Australian Government
Australian Government Actuary

Australian Priority Investment Approach to Welfare

30 June 2021 Valuation Report

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Background and overview

This report presents the 30 June 2021 actuarial valuation of the Australian income support and social security (welfare) system. The actuarial valuation is part of the Australian Priority Investment Approach to Welfare (PIA), implemented by the Department of Social Services (DSS). PIA uses actuarial analysis to support a better understanding of the welfare system, both at the population level and for population subgroups of interest.

The valuation is based on the concept of a Lifetime Cost, which is the expected net present value of all future in-scope payments made in respect of the model population over their lifetimes. The model population includes both the entire resident Australian population, and all overseas recipients of income support and social security payments, as at 30 June 2021. The in-scope payments represent the welfare system as at 30 June 2021.

Valuation result

The total Lifetime Cost for the model population as at 30 June 2021 is estimated to be $5,293 billion. This is an increase of $81 billion (1.6%) from the temporally comparable "rebased" 30 June 2020 valuation of $5,212 billion. Although the Lifetime Cost has increased between valuations, the projected utilisation of welfare has remained at similar levels. The estimated average future years in receipt of welfare has decreased slightly from 18.8 years for the rebased 2020 valuation to 18.3 years for the 2021 valuation.

The ongoing effects of COVID-19 and the Government's response to them have continued to have an impact on the valuation result. This impact includes both changes seen to date, such as additional pandemic related support, as well as significant changes to economic forecasts over the short and medium term.

The primary reason for the increase in Lifetime Cost is higher payment indexation due to higher projected growth in Average Weekly Earnings (AWE) and Consumer Price Index (CPI). This higher indexation increased the Lifetime Cost by $196 billion, primarily through higher Age Pension payments.

From an annualised modelling perspective, overall welfare usage has remained at similar levels to last year. For example, the number of people on a Working Age payment decreased 1% from 2.049 million at 30 June 2020 to 2.026 million at 30 June 2021. In 2020-21, entry rates were similar to pre-pandemic levels, while exit rates remained relatively low. These figures reflect the total flow of recipient numbers throughout the financial year (FY) as people moved on and off payment.

Two key drivers of the 2021 valuation result are the change in projection of the inflation assumptions and unemployment rates. The unemployment rate forecasts in the March 2022-23 Budget are projected to stay low by historical standards. The direct effect of lower unemployment is lower Working Age payments, resulting in less Age Pension usage longer-term. However, offsetting this are the CPI forecasts which have increased substantially. Indexing payments at a higher rate increases the lifetime cost. The net result is an increase in the overall lifetime cost.

Modelling approach

The PIA model projects the future possible interactions of those in the model population with the welfare system. Detailed data is required for this projection. This data is provided by DSS in the form of a longitudinal dataset covering welfare use in Australia. Together with a range of other supplementary data sets, it enables projections of future transitions into and out of the welfare population, transfers within the welfare system, and the type and amount of welfare payments made.

This year, the following updates have been made to the modelling approach:

- The model set has been consolidated into fewer and more complex models that are better suited for Neural Networks. As a result, modelling performance and computational speed has improved.
- Various updates were made to some of the models in the model set. This included incorporating additional predictors into existing models where appropriate so as to increase its predictive power.
- For the demographics module, this included increased utilisation of Household, Income and Labour Dynamics in Australia Survey (HILDA) data to inform trends in the non-welfare population. In addition, the introduction of a new intergenerational welfare usage variable allows for more accurate outcome predictions.
- Data quality is a key factor underlying the modelling process. Updates were made to the process we apply to allow for missing and immature data. The data processes for number of children and educational attainment models were also enhanced.
- The overall sophistication of the payment models has been improved, covering the aspects of utilisation, duration and size.

Rebasing the 30 June 2020 valuation on the above updated modelling process resulted in a decrease (6.9%) to the previously estimated 30 June 2020 Lifetime Cost.

The impacts on the Lifetime Cost from updated model assumptions are explained in the next section on population level results. These include:

- using the March 2022-23 budget unemployment rate forecast to guide projection of future welfare use;
- updating payment inflation assumptions; and
- updating welfare usage assumptions.

Population level results

The total Lifetime Cost for the model population as at 30 June 2021 is estimated to be $5,293 billion. This represents an increase of $81 billion (1.6%) from the rebased 30 June 2020 valuation of $5,212 billion.

The net increase of $81 billion is a result of a $196 billion increase due to higher indexation, in addition to an $8 billion increase due to 0.2% population growth. Offsetting this is a $123 billion decrease due to changes in the experience of welfare utilisation and payments in 2020-21. These changes are primarily the result of improvement in economic conditions following COVID-19 restrictions, particularly the decrease in the projected unemployment rate.

The major contributor to the Lifetime Cost is the Age Pension ($3,164 billion, or 60% of the total). The non-income support family payments ($528 billion, or 10% of the total) and Disability Support Pension ($475 billion, or 9% of the total) are also significant contributors to the total Lifetime Cost. These three payment types were also the main contributors to the 2020 estimate. The equivalent rebased figures for 2020 were similar: Age Pension ($3,046 billion), non-income support family payments ($514 billion), and the Disability Support Pension ($476 billion).

The significant influence of the Age Pension is due to [1] the large number of people currently receiving the Age Pension; [2] the large number of people who will receive the Age Pension in the future; [3] the relatively high annual payments being received; and [4] the long duration for which payments are received (18 years, on average). Those not currently in the welfare system contribute 59% of the Age Pension Lifetime Cost, reflecting the expectation that many Australians who are currently not relying on welfare will do so at some point in the future.

Various individual characteristics are correlated with higher welfare utilisation and/or payments in the future. Females are generally expected to have a higher Lifetime Cost for family and parenting payments, and for the Age Pension. Age is influential across most categories of welfare, in particular for Disability benefits where, for example, the age of onset of disability has a bearing on the future duration of support.

The duration of support directly influences the Lifetime Cost. For example, those currently on income support are expected to spend a greater proportion of their future lifetime receiving income support, than those not currently on income support. This is particularly the case for recipients of Carer payments and the Disability Support Pension.

The estimate of the Lifetime Cost is subject to uncertainty, and the COVID-19 pandemic has further accentuated this uncertainty. COVID-19 has had a significant impact on a range of welfare policies, payments and services. The impact of COVID-19 will continue from both a health and economic view, with the outcomes reflected in the results of future valuations. In addition to large system shocks such as COVID-19 there are various factors that add to the uncertainty of the Lifetime Cost.

How changes in mortality emerge over time can have a significant impact on future welfare utilisation, notably the Age Pension. The greater the future improvement in mortality, then the higher the future life expectancy, and longer the duration of payments that results. A 10% movement in the improvement factors for future mortality rates has an impact of approximately 1% on the Lifetime Cost.

Changes in indexation rates can also have a large impact on the Lifetime Cost. AWE assumptions directly impact the size of payments made, with a 1% increase to the base assumption significantly increasing income support payments over time. Variation in CPI assumptions have a significant effect on non-income support payment categories.

Changes in the unemployment rate affect the number of people both entering and exiting welfare. Working Age payments and family payments constitute the main payment categories that are directly impacted, with flow-on impact to other payments.

The behaviour and response of current and future welfare recipients may also change over time in response to policy, and/or economic changes. An interesting observation is that the Lifetime Cost is more sensitive to changes in entry rates from non-welfare into welfare, than exit rates from welfare to non-welfare. This reflects the fact that someone who exits from welfare is more likely to re-enter welfare than someone who has never previously been in welfare.

Guy Thorburn FIAA
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July 2022

1 Background and Overview

1.1 The Priority Investment Approach to Welfare

1.1.1 The Department of Social Services (DSS) implemented the Priority Investment Approach to Welfare (PIA) to support its objective of improving the wellbeing of individuals and families in Australian communities. As part of the implementation of PIA, this report documents and presents the 30 June 2021 actuarial valuation of the Australian income support and social security (welfare) system.

1.1.2 The actuarial valuation allows us to better understand the welfare system both at the population level and for population subgroups of interest. By projecting the expected welfare experience of different subgroups of the population, the valuation model provides insights into the potential future outcomes for each subgroup. These projections aggregate into a single valuation measure of the Lifetime Costs of future welfare use for the entire population, which provides a measure of the welfare system as a whole.

1.1.3 The valuation model provides a tool for exploring the dynamics of the welfare system and changes to the system, via the impact on Lifetime Cost. The Lifetime Cost is defined as the expected net present value of all future in-scope payments made in respect of the model population over the remainder of their lifetimes. This report estimates the Lifetime Cost as at 30 June 2021.

1.1.4 This is the seventh such annual valuation and provides an updated assessment of the Lifetime Cost for the Australian population, together with information on the changes to the system since the 30 June 2020 valuation.

1.2 Model population

1.2.1 The model forecasts the welfare experience of the entire resident Australian population, as well as any overseas recipients of income support and social security payments, as at 30 June 2021. Future migrants and future births are not directly included in the model population, but will influence valuations in the future, when they enter the Australian population. At that time, they will contribute to an increase in the total Lifetime Cost. Future births indirectly influence the valuation result by adding to the number of children that a currently modelled individual has, thus impacting their future propensity to utilise welfare.

1.2.2 The model population is built up from information and assumptions relating to each individual. The information and assumptions pertain to their demographic characteristics, life situation and welfare history. This allows us to simulate individual trajectories throughout their lifetime and their associated interactions with the welfare system, for each future year.

1.3 Assumptions and policy impacts

1.3.1 Detailed assumptions are made in order to reflect how different drivers of experience interact with each other and over time, in respect of welfare use. It is assumed that relevant social security policy settings will persist in perpetuity.

1.3.2 Where material changes (beyond a prescribed standard) have been made to relevant policies over the previous year, updated assumptions and/or adjustments are made within the modelling process. This ensures that the projection allows for estimates of the direct impact of any such changes.

1.3.3 However, subsequent secondary impacts and/or behavioural changes in response to such policy changes are not modelled directly. Their impact will emerge over time in the data. As such, secondary impacts will be captured within the analysis of experience for future valuations and will impact future valuation results as they arise.

1.4 Uses of the PIA model

1.4.1 Results at the whole population level inform not only the overall projected cost of future welfare utilisation, but can also give insights regarding:

- How welfare utilisation changes in response to movements in the population size and demographic profile. This is of particular relevance in the context of an ageing population and changing family circumstances;
- The key factors that drive Lifetime Cost and annual expenditures;
- How the cost is changing over time, which provides information on the financial sustainability of the system; and
- The impact of changes, both to the welfare system and to external drivers of experience within the system (for example, economic conditions including shocks such as the COVID-19 pandemic).

1.4.2 The PIA model also provides insights into the future welfare utilisation for a range of population subgroups, including their expected future pathways through the welfare system. This allows analysis into the experience of population subgroups, as well as how that experience will change over time. Population subgroups can include groupings by age, gender, current payment category or class, geographic location, refugee status, and a range of other characteristics.

1.4.3 Exploring the sensitivity of the results to changes in assumptions can provide additional insights. This includes assessing the impact of different economic scenarios, changes in fertility rates, changes in payment design (payment eligibility, amounts or indexation), or changes in other policy parameters. The model is best suited to assessing the impact of such changes over the long term.

1.5 Model limitations

1.5.1 Whilst the lifetime trajectory of each individual is simulated in the model, this is based on the risk characteristics that apply at an aggregate level for groups and populations of people. It is not intended or suitable to produce, or infer, conclusive insights about future welfare use based on unique individual characteristics. Rather, it is intended to produce meaningful results for a group of similar individuals – either in total or on average for that group.

1.5.2 As with the modelling of any program with long-term financial implications, there is inherent uncertainty of any estimation of such long-term costs. Unanticipated shocks, such as the COVID-19 pandemic, could also rapidly and drastically alter the future. Issues of uncertainty are discussed later in this report and give rise to the need for the provided sensitivity analyses around the reported results.

1.6 Professional standards underlying this report

1.6.1 The advice in this report is intended to satisfy the Code of Professional Conduct issued by the Actuaries Institute. No other Australian Professional Standards are relevant to this work.

1.6.2 The International Actuarial Association's International Standard of Actuarial Practice 2 (ISAP 2) provides (non-binding) guidance to actuaries performing financial analyses of Social Security Programs (SSPs), or for reviewing, advising on, or opining on such analyses. Whilst ISAP 2 is not directly applicable to this valuation, our approach is aligned with the suggested practices that are relevant to this report.

1.7 Reliances

1.7.1 The report relies on the completeness and accuracy of information compiled and provided by DSS. Although the modelling process requires and prompts checks for internal consistency and for consistency with other information, ultimate assurance of the fidelity and accuracy of the data resides with DSS.

1.7.2 This report has been prepared by the Australian Government Actuary at the request of DSS. It is not intended, or necessarily suitable, for any other purpose not described in this report.

2 Modelling Approach

2.1 Overview

2.1.1 To establish an expected value of the financial cost of the welfare system, two key parameters need to be estimated. First, the number of people expected to receive each of the different welfare payment types at a point in time, and secondly, the expected size of each payment made. The product of those two sets of estimates, summed up across a given population, provides an estimate of the total expected financial cost of the welfare system at that point in time.

2.1.2 To account for the time value of money, an appropriate interest rate is applied to discount the financial costs estimated in each future year, to give an expected cost in today's dollars. This present value of the expected overall future cost of the welfare system is what this report refers to as the Lifetime Cost.

2.1.3 The interest rate used to discount the financial costs of each future year, to the current valuation date of 30 June 2021 is 5 per cent per annum. This approach aligns with that used by the Australian Government Actuary in assessing other long-term Commonwealth Government liabilities. The choice of interest rate does not impact the projected cashflows in each future year, but it does impact the present value of the Lifetime Cost as at the valuation date in each future year.

2.1.4 The economic assumptions used in this report are listed in Table 1.

Table 1: Economic Assumptions

Item	Source
Discount Rate	5% per annum
CPI	Projected from the March 2022-23 Budget
AWE	Projected from the March 2022-23 Budget
Unemployment Rate	Projected from the March 2022-23 Budget

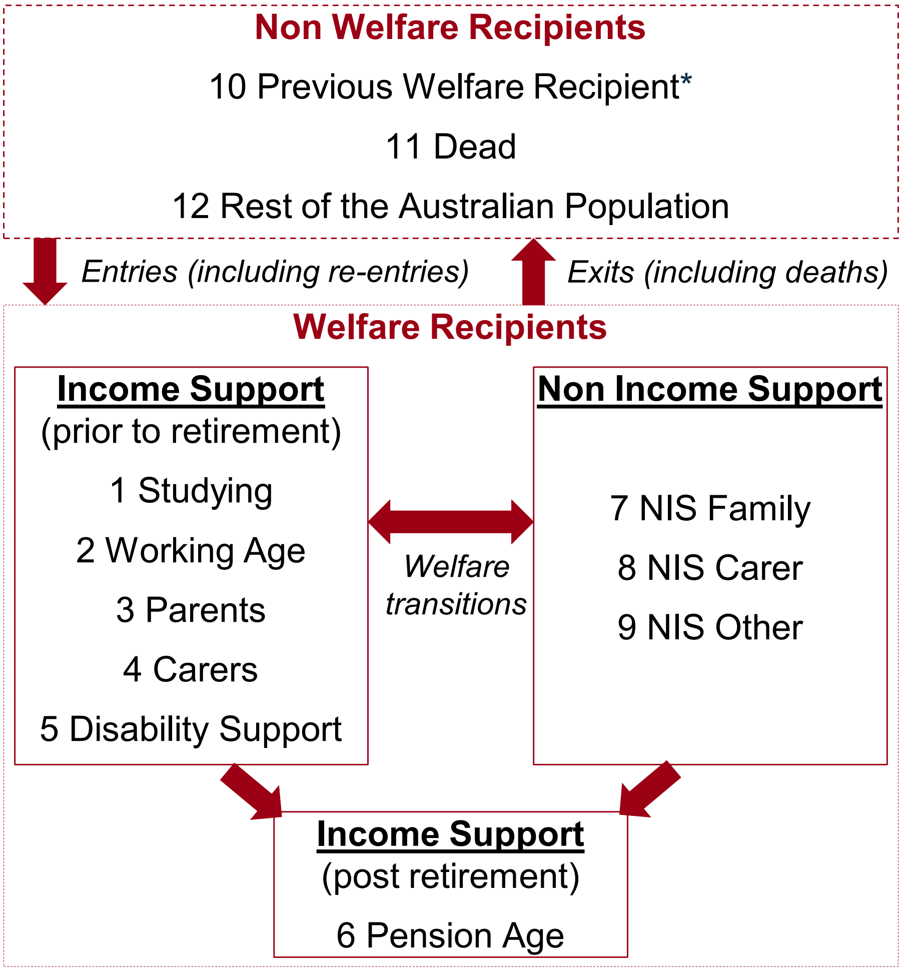
2.1.5 This valuation applies the above approach to the entire Australian (welfare and non-welfare) population as at 30 June 2021, to give rise to the Lifetime Cost as at that date.

2.1.6 The valuation modelling process requires, as a minimum:

- appropriate details of the model population as at 30 June 2021;
- data relating to past experiences of those both inside and outside the welfare system;

- analysis of past experience relating to rates of entry, exit, and transfers within the welfare system;
- analysis of past experience relating to entitlements and payments within each welfare program (or class);
- adjustments to the above experience, to account for both trends over time, and to account for changes to the welfare system that have been legislated, but whose impacts are not yet fully evident in the data to date;
- assumptions about the future macroeconomic environment; and
- a framework to examine, and appropriately model, the many varied and inter-dependent categories of welfare assistance within the Australian system.

Figure 1: Overview of the Dynamics of the Welfare System



*Received welfare within the previous 20 years

2.1.7 With respect to the last point, Figure 1 provides an overview of the broad dynamics of the welfare system. This indicates the high-level movements of entries to and exits from the welfare system, and transfers between the broad welfare categories of Age Pension, other income support, and non-income support.

2.1.8 The model projects individuals' trajectories through life and their interactions with the welfare system. The average Lifetime Cost for people in each class is driven by the probability of an individual in that model population entering, remaining in or leaving the welfare system in each future year; combined with the type and amount of payments they are likely to receive while they are active in the system.

2.2 Data

2.2.1 Detailed data for each person in the model population is required to project an individual's trajectory through life, particularly in terms of their interaction with the welfare system. DSS produces and maintains a longitudinal dataset covering welfare use in Australia. This dataset provides the major source of relevant information relating to the welfare population, transitions into and out of the welfare population over time, and payments made.

2.2.2 Other supplementary data supports the modelling process. This includes past Census data, the Australian Life Tables, macroeconomic forecasts and projections from Treasury, data from the Australian Bureau of Statistics (ABS), and the Household, Income and Labour Dynamics in Australia (HILDA) Survey.

2.2.3 For this valuation, we have used a data extraction (census) date for DSS data of 30 September rather than 30 June. This follows the approach used in previous valuations.

2.2.4 A date later than the valuation date of 30 June 2021 is used to allow for delays in processing applications and reporting. If an extraction date of 30 June was used instead, then information recorded after this date relating to historical entitlements would not be part of the collected data. This data maturity issue would particularly impact the experience recorded for the most recent year. Adopting a date of data extraction of 30 September 2021, in respect of the model population as at 30 June 2021, provides more certainty for early projection years in particular.

2.3 Modelling process

2.3.1 An individual's contribution to the Lifetime Cost will vary significantly, based on their particular circumstances or characteristics. The extent to which these characteristics are shown to be important differentiators of welfare utilisation or payment size, is therefore a key element of the modelling process.

2.3.2 The modelling process determines the relative importance to be given to each characteristic that drives welfare entry, exit, and payment size. Importantly, this identification and allocation of a weight occurs within a class structure, with different welfare classes defined based on the types of payments received over the last year. These classes are defined in Table 2.

2.3.3 The experience of an individual within each welfare class is influenced by various factors. Significant influences include:

- the particular structure of a welfare class. This includes the eligibility criteria and parameters regarding the length of time for which benefits can be received (for example, age or age of youngest child);
- an individual's characteristics, which inform the expected persistency of receiving a payment (for example, age when first entering welfare system or duration on income support) and the level of payment received (influenced by, for example, partnering status).

2.3.4 The annual simulation of welfare use in each future year is illustrated in Figure 2. This also shows the order in which each variable is simulated. The figure does not consider variables that are not currently modelled as dynamic in the simulation, which includes birth country, indigeneity, refugee status, gender, language proficiency, and the intergenerational propensity score.

Table 2: Welfare Classes

Class Category	Class Number	Description
Active – income support (IS)	**1 Studying**	People receiving Austudy, ABSTUDY or Youth Allowance (Student) as their most recent income support payment.
	2 Working Age	People receiving JobSeeker Payment or Youth Allowance (Other) as their most recent income support payment (plus a small number of other recipients).
	3 Parenting	People receiving Parenting Payment (Partnered or Single) as their most recent income support payment.
	4 Carers	People receiving Carer Payment as their most recent income support payment.
	5 Disability support	People receiving Disability Support Pension as their most recent income support payment.
	6 Pension Age	People receiving any Age Pension as their most recent income support payment (also includes a small number of Widow B Pension and Wife Pension recipients).
Active – non-income support (Non IS)	**7 Non IS Family**	People not receiving any Carer Allowance but receiving one or more family supplement payments (such as a Family Tax Benefit or Child Care Subsidy – see categories H, I and J in Appendix C for a full list).
	8 Non IS Carer	People receiving Carer Allowance.
	9 Non IS Other	People receiving payments but not in any other welfare recipient class (such as those receiving Assistance for Isolated Children or Crisis Payment).
Inactive classes	**10 Previous welfare recipient**	People who have been in one of classes 1 to 9 within the previous 20 years*, but are not in one of these classes for the latest year. ** 20 years is selected here as the modelling dataset used has a maximum of 20 years welfare history. That is, the current data cannot indicate if someone's last welfare interaction was more than 20 years ago.*
	11 Dead	People who have died in the previous and prior years.
	12 Rest of Aust. population	Rest of modelled population.

Figure 2: Illustration of the Simulation Model Structure

0 Initial Population

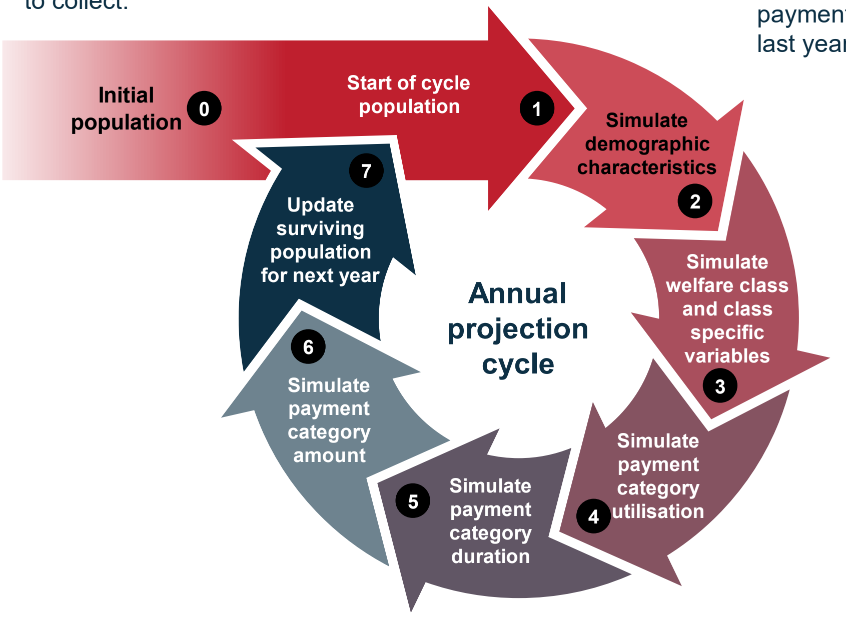
Data maturity
Adjustment to initial population only, for data that takes time to collect.

1 Start of cycle population – for each person:

What are their current demographic characteristics?

What is their current and past interaction with the welfare system?

Which payment categories did they receive payments for last year?



2 Demographics

Ageing

Mortality

Partner status

Children

Education – Highest level of educational attainment.

SEIFA - Socio-economic advantage/ disadvantage.

3 Welfare class

Change in Welfare Class

Carer variables (Classes 4 & 8) – e.g. care recipient age.

DSP medical condition (Class 5)

PCW - (Class 2)

Employment earnings indicator (Class 1-5)

Payment type (Class 1-3)

Education sector (Class 1)

4 Category utilisation

For each of the 16 payment categories: Does the person receive payments during the year?

5 Category Duration

For each category utilised: How many days in the year does the person receive the payment?

6 Category Amount

For each category utilised: How much money does the person receive during the year?

7 Update step

The person's status at end of the year becomes their status at start of the next year.

2.3.5 Underneath the welfare class structure is another modelling structure based on approximately 85 individual payment types, which are themselves grouped into sixteen payment categories. Six of these payment categories relate to income support payments, and ten relate to non-income support payments. The change from 17 payment categories in the 2020 model is due to the cessation of Partner Allowance and Widow Allowance.

2.3.6 Although each person is allocated to a single unique class in a year, the model design allows for the possibility of different combinations of payment utilisation across payment categories.

2.3.7 The welfare classes are treated in a hierarchical order in the modelling dataset. For example, if someone receives multiple payments during a given year, being in an income support class (classes 1 to 6) will take precedence over being in a non-income support class (classes 7 to 9).

2.4 Model updates

2.4.1 The significant impacts of the COVID-19 pandemic have led to much uncertainty in terms of projecting welfare usage. This manifests as additional modelling challenges to consider in the valuation process for the near future. This has been exacerbated since the last year, locally and globally, by strong waves of new COVID-19 variants and changing economic conditions.

2.4.2 The use of past experiences alone is insufficient for setting assumptions for the future in the current environment. Pre-COVID-19 data isn't especially prescriptive in the short term, while intra-COVID-19 data isn't especially prescriptive for the long term. Some short terms effects have been factored in explicitly, while persistent after-effects from the pandemic have been factored in implicitly through the Treasury forecasts referenced in the model.

2.4.3 For the 2021 valuation, we used 2 years' (2018 and 2019) pre-COVID-19 experience to form assumptions for the long-term and applied adjustments that reflect the projected employment outlook and transitions in the short term. More recent experience was not used in setting the long-term assumptions as the short term COVID-19 experience is not expected to be repeated in each future year.

2.4.4 Several updates to the modelling approach have been conducted for the purposes of the 2021 valuation. These are described in the following paragraphs.

2.4.5 We have continued the transition to a more automated and nuanced machine learning approach using neural networks. In particular this year, the focus was on consolidating our models into fewer and more complex models that are better suited for neural networks.

2.4.6 Specific updates were made to various models, which include:

- further utilising analysis of HILDA data to inform demographic trends in the non-welfare population;
- utilising new intergenerational welfare usage variables to predict outcomes more accurately;
- updating the process for projecting the number of children for both the welfare and non-welfare populations;
- replacing the previous education models with Neural Network models, for both welfare and non-welfare groups
- improving the model accuracy for receipt of multiple related payment categories. Individuals can receive payments from multiple payment categories, either sequentially or simultaneously within a one-year period. Some combinations are more likely than others. Payment category utilisation models include intra year utilisation predictors (that is current year receipt of other payments), plus additional rule-based adjustments to provide a more accurate model of payments received;
- a short-term model adjustment for COVID-19;
- removal of payment category G, as Partner Allowance and Widow Allowance have ceased;
- the addition of payment duration models, particularly to facilitate a more nuanced distribution of payment amounts;
- additional predictors for some models to increase the predictive power;
- consolidation of class and size models; and
- updating the process for model fitting at certain ages.

2.4.7 The data extraction and simulation processes have been updated. This included:

- updating the imputation of missing values in the model population;
- updating the methodology to more accurately identify parent/child relationships from different data sources;

2.4.8 Adjustments to the models form a significant component of the modelling process as explained in section 2.1. This year we continued to reduce the number of adjustments. The primary purpose of adjustments now is to incorporate the exogenous effects of long-term trends and shocks. The adjustments include the following:

- **Age Pension:** The Age Pension currently makes up more than half of the total Lifetime Cost. With the average balance of superannuation savings expected to increase from the maturing of the superannuation system, reliance on the Age Pension is expected to diminish, and the proportion of those receiving a full and part pension is also expected to change over time. The Age Pension adjustment methodology uses the modelling data from the recent Retirement Income Review and HILDA data to project future asset levels for those aged 67 and over, and the resulting future Age Pension usage. Some key results are discussed in Chapter 3.
- **Unemployment:** The unemployment rate is a key macroeconomic driver of welfare use for Working Age payments. The modelling as designed can respond to large changes in employment conditions, which forms the basis of COVID-19 related projections. The projected medium-term unemployment rate from Treasury provides an important assumption about the likely labour market outlook. This has a direct impact on Working Age payments, which are most impacted by the COVID-19 pandemic.
- **COVID-19:** Targeted adjustments to the models were made to override certain long-term assumptions in the short-term. For example, the projected rate of exit away from Working Age payments in 2022 needed to be increased relative to the long-term assumption, as the easing of COVID-19 restrictions has already resulted in many people no longer needing Working Age payments.

2.4.9 Indexation forecasts have been updated. This includes using the latest actual AWE, CPI and Pensioner and Beneficiary Living Cost Index (PBLCI) to derive indexation factors for the first simulation year.

2.4.10 The census date for policy changes has been set to the valuation date of 30 June 2021. The population data is ‘as at’ 30 June 2021, but ‘as known at’ 30 September 2021 is extracted to allow for maturity corrections / updates to the data.

2.5 Rebase of 2020 results

2.5.1 In light of the model changes discussed above, and to enable a meaningful analysis of the COVID-19 impact and other changes between the 2020 valuation result and the 2021 valuation result, we have re-run the updated modelling process on the 2020 population. This gives us a valuation as at 30 June 2020 of $5,212 billion, which is 6.9% lower than the previously modelled 30 June 2020 result of $5,597 billion.

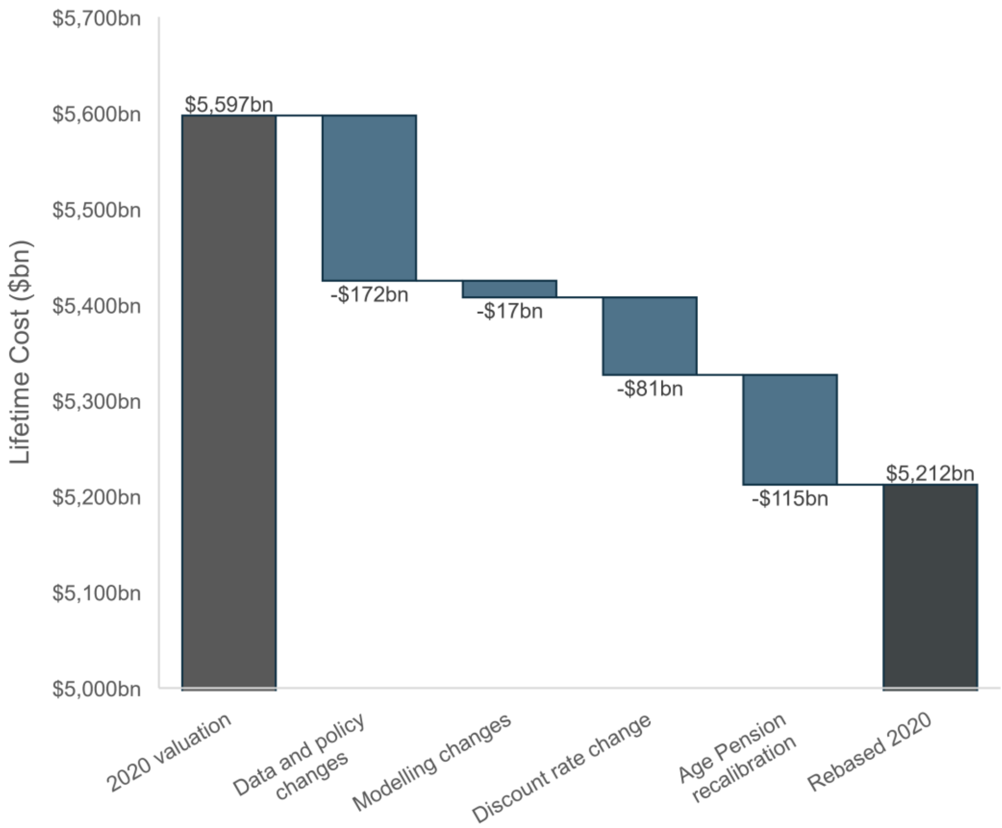
2.5.2 This rebasing of the 2020 valuation result is important because it supports comparability of the 2020 and 2021 results. In particular, it ensures that changes between those valuations can be attributed to relevant changes over the

2020-21 period. For example, changes in the underlying population, legislative changes, and changes in experience.

2.5.3 If the 2020 result was not rebased, then changes between the 2020 and 2021 valuations would be attributed to features that have no relevance to the actual experience of the welfare system *per se* – such as updates to the modelling process, use of certain data, and other aspects of the modelling discussed above.

2.5.4 A visual representation of the rebased 2020 result, compared to the previous 2020 result, is provided in Figure 3.

Figure 3: Changes from the 2020 Valuation to the Rebased 2020 Valuation



2.5.5 The updated modelling approach produced a lower valuation result as at the previous valuation date of 30 June 2020. This change arose from four main sources:

- Updated data, including the impact of policy changes and data maturity. Data maturity, in this context, means that more is now known about the model population at 30 June 2020, compared to when the valuation was conducted 12 months previously. The data was also updated to use actual payment indexation values for the first year of the projection (2020-21), rather than forecast values.

- Several model updates, as explained in section 2.4. While the updated models provided more accurate predictions of welfare usage at the individual level, they had relatively minimal impact on the overall predicted level of welfare usage.
- Change in the discount rate from CPI + 2.5% to a flat 5%. This change increased the discount rate in the short term, which resulted in a decrease in the Lifetime Cost. This reduces short term volatility in the discounted Lifetime Cost that is driven by economic parameters and enables the focus to be on changes in the Lifetime Cost that are attributable to changing patterns in how individuals interact with the social security system over time.
- The Age Pension adjustment process was refined to more closely align the results with forecasts from the Retirement Income Review. This update had an impact on the age distribution of future Age Pension usage, with a consequent decrease in the Lifetime Cost.

2.6 Policy updates for 2021

2.6.1 The actuarial valuation reflects relevant policy as legislated at the valuation date and assumes that these policy settings will persist in perpetuity, with the exception for where a sunset clause applies. This means future changes in payment design or eligibility have been allowed for in the valuation if the related legislation is in place at the policy census date of 30 June 2021.

2.6.2 This 30 June 2021 valuation incorporates the additional changes made since 1 July 2020, as these may impact the types of payments available, the eligibility criteria, and entitlement amounts. These in turn will impact the projected trajectories and payments in the model.

2.6.3 Explicit allowances are made as part of the modelling process for material changes to policy. These allowances reflect the estimated direct impact of the changes. No second order or indirect allowance has been made for any flow-on impacts, or behavioural responses, to the changes. These will be reflected in the emerging experience as they take effect.

2.6.4 Table 3 outlines the material policy changes that have been advised by DSS since the 2020 valuation. The influence of these changes has been accounted for, in the population data through the experiences that emerged, in the current valuation.

2.6.5 Historical updates can be found in Appendix B.

Table 3: Summary of Main Material Policy Changes (legislated 1 Jul 2020 to 30 Jun 2021)

Policy Change	Description of Policy Change
Social Services and Other Legislation Amendment (Strengthening Income Support) Act 2021	Amends the Social Security Act 1991 to: increase, from 1 April 2021, the maximum basic rates of all working age social security payments by $50 per fortnight.
Social Services and Other Legislation Amendment (Strengthening Income Support) Act 2021	Permanently increases the ordinary income-free area for JobSeeker Payment, Youth Allowance (other), parenting payment (partnered) and related payments to $150 per fortnight – this free area will no longer be indexed

2.7 Model population

2.7.1 An external driver of the valuation result relates to movement in the underlying population base that is either currently receiving welfare assistance or is not currently receiving welfare assistance but could receive this in the future. As such, the current size and profile of the in-scope (model) population is of interest, as is the movement in this population since 30 June 2020.

Current Model Population

2.7.2 The total model population as at 30 June 2021 is equal to 25.84 million people. This consists of the Australian estimated resident population of 25.74 million, and approximately 0.10 million who are current welfare recipients residing overseas (primarily age pensioners).

2.7.3 The overall change in population from 30 June 2020 to 30 June 2021 is 0.2%, an increase of 41,000 people. This is the lowest population annual growth rate since June 2005, primarily attributed to the decline in net overseas migration as a result of travel restrictions in response to the COVID-19 pandemic[1]. Population change due to natural increase (births minus deaths) has been minimal.

2.7.4 A more detailed breakdown of the composition of the model population as at 30 June 2021 is shown in Figure 4.

1 https://www.abs.gov.au/articles/population-and-covid-19

Figure 4: Total Model Population at 30 June 2021

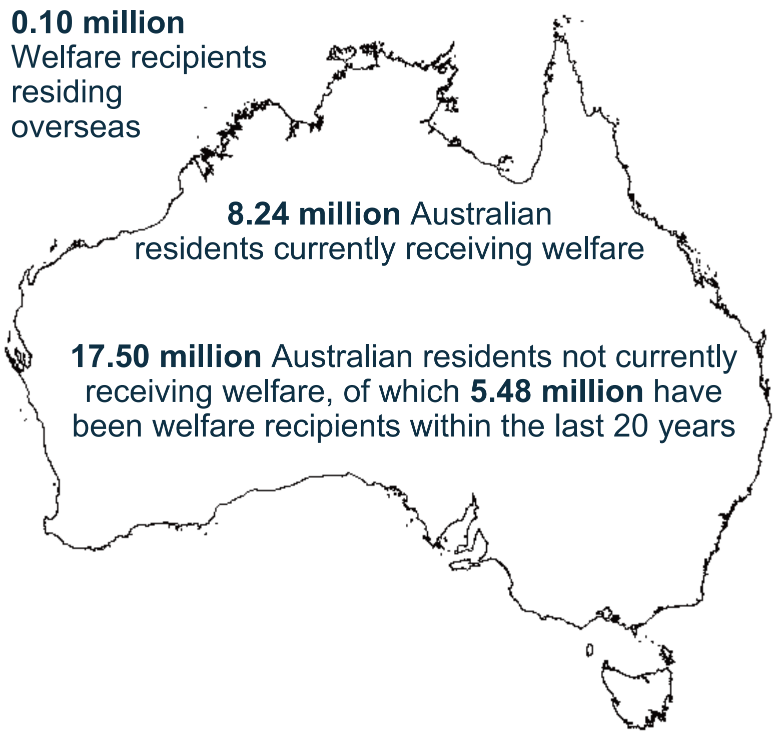
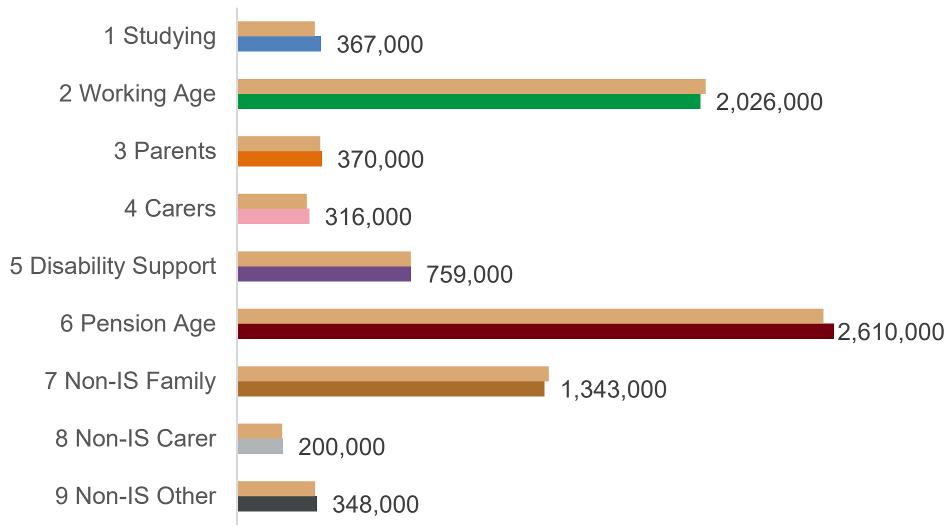


Figure 5: 2021 Welfare Recipient Model Population by Welfare Class

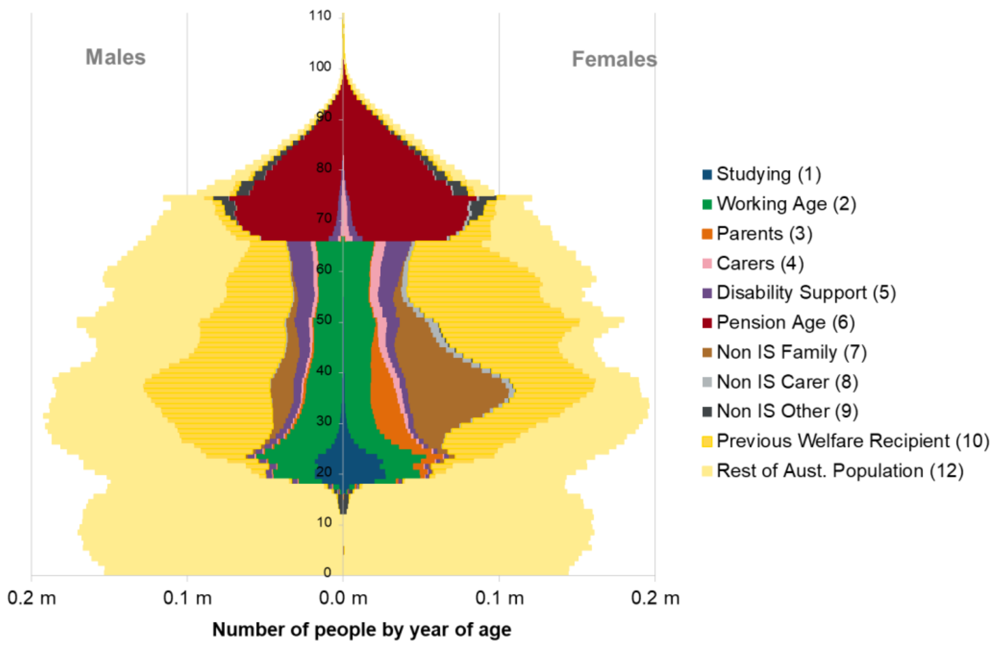


Note: Tan bars show the 2020 year's population (numbers can be found in Table 4)

2.7.5 An additional breakdown of the current welfare population, distributed across the different welfare classes, is also provided in Figure 5.

2.7.6 It is also of interest to compare the demographic characteristics of current welfare recipients, to the whole population. The population pyramid in Figure 6 shows the composition of the model population by age and gender, illustrating the demographic profile within each welfare class. It also demonstrates the proportions of different combinations of age and gender for current welfare recipients.

Figure 6: Model Population with Class Utilisation



Note: Class in Parentheses

Features of Current Population

2.7.7 The age of first direct access to the welfare system is typically around the late teenage years and will occur via classes 1 or 2.

2.7.8 As expected with a government-provided Age Pension, a large proportion of those aged 66 and over are in receipt of welfare payments. In addition, this proportion increases with age. In the years leading up to eligibility for the Age Pension, there is a slight increase in welfare utilisation, mainly in respect of Working Age, Carer, and Disability Support (classes 2, 4, and 5 respectively).

2.7.9 There are significant differences in the patterns and type of welfare utilisation between females and males. Females are more likely to receive family payments, as well as larger Age Pension payments over time due to higher utilisation and longer life expectancy.

2.7.10 At 30 June 2021, there were significantly more people in class 2 than compared to the pre-pandemic years due to the higher unemployment rates, and modification of Working Age payment eligibility criteria in response to the COVID-19 pandemic.

Maturity Adjustments

2.7.11 For some welfare payments (primarily non-income support family payments), eligibility and the amount of payment are not finalised until well after the payment period. For these payments the data from the most recent year (2020-21) needs to be matured to account for expected future changes to eligibility and payment amounts.

2.7.12 For this valuation this data maturity was achieved by adjusting the model population to account for expected future changes. The adjustments were determined through analysis of how the data matured for similar cohorts from the previous year.

Changes to model population

2.7.13 A summary of changes between the model populations as at 30 June 2020 and 30 June 2021 is shown in Table 4. The rebased 30 June 2020 population numbers are used in the comparison, which includes the more mature data. The impact of these changes mainly resulted in a reduction in the June 2020 population for Class 9 by 29,000, a net reduction in Class 7 by 24,000, and an increase in Class 10 by 42,000. Changes in the population over FY2020-21 are shown at the bottom of the table.

Table 4: Summary of Changes in Model Population

Class	June 2020 Population (rebased)		June 2021 Population (maturity adjusted)		Movement from 2020 to 2021	
	Number ('000s)	% of total	Number ('000s)	% of total	Number ('000s)	% change in numbers
1 Studying	340	1.3%	367	1.4%	27	7.9%
2 Working Age	2,049	7.9%	2,026	7.8%	-24	-1.2%
3 Parents	365	1.4%	370	1.4%	5	1.4%
4 Carers	305	1.2%	316	1.2%	10	3.4%

Class	June 2020 Population (rebased)		June 2021 Population (maturity adjusted)		Movement from 2020 to 2021	
5 Disability Support	760	2.9%	759	2.9%	-1	-0.2%
6 Pension Age	2,565	9.9%	2,610	10.1%	45	1.8%
Income support recipient subtotal	**6,384**	**24.7%**	**6,446**	**25.0%**	**62**	**1.0%**
7 Non-IS Family	1,363	5.3%	1,343	5.2%	-20	-1.4%
8 Non-IS Carer	198	0.8%	200	0.8%	2	1.0%
9 Non-IS Other	341	1.3%	348	1.3%	7	2.1%
Non-income support recipient subtotal	**1,902**	**7.4%**	**1,891**	**7.3%**	**-11**	**-0.6%**
Total welfare recipient population	**8,286**	**32.1%**	**8,338**	**32.3%**	**52**	**0.6%**
10 exited 1-3 years*	1,502	5.8%	1,516	5.9%	14	1.0%
10 exited 4-19 years*	3,754	14.6%	3,960	15.3%	206	5.5%
Total previous client population	**5,256**	**20.4%**	**5,476**	**21.2%**	**220**	**4.2%**
12 Rest of Aust. population	12,252	47.5%	12,022	46.5%	-230	-1.9%
Total Australian model population	**25,794**	**100%**	**25,835**	**100%**	**41**	**0.2%**

* In order to highlight the impact of more recent welfare transitions, previous welfare recipients are grouped into those that exited in the last three years, and those that exited four or more years ago. Those that exited over 20 years ago are moved into Class 12.

2.7.14 In terms of total population, the proportion in each welfare class has remained largely stable. Overall, the total number of welfare recipients saw a 0.6% increase in the total number of welfare recipients, at 32.3% of the total population. However, the number of people in each payment class has changed more significantly. Notably, there was a 1.2% drop in Working Age payments as people moved off COVID-19 related government payments. Increases between 1.4% and 7.9% occurred in all other income support payments, except for Disability Support, which decreased slightly.

2.7.15 The number of Australians not currently receiving welfare has increased by 392,000 and makes up 68.1% of the population (compared to 67.9% at June 2020). Note that this group still contributes to future welfare cost, as many of these people will move into welfare classes in the future. This is especially so in the case of the Age Pension.

2.8 Experience updates for 2021

2.8.1 Over time, changes occur in how the population access and utilise the welfare system. Where there are material changes in the numbers (or rates, when numbers are expressed as a proportion of the applicable underlying population) who enter into, exit from, or transfer between classes within the welfare system, this is called a change in experience. An additional element of experience is the size of payments received, and how these also change over time.

2.8.2 Such changes may arise from behavioural responses to changes in policy settings, or more general changes in societal trends over time. The COVID-19 pandemic has also demonstrated the impact of severe shocks to the welfare system under exceptional circumstances. As a result of the relative persistence of the COVID-19 pandemic we have again used the 2018 and 2019 experience for assumption setting for this valuation.

2.8.3 For each welfare class, we consider trends in entry rates, exit rates, and rates of transfer between welfare classes. We also provide a commentary, for each class, of any apparent trends over time. Finally, we consider changes in payments received over time.

Entry and exit rates per class

2.8.4 Entries and exits describe the movement into and out of modelled welfare classes, during the year. Rates of entry and exit are expressed as a proportion of each modelled class's population at the start of the year. The start of year population also includes those that received welfare but died during the year. Entry rates can exceed 100%, in the situation where the number of entrants into a class exceeds the start of year population.

2.8.5 The exit rates by class set out in the following analysis excludes exit due to death. If exit by death was included, it would dominate the exit numbers and rates at older ages, in particular for Class 6 (Pension Age).

2.8.6 Recent data from the ABS indicates that mortality has increased during 2022 due to COVID-19, for selected ages. This increase is not implemented into the long-term modelling process, due to the uncertainty of the longer-term impact of COVID-19, and that 2020 and 2021 mortality did not increase from pre-pandemic levels. As such, pre-pandemic experience forms the basis of the mortality projection.

Overall Welfare Class Experience

2.8.7 Figure 7 and Figure 8 summarise trends in key experience parameters across all welfare classes as a whole. Note that differences between these figures and the numbers underlying Table 4 can primarily be reduced to timing definition differences, death and the data maturity process.

Figure 7: Trends in Entry and Exit Rates for Welfare

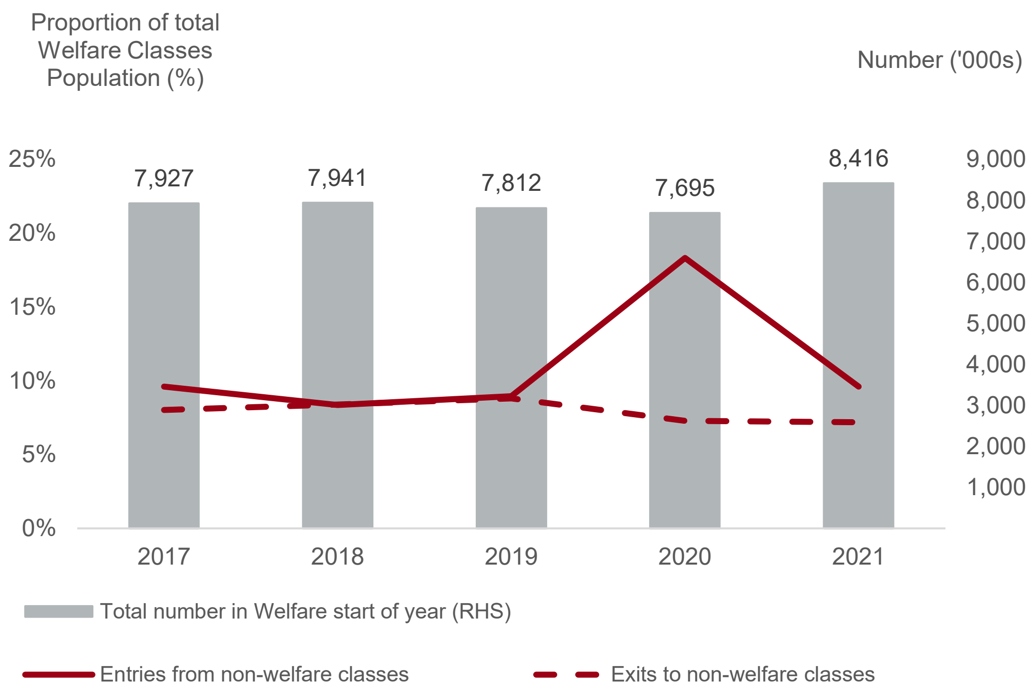
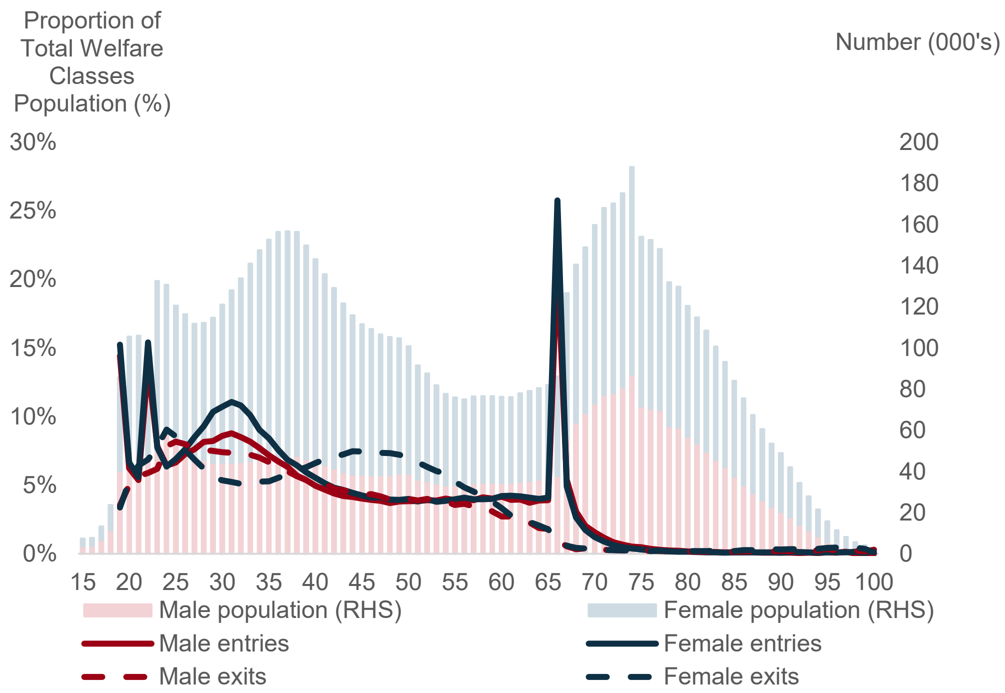


Figure 8: 2020-21 Entry and Exit Experience by Gender and Age



2.8.8 The number of people receiving welfare had been in decline over recent years, with both a decreasing rate of entry to welfare, and an increasing rate of exit from welfare. Note that despite this decline, the entry rate is above the exit rate due to the exclusion of exits due to death. More recently COVID-19 resulted in a spike in entries in 2020 and a subsequent decline to pre-pandemic entry rates as restrictions eased. Additionally, exit rates from welfare declined due to COVID-19 restrictions and have remained lower than pre-pandemic levels in 2021. This is also partly technically because the definition used here is on an annual basis starting 30 June, with restrictions either side.

2.8.9 This year the modelling strategy has again been to only consider transition data from 2018 and 2019. We have not used the 2020 or 2021 transitions for setting long term assumptions as the COVID-19 pandemic shock to the welfare system is not considered representative of the longer-term experience. Scenarios specifically related to the pandemic were included in the valuation this year.

2.8.10 The population receiving welfare can be broadly categorised into four age ranges.

- 18 – 30s: This group is dominated by Student and JobSeeker payments, as people study or look for work. There are two age spikes for welfare entry. These align with eligibility changes for Youth Allowance at age 18 (from which point full-time students can access Youth Allowance while living at home), and age 22 (from which point young people are considered independent, and parental income tests no longer apply).
- 30s – 50s: Family payments dominate this age range, primarily due to people receiving FTB and childcare payments. Because of the broader eligibility of these payments, this age range is one of the peak welfare usage periods.
- 50s – Retirement age: The number of people in welfare by age is lowest in this range. The group is a mix of people still receiving family payments, and those receiving job seeker, disability or carer payments.
- Retirement age onwards: Age Pension is received by a large proportion of the Australian population. This age range is a peak period of welfare use.

2.8.11 The widespread impact of the COVID-19 pandemic resulted in significant increases in entry into Working Age payments across the age distribution up to retirement age in 2019-20. In 2020-21 entry and exit experience followed roughly pre-pandemic experience for Working Age payments, but with a higher proportion of the population using welfare due to COVID-19 causing slightly lower exit rates. Further commentary on individual pay class experience can be found in the relevant sections below.

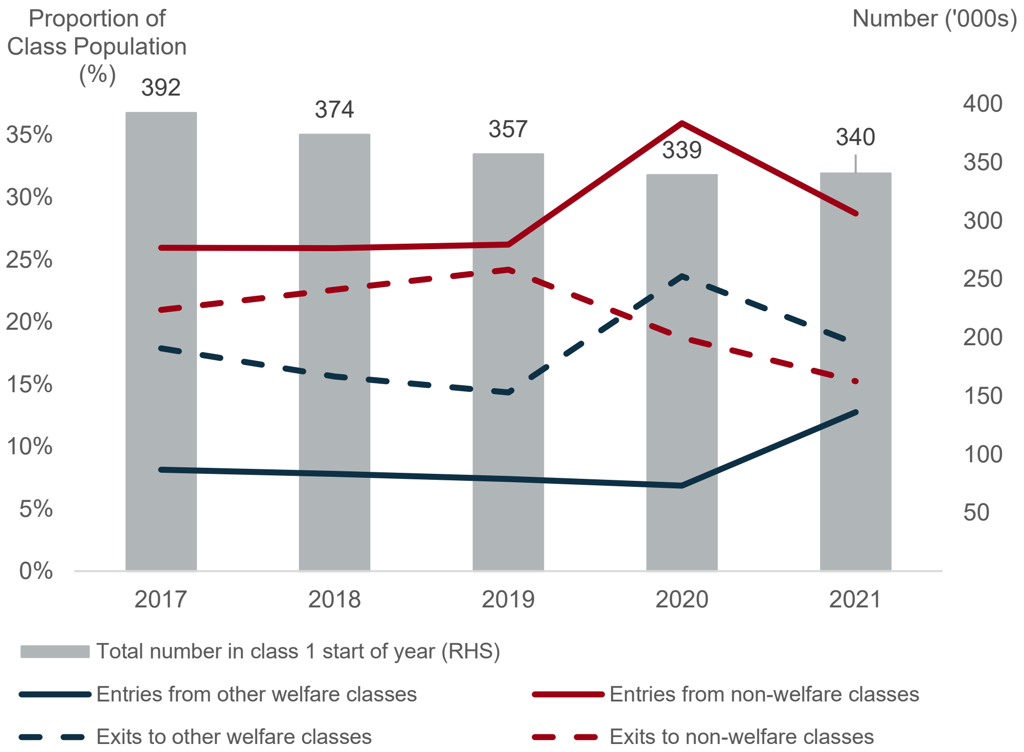
2.8.12 Male and female entry and exit rates differ primarily due to higher entry for females into family and carer payments, and consequent exit rates for females from these payments. Females are more likely to qualify for the Age Pension at eligibility age, however, males have a higher rate of entry in the years after eligibility age. The overall spike at Age Pension eligibility age is due to the large proportion of the Australian population that are eligible at that age, but who were not previously eligible for other payments. With the increase in eligibility age from 65.5 to 66 years on 1 July 2019, fewer people transitioned on to Age Pension in 2019-20, and those who were ineligible in 2019-20 became eligible in 2020-21.

2.8.13 At all pre-Age Pension ages, the entry rates are much lower than the 2019-20 experience. This has two components. Firstly, the number of entries declined from the 2019-20 peak due to the pandemic response. Secondly, the number of people in the current welfare population is now significantly higher, which reduces the entry rate since the rate is calculated as a proportion of the current welfare population.

Class 1 (Studying) Experience

2.8.14 Figure 9 and Figure 10 summarise trends in key experience parameters for Class 1.

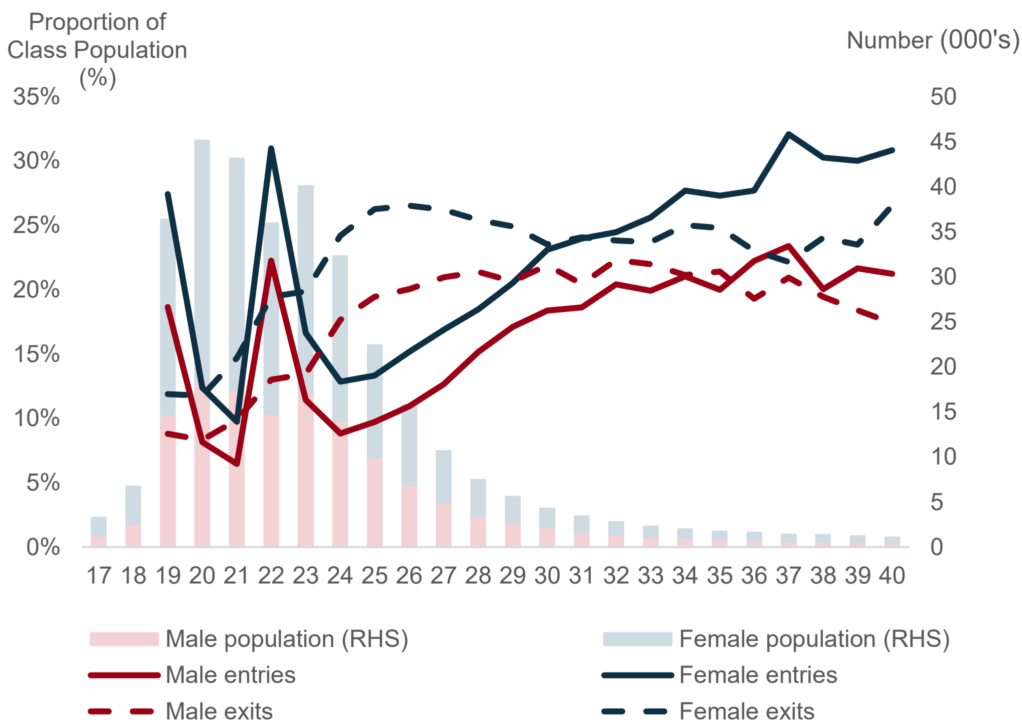
Figure 9: Trends in Entry and Exit Rates for Class 1



2.8.15 Class 1 is highly transient, and prior to COVID-19 had the highest entry and exit rates of the income support classes. Most entries into Class 1 are from the non-welfare population, as younger aged students first engage with the welfare system.

2.8.16 The recent experience has shown an overall reduction in the Class 1 population. This was attributed to a declining rate of entry into Class 1, while the overall exit rate remained steady. However, COVID-19 resulted in a large increase in the entry rate in 2020, particularly from the non-welfare population. In 2021, the entries from the non-welfare population have fallen to levels similar to those observed pre-pandemic, whilst entries from the other welfare classes increased. This is mainly attributable to those transitioning from Working Age payments, likely looking to reskill during the pandemic. Overall, this has resulted in a similar Class 1 population to that in 2020. There was also a fall in exits to both the non-welfare population and other welfare population, as those on student payments kept studying while the labour market remained affected by COVID-19.

Figure 10: 2020-21 Entry and Exit Experience by Gender and Age for Class 1



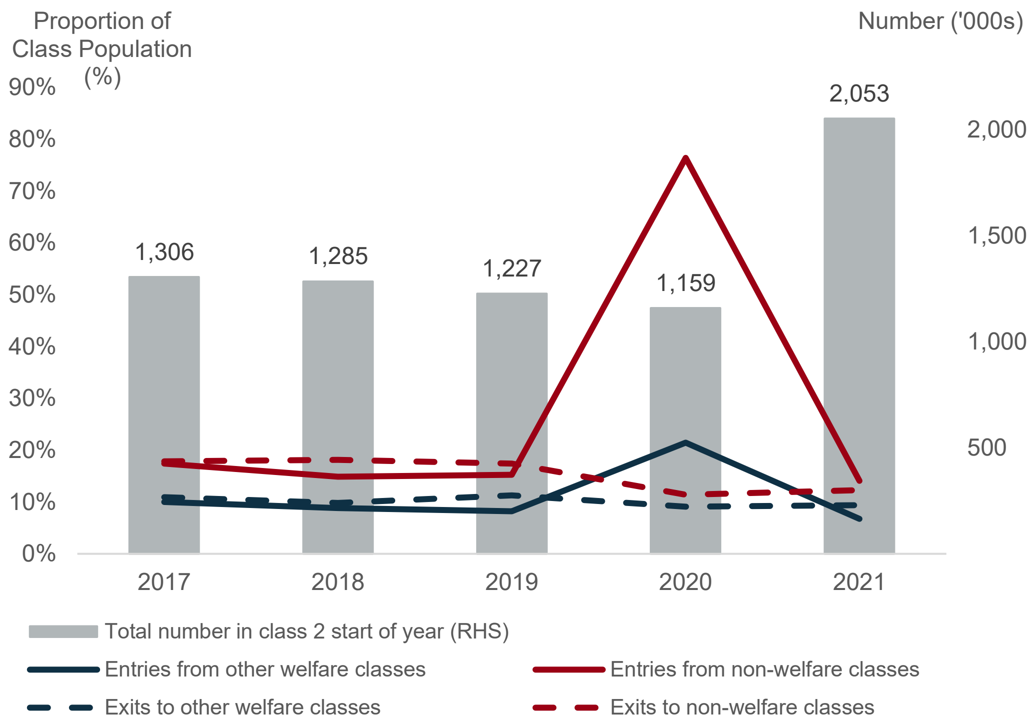
2.8.17 The majority of the population receiving Class 1 payments are young. A high rate of entry for ages 19 and younger corresponds with the age eligibility threshold for student payments; and a high rate of entry at age 22 corresponds with the independence age threshold, at which point the parental income test no longer applies. Over the age of 22, exit rates are higher than entry rates as people generally finish their studies.

2.8.18 Male and female entry and exit rates broadly follow the same age pattern, with more females than males in the class. Females do exhibit increasingly higher entry rates for ages over 30, likely returning to study to reskill after child-rearing.

Class 2 (Working Age) Experience

2.8.19 Figure 11 and Figure 12 summarise trends in key experience parameters for Class 2.

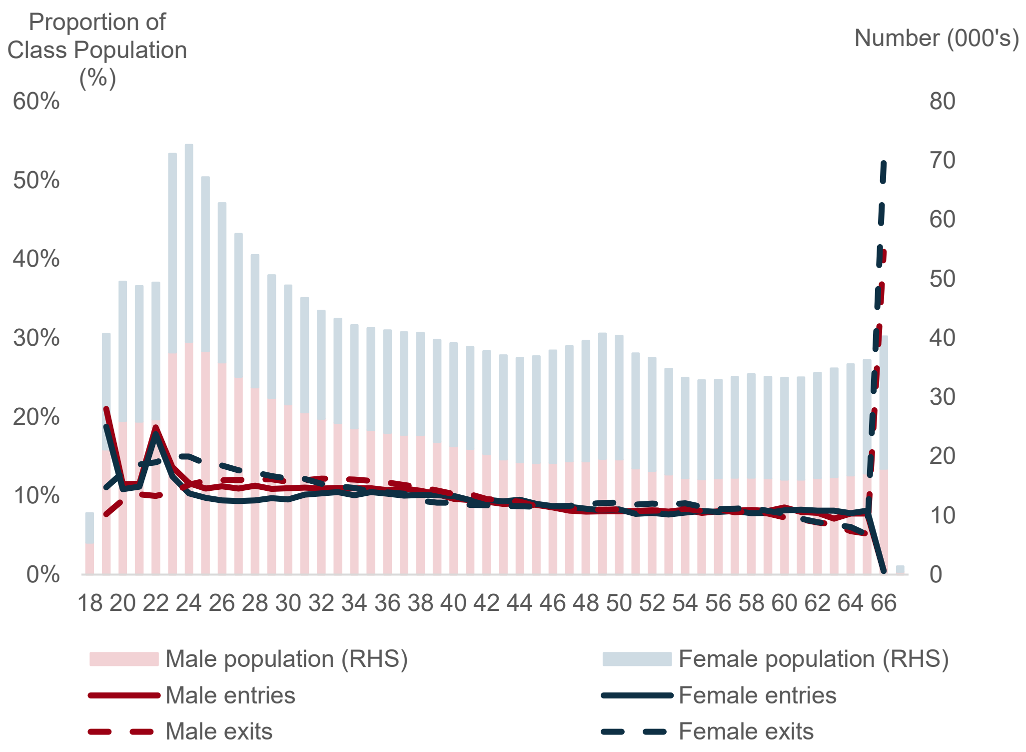
Figure 11: Trends in Entry and Exit Rates for Class 2



2.8.20 Similar to Class 1 (Studying), Class 2 recipients are also highly transient. Most entries are from the non-welfare population.

2.8.21 The overall entry rate into Class 2 had been in decline, with a net exit in recent years. This was attributable to a decline in entry from other classes, in particular from Class 1 (Studying), while exit rates remained steady. There was a large increase in Class 2 entries in 2020, from both welfare and non-welfare, due to the economic impact of the COVID-19 pandemic and temporary welfare measures introduced in response. We can see Class 2 entries have fallen back to pre-pandemic levels as the initial impact of the pandemic passed. However, the exit rates have remained below pre-pandemic levels, given the increased utilisation of Class 2 payments.

Figure 12: 2020-21 Entry and Exit Experience by Gender and Age for Class 2



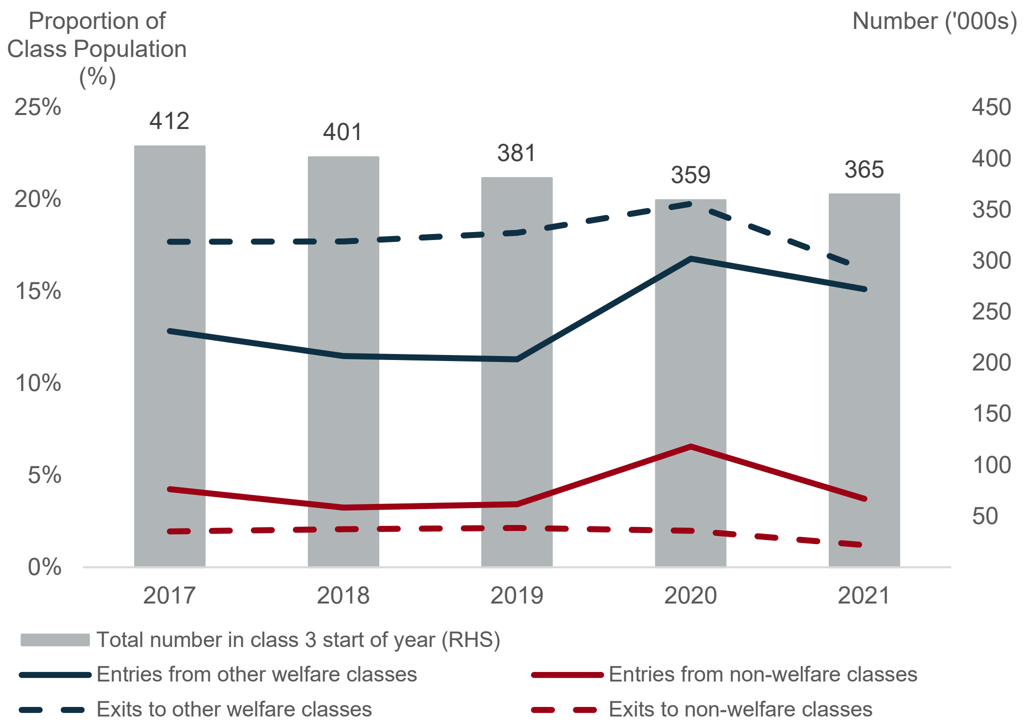
2.8.22 Class 2 has a relatively flat age distribution. There are slightly more younger people, however there is an age peak in the late 40s and also an increase as people approach retirement age. The late 40s entrants correspond to people, mostly women, moving out of parenting payment. The increase for those approaching retirement age is the result of people moving out of the workforce prior to Age Pension eligibility age. Of note are the entry peaks at 19 and 22 (the age thresholds of Youth Allowance (Other), and JobSeeker Payment).

2.8.23 Exit rates are similar to those observed during 2020 as COVID-19 restrictions reduced the opportunity for those already in Class 2 to leave. However, exit rates for older people, especially those over age 55, are less affected as at that age people are less likely to re-enter the workforce in any year. Most people transfer to the Age Pension at retirement age.

Class 3 (Parenting) Experience

2.8.24 Figure 13 and Figure 14 summarise trends in key experience parameters for Class 3.

Figure 13: Trends in Entry and Exit Rates for Class 3



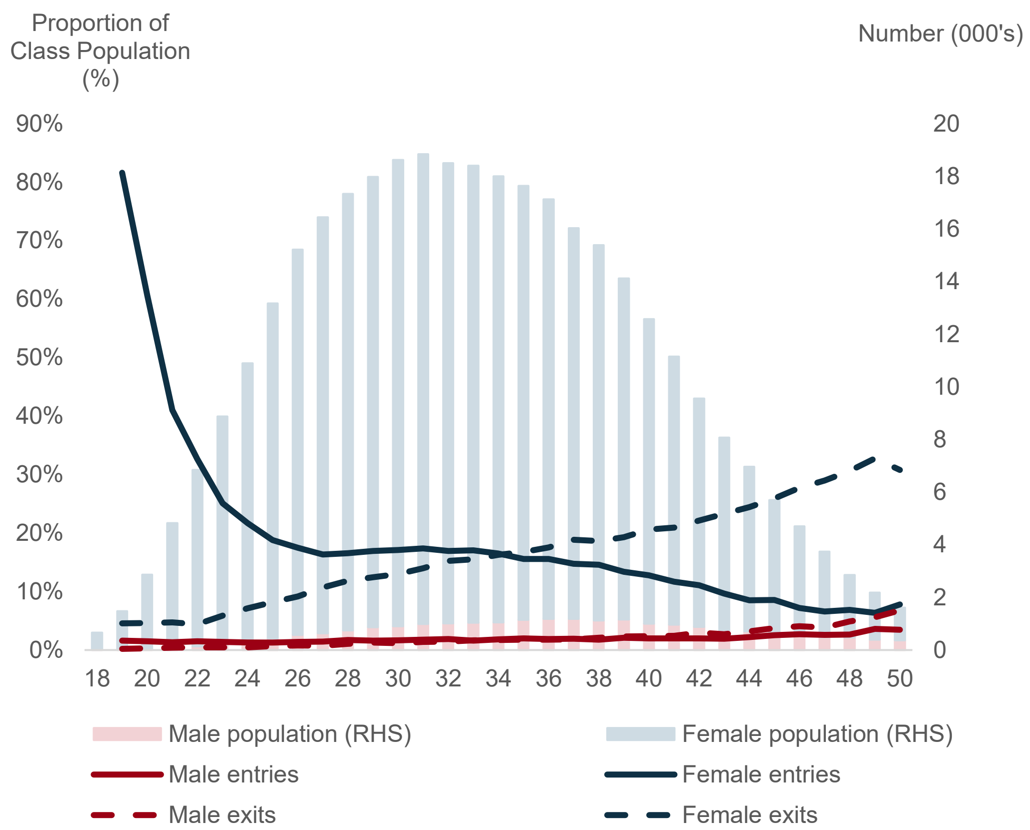
2.8.25 Class 3 transitions mainly occur with other welfare classes. The rate of exit to non-welfare is very low, suggesting that those in this class have higher ongoing persistency of remaining on some form of welfare.

2.8.26 Similar to Classes 1 (Studying) and 2 (Working Age), the Class 3 population has been in decline, mainly resulting from a decreasing trend in entry rates over time. The COVID-19 pandemic resulted in an increase in entry rate from both the welfare and non-welfare population as parents move onto Parenting Payment, likely as a result of losing employment or qualifying after the relaxation of payment eligibility requirements. Furthermore, exit rates have declined in 2021 for the first time in recent experience, potentially due to COVID-19 impacting the return of parents to the workforce.

2.8.27 As expected, entry rates into Class 3 are higher at younger ages. Exit rates increase with age as children grow older, and eventually exceed the eligible age thresholds.

2.8.28 The vast majority of Class 3 recipients are female.

Figure 14: 2020-21 Entry and Exit Experience by Gender and Age for Class 3



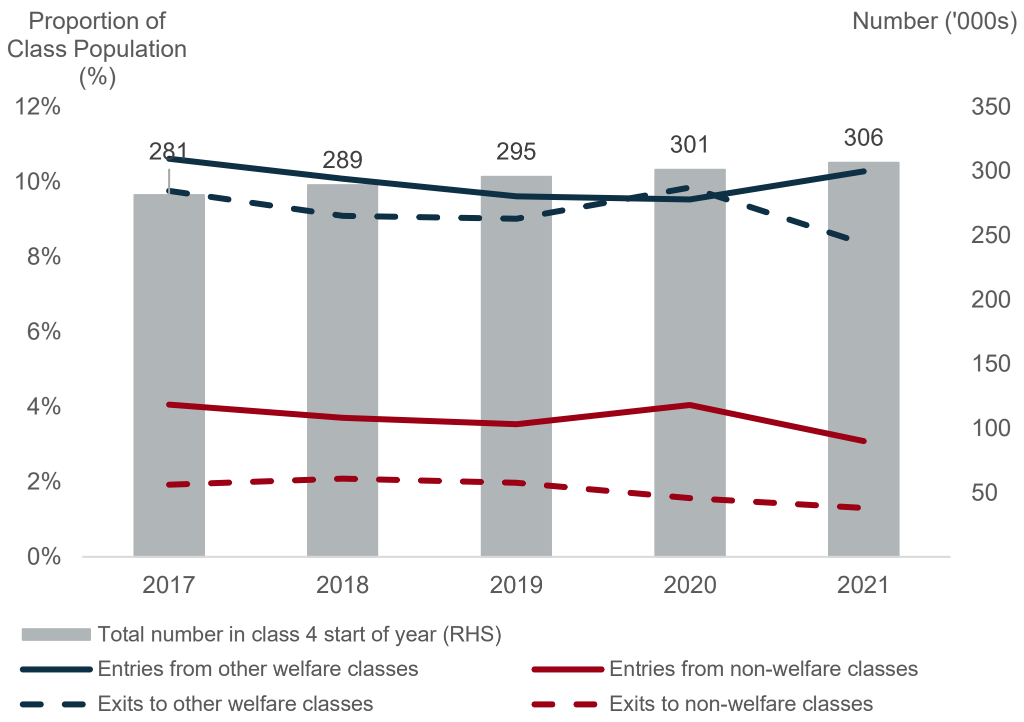
Class 4 (Carers) Experience

2.8.29 Figure 15 and Figure 16 summarise trends in key experience parameters for Class 4.

2.8.30 Most entries into Class 4 carers are from existing welfare recipients. The overall rate of entry and exit are low, suggesting a greater persistency to remain in Class 4.

2.8.31 The population of Class 4 carers has been steadily increasing, but at a slowing rate of growth in line with a gradual decrease in the rate of entry. However, in 2021 there was an increase in the entry rate from other welfare, mainly from those previously on Working Age payments. Likewise, 2021 saw fewer people transitioning to other welfare classes such as Working Age payments compared with previous years.

Figure 15: Trends in Entry and Exit Rates for Class 4

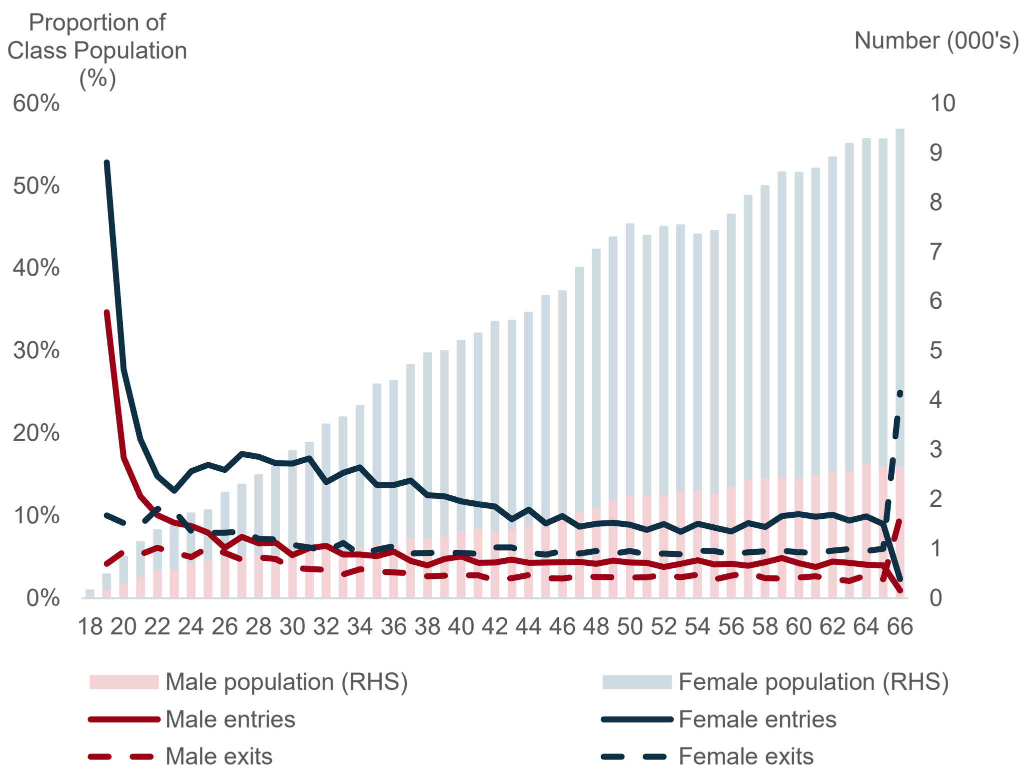


2.8.32 The entry rate from non-welfare classes returned to the trend apparent in pre-pandemic levels. The exit rate to non-welfare classes also decreased.

2.8.33 The population of Class 4 recipients increases consistently with age until retirement age when many transfer to the Age Pension.

2.8.34 More females than males receive Class 4 payments, with entry rates for females higher than males, particularly through the child-rearing years.

Figure 16: 2020-21 Entry and Exit Experience by Gender and Age for Class 4

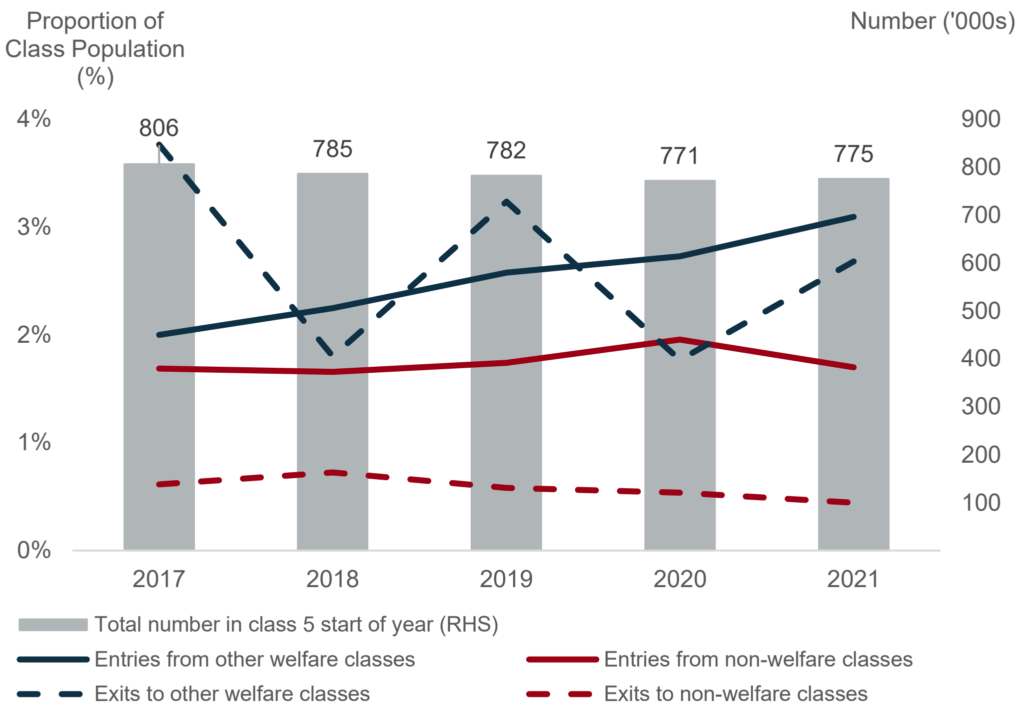


Class 5 (Disability Support) Experience

2.8.35 Figure 17 and Figure 18 summarise trends in key experience parameters for Class 5.

2.8.36 Class 5 has the highest rate of persistency of all the welfare classes other than Class 6 (Pension Age), with movement onto Age Pension and death as the main reasons for exit. This is why a change to Age Pension eligibility has such a significant impact on this class, with the large decrease in exits in 2017-18 and 2019-20 related to the increase in the Age Pension age from 65 to 65.5 and 65.5 to 66 respectively. Policy changes resulted in a temporary higher rate of exit to Working Age payments in 2016 and earlier years. Since then, the rate of entry into Class 5 has increased slightly but remains the lowest entry rate for any payment class. COVID-19 has had minimal impact on this class.

Figure 17: Trends in Entry and Exit Rates for Class 5

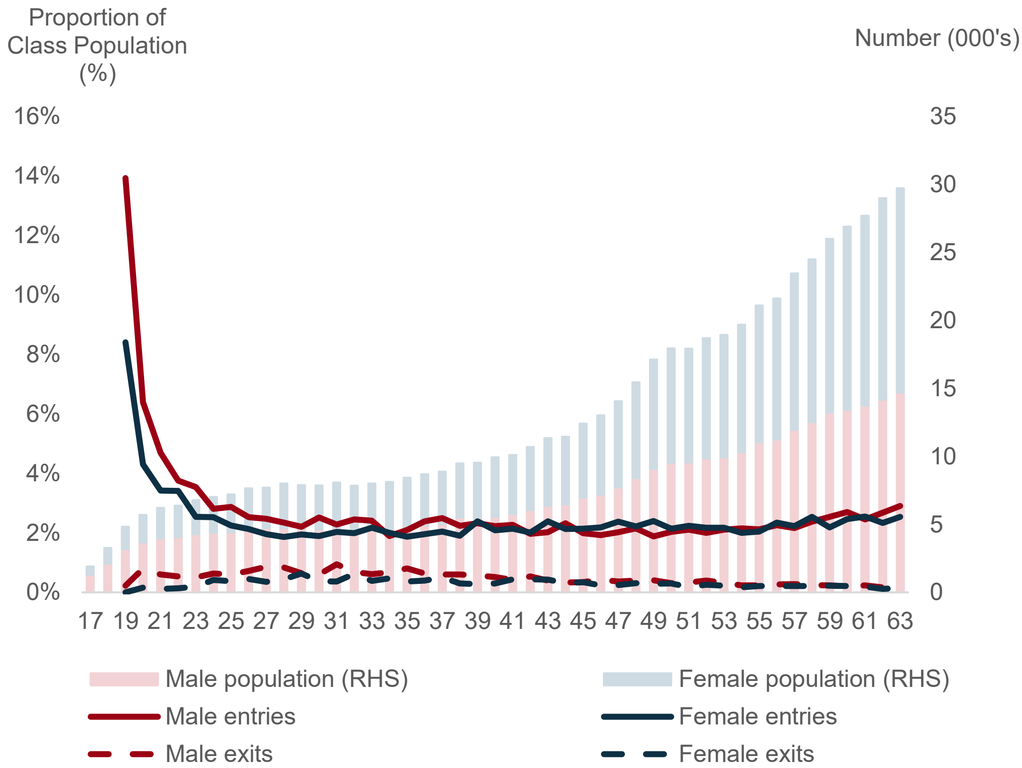


2.8.37 Moreover, the exit rate to other welfare increased in 2021 as the number of people transitioning to the Age Pension increased. This is due to the delay in transition as a result of the increase in eligibility age to 66. Additionally, there was a marginal fall in the entry rate from non-welfare to levels consistent with those observed pre-pandemic.

2.8.38 The population of Class 5 recipients increases significantly with age until retirement age, when many transfer to the Age Pension.

2.8.39 The patterns by age for rates of entry and exit are broadly similar for males and females, with males having slightly higher rates of movement into and out of this class overall.

Figure 18: 2020-21 Entry and Exit Experience by Gender and Age for Class 5



(Note: Death is one of the primary reasons for exit from this class, but is not included in the chart above).

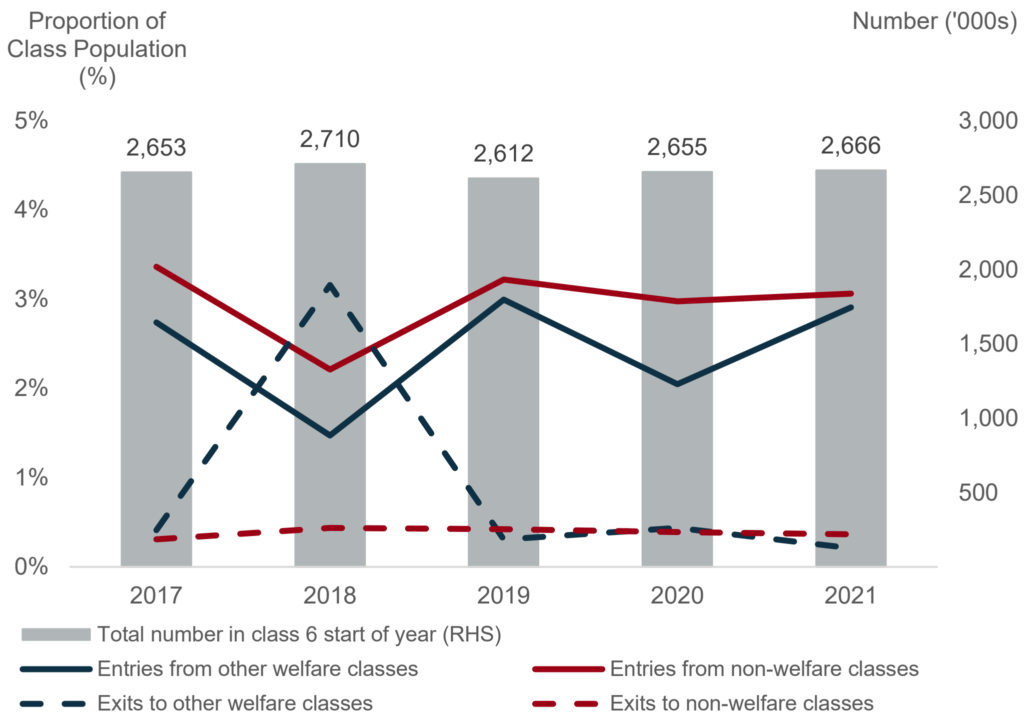
Class 6 (Pension Age) Experience

2.8.40 Figure 19 and Figure 20 summarise trends in key experience parameters for Class 6.

2.8.41 Previous valuation reports have explained that the modelling of the Age Pension is an inherently challenging part of the valuation. Age Pension payments are, for some people, many decades into the future and there are many factors which will influence the demand for Age Pension. These include demographic trends, the economic environment and the returns on superannuation savings. Further challenges arise as the data available to support our analysis does not include information on some key drivers, such as levels of superannuation savings, how superannuation assets are drawn down in retirement, and home ownership.

2.8.42 Some of these factors offset each other. For example, levels of superannuation savings are increasing over time from the maturing of the superannuation system, which should decrease the reliance on the Age Pension. However, there has also been a material reduction in levels of home ownership, especially for younger generations. This could increase reliance on the Age Pension.

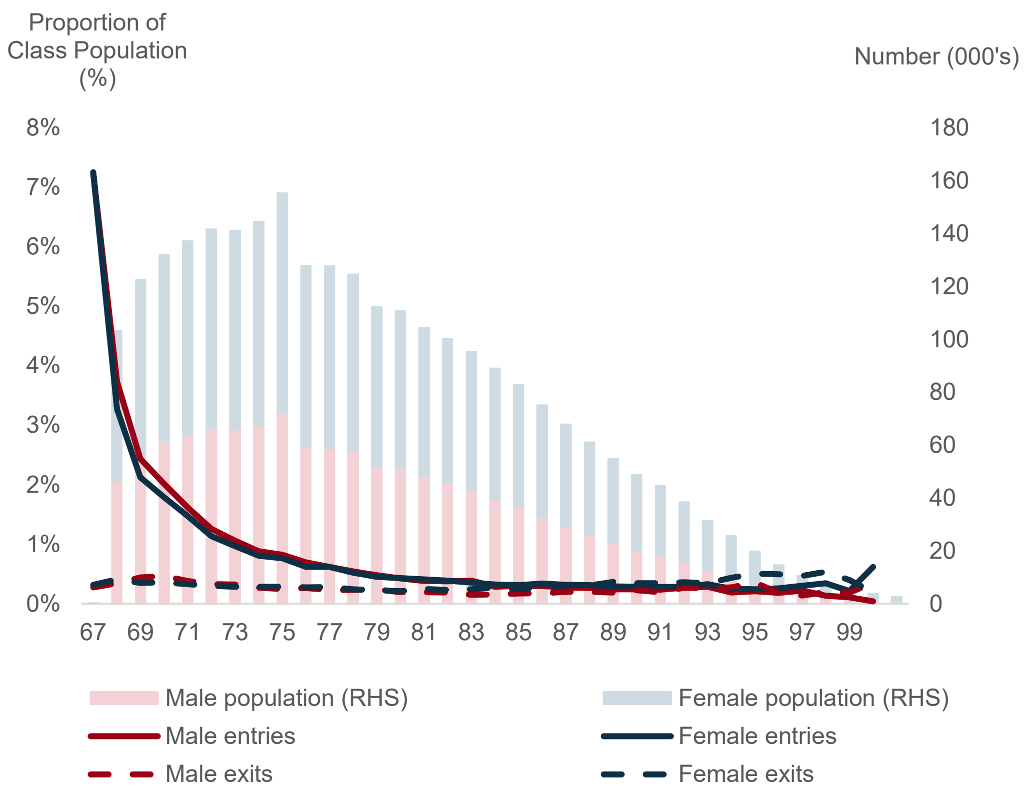
Figure 19: Trends in Entry and Exit Rates for Class 6



2.8.43 In terms of recent experience, there has been a reduction in the proportion of people who access the Age Pension in the first few years after reaching the Age Pension qualifying age. In particular, there has been a reduction in the proportion of full age pensioners within these cohorts.

2.8.44 The lower level of entries in the 2018 year was due to an increase in the Age Pension age from 65 to 65.5. A change in the Age Pension assets test on 1 January 2017 also led to a higher rate of exits, of which many transitioned into non-income support classes. The lower level of entries in the 2020 year was due to an increase in the Age Pension age from 65.5 to 66. Moreover, the entry rate from other welfare increased in 2021 given those who were ineligible in 2020 due to the increased entitlement age, have now reached entitlement age. However, the non-welfare group entry rate did not fall as much as the other welfare group in 2020, mainly because COVID-19 restrictions meant some Australians over entitlement age lost work and as a result accessed the Age Pension.

Figure 20: 2020-21 Entry and Exit Experience by Gender and Age for Class 6.



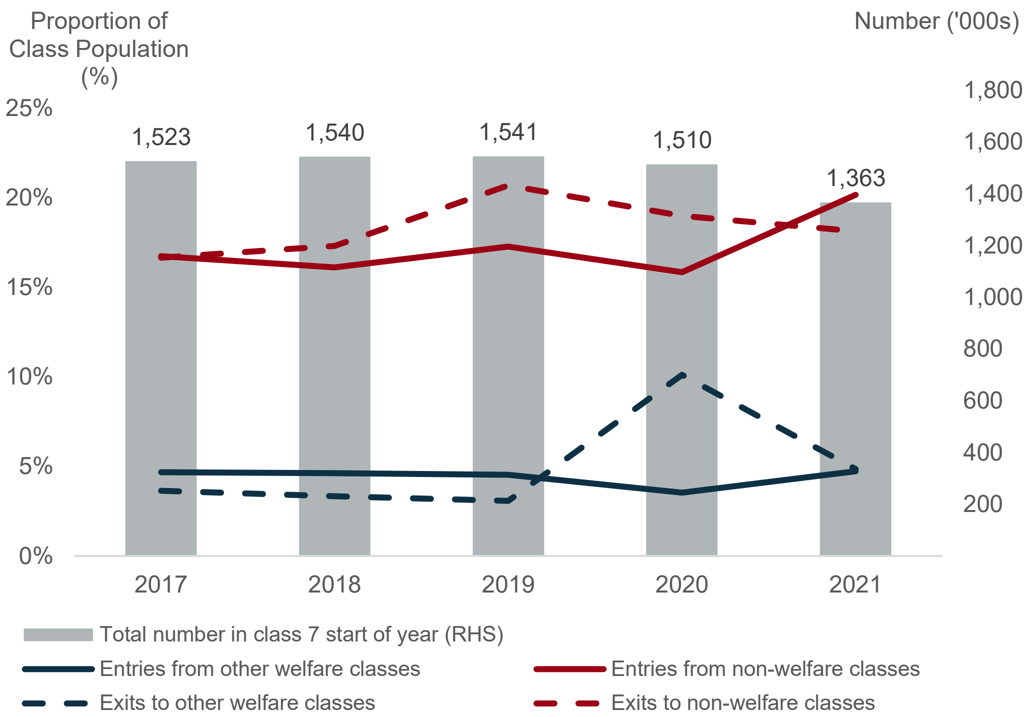
(Note: Death is the primary reason for exit from this class, but is not included in the chart above).

2.8.45 Most people enter into Class 6 at retirement age, although the entry rate does not flatten off until around age 80. These older entrants include people who have continued working past retirement age, people who have drawn down on savings to a point where they are now eligible for the Age Pension, and migrants who have had to wait for an eligibility period. Although not shown in these graphs, the major reason for exit from Class 6 is death.

Class 7 (Non-IS Family) Experience

2.8.46 Figure 21 and Figure 22 summarise trends in key experience parameters for Class 7.

Figure 21: Trends in Entry and Exit Rates for Class 7

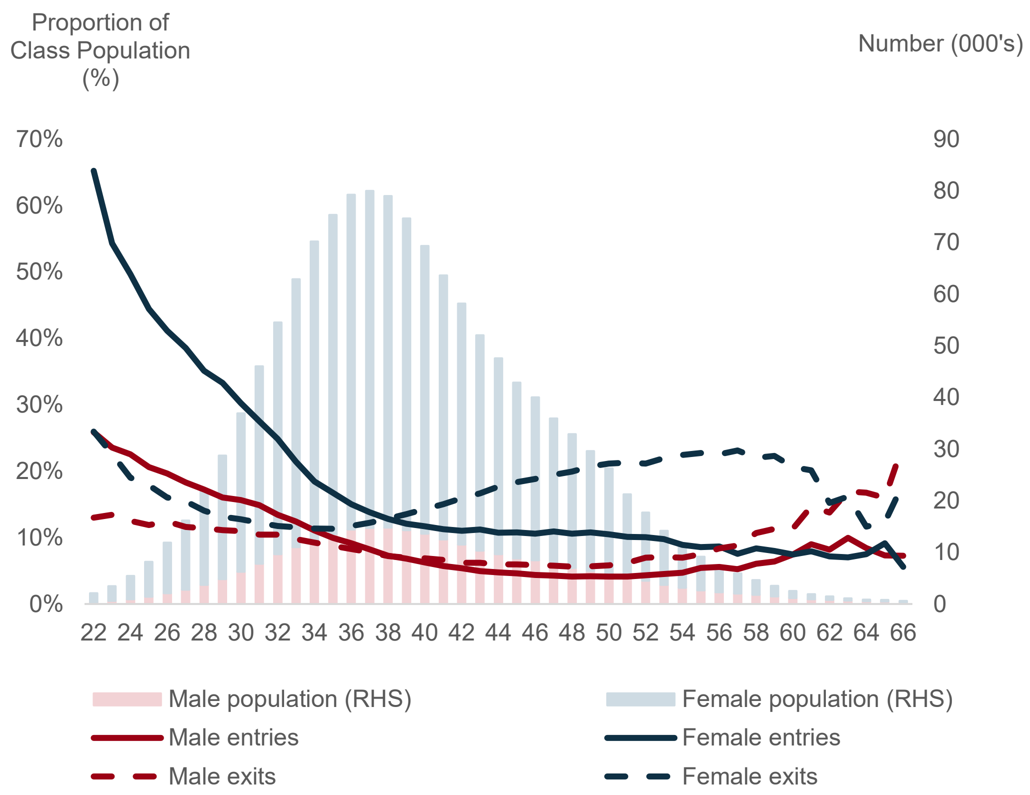


2.8.47 We note that the above experience is based on Child Care Benefit (CCB) and Child Care Rebate (CCR) data up to 2018, and Child Care Subsidy (CCS) data from 2019. The CCB, CCR, and CCS experience form the basis of establishing projected utilisation of this class, while CCS experience is used for the size of category I payment. The new CCS that commenced in 2019 resulted in an increase in exit to non-welfare population with changed eligibility requirements.

2.8.48 Class 7 is a non-income support family payment class and, as such, shares some of its characteristics with Class 3 (Parenting). Class 7 transitions mainly occur with non-welfare classes, with most people entering from and then leaving to non-welfare.

2.8.49 The Class 7 population counts at the start of each year had remained relatively stable up until the 2021 year. The COVID-19 pandemic initially resulted in a fall in exit to non-welfare classes and an increase in exit to Class 2 (Working Age), as recipients of family supplement payments also start receiving Working Age payments. More recently, this has reversed as COVID-19 restrictions eased, with fewer exits to other welfare and more entrants from non-welfare.

Figure 22: 2020-21 Entry and Exit Experience by Gender and Age for Class 7



2.8.50 At younger ages, entry rates are higher than exit rates as people have children and move into Class 7. Around age 40, exit rates exceed entry rates and there is a net exit from the class as people lose eligibility as, for example, their children become older than the eligible age thresholds.

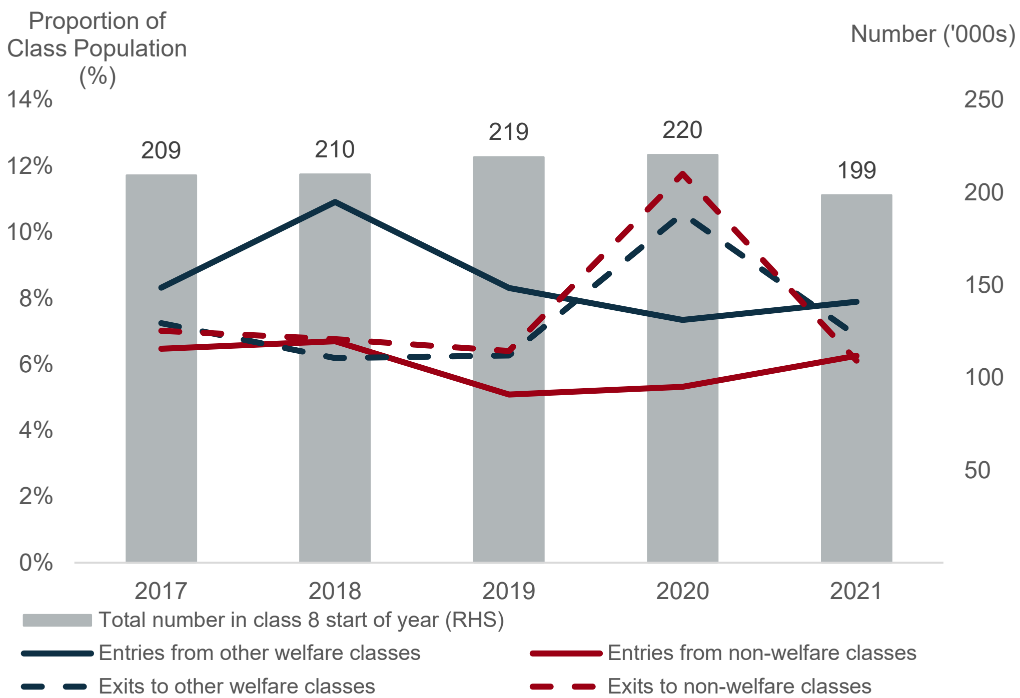
2.8.51 The majority of Class 7 recipients are female.

Class 8 (Non-IS Carer) Experience

2.8.52 Figure 23 and Figure 24 summarise trends in key experience parameters for Class 8.

2.8.53 Class 8 is a non-income support carer payment class and, as such, shares some of its characteristics with Class 4 (Carers).

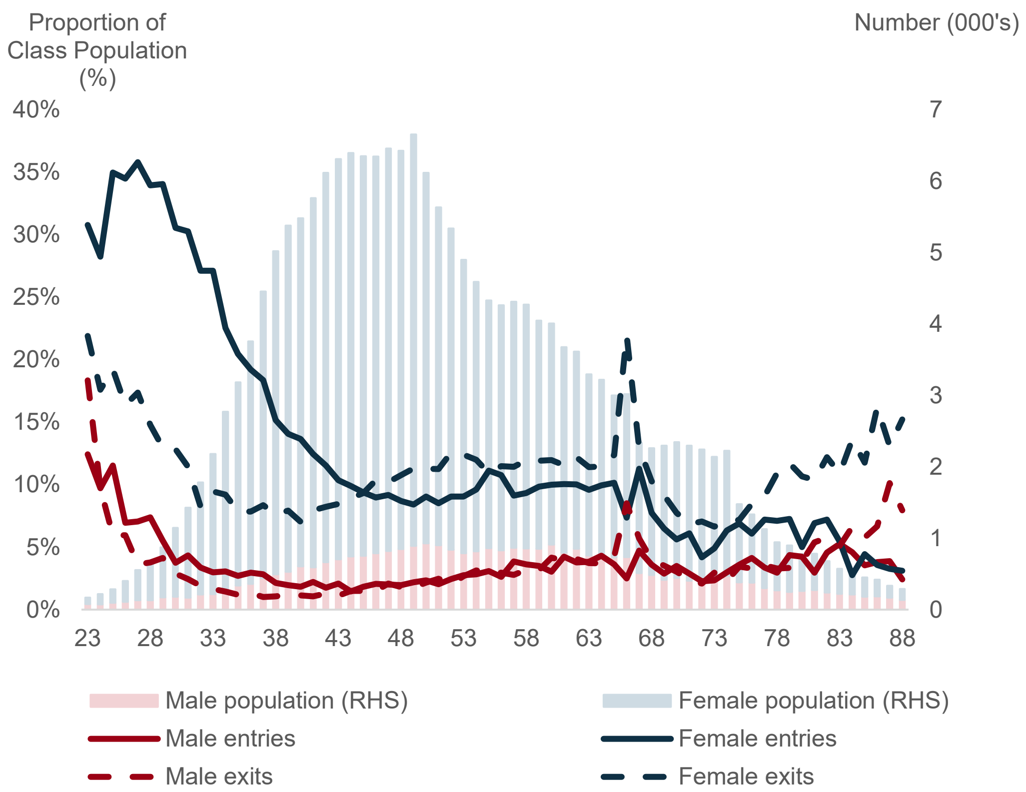
Figure 23: Trends in Entry and Exit Rates for Class 8



2.8.54 Until 2021, the population of Class 8 carers had been increasing over time. The increase in entry rate in 2018 is linked to the change in asset tests in 2017, which meant some people were no longer eligible for income support payments but still eligible for non-income support payments. This resulted in a movement of people out of income support classes, mainly Class 4 (Carers) and Class 6 (Pension Age), some of whom moved into Class 8. The increase in exit rate to non-welfare in 2020 is linked to the introduction of a family income test for Carer Allowance in the 2018-19 year. In 2021, the exit rate to non-welfare fell significantly given the effect of the family income test had already been seen in 2020. Moreover, exits to Working Age payments fell considerably as COVID-19 restrictions eased and fewer recipients were eligible for IS payments.

2.8.55 The majority of entries into Class 8 are from existing welfare recipients, whereas exits are more evenly split between welfare and non-welfare classes.

Figure 24: 2020-21 Entry and Exit Experience by Gender and Age for Class 8



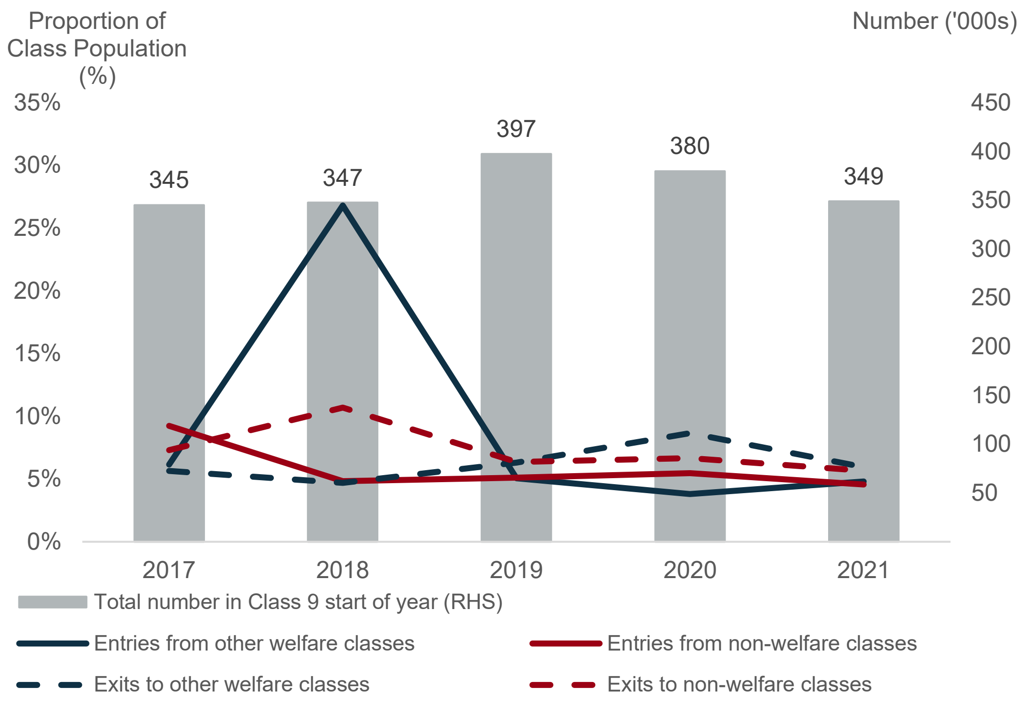
2.8.56 Entry rates into Class 8 are higher at younger ages, where people are more likely to be caring for their children, their parents or their spouse. Class 8 is a non-income support class so many recipients are not eligible for income support payments. Thus, although a reasonable number move to Class 6 (Pension Age) at retirement age, the retention of recipients within Class 8 is significant.

2.8.57 The majority of Class 8 recipients are female.

Class 9 (Non IS Other) Experience

2.8.58 Figure 25 and Figure 26 summarise trends in key experience parameters for Class 9.

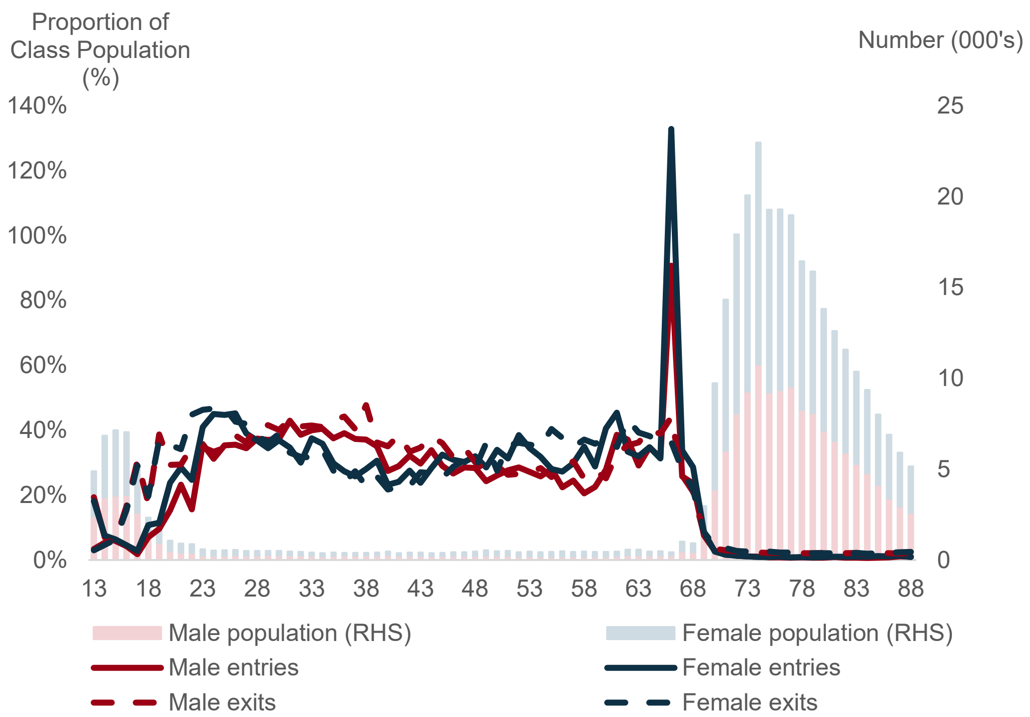
Figure 25: Trends in Entry and Exit Rates for Class 9



2.8.59 Class 9 is a construct composed essentially for modelling convenience, having consideration for materiality rather than similarity of welfare types. It is one of the smallest payment classes, receiving the lowest average payment amount. Class 9 is composed of two different age cohorts:

- Young people receiving school and study related payments (hence, a spike in entries at younger ages); and
- Retired people who are receiving supplements but not Age Pension (hence, a spike in entries at Age Pension age). This cohort dominates the Class 9 population, and with low rates of entry and exit, Class 9 has one of the highest persistency rates of all welfare classes.

Figure 26: 2020-21 Entry and Exit Experience by Gender and Age for Class 9



2.8.60 Similar to Class 8 (Non-IS Carer), the increase in entries in 2018 is linked to the change in asset tests in 2017. There was a higher net exit in 2020 compared to 2019, mainly from increased exit to other welfare classes (6 and 2), likely a result of the COVID-19 pandemic. This is despite an increase in Age Pension eligibility age on 1 July 2019. 2021 saw a return of experience similar to 2019.

Interactions of movements between classes

2.8.61 As per the prior analysis, the profile of entrants, re-entrants, and exits from the welfare system varies significantly by age and gender, reflecting the way in which females and males access different classes at different stages of life.

2.8.62 Apart from overall entrants and exits, the movements of people between the various parts of the welfare system are also a key driver of changes in Lifetime Cost. Table 5 shows the transition experience between each of the 9 welfare classes, based on 2019-20 to 2020-21 experience. As explained earlier in this section, the 2021 experience is not used for setting assumptions. Rates of movement are expressed as a percentage of population of the source class from the year before. Death has been excluded from the table as we do not have death data for non-welfare classes.

Table 5: FY2020 to FY2021 Inter-Class Transfer Experience. Transfer Rate (%) and number of people (cell colour) between a given source and destination classes.

	Destination									
Source	1	2	3	4	5	6	7	8	9	10 & 12
1	66%	17%	0%	0%	0%	0%	1%	0%	0%	15%
2	2%	78%	1%	1%	1%	2%	2%	0%	0%	12%
3	0%	8%	83%	2%	0%	0%	5%	0%	0%	1%
4	0%	4%	0%	90%	0%	2%	0%	1%	0%	1%
5	0%	0%	0%	0%	97%	3%	0%	0%	0%	0%
6	0%	0%	0%	0%	0%	99%	0%	0%	0%	0%
7	0%	2%	2%	0%	0%	0%	77%	0%	0%	18%
8	0%	2%	1%	2%	0%	1%	1%	87%	1%	6%
9	1%	1%	0%	0%	0%	3%	0%	0%	88%	6%
10 & 12	2%	5%	0%	0%	0%	1%	5%	0%	0%	86%

NOTE: Row totals may not add up to 100% due to rounding.

Table 6: Legend: Cell Colour Reference

Number of People	Colour
> 100,000	Red
20,000 ≤ 100,000	Orange
5,000 ≤ 20,000	Blue
< 5,000	No fill

2.8.63 Across all classes, the high persistency of staying within a class over the 2020 to 2021 period is evident. Classes 5 (Disability Support) and 6 (Pension Age) exhibit the highest persistency, which correspond to the low exit rates demonstrated in Figure 17 and Figure 18 (Class 5), and Figure 19 and Figure 20 (Class 6). Both are characterised by very low transitions to non-welfare (Class 10).

2.8.64 Significant transitions between welfare classes include:

- Reductions to pre-pandemic trends for movement onto Class 2 (Working Age) after significant increases in transition rates across most classes in the 2020 valuation year.
- Movements into Class 7 (Non-IS Family) from Class 2 (Working Age) and Class 3 (Parenting).
- Movements into Class 6 (Pension Age) from across the welfare and non-welfare population, with the exception of Classes 1 (Studying), 3 (IS Family) and 7 (Non-IS Family).

- Significant numbers and rates of deaths (not shown) in Classes 6 (Pension Age), 5 (Disability Support), and 9 (Non-IS Other).

2.8.65 Overall, the main entry points into welfare are through Classes 2 (Working Age), 7 (Non-IS Family), 1 (Studying), and 6 (Pension Age). After abnormally high rates in the rate of entry in the previous year, the rate of entry into Class 2 returned to the pre-pandemic experience. This was not balanced by increases in rates of entry to other welfare classes, leading to a significant increase to 86% persistency rate for Classes 10 and 12 (Non-welfare).

2.8.66 It is important to note that the above rates are not age or profile weighted. For example, the transition rates from Class 2 to Class 6 is low when taken across all age groups, however the transition probabilities at Age Pension eligibility age are much higher.

Payment size per class

2.8.67 The average payment per welfare class is a key driver of Lifetime Cost. Table 7 presents the amounts for welfare recipients in each class. The differences between 2020 and 2021 are due to indexation of payments and changes in experience.

Table 7: Average Payments per Welfare Class, 2019-20 and 2020-21.

Class	Average Payment in Year		Change in Past Year (%)*
	2021 (matured)	2020 (rebased)**	
1 Studying	8,400	7,600	9.8%
2 Working Age	12,300	9,600	28.1%
3 Parents	35,600	33,500	6.4%
4 Carers	29,100	28,600	1.8%
5 Disability Support	23,900	23,600	1.3%
6 Pension Age	19,100	18,800	1.7%
7 Non-IS Family	10,100	9,100	10.8%
8 Non-IS Carer	7,500	7,400	1.6%
9 Non-IS Other	700	800	-8.0%
All Welfare	**16,000**	**14,900**	**7.5%**

* The percentage change is calculated on the unrounded values.

** Does not include the Coronavirus Supplement and the Economic Support Payment.

2.8.68 The average amount of payment received per person on welfare is $16,000 per annum, a 7.5% increase over the 2020 average of $14,900 per annum.

2.8.69 The average welfare payment for Class 2 welfare recipients was 28.1% higher for the 2021 year. The economic impact of COVID-19, and the temporary welfare measures introduced in response, contributed significantly to this increase. 52% of the people in Class 2 for 2020 were receiving Working Age payments for at most 100 days, compared to only 22% for 2021. This effectively introduced many new recipients to Class 2, bringing the average payment per recipient down.

2.8.70 In terms of policy, the *Social Services and Other Legislation Amendment (Strengthening Income Support) Act 2021* meant that some of the increase in payment size introduced during the pandemic would be ongoing. As a result, payments such as Studying and Working Age saw a relatively large average increase.

2.8.71 The average payment is also significantly weighted to the large number of those receiving the Age Pension, who in Class 6 have an average payment of $19,100 per annum. Note that this average payment is influenced by both the maximum entitlement amount available (which increases in line with AWE each year), and the mix of age pensioners who receive that maximum amount (full pension), and those who receive less than that amount (part pension). The mix of full and part pensions is expected to change over time in line with changes in means tests, eligibility criteria, employment and other income, the maturity of the superannuation system, and movements in individual superannuation and non-superannuation savings.

3 Population Level Results

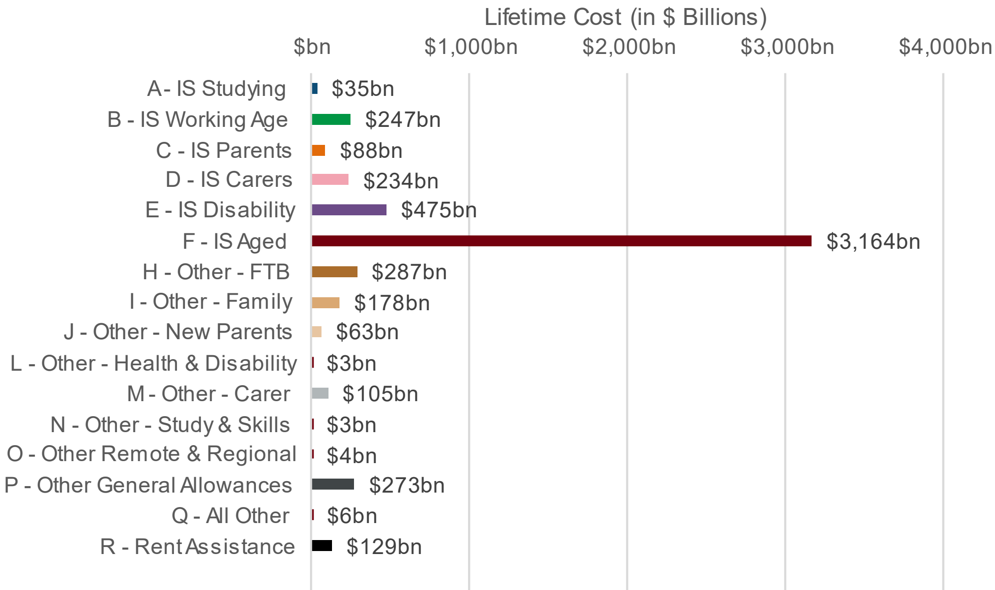
3.1 Total Lifetime Cost

3.1.1 As at 30 June 2021, the total Lifetime Cost for the model population is estimated to be $5,293 billion. This represents the net present value of the in-scope payments expected to be made over the remaining lifetimes of the full model population. This value also represents an increase of $81 billion (1.6%) from the rebased 30 June 2020 valuation of $5,212 billion.

3.2 Costs by payment category

3.2.1 A breakdown of the total Lifetime Cost by payment category is informative, as it identifies the actual type of welfare being paid. This breakdown is given in Figure 27. A list of the payments included in these payment categories is included in Appendix C.

Figure 27: Composition of Lifetime Cost by Payment Category



3.2.2 The major contributors to the total Lifetime Cost are:

- **Age Pension** ($3,164 billion, or 59.7% of the total). The total Lifetime Cost is dominated by the Age Pension, even when discounting is taken into account. This is because a large proportion of the Australian population is predicted to receive many years of the Age Pension at some stage in the future.

- **Non-income support family payments** ($528 billion, or 10.0% of the total). This includes payment categories H, I and J. A large proportion of the population is predicted to access these payments in the future, however with a shorter duration and lower payment rate than the Age Pension.
- **Disability Support Pension** ($475 billion, or 9.0% of the total). Although only a small proportion of the population is predicted to access these payments, the average duration on payment and the payment rate are both higher than most other payment types.

3.3 Costs by modelled welfare class

3.3.1 A breakdown of the total Lifetime Cost by starting payment class aggregates the same payments as above, but allocates them according to the hierarchical class structure used in the modelling process. For example, an individual in Class 1 (Studying) at the valuation date will be receiving payments from welfare categories that are part of Class 1, but might also receive payments from other sources of welfare, either at the same time or in future years. A breakdown of payments by category (Figure 27) identifies the actual payment source, whereas a breakdown of payments by starting welfare class allocates payments according to the welfare class that an individual is defined/modelled to be in, in the valuation year.

3.3.2 A breakdown of the total Lifetime Cost and average Lifetime Cost per current recipient, by welfare class and payment category, are shown in Table 8 and Table 9.

Table 8: Composition of Lifetime Cost ($ billion) by Payment Class and Category as at 30 June 2021

Current Payment class	Total Lifetime Cost ($ billion) arising from categories:				Total Lifetime Cost
	Income support		Non-income support		
	F: Age Pension	A-E: Other	H-J: Family	L-R: Other	
1 Studying	45	22	15	7	89
2 Working Age	330	205	50	66	652
3 Parents	57	73	61	24	214
4 Carers	55	75	11	34	173
5 Disability Support	85	212	6	43	345
6 Pension Age	504	1	1	63	568
7 Non-IS Family	198	37	65	28	329
8 Non-IS Carer	26	8	3	13	49
9 Non-IS Other	13	7	3	5	27
10 Previous welfare recipient	744	106	49	91	990
12 Rest of Aust. population	1,108	334	266	149	1,857
Total	3,164	1,078	528	523	5,293

Table 9: Average Lifetime Cost ($) by Payment Class and Category as at 30 June 2021

Current Payment class	Number in model population ('000s)	Average Lifetime Cost ($) per person arising from categories: Income support		Non-income support		Average Lifetime Cost
		F: Age Pension	A-E: Other	H-J: Family	L-R: Other	
1 Studying	367	121,900	59,900	39,700	19,900	241,300
2 Working Age	2,027	163,000	100,900	24,900	32,700	321,500
3 Parents	370	153,000	196,800	164,100	64,500	578,400
4 Carers	316	172,900	236,200	34,200	106,400	549,700
5 Disability Support	759	111,500	279,300	7,900	56,700	455,400
6 Pension Age	2,609	193,100	200	200	24,200	217,800
7 Non-IS Family	1,388	142,800	26,900	46,600	20,500	236,900
8 Non-IS Carer	200	129,100	37,600	16,200	63,100	246,000
9 Non-IS Other	326	40,200	21,700	7,900	13,800	83,600
10 Previous welfare recipient	5,447	136,600	19,500	8,900	16,700	181,800
12 Rest of Aust. population	12,028	92,200	27,700	22,100	12,400	154,400
Total	25,835	122,500	41,700	20,400	20,200	204,900

3.3.3 It is important to note that the average age of each class will have an impact on the size and composition of the associated Lifetime Cost. For example, Class 6 (Pension Age) has the oldest average age, hence its average Lifetime Cost is the lowest of the income support classes. Furthermore, people in Class 6 will receive very little other income support or family payments.

3.3.4 The major features of the total Lifetime Cost, as allocated according to the currently modelled welfare classes, are as follows:

- The Age Pension dominates the total Lifetime Cost, with its contribution to the total Lifetime Cost equal to 60%. Of that contribution, 16% arises from those currently in Class 6 (Pension Age), 26% from those who are in the welfare system but are not in Class 6, and 59% from those not currently in the welfare system. This means 84% of future Age Pension costs (corresponding to 50% of the total Lifetime Cost) arises from the projected future utilisation of the Age Pension from those not currently receiving Age Pension. Other than for those currently in Class 5 (Disability Support), Age Pension is generally the primary source of Lifetime Cost for all current payment classes.
- The other income support payments together contribute 20% to the total Lifetime Cost. The 759,000 people currently receiving the Disability Support Pension account for a major component of these payments due to their high average Lifetime Cost. Their average projected usage of non-Age Pension IS payments is $279,300 per person, most of which is DSP payments. Also of note are the 2,027,000 people currently receiving Working Age payments. The size of this group means that they also account for a large component of other income support payments.
- Slightly more than half (50.3%) of the total non-income support Lifetime Cost arises from family payments. Those who are currently in Classes 3 (Parenting) and 7 (Non-IS Family) have historically been the main contributors from those currently in the welfare system, as they are either currently receiving the payments, or will likely transition onto them. Those who are currently in Class 2 (Working Age) also contribute significantly, after the COVID-19 pandemic resulted in significant entry of younger people into this class. Those in Class 1 (Studying) are generally several years away from the age of parenthood but will likely access family payments in the future, more likely than other non-income support payment categories.
- Other non-income support payments are primarily supplementary payments received alongside an income support payment, such as Commonwealth Rent Assistance. This means that any group with a high projected future income support usage will also have a high projected non-income support payment usage.

3.3.5 Those not currently in welfare (classes 10 and 12) account for a large proportion of the total Lifetime Cost as these classes make up 68% of the model population and reflect the expectation that many Australians who are currently not relying on welfare will need to do so at some point in the future. This is especially the case in respect of the Age Pension. A major difference between classes 10 and 12 concerns the age distribution of each. Those under 18 years of age are generally in Class 12 as they have not accessed welfare yet, whereas Class 10 has an older demographic profile, as people need to be old enough to have accessed and then exited welfare.

3.4 Key drivers of cost

3.4.1 Various factors can be drivers of the overall Lifetime Cost. These arise from:

- the eligibility and payment criteria of each benefit;
- the (demographic) characteristics that are indicative of higher welfare utilisation over time; and
- those characteristics (namely, age and future life expectancy) which drive costs in terms of calculating a present value.

3.4.2 An important driver of Lifetime Cost stems from the specific rules around each payment category. These rules, relating to eligibility and entitlement amounts, clearly have a direct influence on future welfare utilisation. For example, age is an important driver of future costs of the Age Pension, as people younger than the age of eligibility cannot receive an Age Pension. For various study benefits, relevant eligibility and, therefore, drivers of cost include indigenous status, age and SEIFA (Socio-Economic Indexes for Areas) status. For working age benefits, SEIFA is again relevant, as is one's capacity to work. For parenting benefits, both the presence of children and the age of the youngest child are important drivers of cost, in terms of eligibility and expected duration of payments respectively. Furthermore, someone's partnering status and history are also key for parenting benefits, as those who are single receive a higher rate of payment. For Disability benefits, clearly the presence of certain medical conditions and/or disability status are part of eligibility criteria and are therefore important drivers of cost as well. The SEIFA status, acting as a proxy variable for underlying levels of financial means (assets and/or income), underlies the eligibility across many welfare categories.

3.4.3 A further key driver of Lifetime Cost relates to those characteristics associated with higher future welfare utilisation or entitlement amounts (or both). These drivers are influential not because of eligibility criteria *per se*, but because of individual characteristics that are shown to be correlated with higher overall payments. Two prominent examples of these drivers are age and gender.

3.4.4 Notably, gender has a specific significance for the Age Pension. Historically, females have had lower superannuation and financial assets at retirement age. This, combined with their greater longevity, means their average Lifetime Cost from accessing the Age Pension will be greater than that for males.

3.4.5 Age is influential for future costs of carer payments, for two main reasons. Once younger carers start caring, they may be doing so for a while and have a longer expected future lifetime during which they can receive payment, and carers who are parents looking after a child also face long durations of care. For disability benefits, age turns out to be influential in association to the type of condition involved. For example, those with congenital conditions typically receive welfare support from a young age and can have long durations of such support, whereas those acquiring a disability at an older age may have a far shorter duration of welfare support. Parental welfare dependence is also a likely driver of Lifetime Cost for an individual, though the assessment of this factor is currently limited as parental welfare information is only available for a subset of the population.

3.4.6 Age significantly impacts the present value calculation. For example, those who are close to retirement age will (on average) have a higher Lifetime Cost from the Age Pension (in present value terms) than someone who is not.

3.4.7 Due to the overall influence of age and gender, a specific additional age/gender analysis is provided in section 3.5.

3.5 Analysis by age and gender

3.5.1 Figure 29 shows a breakdown of the Lifetime Cost by selected ages (as at 30 June 2021) and gender. For illustration, Figure 28 presents results by category including all ages up to 90.

Figure 28: Total Lifetime Cost by Age and Gender

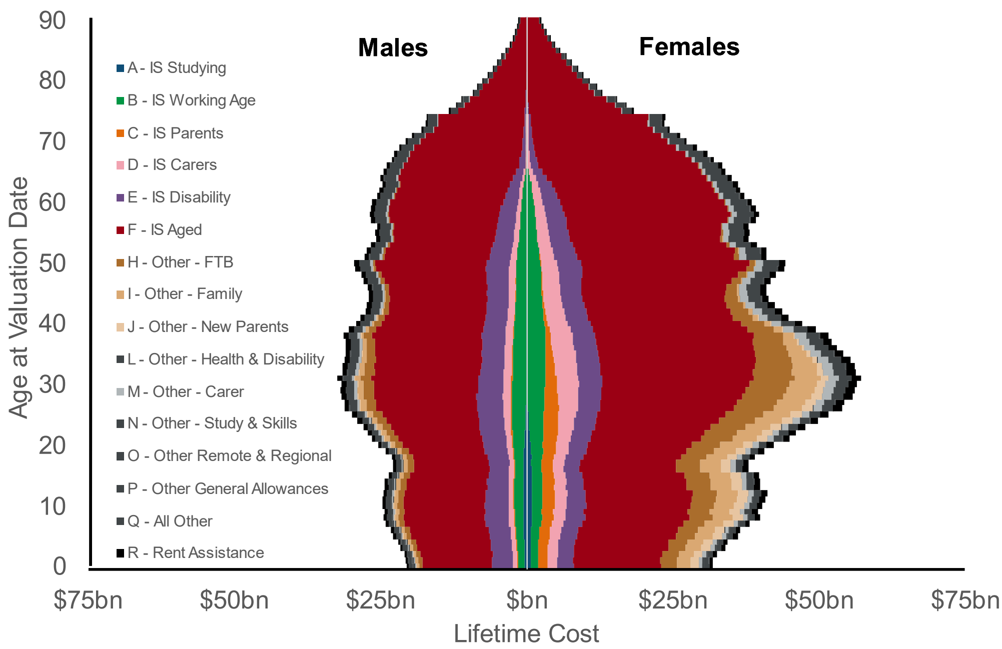
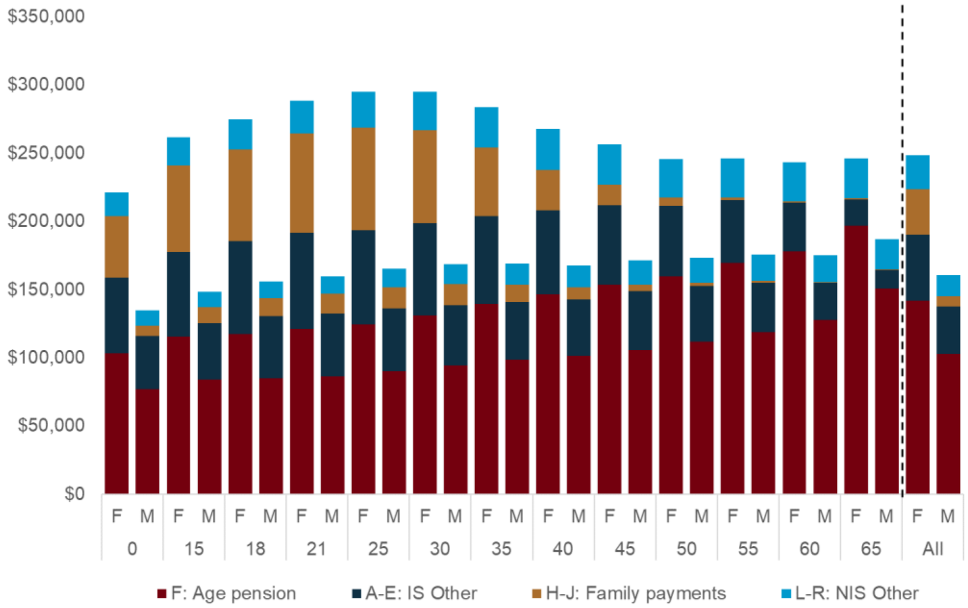


Figure 29: Average Lifetime Cost by Gender and selected ages



3.5.2 The total Lifetime Cost for females is higher than that for males, primarily owing to a higher usage of parenting payments, and non-income support family payments. It is also due to the higher expected longevity of females compared to males, which gives a larger present value of Age Pension payments.

3.5.3 The Lifetime Cost in respect of the Age Pension is lower for younger people than for those who are older. This is mainly because their receipt of payments would be further into the future, thereby discounting those payments more heavily to the valuation date of 30 June 2021. However, across all ages and both genders the dominant contribution of the Age Pension to the Lifetime Cost is again evident. In other words, there is a long duration of receiving payments under the Age Pension payment category. This is due to:

- the large number of people currently receiving the Age Pension.
- the large number of people that will receive the Age Pension in the future.
- the average annual payment being received under the Age Pension being higher than most other classes.
- the fact that once an individual starts receiving the Age Pension, they are likely to continue to receive the Age Pension for the remainder of their life.

In other words, there is a long duration of receiving payments under the Age Pension payment category.

3.6 Differences in duration of payments

3.6.1 The influence of duration of payments also applies to other payment categories. For example, those currently on income support are expected to spend a greater proportion of their future lifetimes receiving income support than those not currently on income support. This is particularly the case for recipients of Carer Payment and Disability Support Pension. A further example is those on JobSeeker Payment, where there is a correlation between past duration and future duration of receiving this assistance – that is, those remaining on JobSeeker Payment for some time are more likely than others to be receiving JobSeeker Payment in the future. This has been factored into our modelling.

3.6.2 Table 10 provides a summary of average duration of payments, by payment category, using two measures:

- consecutive years of use for someone who has just entered that payment category;
- overall future use of that payment category per recipient.

3.6.3 For example, consider someone who enters payment category D and stays for 3 years, then exits, and re-enters payment category D later on and stays for 2 years. Under the first measure, there are two separate periods of welfare utilisation with an average duration of 2.5 years. Under the second measure, there is a total future utilisation of 5 years for that person who has entered payment category D. Only individuals aged under 15 years are included in the calculations for this table, as this cohort is a relatively homogenous age group and are unlikely to have used welfare. Using only people who have not received welfare, and who are of a similar age, removes the impact and potential bias of age and previous/current welfare utilisation on future utilisation.

Table 10: Duration of Payments for Each Welfare Payment Category (individuals aged under 15 years)

Payment Category	Average Years of use per Entry	Average Years of use per Recipient	Percentage of Population who will Utilise this Category
A - IS Studying	2.5	3.0	38%
B - IS Working Age	3.3	5.3	42%
C - IS Parents	5.0	6.1	11%
D - IS Carers	8.6	9.9	9%
E - IS Disability	20.4	21.6	9%
F - IS Aged	16.5	17.9	68%
H - Other - FTB	5.4	8.5	41%
I - Other - Family	5.6	7.7	40%
J - Other - New Parents	1.5	2.5	46%
L - Other - Health & Disability	4.8	5.1	6%
M - Other - Carer	10.0	11.6	23%
N - Other - Study & Skills	2.1	2.9	23%
O - Other Remote & Regional	6.6	7.5	7%
P - Other General Allowances	11.0	22.2	87%
Q - All Other	1.1	1.3	25%
R - Rent Assistance	5.6	10.0	55%

3.6.4 Average years of use per entry is a measure of the number of consecutive years people receive a payment. Some payment categories have significantly more extended durations, most notably Disability Support Pension and Age Pension. Once people start accessing these payments, they are unlikely to stop for reasons other than death or to transfer from Disability Support Pension onto the Age Pension. Carer payments (D and M) also have a slightly longer continuous duration, with duration driven by the needs and lifetime of the caree.

3.6.5 Average years of use per recipient is a measure of the future use of a payment for those who will receive it at some point. The difference between 'average years of use per entry' and 'average years of use per recipient' therefore highlights payment categories that people are more likely to access multiple times in their life. One example is JobSeeker Payment (B), where people may be in and out of work or may access it when they are first looking for work and then again in the years before retirement. Another example is family payments, predominantly H and I, where people can access payments multiple times with additional children.

3.6.6 In terms of assessing the future use of payments for the average young Australian, the final column gives an indication of this and therefore infers the proportion of the population who will not access that payment category at all. This measure highlights payments that are used more broadly across the population, with Age Pension, non-income support family payments (H, I, and J), and Working Age payments being the primary examples. Note that people on Working Age payments include those looking for work in the years immediately prior to retirement age.

3.7 Analysis of change from 2020 to 2021

3.7.1 Compared to the rebased 30 June 2020 valuation of $5,212 billion, the 30 June 2021 valuation of $5,293 billion represents a 1.6% increase in the Lifetime Cost.

3.7.2 Despite the increase in Lifetime Cost, projected future welfare utilisation has decreased slightly, with the average future years in receipt of welfare decreasing from 18.8 years for the rebased 2020 valuation to 18.3 years for the 2021 valuation. This utilisation measure counts the average number of years in which someone in the model population will access welfare over the remainder of their lifetime.

3.7.3 Changes in the valuation will occur over time, as measured at each year's valuation date, for a number of reasons. Relative to the 2020 rebase, these reasons include:

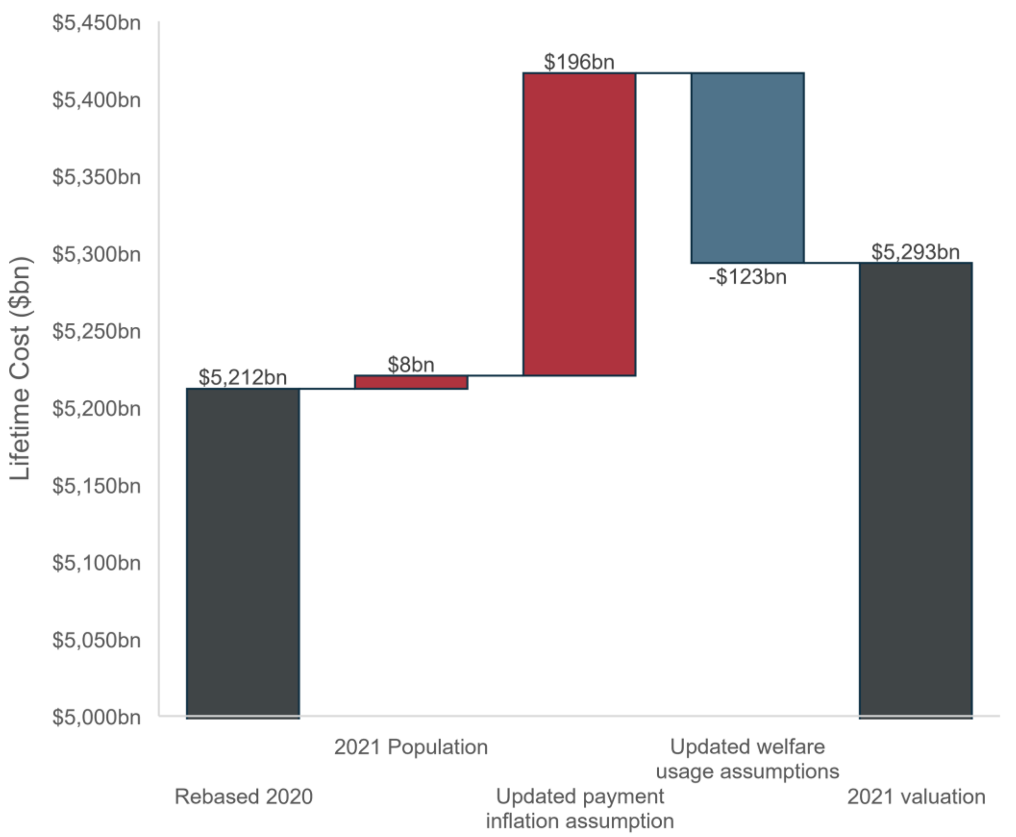
- changes to the size and composition of the population through, for example, births, deaths, and migration since the last valuation; and the ageing of the remaining population by one year in the interim;
- the impact of general economic conditions, such as unemployment and inflation;
- inflation increases on the rates of payment;
- the changing profile of those receiving payments;
- changes to both the current and expected future utilisation of each part of the welfare system; and
- external changes, such as the change in the discount rate.

3.7.4 In order to understand the overall change in the Lifetime Cost, we now present an analysis of change in the valuation over the last year. This analysis groups together factors that have contributed to this change, and examines the changes occurring within each payment category.

3.7.5 This analysis is sensitive to the order in which the changes are made. For instance, the impact of updating assumptions regarding movements between modelled welfare classes will be influenced by the numbers of people in that class, and so will differ depending on the order in which the population information and welfare class assumptions are updated.

3.7.6 A visual representation of the analysis of change is shown in Figure 30.

Figure 30: Changes from the Rebased 2020 Valuation to the 2021 Valuation



Movement due to population changes

3.7.7 Each year, we expect the total Lifetime Cost to change in line with movements in the population. At the June 2021 valuation, the overall Lifetime Cost increased by $8 billion (0.2% of the rebased 30 June 2020 valuation) due to the change in the model population. As discussed in section 2.7, the relatively low growth rate of 0.2% in the model population is primarily the result of restrictions on immigration due to the COVID-19 pandemic, which contributed to a much smaller increase in the total population than would otherwise be the case.

Movement due to updated indexation

3.7.8 As a result of updated indexation, the valuation result has increased by $196 billion (3.8%). This increase is driven by higher projected growth in both the CPI and AWE over the short term, with the higher CPI forecast being the primary driver. Age Pension payments are most impacted by this change.

Movement due to 2020-21 experience

3.7.9 Movement due to 2020-21 experience decreased the valuation by $123 billion (2.4%), relative to the rebased 30 June 2020 result.

3.7.10 The primary driver of this decrease was the updated forecast unemployment rates in the March 2022-23 Budget. Compared with last year's forecast, unemployment was predicted to be lower in both the short and medium term, reflecting the improved economic outlook over the 2021-22 year.

3.7.11 The lower unemployment forecast resulted in fewer expected entries into welfare, and more exits expected from welfare. Further, when measured by duration, the largest reduction in welfare usage occurred in working age payments, particularly JobSeeker. There were also significant reductions in the usage of other income support payments, as measured by both duration and number of people receiving those payments.

3.7.12 Changes to the welfare system also directly influence the utilisation and entitlement amounts within each welfare class and payment category. In particular, the Coronavirus Supplement and Economic Support Payments ceased after 2020-21, and the removal of this payment reduced the Lifetime Cost by $18 billion.

Total movement by payment category

3.7.13 Movements in the Lifetime Cost arising from all changes described above do not impact every welfare class or payment category in the same way. For instance, certain assumption changes will only affect particular classes, population growth may differ by class, and the observed trends in welfare utilisation and behaviour will also differ by class. These changes are better examined by considering category-specific impacts of emerging experience observed over the year, together with changes about assumptions in the future, which are themselves reflective of this experience.

3.7.14 For each payment category, the change in Lifetime Cost is considered in respect of changes in experience and future assumptions, regarding entries, exits, and average payment amounts. An analysis of change is shown in Table 11.

Table 11: Change in Lifetime Cost by payment category

Payment Category	Lifetime Cost $m for Year End:		Change in Lifetime Cost	
	30 June 2021	30 June 2020	$m	%
A - IS Studying	34,520	34,983	-463	-1.3%
B - IS Working Age	247,303	287,191	-39,888	-13.9%
C - IS Parents	87,521	91,762	-4,241	-4.6%
D - IS Carers	234,324	231,207	3,117	1.3%
E - IS Disability	474,569	475,613	-1,044	-0.2%
F - IS Aged	3,164,451	3,046,266	118,186	3.9%
H - Other - FTB	286,896	285,930	966	0.3%
I - Other - Family	178,179	168,275	9,904	5.9%
J - Other - New Parents	63,068	59,432	3,636	6.1%
L - Other - Health & Disability	2,921	2,967	-45	-1.5%
M - Other - Carer	105,062	102,484	2,578	2.5%
N - Other - Study & Skills	3,086	3,264	-178	-5.4%
O - Other Remote & Regional	3,963	3,309	654	19.8%
P - Other General Allowances	272,614	265,411	7,203	2.7%
Q - All Other	6,055	5,856	199	3.4%
R - Rent Assistance	128,941	129,504	-563	-0.4%
Total	5,293,473	5,212,083	81,390	1.6%

3.7.15 The major contributor to the overall increase in Lifetime Cost is the Age Pension, with $118 billion of the total increase. This is primarily attributed to the higher short-term CPI forecast, which increases all future Age Pension payments. This is partially offset by the decrease in Age Pension Lifetime Cost from the change in population, and the flow-on impact from the lower unemployment forecast.

3.7.16 Working age payments made the largest negative contribution to Lifetime Cost, followed by Parenting Payments and Disability Support. This decrease reflects the reduced use of these payments flowing from the economic adjustment, which more than offset the increased payment amounts due to updated indexation.

3.7.17 The cost of non-income support family payments increased significantly, which was due to the combination of higher indexation and greater numbers of people receiving these payments. This is largely due to the lower forecast unemployment numbers driving more usage of both childcare and paid parental leave. The costs of supplementary payments O, P and Q also increased despite fewer people receiving these payments.

3.8 Sensitivity analysis

3.8.1 Clearly, many factors may influence future welfare utilisation and the Lifetime Cost. These include changes on the demand side of welfare, with changes in patterns of life and work; changes in the composition of households; and changes in the mix of industries and work opportunities. On the supply side, impacts of trends in population health and healthcare are important, as are changes in the availability and usefulness of informal support provided between members of families and other social groups. Furthermore, the long-term nature of cashflows underlying the Lifetime Cost means the Lifetime Cost is sensitive to key assumptions.

3.8.2 We vary key assumptions relating to mortality, economic factors and welfare utilisation in order to indicate the sensitivity of the Lifetime Cost to changes in these assumptions. This highlights that the central estimate of the Lifetime Cost is subject to uncertainty, and some contributors to that uncertainty are broadly quantified in the following analysis. The likelihood of each variation is not assessed.

3.8.3 One key demographic assumption relates to future rates of improvement in mortality. With the Age Pension typically having a long duration of payments in respect of an individual recipient, changes to how mortality may change in the future can have a significant impact on how long they receive Age Pension payments. Hence, some variation in this future improvement is considered.

3.8.4 Other key assumptions relate to the broader economic environment. The Lifetime Cost is based on this remaining relatively consistent over time, particularly with respect to inflation and unemployment. However, many welfare payments are not received until many years into the future – for example, the Age Pension for those who are currently young. This means small changes in indexation rates can have a large impact on the Lifetime Cost. Rates of unemployment also influence the future utilisation of welfare, thereby the Lifetime Cost as well. The overall Lifetime Cost is also sensitive to the interest rate used to discount future cashflows. As a consequence, variations in these assumptions are considered as well.

3.8.5 Any projection of future welfare utilisation is sensitive to a range of factors and, therefore, the projected entry rates and exit rates under each modelled class are sensitive to variations in these assumptions. One such factor relates to legislated policy, for which current policy is assumed to remain in perpetuity, despite the fact that policies relating to the welfare system change frequently. Furthermore, some policy settings, already adopted and included in the valuation, are recent changes which are not yet fully reflected in the observed experience. These considerations mean that the assumptions are inherently uncertain and the actual future experience may differ from that modelled.

3.8.6 As well as uncertainties arising from policy assumptions, the behaviour and response of current and future welfare recipients may also change over time – to either policy, and/or economic changes. In addition, changes over time in key individual characteristics do occur, for example educational attainment, SEIFA status, capacity to work, partnering status, and number and ages of children.

3.8.7 Importantly, the Lifetime Cost assessment for the non-welfare population may be even more uncertain than the Lifetime Cost for people currently and recently in receipt of welfare. This is because less is known about the characteristics of those not within the DSS data, and because their projected future welfare utilisation is further into the future than for current welfare recipients. Hence, variations in the entry and exit assumptions from welfare to non-welfare, and non-welfare to welfare, are considered as part of the sensitivity analysis.

Sensitivity results

3.8.8 The sensitivity of the Lifetime Cost to key assumptions is provided in Table 12. Economic sensitivities are additional changes relative to valuation assumptions (that is, an additive change [± %]), and mortality and welfare utilisation sensitivity are proportional changes relative to valuation assumptions (that is, a multiplicative change [× {100% ± change%}]).

Table 12: Sensitivity of Lifetime Cost to Changes in Assumptions

<table>
<tr><th></th><th colspan="2">Sensitivity Test</th><th colspan="4">Change (%) in future Lifetime Cost in payment categories:</th><th colspan="2">Total change in Lifetime Cost</th></tr>
<tr><th></th><th colspan="2"></th><th colspan="2">Income support</th><th colspan="2">Non-income support</th><th>$billion</th><th>%</th></tr>
<tr><th></th><th colspan="2"></th><th>F: Age Pension</th><th>A-E: Other</th><th>H-J: Family</th><th>L-R: Other</th><th></th><th></th></tr>
<tr><td rowspan="3">Mortality</td><td>Future Improvements</td><td>+10%</td><td>1.6%</td><td>0.5%</td><td>0.0%</td><td>0.8%</td><td>60</td><td>1.1%</td></tr>
<tr><td>Future Improvements</td><td>-10%</td><td>-1.5%</td><td>-0.6%</td><td>-0.2%</td><td>-0.7%</td><td>-59</td><td>-1.1%</td></tr>
<tr><td>COVID-19 Mortality</td><td></td><td>-0.6%</td><td>-0.4%</td><td>0.0%</td><td>-0.3%</td><td>-25</td><td>-0.5%</td></tr>
<tr><td rowspan="11">Economic</td><td rowspan="2">Discount Rate</td><td>+1%</td><td>-29.0%</td><td>-17.2%</td><td>-12.8%</td><td>-19.8%</td><td>-1,276</td><td>-24.1%</td></tr>
<tr><td>-1%</td><td>48.8%</td><td>24.3%</td><td>16.2%</td><td>29.6%</td><td>2,046</td><td>38.7%</td></tr>
<tr><td rowspan="2">CPI</td><td>+1%</td><td>1.5%</td><td>6.5%</td><td>14.1%</td><td>27.2%</td><td>332</td><td>6.3%</td></tr>
<tr><td>-1%</td><td>-0.2%</td><td>-3.9%</td><td>-11.3%</td><td>-18.3%</td><td>-203</td><td>-3.8%</td></tr>
<tr><td rowspan="2">MTAWE</td><td>+1%</td><td>49.4%</td><td>19.7%</td><td>1.5%</td><td>0.0%</td><td>1,782</td><td>33.7%</td></tr>
<tr><td>-1%</td><td>-28.2%</td><td>-12.1%</td><td>-1.2%</td><td>0.0%</td><td>-1,029</td><td>-19.4%</td></tr>
<tr><td rowspan="3">Assumed Unemployment Rate</td><td>+2%</td><td>5.6%</td><td>30.2%</td><td>-4.3%</td><td>10.0%</td><td>531</td><td>10.0%</td></tr>
<tr><td>+1%</td><td>2.7%</td><td>13.7%</td><td>-2.5%</td><td>4.7%</td><td>246</td><td>4.6%</td></tr>
<tr><td>-1%</td><td>-2.7%</td><td>-10.5%</td><td>2.7%</td><td>-3.7%</td><td>-204</td><td>-3.9%</td></tr>
<tr><td>Budget 2021-2022</td><td></td><td>0.2%</td><td>4.8%</td><td>-2.2%</td><td>-0.1%</td><td>45</td><td>0.9%</td></tr>
<tr><td>COVID-19 Economic</td><td></td><td>0.9%</td><td>0.8%</td><td>1.9%</td><td>1.7%</td><td>58</td><td>1.1%</td></tr>
<tr><td rowspan="4">Welfare Utilisation</td><td rowspan="2">Welfare Entry Rates</td><td>+10%</td><td>4.6%</td><td>4.1%</td><td>3.7%</td><td>3.9%</td><td>230</td><td>4.3%</td></tr>
<tr><td>-10%</td><td>-4.8%</td><td>-4.8%</td><td>-4.4%</td><td>-4.2%</td><td>-249</td><td>-4.7%</td></tr>
<tr><td rowspan="2">Welfare Exit Rates</td><td>+10%</td><td>-0.3%</td><td>-2.0%</td><td>-2.4%</td><td>-1.1%</td><td>-50</td><td>-1.0%</td></tr>
<tr><td>-10%</td><td>0.6%</td><td>2.5%</td><td>2.6%</td><td>1.4%</td><td>66</td><td>1.2%</td></tr>
</table>

3.8.9 Changes in mortality improvements primarily impact the Age Pension and disability payments. The greater the future improvement in mortality, then the higher the life expectancy in the future, and longer duration of payments that results. The 10% proportionate movements in future mortality improvements have an impact of approximately 1% on the Lifetime Cost.

3.8.10 The discounting assumptions have a large impact on the Lifetime Cost results. Many of the payments, particularly the Age Pension, are not received until many years into the future and, for some of the population, are concentrated in the latter part of people's lives. This means small changes in the discount rates can have a large impact on the Lifetime Cost. Note that the change in discount rate has no impact on future cashflows; it only impacts the net present value of these cashflows and, therefore, the estimated Lifetime Cost.

3.8.11 Indexation and discount rates both impact on the Lifetime Cost. The impact to the Lifetime Cost is greatest for changes to the discount rate (holding indexation unchanged) as this impacts all future payments over all timeframes. Changes to AWE have a greater impact than changes in the CPI (holding discount rate unchanged), as the payments that occur later in people's lives benefit from AWE benchmarking[2], and have a longer average duration on payment.

3.8.12 The AWE assumptions directly impact the size of some of the payments, including the Age Pension, and Disability Support Pension which have the most significant effect on the Lifetime Cost. To highlight the impact of increasing the AWE assumption, increasing the current 4% valuation assumption of long-term AWE to 5% represents a 33.7% proportional increase in the total Lifetime Cost.

3.8.13 The CPI assumptions directly impact the size of some income support and non-income support payments. These payment categories have smaller future Lifetime Costs than Age Pension and Disability Support Pension and hence changes made to them have a smaller impact on total Lifetime Cost.

3.8.14 Changes in the unemployment rate affect the number of people both entering and exiting welfare. JobSeeker Payment is the main payment category directly impacted, but there are also impacts to other payments, such as non-IS family payments. Some of the impacts are downstream; for example, a rising unemployment rate may lead to more people entering JobSeeker Payment, which will then increase their propensity for future Disability Support Pension and Age Pension usage.

3.8.15 Adjusting entry and exit rates impacts all payment categories, as would be expected, as this directly changes the number of people in welfare. The Lifetime Cost is far more sensitive to changes in entry rates from non-welfare into welfare, than changes to exit rates from welfare to non-welfare. Three drivers of this effect are:

- the larger relative size of the non-welfare population means that small changes result in large movements of people;
- someone who exits from welfare is more likely to re-enter welfare than someone who has never previously been in welfare; and

2 Most pensions are indexed by the greater of CPI or the PBLCI. The amount is then benchmarked against a percentage of MTAWE, which ensures pensioners maintain a certain standard of living, relative to the rest of the population. MTAWE growth rate is generally higher than CPI and PBLCI.

- the difference in entry and exit rates are impacted differently by a proportionate sensitivity adjustment.

As an increase in new entrants brings someone into welfare who was not previously in the system, this increases both the immediate cost and the associated costs of greater connection with the welfare system in the longer term. Those leaving welfare are likely to have a continuing connection with welfare at some stage, so the proportionate increase in Lifetime Cost is less with lower exits, than it is with higher entries. Changes to entry rate has a disproportionately larger impact on Age Pension Lifetime Cost than the same proportional change to exit rate, because exit rate from Age Pension is much lower than entry into Age Pension.

Scenario analysis

3.8.16 The sensitivity analysis considers each area of uncertainty independently from another. In reality, there is dependence between one item of experience changing, and another. For example, the sensitivity analysis looks at an unemployment increase of 1% in isolation and does not consider any related changes in AWE that may happen. It is likely that an economic shock would not only have an immediate impact on unemployment, but subsequent government responses would impact inflation, welfare policy would likely change, individuals would change their circumstances and plans to adjust, and so on. In an extreme economic shock, aggregate mortality could also be impacted.

3.8.17 The COVID-19 pandemic highlights the above point. It has had a widespread and significant impact on a range of welfare policies, payments and services. This includes the direct costs of short-term support provided, the impact of unemployment, the time taken for employment to recover, and longer-term impacts on retirement savings that will likely eventuate due to periods of lower contributions.

3.8.18 In particular, as mentioned in 2.8.10, the experience window used for modelling is set at 2 years (2018 and 2019) to avoid distortion to the projection from the pandemic shock. Importantly, this means that our mortality projections do not account for the future mortality impact of COVID-19, which is still very uncertain. Based on modelling from the Actuaries Institute, our scenario for the increased mortality includes +5% extra mortality for the first two years of the projection (2021-22 and 2022-23), with no extra mortality past these two years. This COVID-19 mortality scenario results in an approximate 0.5% reduction in Lifetime Cost.

3.8.19 The 2021 valuation uses the economic forecast from the 2022-23 Budget, published in March 2022. The economic outlook at this time significantly improved compared to forecasts in the 2021-22 Budget, published in May 2021. In particular, the pace of recovery in the labour market was forecast to be much faster and the projected long-term unemployment rate was lower. It is informative to evaluate the Lifetime Cost, where instead the economic forecasts from the 2021-22 Budget had eventuated. This scenario results in a Lifetime Cost of $5,339 billion that is $45 billion (0.9%) higher compared to the 2021 valuation, with the future years in welfare also higher at 18.6 years. Most of the increase is attributed to Working Age payments, and the subsequent flow-on impact to the Disability Support Pension and Age Pension.

3.8.20 The impact of COVID-19 continues to linger, and the emergence of new global challenges in 2022 has further fuelled the uncertainty of economic forecasts. Since the earlier than usual 2022-23 Budget in March, brought forward for the 2022 federal election, economic conditions have changed materially. The significant increase in price inflation, with a relatively moderate increase in wages, and a lower-than-expected unemployment rate pointed to a material change in the short-term economic outlook. To examine the impact of these changes, an economic scenario was created based on the latest release of CPI, AWE, and unemployment rates, and the Reserve Bank of Australia’s May 2022 round economic forecast. The economic scenario assumes a higher CPI rate that peaks in 2022-23, a higher AWE rate, and a lower unemployment rate, with each of these reverting to the 2022-23 Budget forecasts from 2024-25. The resulting Lifetime Cost is $5,351 billion, a $58 billion (1.1%) increase, driven by the increased payment indexation that is partially offset by the fall in unemployment rate.

APPENDIX A: GLOSSARY

Actuarial valuation

Estimation of the Lifetime Cost of future social security payments to the Australian Government using generally accepted actuarial principles.

Allowances

Allowances provide income support and access to a range of concessions for eligible Australians. The term Allowance is used by DSS to refer to income support payments that are generally at lower payment levels than Pensions.

Assumptions

Assumptions are the parameters that guide the model - these include 'macro' assumptions such as economic forecasts and demographic assumptions; and 'micro' assumptions such as probabilities of individuals moving into and through the welfare system based on various risk factors.

Average Lifetime Cost (future)

The net present value of the payments that we expect to be made to an individual over their future lifetime. Note that these will be assessed for groups of similar individuals, not for specific people.

AWE

Average Weekly Earnings.

COVID-19

2019 novel coronavirus.

CPI

Consumer Price Index.

Data

Data refers to sets of information that are being used to inform the project.

Datasets

A set of values of qualitative (characteristics) and/or quantitative (numbers) variables, coded in a form that is suitable for use in analysis.

Data maturity

The model data is built by attributing payment information into the year in which a welfare recipient was entitled to a payment (which may differ in some cases from the year when the payment was actually received). The data includes all information known and recorded up to 3 months after the valuation date, i.e. 30 September, which is also the 'as known at' date for the data. In some cases, further information about a previous entitlement year will only be known at a later date, and the currently known data is said to be immature in these cases. The main maturity issues noted in the valuation relate to the latest entitlement year and a key example is FTB. Families can choose to receive their FTB either as payments throughout the year or as a lump sum at the end of the year. Either way, the entitlement amount is finalised after the end of the financial year. The model makes various adjustments to allow for the impact of data maturity.

Demographic module

A collection of programs and processes for simulating synthetic life paths and reproduce population dynamics.

Discounting

The process of determining the present value of a payment or a stream of payments that is to be received in the future. Given the time value of money, a dollar is worth more today than it would be worth tomorrow given its capacity to earn interest.

Duration on welfare

The number of financial years in which an individual has received a welfare payment. This includes income support payments, as well as non-income support payments.

Dynamic

A term we are using to describe information or data variables that change with the progression of time (e.g. a person’s partner status).

Estimated resident population

The official measure of the population of Australia, and is based on the concept of usual residence. It refers to all people, regardless of nationality, citizenship or legal status, who usually live in Australia, with the exception of foreign diplomatic personnel and their families.

Flow assumptions

This comprises the set of assumptions used to ascertain how each person’s individual demographic and risk characteristics change as time progresses.

Group

In this report we have used the term group to refer to a group of people defined by a set of common characteristics in the model - for example , a group could be "females aged 20 to 24 who were in welfare class ‘Studying’ in 2020-21" or could be "male carers". Generally, groups will be defined by the model structure and individuals’ characteristics.

Income support payments

Income support payments provide for the basic living costs of adults, and are paid on a fortnightly basis. Income support payments are the primary form of financial assistance for individuals who are unable, or not expected, to fully support themselves. Examples include Age Pension, JobSeeker Payment (formerly Newstart Allowance), Disability Support Pension, Carer Payment and Parenting Payment. Other supplementary payments are also available to assist people with other specific costs. For example, Family Tax Benefit Part A is provided for the direct costs of raising children and childcare assistance is provided to assist with the costs of childcare. For the purposes of this document, these payments are referred to as non-income support payments.

Indexation

Indexation is a technique to adjust payments by means of an index, in order to maintain an equivalence in values across years. For example, indexing in line with price inflation will maintain an equivalence of payments after indexation relative to purchasing power; while indexing in line with wage inflation will maintain an equivalence of payments after indexation relative to community living standards.

Job capacity assessment

An assessment of an individual's level of functional impairment and work capacity. This is expressed in the data as the number of hours in a week they are capable of working.

Liability

In finance, the term liability is used to refer to general obligations to make future payments. The specific meaning varies depending on the person using the term and context of its use. Actuaries may also use this term to describe the net present value of the cashflows arising from future obligations.

Lifetime Cost

The Lifetime Cost is the net present value of all future welfare payments (to the in-scope population).

MTAWE

Male Total Average Weekly Earnings.

Methodology

The method refers to the description or specification of the process for selecting modelling techniques, taking the data, analysing it, developing or incorporating assumptions about the future, and projecting forward and summarising the expected welfare payments for each individual within the model population.

Model

The model refers to the set of computer programs, spreadsheets, formulae, techniques and tools that are built in order to apply the method. In a sense, the model is intended to represent, in a mathematical way, what happens to people as they move in, through and out of the social support system based on various assumptions. The model is a collection of modules and sub-components that fit together in applying the method.

Model population

The model population is the set of individual person records used in the model. The modelling design allows for both the modelling and simulation components to be run for either a sample of the population or the whole population.

Model (Australian) population

The set of individual person records used in the model, representing the Australian resident population together with current overseas welfare recipients.

Mutual obligation requirements

A set of activities that must be completed by an individual in order to receive JobSeeker Payment (formerly Newstart Allowance), Youth Allowance as a job seeker, Parenting Payment Single after the recipient's youngest child turns 6, and some types of Special Benefit. Welfare recipients may be granted either a permanent or a short-term exemption from these obligations in some situations; for example, due to disability or a personal crisis.

Net Present Value

The sum of the present value of incoming and outgoing cashflows over a period of time.

Neural Network

Neural Networks (or artificial neural networks to differentiate them from biological brains) are a machine learning algorithm originally inspired by biological brains, that can automatically identify patterns in data and then make predictions based on those patterns. From the 2019 valuation they have replaced the Generalised Linear Models (GLMs) used in previous valuations as they require less manual fitting and are more able to identify complex patterns in the data such as interactions between predictors.

Parental welfare dependence

A measure of the level of welfare dependence of a person's parents / guardians during the course of that person's childhood (up to the age of 15). For the purposes of this document, we have only considered the use of income support payments (excluding the Age Pension) by a person's parents / guardians.

Payment

A generic term used to describe all the different types of benefits an individual can be paid. This includes pensions, allowances, entitlements etc.

Payment assumptions

The assumptions that describe the payments which individuals receive given that they use a specific payment category.

Payment categories

The groupings of individual payment types used for modelling purposes.

Payment types

A term used to describe the labels assigned to all the underlying payments so they can be considered for modelling purposes. The assignation has been through a mapping process, with around 2,000 underlying payments identified by codes and mapped to around 100 payment types.

Payment utilisation assumptions

The assumptions that describe the probabilities with which individuals use different payment categories.

PBLCI

Pensioner and Beneficiary Living Cost Index.

Pensions

Pensions provide income support and access to a range of concessions for eligible Australians.

Present Value

The present value is the value of an expected income stream determined as of the date of valuation. The present value is always less than or equal to the future value because money has interest-earning potential, a characteristic referred to as the time value of money.

Probability

Probability is the measure of the likelihood that an event will occur. Probability is quantified as a number between 0 and 1 (where 0 indicates impossibility and 1 indicates certainty). The higher the probability of an event, the more certain we are that the event will occur.

Projection

The use of the model to forecast the future payment experience of the population based on current statistics and trends.

Rebased valuation results

The results from the previous valuation, adjusted to allow for the updated modelling approach and use of more recent demographic data. Rebasing the previous valuation results allows an analysis between the previous and current valuation results that depends only on relevant movements in experience between the valuation dates.

Risk characteristics

Measurable or observable factors or characteristics used to assign each individual to one of the risk classes of a risk classification system. Examples of risk characteristics in the context of the actuarial valuation model include age, gender, family situation and education status.

Risk classes

A set of risks grouped together under a risk classification system.

Risk classification system

The process of systematically arranging risks into groups or categories according to similar risk characteristics.

Risk factors

See 'Risk characteristics'.

SEIFA

Socio-Economic Indexes for Areas. A product developed by the Australian Bureau of Statistics that ranks areas in Australia according to relative socio-economic advantage and disadvantage.

Simulation

Simulation is the imitation of the operation of a real-world process or system over time. In the context of the actuarial valuation model, we will simulate how the payment system operates. Where the system is stochastic, multiple simulations may be used to show the range of possible outcomes.

Static

A term we are using to describe information or data variables that do not change over time. For example, a person's date of birth or country of birth.

Statistics

The study of the collection, analysis, interpretation, presentation, and organisation of data.

Stochastic

The term stochastic describes events or systems that are unpredictable due to the influence of random variables. A stochastic model will not produce the same output from a given starting condition or initial state even if run in the same way.

Valuation

See Actuarial valuation

Valuation Date

The reference date for the actuarial valuation. The valuation will consider the Lifetime Cost as at the valuation date for all payments after the valuation date.

Valuation Results

The summarised outputs from the model, in aggregate for the entire model population as well as population subgroups of interest.

Welfare class

Unique segments within the model which each person is assigned to. There are 12 classes: 6 for income support recipients, 3 for non-income support recipients, and 3 for the rest of population. Each person is assigned to the single most appropriate category for each financial year, and can move between classes in future years.

Welfare class assumptions

The assumptions that describe the probabilities with which individuals move between welfare classes.

Welfare dependence

Welfare dependence is used to describe the historical and / or expected future level of welfare use for a group of people. A group with high welfare dependence would either have high historical welfare use or high expected future welfare use.

Welfare module

A collection of programs and processes for simulating welfare usage.

Welfare system interaction

The receipt of a welfare payment (including both income support and non-income support payments) by an individual.

Welfare utilisation assumptions

A term covering both the welfare class and payment utilisation assumptions.

APPENDIX B: PREVIOUS POLICY AND OPERATIONAL CHANGES

B.1 Table 13 summarises the list of policy changes provided by DSS in respect of earlier years' model development. This includes policy changes that [1] took effect prior to the previous census date of 30 June 2020, [2] took effect subsequent to the previous census date of 30 June 2020 but prior to the current model's census date of 30 June 2021, and [3] will take effect beyond the current model's census date of 30 June 2021.

B.2 Adjustments made in the previous model to account for potential impacts of policy changes given in Table 13, were reviewed and then updated if required.

Table 13: Policy changes advised prior to 30 June 2020

Amendment	Year Effective	Description
Parenting Payment transitional arrangement **Social Security Amendment (Parenting Payment Transitional Arrangement) Act 2011**	2011	Changed ability to access transitional arrangements.
Work rule for Disability Support Pension **Social Security and Other Legislation Amendment (Disability Support Pension Participation Reforms) Act 2012**	2012	From 1 July 2012, all Disability Support Pension recipients can work up to 30 hours a week without having their payment suspended or cancelled.
Changes to the eligibility criteria for Youth Allowance (Other) and Newstart Allowance **Social Security and Other Legislation Amendment (Income Support and Other Measures) Act 2012**	2012	The maximum age for Youth Allowance for non-students and the minimum qualification age for Newstart Allowance increased from 21 to 22 years. The income free area value was increased from $62 per fortnight to $143 per fortnight and the working credit limit value was increased from $1000 to $3500 for all Youth Allowance (Other) recipients.
Clean Energy Advance (CEA)	2012	The Clean Energy Advance (CEA) was introduced in May 2012.

Amendment	Year Effective	Description
Clean Energy Supplement and other measures **Clean Energy (Household Assistance Amendments) Act 2011**	2012-2013	From 1 July 2013, the normal payment indexing arrangements and the Clean Energy Supplement (CES) began to deliver assistance related to carbon pricing. In addition, amendments were introduced for the Low Income Supplement, Essential Medical Equipment Payment, Single Income Family Supplement and aged care.
Family Tax Benefit and Youth Allowance **Family Assistance and Other Legislation Amendment Act 2011**	2012	The maximum age limit for a young person to qualify as a dependent child for Family Tax Benefit Part A (FTB-A) changed from aged under 25 to aged 21. This change aligns with the age of independence recognised in Youth Allowance. As at 1 January 2012, a young person is considered independent for Youth Allowance purposes once they turn 22.
Supporting Families with Teenagers	2012	From 1 January 2012, Family Tax Benefit Part A increased for eligible families with dependent 16-19 year olds who are undertaking full-time secondary study. The maximum rate increased by up to $161.42 per child per fortnight, to $214.06.
Removal of the grandfathering provisions and other measures **Social Security Legislation Amendment (Fair Incentives to Work) Act 2012**	2013	Grandfathering provisions for some Parenting Payment recipients were removed. For certain Newstart recipients, there were changes to the eligibility for certain supplements and allowances and to income taper rates.
New Income Support Bonus **Social Security and Other Legislation Amendment (Income Support Bonus) Act 2013**	2013	The Act created a new Income Support Bonus to be paid to recipients of Newstart Allowance, Youth Allowance, Parenting Payment, Sickness Allowance, Austudy Payment, Special Benefit, ABSTUDY Living Allowance, Exceptional Circumstances Relief Payment, and Transitional Farm Family Payment.
Austudy	2013	The maximum length of temporary absence was reduced.
Age / study rules for children for family assistance payments **Social Security and Other Legislation Amendment (2012 Budget and Other Measures) Act 2012**	2013	The maximum age of eligibility for FTB Part A was further reduced to 17 for children who have completed secondary education or a vocational equivalent. Children still in secondary study can continue to access FTB Part A until the end of the calendar year they turn 19.

Amendment	Year Effective	Description
Child Care Rebate	2013	The government changed the eligibility criteria for the Jobs, Education and Training Child Care Fee Assistance (JETCCFA) program. From 1 July 2013 parents who were studying an enabling course (commonly referred to as bridging or foundation courses) may be eligible for Jobs, Education and Training Child Care Fee Assistance. Changes to the amount of JETCCFA subsidy could impact the amount of CCR that a child is entitled to. There were changes to JETCCFA eligibility and subsidy rules in 2013, 2014 and 2015.
Disability Support Pension	Various	The tightening of eligibility criteria including, but not limited to, the 'Program of Support' rule in September 2011 and the revised Impairment Tables in January 2012.
	2014	From 1 July 2014, DSP recipients under age 35 years, granted between 1 January 2008 and 31 December 2011, were subject to review of their impairment (using the revised Impairment Tables) and capacity to work. People with a severe or manifest disability were not reassessed. People who have some capacity to work now or in the future will be helped to do this through programs, services and activities. Under this reform, recipients under 35 have a participation plan which includes activities that will genuinely assist in labour market participation. These activities could include Work for the Dole, job search, work experience, education and training, and connection with Disability Employment Services.
Seniors Supplement Cessation **Social Services and Other Legislation Amendment (Seniors Supplement Cessation) Act 2014**	2014	The Budget 2014 introduced 15 measures on the cessation of the Seniors Supplement – Commonwealth Seniors Health Card holders commenced on 20 June 2015. The Seniors Supplement for Commonwealth Seniors Health Card (CSHC) holders ceased being paid beyond the June 2014 quarterly payment. From this date CSHC holders continued to receive only the Energy Supplement each quarter.

Amendment	Year Effective	Description
Child Care Rebate (indexation)	2014	In the 2010-11 Budget, the Child Care Rebate annual cap was reduced to $7500 and indexation was paused for four years. This arrangement ceased on 30 June 2014. Under this measure, the pause in indexation continued for the 2014-15, 2015-16 and 2016-17 financial years. For the income years 2014-15, 2015-16, 2016-17, CCR entitlement was calculated as 50% of out-of-pocket childcare expenses up to a limit of $7,500 (capped) per child per year for approved childcare. The annual indexation is paused for a further 3 income years. The first indexation of the $7,500 maximum limit occurred on 1 July 2017.
Energy Supplement (ES) **Social Services and Other Legislation Amendment (2014 Budget Measures No. 6) Act 2014**	2014	In September 2014, the Energy Supplement (ES) replaced the CES and indexing was removed.
Other Measures **Social Security Amendment (Supporting More Australians into Work) Act 2013**	2014	From 20 March 2014, the income free area that applied for certain payments was increased. From 1 January 2014, eligibility for the Pensioner Education Supplement (PES) was extended.
Austudy	2015	The residence requirements changed for Austudy in January 2015 and temporary absence is no longer included.
Family Tax Benefit Part B - primary earner income limit reduced from $150,000 to $100,000 per year **Social Services And Other Legislation Amendment (2014 Budget Measures No. 6) Act 2014**	2016	The FTB B higher income earner test changed to $100,000 from 1 July 2015. Families with one parent earning over $100,000 are not eligible for FTB B.
Family Tax Benefit Part A - higher income free area per-child add-on abolished **Social Services And Other Legislation Amendment (2014 Budget Measures No. 6) Act 2014**	2016	Removed the FTB Part A per-child add-on to the higher income free area for each additional child after the first.

Amendment	Year Effective	Description
Changes to the treatment of defined benefit income streams (Age Pension) **Social Services Legislation Amendment (Defined Benefit Income Streams) Act 2015**	2016	This introduced a 10% cap on the amount of a superannuant's defined benefit income that is excluded when applying the social security income test.
Student Start-up Loan (SSL) replaced the Student Start-up Scholarship (SSS) **Labor 2013-14 Budget Savings (Measures No. 2) Act 2015**	2016	For new recipients of Youth Allowance, Austudy and ABSTUDY who are in higher education full-time, the Student Start-up Loan (SSL) replaced the Student Start-Up Scholarship (SSS). SSL is a $1,025 voluntary income contingent loan that can be paid twice per year at the beginning of each semester. SSS will be grandfathered for pre-1 January 2016 recipients and they will continue to receive it until they leave the student payment.
Portability of Family Tax Benefit **Social Services Legislation Amendment (Family Measures) Act 2016**	2016	Reduced to six weeks the period during which FTB Part A, and additional payments that rely on FTB eligibility, will be paid to recipients who are outside Australia.
No Jab, No Pay **Social Services Legislation Amendment (No Jab, No Pay) Act 2015**	2016	Immunisation requirements apply to children aged from 12 months up to 20 years for the FTB Part A Supplement, and for children aged under 20 years for Child Care Benefit and Child Care Rebate.
Cessation of the Large Family Supplement **Social Services Legislation Amendment (Family Measures) Act 2016**	2016	Ceased the Large Family Supplement, which was a component of FTB Part A paid for the fourth and each subsequent FTB child in the family.
Remove Family Tax Benefit Part B to couple families with a youngest child aged 13 and over **Social Services Legislation Amendment (Family Payments Structural Reform and Participation Measures) Act 2015**	2016	Couple families with a youngest child 13 or over (excluding grandparents and great-grandparents) no longer eligible for FTB Part B. Single parents, grandparents and great-grandparents with a youngest child between 13 and 18 will continue to receive FTB Part B.
Changes to Family Assistance Law affecting	2016	FDC educators and their partners are no longer entitled to receive childcare fee assistance for their own child's

Amendment	Year Effective	Description
Child Care Benefit (CCB) approved Family Day Care (FDC) services. Aimed at ending 'child swapping' **Child Care Benefit (Children in respect of whom no-one is eligible) Determination 2015**		session of FDC if, on that same day, the FDC educator provides FDC for an approved FDC service, unless specified circumstances apply.
Changes to the parental means test (Impacting on Studying class, a small section of Working Age class and the non IS family class) **Social Services Legislation Amendment (More Generous Means Testing For Youth Payments) Act 2015**	2016	Family Actual Means Test (FAMT) and Family Assets Test (FAT) removed from Youth Allowance Parental Means Test arrangements.
Repeal of the income support bonus and the schoolkids bonus **Minerals Resource Rent Tax Repeal and Other Measures Act 2014**	2016	The final instalment of the Schoolkids Bonus was paid in July 2016. The Income Support Bonus continued until December 2016, with the last instalment paid in September 2016.
Changes to assets test **Social Services Legislation Amendment (Fair and Sustainable Pensions) Act 2015**	2017	From 1 January 2017, the pension assets test was rebalanced. The assets test free areas were increased to: • $250,000 for a single homeowner (an increase of $48,000) • $375,000 for a homeowner couple (an increase of $88,500) • $450,000 for a single non-homeowner (an increase of $101,500) • $575,000 for a non-homeowner couple (an increase of $142,000). The assets test "taper" (or withdrawal) rate for assets above the new free areas were increased to $3.00 per fortnight for each extra $1,000 in assessable assets (from the current rate of $1.50, reversing the 2007 change). When announced in the 2015-16 Budget, the measure was to save $2.4 billion across the forward estimates, the majority of which would be related to the Age Pension.
Cessation of Low Income Supplement	2017	The low income supplement ceased on 30 June 2017.

Amendment	Year Effective	Description
Social Services Legislation Amendment (Low Income Supplement) Act 2015		
Changes to the parental means test **Social Services Legislation Amendment (More Generous Means Testing For Youth Payments) Act 2015**	2017	Treatment of Child Support maintenance income was further reformed by applying a separate Maintenance Income Test, reducing payments for around 850 young people aged under 18. This test is similar to the one currently applying to Family Tax Benefit Part A.
Closing Carbon Tax Compensation **Budget Savings (Omnibus) Act 2016**	2017	New recipients of FTB or Seniors Health Cards were no longer paid the Energy Supplement from 20 March 2017. Those people already receiving the Energy Supplement prior to 20 September 2016 will continue to receive it. Those people receiving the Energy Supplement after 20 September stopped receiving it from 20 March 2017 onwards.
Backdating provisions for Carer Allowance **Budget Savings (Omnibus) Act 2016**	2017	Changes to the rules for backdating Carer Allowance to be in line with the rules for Carer Payment and other social security payments and concessions. Prior to this amendment Carer Allowance start date could be backdated earlier than the start date for Carer Payment.
Newly Arrived Residents - removal of exemptions **Budget Savings (Omnibus) Act 2016**	2017	Removed the exemption from the 104 week waiting period for new migrants who are family members of Australian citizens or long-term permanent residents. This change aligned the social security waiting period for working age payment for all newly arrived migrants (except for refugees, former refugees and their family members).
Parental Leave Pay - Consistent treatment for income support assessment **Budget Savings (Omnibus) Act 2016**	2017	Commonwealth Parental Leave Payments and Dad and Partner Pay payments under the Paid Parental Leave Act 2010 are now treated in the same way as employer-provided parental leave payments when determining eligibility for income support payments.
New treatments of Fringe Benefits for Family Assistance and Youth Payments purposes **Budget Savings (Omnibus) Act 2016**	2017	This changed the way fringe benefits are treated under the income tests for family assistance and youth income support payments and for other related purposes. "Adjusted fringe benefits total" is now defined to be gross rather than adjusted net value of reportable fringe benefits. There are a few exceptions to this for people working in particular industries.

Amendment	Year Effective	Description
Age Pension - aligning means testing **Budget Savings (Omnibus) Act 2016**	2017	From 1 January 2017, net rental income earned on the former principal residence of new entrants into residential aged care, is treated the same way under the pension income test as it is under the aged care means test, regardless of how the resident chooses to pay their accommodation costs.
Extend existing freezes on family payments **Budget Savings (Omnibus) Act 2016**	2017	Higher income free area (HIFA) for Family Tax Benefit (FTB) Part A and the primary earner income limit for FTB Part B were maintained for a further three years. This was to prevent indexation of income limits for FTB Part A, FTB Part B and Paid Parental Leave for the three years including 2017, 2018 and 2019. It was anticipated that there would be around 100,000 affected recipients.
General interest charge to debts **Budget Savings (Omnibus) Act 2016**	2017	Introduced a new interest charge scheme to former recipients of social welfare payments who have outstanding debts and have failed to enter into, or have not complied with, an acceptable repayment arrangement. The interest charge applies to social security, family assistance (including childcare), paid parental leave and student assistance debts.
Enhanced Welfare Integrity **Budget Savings (Omnibus) Act 2016**	2017	Debt recovery allows departure prohibition orders to prevent targeted debtors from leaving the country. It also removes the six-year limitation on recovery of welfare debts, in line with arrangements applied by other government agencies.
One-off Energy Assistance Payment **Social Services Legislation Amendment (Energy Assistance Payment & Pensioner Concession Card) Act 2017**	2017	A one-off energy assistance payment made to approximately 3.8 million people.
Fee Cap for Grandparent Child Care Benefit (GCCB) or Special Child Care Benefit (SCCB) **Child Care Benefit (Session of Care) Amendment Determination 2017**	2017	Childcare provided by an approved Family Day Care service is no longer a 'session of care' for Grandparent Child Care Benefit (GCCB) or Special Child Care Benefit (SCCB) purposes where reported fees involve amounts for which no individual has incurred a genuine liability, or the reported fees exceed a maximum amount of $12.67 per hour (indexed to $12.84 on 1 July 2017).

Amendment	Year Effective	Description
Age Limit for Child Care Benefit **Child Care Benefit (Children in respect of whom no-one is eligible) Amendment Determination 2017**	2017	Introduced restriction so that no one is eligible for childcare fee assistance for Family Day Care provided to either an individual who has turned 18; or a child aged 14 years or older, or who attends secondary school, unless specific circumstances apply.
Parental Income Test and family pool arrangements for Youth Allowance and ABSTUDY **Social Services Legislation Amendment (More Generous Means Testing For Youth Payments) Act 2015**	2017	Parental Income Test and family pool arrangements for Youth Allowance and ABSTUDY take into account all dependent siblings in the family aged 0-19, who meet the definition of a Family Tax Benefit child. Around 13,700 families with dependent children in both the Family Tax Benefit Part A and youth systems became eligible for an average increase in payment of $43 per fortnight ($1,118 per annum). Around 5,800 families, who missed out on payments due to the higher taper rates, became eligible for an average payment of around $50 per fortnight ($1,300 per annum).
Qualifying age for the Age Pension **Social Security and Other Legislation Amendment (Pension Reform and Other 2009 Budget Measures)**	2017	The Age Pension age was increased from age 65 to age 67, at a rate of six months every two years, beginning in 2017.
Income Limit for FTB Part A Supplement **Budget Savings (Omnibus) Act 2016**	2017	Introduced an income limit of $80,000 on payment of the Family Tax Benefit (FTB) Part A supplement, commencing from the 2016-17 income year. If an individual's adjusted taxable income (which includes the adjusted taxable income of their partner if any) is more than $80,000 for the relevant income year, then the individual's FTB Part A supplement in relation to that year will be nil.
Closing Carbon Tax Compensation **Budget Savings (Omnibus) Act 2016**	2017	From 1 July 2017, the single income family supplement is not paid to new recipients. Existing recipients continued to receive the supplement if they remained eligible.
Family Tax Benefit - Maintain child rates for 2 years **Social Services Legislation Amendment Act 2017**	2017	Maintained the current Family Tax Benefit (FTB) rates for two years, from 1 July 2017. This change applies to the maximum standard, base rate and approved care organisation rate of FTB Part A and the maximum rate of FTB Part B.

Amendment	Year Effective	Description
Amendments to Disability Services Act **Disability Services Amendment (Linking Upper Age Limits for Disability Employment Services to Pension Age) Act 2017**	2017	Allowed technical amendment to correct a mismatch between Disability Employment Services eligibility and the age of qualification for the Age Pension that would otherwise arise from 1 July 2017. This removed the reference to '65 years' and replaced it with the term 'pension age'.
Seasonal horticultural work income exemption **Social Services Legislation Amendment (Seasonal Worker Incentives for Jobseekers) Act 2017**	2017	This measure provided a social security income test incentive aimed at increasing the number of job seekers who undertake specified seasonal horticultural work, such as fruit picking. This change was trialled for 2 years, commencing 1 July 2017.
Remove grandfathering for Student Start-Up Scholarships **Budget Savings (Omnibus) Act 2016**	2018	This bill closed the Student Start-up Scholarship for all existing recipients of the scholarship. Current recipients of the Student Start-up Scholarship payment may be qualified for a Student Start-up Loan or ABSTUDY Start-up Loan after the commencement of this change.
Indexation maintain at level for three years the income free areas for working age **Social Services Legislation Amendment Act 2017**	2018	Maintains at level for three years the income free areas for all working age allowances (other than student payments) and for Parenting Payment Single.
Indexation maintain at level for three years the income free areas for student payments **Social Services Legislation Amendment Act 2017**	2018	Maintains at level for three years the income free areas and other means test thresholds for student payments, including the student income bank limits.
Ordinary Waiting period - Working Age Payments (excluding Widows Allowance) **Social Services Legislation Amendment Act 2017**	2018	Created a new ordinary waiting period for Parenting Payment, and for Youth Allowance for a person who is not undertaking full-time study and is not a new apprentice - referred to as Youth Allowance (Other).
Reduce the qualification period for Youth Allowance / Independent test for Youth	2018	Students who qualify under this provision are eligible for Youth Allowance as independent after 14 months, rather than the current 18 month period, provided they have earned at least a minimum rate of pay.

Amendment	Year Effective	Description
Allowance and scholarship payments for students **Social Services Legislation Amendment (Simplifying Student Payments) Act 2017**		
Align means test with other payments / Means testing for social security benefits **Social Services Legislation Amendment (Simplifying Student Payments) Act 2017**	2018	Simplification of means testing for student payments.
Automatically updating geographical classifications / Remoteness structure **Social Services Legislation Amendment (Simplifying Student Payments) Act 2017**	2018	This measure was part of the 2016-17 Budget and simplifies the process for updating the Australian Statistical Geography Standard (ASGS) remoteness structure published by the Australian Statistician, which is used to assess eligibility for student payments under the Social Security Act. This will ensure an assessment of qualification for Youth Allowance and qualification for, and rate of, Relocation Scholarship payments is based on up-to-date geographical classification information.
Reinstate Pensioner Concession Cards to former recipients **Social Services Legislation Amendment (Energy Assistance Payment & Pensioner Concession Card) Act 2017**	2018	This provided a pensioner concession card to various social security pensioners and veterans' payments recipients where the recipient's payment or pension was cancelled on 1 January 2017 due to the rebalancing of the assets test parameters by the Social Services Legislation Amendment (Fair and Sustainable Pensions) Act 2015.
Queensland Commission Income Management Regime - Cape York **Social Services Legislation Amendment (Queensland Commission Income Management Regime) Act 2017**	2018	This enabled a two year continuation of the Income Management element of Cape York Welfare Reform in the communities of Aurukun, Coen, Hope Vale, and Mossman Gorge. The continuation of Income Management until 30 June 2019 was a key element of the reforms and assisted in stabilising people's circumstances and fostering behavioural change, particularly in the areas of school attendance, parental responsibility and increasing individual responsibility.
Cessation of Widow Allowance	2018	Widow Allowance closed to new entrants from 12 April 2018 and will cease entirely from 1 January 2022.

Amendment	Year Effective	Description
Social Services Legislation Amendment (Welfare Reform) Act 2017		
Start day for some participation payments **Social Services Legislation Amendment (Welfare Reform) Act 2017**	2018	Changed the date at which payments commence for people transferring to Newstart Allowance and Youth Allowance recipients.
Changes to reasonable excuses **Social Services Legislation Amendment (Welfare Reform) Act 2017**	2018	This amended the Social Security Administration Act to provide a new power to make a legislative instrument setting out matters that must not be taken into account when deciding whether a person has a reasonable excuse for committing a 'no show no pay' failure, a connection failure, a reconnection failure, a serious failure, or a non-attendance failure.
Better Alignment of Student Payments **Student Assistance (Education Institutions and Courses) Amendment Determination 2017**	2018	From 1 January 2018, approval of tertiary courses for student payments changed. Approved courses have been restricted to VET courses (at diploma level and above) and education providers approved for VET Student Loans and higher education courses offered by providers approved for the Higher Education Loan Program. These changes affect Youth Allowance (Student), Austudy, ABSTUDY and the Pensioner Education Supplement. Existing student payment recipients were grandfathered for the duration of their current course.
Remove the exemptions for Parents in Employment Nil Rate Periods **Budget Savings (Omnibus) Act 2016**	2018	From 1 July 2018, people are no longer exempt from income testing arrangements and their actual income will be taken into account for the purpose of calculating family and student payments.
Targeted compliance framework	2018	From 1 July 2018, a two-phase compliance framework was introduced to apply strong penalties to job seekers who persistently and deliberately do not comply with their employment pathway plan (EPP) requirements. Explicit adjustments for this framework were removed for the 2019 valuation, with the experience seen in the data sufficient for incorporating the outcomes of this framework into the models.

Amendment	Year Effective	Description
Introduction of a family income test for Carer Allowance	2018	Introduction of a non-indexed family income test for Carer Allowance with a threshold of $250,000. Savings realised will be invested in a support package for carers, which was introduced progressively from 20 September 2018.
Introduction of Child Care Subsidy (CCS) and Additional Child Care Subsidy (ACCS), and cessation of Child Care Benefit (CCB) and Child Care Rebate (CCR). **Family Assistance Legislation Amendment (Jobs for Families Child Care Package) Act 2017**	2019	The CCS replaced the childcare payments including CCB and CCR. ACCS provides improved and targeted support to those families who require it most, such as: families with children at risk of serious abuse or neglect; families experiencing temporary financial hardship; families on income support transitioning to work; and grandparent carers on income support.
Changes to activity tests for persons aged 55 to 59 **Social Services Legislation Amendment (Welfare Reform) Act 2018**	2019	Newstart and certain Special Benefits recipients aged 55-59 are no longer be able to satisfy the activity test by engaging in voluntary work for at least 30 hours per fortnight. Recipients will be taken to satisfy the work test if they are engaged for at least 30 hours per fortnight in a combination of approved unpaid voluntary work and suitable paid work, at least 15 hours of which must be in suitable paid work.
Removal of intent to claim provisions **Social Services Legislation Amendment (Welfare Reform) Act 2018**	2019	Previously, claim entitlement was backdated to the date a claimant initially contacted the Department of Human Services and indicated their intention to claim. It is now the date the claim was made.
Removal of exemptions for drug or alcohol dependence **Social Services Legislation Amendment (Welfare Reform) Act 2018**	2019	Exemptions from the activity test and participation requirements are no longer available in relation to circumstances directly attributable to drug or alcohol misuse (including abuse of drugs or alcohol) for certain social security recipients.
Streamlining tax file number collection **Social Services Legislation Amendment (Welfare Reform) Act 2018**	2019	Allows for a request to provide a tax file number and/or a relevant third party's tax file number as part of a claim for a social security payment, seniors health card or income-tested health care card. Payments or the provision of the cards can be prevented until the request is satisfied.
Information management	2019	Information or documents obtained about a person under the coercive information gathering provisions in the

Amendment	Year Effective	Description
Social Services Legislation Amendment (Welfare Reform) Act 2018		course of an administrative action by the Department of Human Services can now be used in subsequent investigation and prosecution of criminal offences.
Higher Education Support Legislation Amendment (Student Loan Sustainability) Bill 2018	2019	From 2019–20, when the HELP threshold will start to apply to student debts under the Social Security Act 1991 and the Student Assistance Act 1973, debts from the SFSS will be repaid after HELP debts are discharged, rather than concurrently.
Encouraging self-sufficiency for newly arrived migrants **Social Services and Other Legislation Amendment (Promoting Sustainable Welfare) Act 2018**	2019	From 1 January 2019, this measure increased the newly arrived resident's waiting period (NARWP) from 104 weeks to 208 weeks for certain social security payments and concession cards (Newstart Allowance, Youth allowance, Austudy, Sickness Allowance, Special Benefit, Mobility Allowance, Pensioner Education Supplement, Health Care Card (low income) and Commonwealth Seniors Health card); introduced a NARWP of 208 weeks for Parenting Payment and Bereavement Allowance; introduced a NARWP of 52 weeks for family tax benefit part A and carer allowance; introduced a NARWP of 104 weeks for parental leave pay and dad and partner pay.
More Choices for a Longer Life — finances for a longer life **Social Services and Other Legislation Amendment (Supporting Retirement Incomes) Bill 2018**	2019	Amends the: Social Security Act 1991 and Veterans' Entitlements Act 1986 to: establish new means test rules to accommodate the development of new innovative income streams; amend the current rules for lifetime income streams; increase the Work Bonus from $250 to $300 per fortnight and extend its application to income earned from remunerative work that involves personal exertion, including self-employment and work undertaken by contractors or consultants; and expand the Pension Loans Scheme to increase the access of certain classes of persons to the scheme; and Social Security Act 1991 to make technical amendments.
Energy Assistance Payment **Social Services Legislation Amendment (Energy Assistance Payment) Bill 2019**	2019	A one-off energy assistance payment to recipients of the Age Pension, Disability Support Pension, Carer Payment, Farm Household Allowance, Parenting Payment, AUSTUDY, ABSTUDY Living Allowance, Double Orphan Pension, Newstart Allowance, Partner Allowance, Sickness Allowance, Special Benefit, Widow Allowance, Widow Pension B, Wife Pension and Youth Allowance, together with recipients of various veterans' payments,

Amendment	Year Effective	Description
		who are payable and residing in Australia on 2 April 2019.
Improved access to Youth Allowance and ABSTUDY for regional students **Social Services Legislation Amendment (Student Reform) Bill 2018**	2019	Increase the parental income cut-off for students accessing the regional workforce independence criteria from $150 000 to $160 000, plus $10 000 for each additional child in the family; and amend the formula for determining the maintenance income test reducible amount; Social Security (Administration) Act 1999 to ensure the consistent application of the maintenance income test reconciliation process for Youth Allowance; and Student Assistance Act 1973 to enable the minister to determine that a course, that is no longer an eligible course, is to be treated as an eligible course for specified persons in specified circumstances.
50 Years of ABSTUDY - strengthening ABSTUDY for secondary students	2019	The maximum rate of Living Allowance for under 16 year olds living away from home is increased to align with the away from home rate for 16-21 year olds. This new higher rate replaces the Under-16 Boarding Allowance.
Social Security (Administration) Amendment (Income Management and Cashless Welfare) Bill 2019	2019	Extend the cashless debit card trial in three sites, and the income management program in Cape York, to 30 June 2020.
Cashless debit card extensions **Social Services Legislation Amendment (Cashless Debit Card) Bill 2017**	2019	Amendments to support the extension of cashless debit card arrangements in current sites, and enable the expansion of the cashless debit card to further sites.
Changes to Family Tax Benefit part A higher income free area **Social Services and Other Legislation Amendment (Promoting Sustainable Welfare) Act 2018**	2019	This measure introduces a one-off increase to FTB A higher income free area from $94,316 to $98,988, and a consistent 30 cents in the dollar income test taper for FTB Part A families with an adjusted taxable income (ATI) in excess of the higher income free area (HIFA) - this measure changes the income test taper from 20% to 30% for each dollar over the HIFA amount, and subsequent 1 year indexation pause - indexation of HIFA set to resume on 1 July 2021
Indexation pause for Family Tax Benefit Part B primary earner income limit.	2019	1 year indexation pause - indexation of FTB B primary earner income limit (PEIL) set to resume on 1 July 2021

Amendment	Year Effective	Description
Social Services and Other Legislation Amendment (Promoting Sustainable Welfare) Act 2018		
Extend existing indexation pauses for income limit on PLP and DAPP **Social Services and Other Legislation Amendment (Promoting Sustainable Welfare) Act 2018**	2019	1 year indexation pause - indexation of Parental Leave Pay and Dad and Partner Pay income limit set to resume on 1 July 2021
Reversal of DSP reviews	2019	This measure effectively ends the DSP 90,000 reviews measure (National Disability Insurance Scheme Savings Fund), with only some reviews going to progress
Social Security (Deeming Threshold Rates) Determination 2019	2019	Social security income test deeming rates reduced from 1.75% to 1.00% (below the threshold) and from 3.75% to 3.00% (above the threshold)
Overseas Welfare Recipients Integrity Program - Proof of Life **Social Services Legislation Amendment (Overseas Welfare Recipients Integrity Program) Bill 2019**	2019	This measure will require pensioners who are aged 80 years and over and residing permanently overseas to complete and return a proof of life certificate to continue receiving their pension.
Automatically issue Health Care Cards / Health care cards **Social Services Legislation Amendment (Simplifying Student Payments) Act 2017**	2020	All students receiving income support will be automatically issued a health care card (HCC).
Creation of the JobSeeker Payment **Social Services Legislation Amendment (Welfare Reform) Act 2017**	2020	Seven current working age payments have been consolidated into the new JobSeeker Payment, creating a single payment for those of working age with capacity to work now or in the future. From 20 March 2020, recipients of Newstart Allowance, Sickness Allowance, Wife Pension, Bereavement Allowance and Widow B Pension were transitioned into JobSeeker Payment, Age

Amendment	Year Effective	Description
		Pension or Carer Payment depending on their circumstances. From 1 January 2022, recipients of Widow Allowance and Partner Allowance will transition to Age Pension.
Extend Family Assistance to ABSTUDY Secondary School Boarding Students Aged 16 and Over **Family Assistance Legislation Amendment (Extend Family Assistance to ABSTUDY Secondary School Boarding Students Aged 16 and Over) Act 2019**	2020	ABSTUDY recipients who need to live away from home to study will now continue to receive Family Tax Benefit until the student finishes Year 12.
Coronavirus Economic Response Package Omnibus Bill 2020	2020	Temporary removal (from 23 March 2020 to 31 March 2021) of the Newly Arrived Resident's Waiting Period for: - JobSeeker Payment - Parenting Payment - Youth Allowance - Austudy Special Benefit
Coronavirus Economic Response Package Omnibus Bill 2020	2020	Eligibility for JobSeeker Payment and Youth Allowance (other) expanded to assist people who are stood down or lose their employment; sole traders; the self-employed; casual workers; and contract workers who meet the income tests as a result of the Coronavirus. This could also include a person required to care for someone who is affected by the coronavirus.
Coronavirus Economic Response Package Omnibus Bill 2020	2020	Temporary waiver of assets testing for JobSeeker Payment, Sickness Allowance, Youth Allowance, Austudy, ABSTUDY Living Allowance and Parenting Payment until 24 September 2020.
Coronavirus Economic Response Package Omnibus Bill 2020	2020	Temporary waiver from 23 March 2020 of the Ordinary Waiting Period (Until 31 March 2021), the Liquid Assets Waiting Period (Until 25 September 2020) and the Seasonal Work Preclusion Period (Until 31 March 2021) for JobSeeker Payment, Sickness Allowance, Youth Allowance and Parenting Payment.

Amendment	Year Effective	Description
Coronavirus Economic Response Package Omnibus Bill 2020	2020	Temporary reduction of the partner income test taper rate from 60 cents to 25 cents for each dollar over $996 per fortnight from 23 March to 24 September 2020, and 27 cents for each dollar over $1,165 per fortnight until 31 March 2021.
Coronavirus Economic Response Package Omnibus Bill 2020	2020	A $750 Economic Support Payment made in two rounds (March 2020 and July 2020) to eligible social security and other income support recipients. An additional two payments of $250 were made in December 2020 and March 2021 to eligible social security and other income support recipients.
Coronavirus Economic Response Package Omnibus Bill 2020	2020	From 27 April 2020, the Coronavirus Supplement of $550 per fortnight is paid to recipients of JobSeeker Payment, Youth Allowance, Sickness Allowance, Parenting Payment, Special Benefit, Partner Allowance and Widow Allowance. This was reduced to $250 per fortnight from 25 September 2020 and to $150 per fortnight from 1 January 2021 and ceased on 31 March 2021.
Social Security (Deeming Threshold Rates) Determination 2020	2020	From 1 May 2020 Social security income test deeming rates reduced from 1.00% to 0.25% for those earning below the threshold ($51,800 for singles). Above the threshold, the deeming rate reduced from 3.00% to 2.25% ($86,200 for pensioner couples).
Cashless welfare arrangements for income management	2020	Removes trial parameters to establish the Cashless Debit Card (CDC) as an ongoing program and transitions Income Management (IM) in the Northern Territory (the NT) and the Cape York region to the CDC. The Bill also removes a current exclusion to allow people in the Bundaberg and Hervey Bay program area to be able to voluntarily participate in the CDC program and a voluntary participant to continue to volunteer for the CDC even if they no longer reside in a program area.
Coronavirus Economic Response Package Omnibus Act 2020	2020	Provide Carer Payment and Carer Allowance recipients whose care receiver has turned 16 years and requires assessment against the Adult Disability Assessment Tool with an additional three months to complete and return their forms. The child must have turned 16 years and 3 months of age between the date of commencement and 24 September 2020 inclusive.
Social Security Coronavirus Economic Response	2020	Extend the grace period for Mobility Allowance from 12 weeks to 18 weeks where the recipient ceases their

Amendment	Year Effective	Description
Package Omnibus Act 2020 and Social Services & other Legislation Amendment (Extension of Coronavirus Support) Bill 2020)		qualifying activity and from two weeks to 18 weeks where the recipient is working from home and does not satisfy the travel test.
Social Services and Other Legislation Amendment (Coronavirus and Other Measures) Bill 2020	2020	The Bill recognises the six month period between 25 March and 24 September 2020 as contributing to existing workforce independence criteria for youth allowance.
Social Services and Other Legislation Amendment (Coronavirus and Other Measures) Bill 2020	2020	The Bill creates a temporary pathway for young Australians, who are seeking to qualify as independent for the purposes of assessing Youth Allowance (Student), to encourage them to undertake seasonal agricultural work.
Social Services and Other Legislation Amendment (Coronavirus and Other Measures) Bill 2020	2020	The Bill amends the Child Support (Assessment) Act 1989 to enable the minister to determine average weekly earnings trend figures ordinarily published by the Australian Statistician, for child support assessment purposes, where the publication of this trend figure has been suspended.
Paid Parental Leave Amendment (Flexibility Measures) Act 2020	2020	Provides increased options to families who seek to access PLP. It supports women's economic independence by allowing primary carers to access PLP more flexibly, particularly birth mothers and adoptive parents who are self-employed or small business owners.
Family Assistance Legislation Amendment (Early Childhood Education and Care Coronavirus Response and Other Measures) Bill 2021	2021	In response to the impacts of the COVID-19 pandemic on the early childhood education and care (ECEC) sector and families, circumstances in which the Commonwealth can pay business continuity payments (BCPs) to approved childcare providers to be expanded, ameliorating the childcare subsidy (CCS) debt consequences of tax return lodgement deadlines on families, and supporting the ECEC Relief Package.
Social Services and Other Legislation Amendment (Extension of Coronavirus Support) Bill 2020	2021	Introduce a discretionary power to extend the principal home exemption temporary absence provisions for pensioners stuck overseas for reasons beyond their control for the purposes of the social security and veterans' entitlements assets tests
Social Services and Other Legislation Amendment	2021	The key purposes of the measures are to align the collection and use of TFNs under the Student Assistance

Amendment	Year Effective	Description
(Student Assistance and Other Measures) Bill 2020		Act more closely with the social security law and make TFN collection more effective. Claimants of ABSTUDY and AIC (Assistance for Isolated Children) benefits will have greater certainty about what is required when they are asked to provide a TFN and how they may be exempted from the requirements in appropriate cases.
Social Services and Other Legislation Amendment (Portability Extensions) Bill 2021	2021	Amends the social security law to include a permanent discretion to provide portability extensions for pensioners who are temporarily away from their country of residence and unable to return home within 26 weeks for reasons such as serious illness, death of a family member, natural disaster or public health crisis.
Social Services and Other Legislation Amendment (Coronavirus and Other Measures) Act 2021	2021	One rate of Stillborn Baby Payment (SBP) ($3,606.81 on introduction indexed 1 July annually) replaces two-tiered rate structure.
Social Services and Other Legislation Amendment (Coronavirus and Other Measures) Act 2021	2021	FTB Part A newborn supplement (NBS) top-up in cases of infant death where lower rate of NBS paid in respect of child that dies prior to first birthday.
Social Services and Other Legislation Amendment (Coronavirus and Other Measures) Act 2021	2021	A temporary extension of the work test period from 13 to 20 months to enable more individuals with a pre-COVID work history to access Parental Leave Pay and Dad and Partner Pay.

B.7 In addition to the legislative changes above, prior operational developments have also had a material impact on valuation outputs. In particular, changes relating to the medical assessment for the Disability Support Pension are as follows:

- Assessments were first introduced as part of the process for new DSP claims from 1 January 2015.
- A process of reviewing DSP medical assessments for current recipients under the age of 35 commenced from 1 July 2014.
- From 1 July 2016, additional medical reviews were undertaken for DSP recipients.

B.8 These developments have resulted in changes to the welfare population over recent years. In particular, as most of those impacted started receiving Newstart in place of Disability Support Pension, there was a reduction in the number of DSP recipients and an equivalent increase in Working Age payment recipients. However, whilst the assessments resulted in reduced numbers of DSP recipients, they did not directly impact the average payment levels for Disability Support Pension.

APPENDIX C: PAYMENT MAPPING

Table 14: Description of Payments

Income support (IS) payment category	Components
A - IS Studying	ABSTUDY - studying
	Austudy
	Youth Allowance (Student)
B - IS Working Age	ABSTUDY - working
	Austudy – working
	JobSeeker Payment
	Special Benefit
	Youth Allowance (Apprentice)
	Youth Allowance (Other)
C - IS Parents	Parenting Payment - Partnered
	Parenting Payment - Single
D - IS Carer	Carer Payment
E - IS Disability	Disability Support Pension
F - IS Age	Age Pension
G - IS Dependent	*(None - this category was discontinued in the 2021 valuation)*

Non-income support (NIS) payment category	Components
H - Other FTB	Family Tax Benefit Part A
	Family Tax Benefit Part A Supplement
	Family Tax Benefit Part B
	Family Tax Benefit Part B Supplement
	Multiple Birth Allowance
	Family Tax Benefit Bereavement Payment
I - Other Family	Child Care Subsidy
	Additional Childcare Subsidy
	Double Orphan Pension
	Single Income Family Supplement
J - Other New Parent	Dad and Partner Pay
	Multiple Birth Allowance
	Newborn Supplement and Newborn Upfront Payment
	Parental Leave Pay
	Stillborn Baby Payment
K - Other Living	*(None - this category was discontinued in the 2017 valuation)*
L - Other Health & Disability	Mobility Allowance
	Essential Medical Equipment Payment
	Incentive Allowance (abolished when DSP was introduced. However, IA remains payable at the rate applicable at 11 November 1991 to recipients who were qualified for IA immediately before 12 November 1991, and were receiving DSP on 12 November 1991.)
	Youth Disability Supplement
M - Other Carer	Carer Allowance
	Carer Supplement
	Child Disability Assistance Payment
N - Other Study & Skills	Pensioner Education Supplement
	Fares Allowance
	Relocation Scholarships
	Education Entry Payment
	Language Literacy & Numeracy Supplement
	School Fees Allowance

Non-income support (NIS) payment category	Components
	School Term Allowance
	Student Start-up Loan
	Work for the Dole
	Approved Program of Work Supplement Energy Supplement for ABSTUDY Masters and Doctorate Living Allowance
O - Other Remote & Regional	Assistance for Isolated Children
	Remote Area Allowance
P - Other General Allowances (for general pension supplements)	Work Bonus
	Pension Supplement
	Pension Bonus Scheme (closed to new entrants)
	Pension Bonus Bereavement Payment
	Pension Loans Scheme
	Energy Supplement
	Living Allowances
	Pharmaceutical Allowance
	Residential Costs
	Telephone Allowance
	Utilities Allowance
	Incidentals Allowances
	Seniors supplements and concessions
Q - All Other	Bereavement Allowance (closed to new entrants on 20 March 2020, ceases completely when all current recipients have completed their bereavement period)
	Crisis Payment
R – Rent Assistance	Rent Assistance
COVID supplements	Coronavirus Supplement (ceased on 31 March 2021)
	Economic Support Payment (final lump sum payment in March 2021)