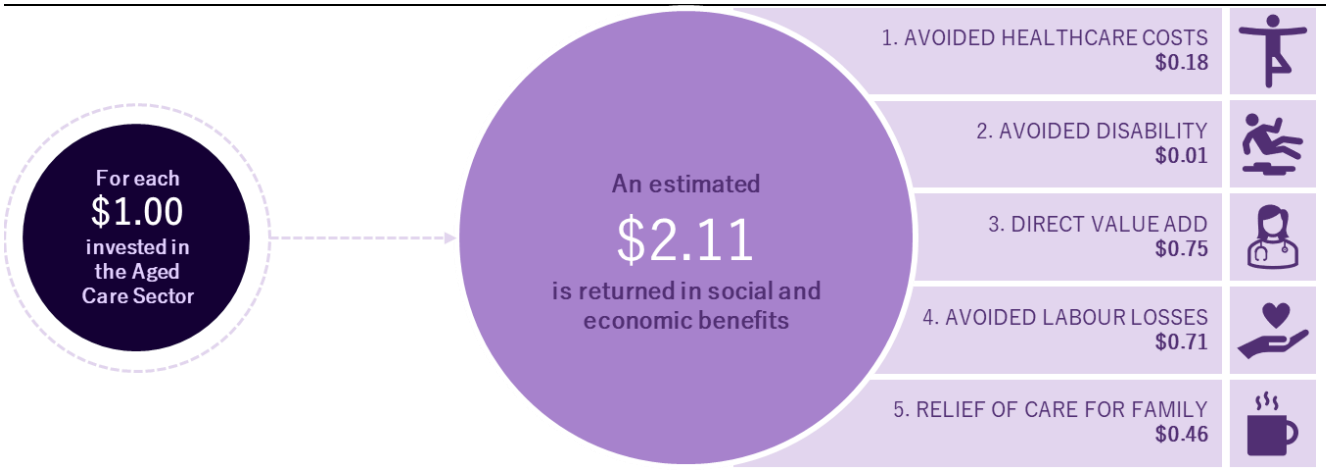
While the avoided costs of health care and disability were estimated to realise a benefit of almost half a billion dollars to those receiving care and the WA community more broadly, the **largest benefits were through the economic and productivity benefits from the care and support provided by the Aged Care Sector**. In particular, ACIL Allen has estimated that the Aged Care Sector benefited the WA community through **economic benefits of its expenditure ($1.9 billion), the avoided loss of productive labour resources ($1.8 billion), and the relief of care requirements by family members ($1.2 billion).**

Considered against a scenario whereby there are no aged care services, and the next most likely outcome is realised (i.e. hospital or family care), ACIL Allen has estimated that the **sector delivered $2.11 for every dollar spent on aged care and community care services, delivering an estimated net benefit of $2.80 billion in 2019-20.**

For every dollar spent, ACIL Allen estimates that the Aged Care Sector returns $2.11 in benefits distributed as follows:

- 18 cents in savings to the funders of acute hospital services in WA via avoided healthcare expenditure (Benefit 1: 9 per cent).
- 1 cent in averted suffering and pain to recipients of aged care service (Benefit 2: 1 per cent)
- 75 cents in economic value as measured by direct value add from the sector (Benefit 3: 35 per cent),
- 71 cents in salaries and wages to family members from avoided labour losses (Benefit 4: 34 per cent),
- 46 cents in non work time savings via relief of care requirements for family members (Benefit 5: 22 per cent).

Figure 6.7 Social Return on Investment of Aged Care in WA, 2019-20



Source: ACIL Allen

Given that the benefits associated with the Aged Care Sector far exceed the costs of providing residential aged care and community care services provided by the Sector, this highlights the demonstrable net economic and social benefits of the funding that is provided by Commonwealth and State Governments to the Sector to deliver services to those under its care.

Benefit 1 accrues to the funders of WA hospitals. Applying rates of total funding for public and private hospitals, 41 per cent ($188 million) of this saving would accrue to the WA Government, 37 per cent ($170 million) to the Federal Government and 22 per cent ($102 million) to other payers such as private health insurers and individuals. Notably, **the estimated avoided hospital costs equate to 5 per cent of the State's total spending on health in WA**.

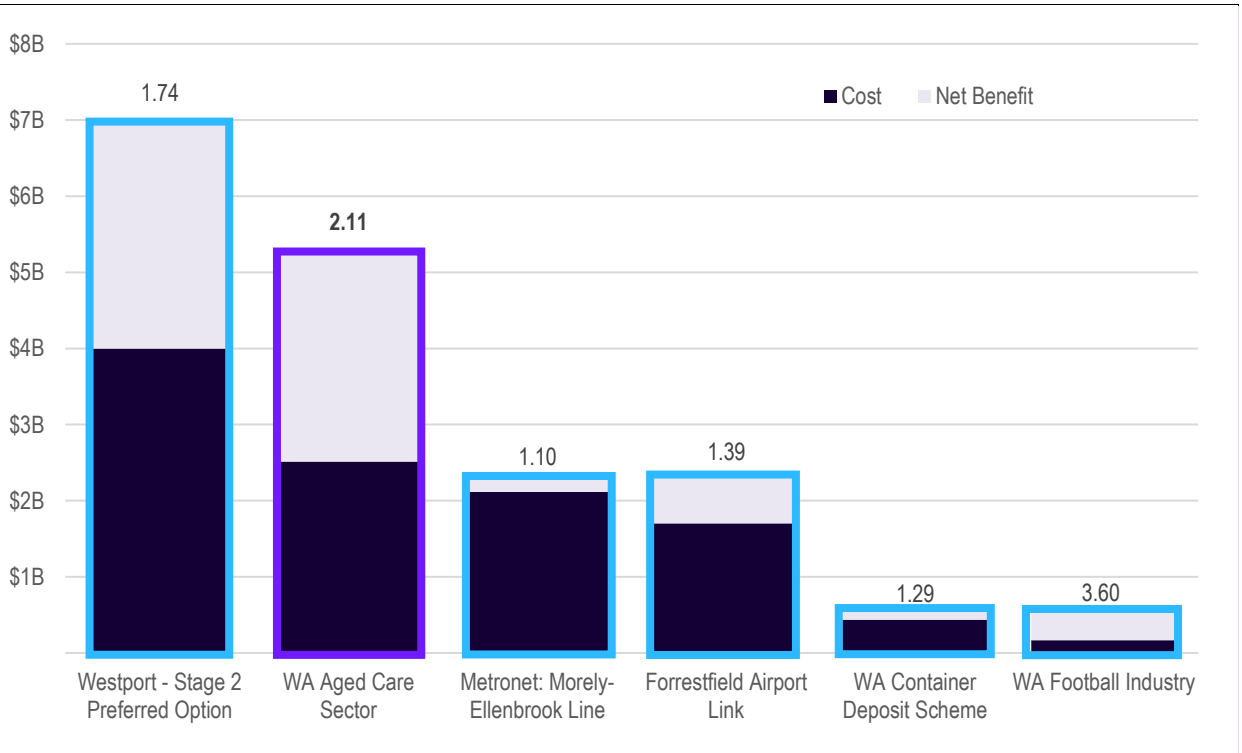
Benefit 2 is an estimate of the value of disability burden avoided and accrues to the users of aged care services. **Benefit 3** is a measure of production generated by the aged care sector and accrues to organisations (via operating surpluses) and their staff (salaries and wages). **Benefit 4** and **5** are estimates of the avoided imposition of care during working and leisure hours and accrue to kin and family members of users of aged care services.

For funding requests to Commonwealth and State Governments, it is typically a requirement that the proposal provide a clear demonstration of the net economic and social benefits of a policy, program or investment through a Benefit Cost Assessment (BCA). If a BCA associated with a policy, program or investment produces a **Benefit Cost Ratio greater than 1, then this suggests that the funding request represents a value for money proposition for funding agencies**.

The significance of these results is further reinforced when compared against the net economic and social benefits of a number of recent projects funded by the WA Government in recent years (**Figure 6.8**).

These comparisons show that the aged care sector generated a significantly larger net benefit in 2019-20 (**$2.8 billion, BCR = 2.11**) than the estimated 20-year net benefit of the proposed METRONET Morley-Ellenbrook line (**$0.2 billion, BCR = 1.10**), the net benefit of the Forrestfield Airport Link (**$0.7 billion, BCR = 1.39)**, the net benefit of the WA Container Deposit Scheme (**$0.1 billion, BCR = 1.29**) or the net benefit of WA Football in 2017-18 (**$0.4 billion, BCR = 3.60**). The preferred option for the Westport project yields a higher net benefit than the aged care sector (**$3.0 billion**) although this is based on a 50-year assessment (rather than the single year assessment applied in this study) and returns a less favourable BCR (1.74 vs. 2.11).

Figure 6.8 Results Comparison – Aged Care Sector SROI compared to other assessments



Source: ACIL Allen, Infrastructure Australia

6.5.2 Sensitivity Tests

The results of this study are based on the assumptions outlined in the above section. Each assumption is based on available evidence, with a conservative approach taken so as to avoid overstating the value of each benefit. Given this approach, ACIL Allen has undertaken two sensitivity tests to assess the impact a change in two key assumptions on the overall SROI results.

— Test 1 – Adjusting time in admitted care assumption.

— Test 2 – Omitting quantitative benefits.

The results of these test are presented below.

Test 1 Adjusting time in admitted care assumption for residential care users.

Based on assumptions outlined in Section 6.3.1, only 2.4 per cent of people using aged care services at any one time would be in admitted hospital care in the absence of residential aged care services. The assumptions have purposefully been applied in a conservative manner so as to avoid overstating the value of the sector. However, given the severity of care needs of people using residential aged care, this rate may indeed be higher. This assumption impacts the calculated value of Benefits 1, 2, 4 and 5.

Figure 6.9 below illustrates the impact of applying different rates for this assumption.

Figure 6.9 Test 1 - Adjusting time in admitted care assumption for residential care users

% users in admitted hospital care	SROI
2.4% (baseline)	2.16
5.0%	2.30
10.0%	2.58
50.0%	4.83
100.0%	8.03

Source: ACIL Allen

This test illustrates the sensitivity of this assumption, and therefore how the SROI ratio of Aged Care Sector increases as the percentage of people that would otherwise receive aged care services are admitted to hospital increases.

Test 2 – Omitting quantitative benefits.

This test presents the impact omitting each benefit has on the calculated SROI ratio. While all benefits are evidence based and conservatively calculated, the results of this test illustrate the relative contribution each benefit has on the overall SROI ratio.

Figure 6.10 Test 2 – Omitting quantitative benefits

Excluding Benefit	SROI
Including all benefits (baseline)	2.16
Excluding benefit 1	1.93
Excluding benefit 2	2.10
Excluding benefit 3	1.36
Excluding benefit 4	1.40
Excluding benefit 5	1.65

Source: ACIL Allen

This test reveals that based on the assumptions applied in this analysis, the exclusion of any single benefit continues to return a positive SROI ratio above one.

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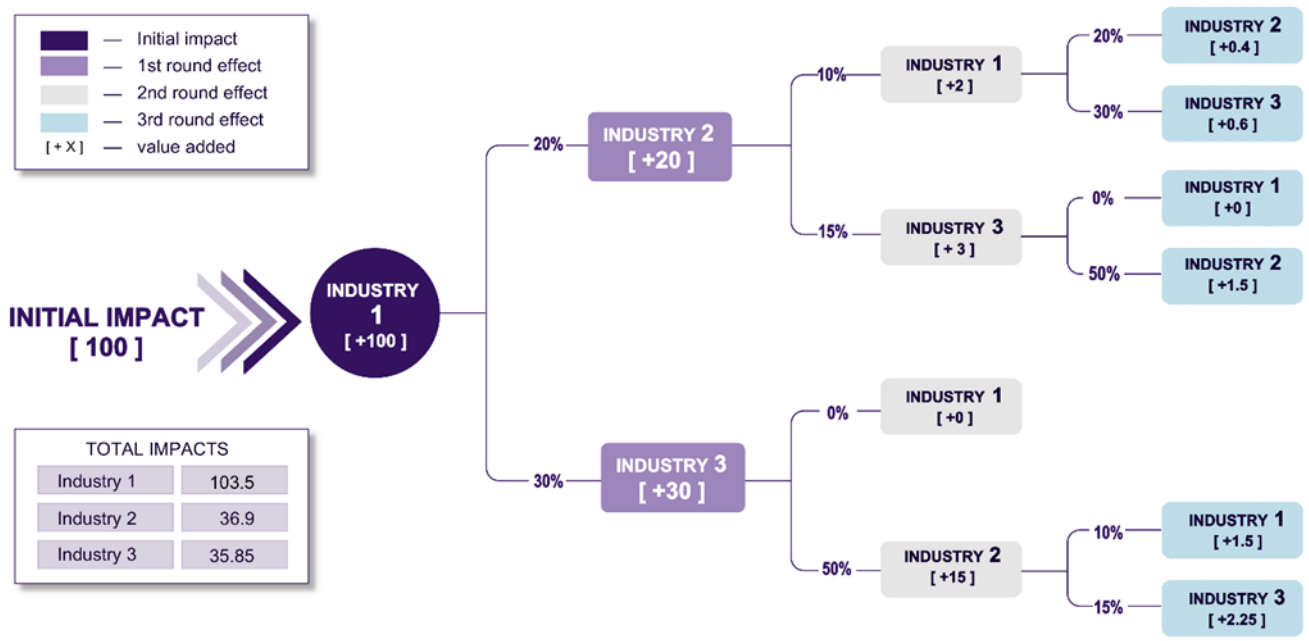
Appendices

A ACIL Allen's Models

A.1 Input Output Modelling

IO models capture the direct and indirect effects of expenditure by capturing, for each industry, the industries it purchases inputs from and also the industries it sells its outputs to. For example, the IO model for Western Australia captures purchases from and sales to industries located in Western Australia, as well as imports from outside Western Australia. Figure A.1 depicts how an impact is traced through a (very simple) economy with three industries (1, 2 and 3), and is described below.

Figure A.1 "Trace through" of an Input Output Model



Source: ACIL Allen

1. The initial impact occurs in Industry 1 where an additional 100 units of value are added to its output. In order to generate this additional output, Industry 1 requires additional inputs from Industry 2 and Industry 3.
2. Therefore, Industry 2 and 3 increase their output as well. This in turn requires input from Industry 1 and 3 and Industry 1 and 2 respectively which increase their output to satisfy this additional demand, and so on.
3. The impacts grow smaller with each iteration and ultimately converge to zero. This is because they always only share the impact that occurred in the preceding iteration.

A.2 Tasman Global

ACIL Allen's computable general equilibrium model *Tasman Global* is a powerful tool for undertaking economic impact analysis at the regional, state, national and global level.

There are various types of economic models and modelling techniques. Many of these are based on partial equilibrium analysis that usually considers a single market. However, in economic analysis, linkages between markets and how these linkages develop and change over time can be critical. *Tasman Global* has been developed to meet this need.

Tasman Global is a large-scale computable general equilibrium model which is designed to account for all sectors within an economy and all economies across the world. ACIL Allen uses this modelling platform to undertake industry, project, scenario and policy analyses. The model is able to analyse issues at the industry, global, national, state and regional levels and to determine the impacts of various economic changes on production, consumption and trade at the macroeconomic and industry levels.

A.2.1 A Dynamic Model

Tasman Global is a model that estimates relationships between variables at different points in time. This is in contrast to comparative static models, which compare two equilibriums (one before a policy change and one following). A dynamic model such as *Tasman Global* is beneficial when analysing issues where both the timing of and the adjustment path that economies follow are relevant in the analysis.

A.2.2 The Database

A key advantage of *Tasman Global* is the level of detail in the database underpinning the model. The database we will use for this project is derived from the Global Trade Analysis Project (GTAP) database (version 8.1). This database is a fully documented, publicly available global data base which contains complete bilateral trade information, transport and protection linkages among regions for all GTAP commodities.

The GTAP model was constructed at the Centre for Global Trade Analysis at Purdue University in the United States. It is the most up-to-date, detailed database of its type in the world.

Tasman Global builds on the GTAP model's equation structure and database by adding the following important features:

- dynamics (including detailed population and labour market dynamics)
- detailed technology representation within key industries (such as electricity generation and iron and steel production)
- disaggregation of a range of major commodities including iron ore, bauxite, alumina, primary aluminium, brown coal, black coal and LNG
- the ability to repatriate labour and capital income
- a detailed emissions accounting abatement framework
- explicit representation of the states and territories of Australia
- the capacity to explicitly represent multiple regions within states and territories of Australia

Nominally the *Tasman Global* database divides the world economy into 141 regions (133 international regions plus the 8 states and territories of Australia) although in reality the regions are frequently disaggregated further. ACIL Allen regularly models Australian projects or policies at the regional level.

The *Tasman Global* database also contains a wealth of sectoral detail currently identifying up to 70 industries. The foundation of this information is the input-output tables that underpin the database. The input-output tables account for the distribution of industry production to satisfy industry and final demands. Industry demands, so-called intermediate usage, are the demands from each industry for inputs.

For example, electricity is an input into the production of communications. In other words, the communications industry uses electricity as an intermediate input. Final demands are those made by households, governments, investors and foreigners (export demand). These final demands, as the name suggests, represent the demand for finished goods and services. To continue the example, electricity is used by households – their consumption of electricity is a final demand.

Each sector in the economy is typically assumed to produce one commodity, although in *Tasman Global*, the electricity, transport and iron and steel sectors are modelled using a 'technology bundle' approach. With this approach, different known production methods are used to generate a homogeneous output for the 'technology bundle' industry. For example, electricity can be generated using brown coal, black coal, petroleum, base load gas, peak load gas, nuclear, hydro, geothermal, biomass, wind, solar or other renewable based technologies – each of which have their own cost structure.

The other key feature of the database is that the cost structure of each industry is also represented in detail. Each industry purchases intermediate inputs (from domestic and imported sources) primary factors (labour, capital, land and natural resources) as well as paying taxes or receiving subsidies.

A.2.3 Factors of Production

Capital, land, labour and natural resources are the four primary factors of production. The capital stock in each region (country or group of countries) accumulates through investment (less depreciation) in each period. Land is used only in agriculture industries and is fixed in each region. *Tasman Global* explicitly models natural resource inputs as a sector specific factor of production in resource based sectors (coal mining, oil and gas extraction, other mining, forestry and fishing).

A.2.4 Population Growth and Labour Supply

Population growth is an important determinant of economic growth through the supply of labour and the demand for final goods and services. Population growth for the 112 international regions and for the 8 states and territories of Australia represented in the *Tasman Global* database is projected using ACIL Allen's in-house demographic model. The demographic model projects how the population in each region grows and how age and gender composition changes over time and is an important tool for determining the changes in regional labour supply and total population over the projection period.

For each of the 120 regions in *Tasman Global*, the model projects the changes in age-specific birth, mortality and net migration rates by gender for 101 age cohorts (0-99 and 100+). The demographic model also projects changes in participation rates by gender by age for each region, and, when combined with the age and gender composition of the population, endogenously projects the future supply of labour in each region. Changes in life expectancy are a function of income per person as well as assumed technical progress on lowering mortality rates for a given income (for example, reducing malaria-related mortality through better medicines, education, governance, etc.). Participation rates are a function of life expectancy as well as expected changes in higher education rates, fertility rates and changes in the workforce as a share of the total population.

Table A.1 Sector in *Tasman Global* database

	Sector		Sector
1	Paddy rice	36	Paper products, publishing
2	Wheat	37	Diesel (incl. nonconventional diesel)
3	Cereal grains nec	38	Other petroleum, coal products
4	Vegetables, fruit, nuts	39	Chemical, rubber, plastic products
5	Oil seeds	40	Iron ore
6	Sugar cane, sugar beef	41	Bauxite
7	Plant-based fibres	42	Mineral products nec
8	Crops nec	43	Ferrous metals
9	Bovine cattle, sheep, goats, horses	44	Alumina
10	Animal products nec	45	Primary aluminium
11	Raw milk	46	Metals nec
12	Wool, silk worm cocoons	47	Metal products
13	Forestry	48	Motor vehicle and parts
14	Fishing	49	Transport equipment nec
15	Brown coal	50	Electronic equipment
16	Black coal	51	Machinery and equipment nec
17	Oil	52	Manufactures nec
18	Liquified natural gas (LNG)	53	Electricity generation
19	Other natural gas	54	Electricity transmission and distribution
20	Minerals nec	55	Gas manufacture, distribution
21	Bovine meat products	56	Water
22	Meat products nec	57	Construction
23	Vegetables oils and fats	58	Trade
24	Dairy products	59	Road transport
25	Processed rice	60	Rail and pipeline transport
26	Sugar	61	Water transport
27	Food products nec	62	Air transport
28	Wine	63	Transport nec
29	Beer	64	Communication
30	Spirits and RTDs	65	Financial services nec
31	Other beverages and tobacco products	66	Insurance
32	Textiles	67	Business services nec
33	Wearing apparel	68	Recreational and other services
34	Leather products	69	Public Administration, Defence, Education, Health
35	Wood products	70	Dwellings

Source: ACIL Allen
Note: nec = not elsewhere classified

Labour supply is derived from the combination of the projected regional population by age by gender and the projected regional participation rates by age by gender. Over the projection period

labour supply in most developed economies is projected to grow slower than total population as a result of ageing population effects. For the Australian states and territories, the projected aggregate labour supply from ACIL Allen's demographics module is used as the base level potential workforce for the detailed Australian labour market module, which is described in the next section.

A.2.5 The Australian Labour Market

Tasman Global has a detailed representation of the Australian labour market which has been designed to capture:

- different occupations
- changes to participation rates (or average hours worked) due to changes in real wages
- changes to unemployment rates due to changes in labour demand
- limited substitution between occupations by the firms demanding labour and by the individuals supplying labour
- limited labour mobility between states and regions within each state.

Tasman Global recognises 97 different occupations within Australia – although the exact number of occupations depends on the aggregation. The firms who hire labour are provided with some limited scope to change between these 97 labour types as the relative real wage between them changes. Similarly, the individuals supplying labour have a limited ability to change occupations in response to the changing relative real wage between occupations. Finally, as the real wage for a given occupation rises in one state relative to other states, workers are given some ability to respond by shifting their location. The model produces results at the 97 3-digit ANZSCO (Australian New Zealand Standard Classification of Occupations) level.

The labour market structure of *Tasman Global* is thus designed to capture the reality of labour markets in Australia, where supply and demand at the occupational level do adjust, but within limits.

Labour supply in *Tasman Global* is presented as a three stage process:

- labour makes itself available to the workforce based on movements in the real wage and the unemployment rate;
- labour chooses between occupations in a state based on relative real wages within the state; and
- labour of a given occupation chooses in which state to locate based on movements in the relative real wage for that occupation between states.

By default, *Tasman Global*, like all CGE models, assumes that markets clear. Therefore, overall, supply and demand for different occupations will equate (as is the case in other markets in the model).

Economic Contribution Tool

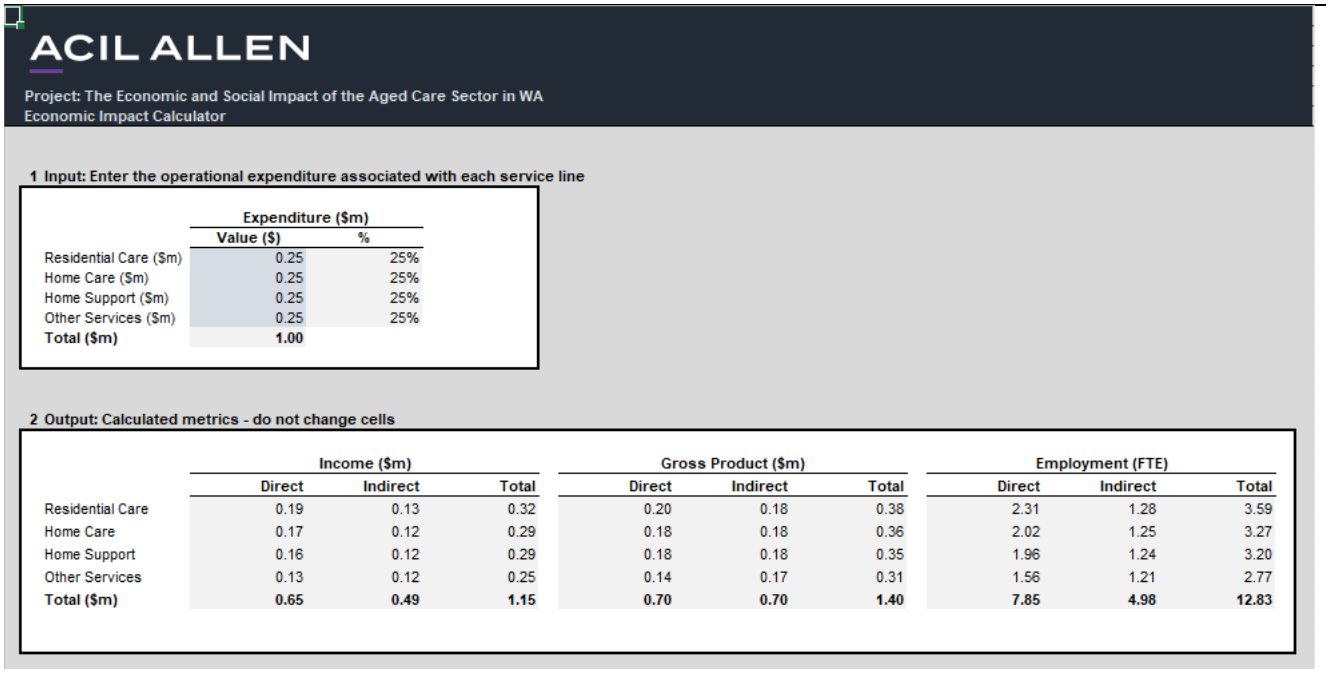
B

B.1 Overview

To support the Aged Care Sector Steering Committee's ongoing advocacy effects and application of this work, ACIL Allen have developed an Economic Contribution Tool.

A screenshot of the tool is presented in **Figure B.1**

Figure B.1 Screenshot of the Economic Contribution Tool



ACIL ALLEN

Project: The Economic and Social Impact of the Aged Care Sector in WA
Economic Impact Calculator

1 Input: Enter the operational expenditure associated with each service line

	Expenditure ($m)	
	Value ($)	%
Residential Care ($m)	0.25	25%
Home Care ($m)	0.25	25%
Home Support ($m)	0.25	25%
Other Services ($m)	0.25	25%
Total ($m)	**1.00**	

2 Output: Calculated metrics - do not change cells

	Income ($m)			Gross Product ($m)			Employment (FTE)		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Residential Care	0.19	0.13	0.32	0.20	0.18	0.38	2.31	1.28	3.59
Home Care	0.17	0.12	0.29	0.18	0.18	0.36	2.02	1.25	3.27
Home Support	0.16	0.12	0.29	0.18	0.18	0.35	1.96	1.24	3.20
Other Services	0.13	0.12	0.25	0.14	0.17	0.31	1.56	1.21	2.77
Total ($m)	**0.65**	**0.49**	**1.15**	**0.70**	**0.70**	**1.40**	**7.85**	**4.98**	**12.83**

Source: ACIL Allen

B.2 How to use the tool

The tool has been designed with a simple interface. Users simply enter the projected ***operational expenditure*** associated with each service line, and the model will generate direct, indirect and total estimates for income, gross product and FTE employment.

Note that the tool treats operational expenditure as $million estimates.

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