



Carers Australia is the national peak body representing the diversity of the 2.65 million Australians who provide unpaid care and support to family members and friends with a disability, chronic condition, mental illness or disorder, drug or alcohol problem, terminal illness, or who are frail aged.

Our vision is an Australia that values and supports all carers, where all carers should have the same rights, choices, and opportunities as other Australians to enjoy optimum health, social and economic wellbeing and participate in family, social and community life, employment, and education.

This report was commissioned by Carers Australia and the National Carer Network - our members, the peak carer organisations in each state and territory.



Any views and recommendations contained in this report do not necessarily reflect the views of Carers Australia or the National Carers Network



About Evaluate

Evaluate's primary goal is to identify long-term solutions to ensuring the sustainability of Australia's admirable social compact, including universal access to healthcare and education as well as the supply of aged care, housing and other social infrastructure.

Our approach is based on a traditional microeconomic toolkit, moderated by the knowledge that social services are accessed by people with a vast variety of experience, needs and resources. Consequently, Evaluate has no bias towards either public or private supply of services, noting that the different access and welfare needs of Australians typically require a mix of both. Evaluate's Principals are also familiar with a range of international markets for social services – particularly healthcare – including in a number of European and Asian countries.

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Executive Summary

This document has been prepared by Evaluate on behalf of Carers Australia. Evaluate is an independent private economic consulting practice, with a particular focus on social policy.

This paper describes the construction and outputs of a microsimulation model which looks at the economic impact of informal care on the lifetime income and retirement savings of Australian carers. It is therefore a model of opportunity cost from the carer perspective, and complements previous work undertaken for Carers Australia looking at alternative or replacement cost.

As context for the model, a comprehensive overview of the circumstances, rules and history of carer subsidies in Australia is provided, which also provides the basis for potential policy changes. In particular, it is noted that the historical rationale for carer payments was that they would substitute for care otherwise provided professionally in a nursing home (and at significantly lower cost).

Over time, this has been decoupled. Whereas at the introduction of the first carer benefit (the Domiciliary Nursing Care Benefit) it was equivalent to 33% of the Australian Government Extensive Nursing Home Benefit payable in respect of a person in an approved Nursing Home and receiving extensive care, by 1992 this had fallen to 7.9%, and is now only 6%. Similarly, whereas it was originally around 25% of the income of a couple on the basic age pension, it has now fallen to 10%. The problem for carers, and for the Government which relies on informal supply, is that: where the rewards for caring are reduced; the opportunity cost of care increases; and fewer prospective informal carers will be willing to meet demand.

The consequence of this is an increase in demand for substantially more expensive formal care, including residential care. This means that reducing the share of funding for informal care is a false saving.

The model simulates the full distribution of carer impacts in Australia, variously including observed distributions of:

- Gender;
- Age at first call to care;
- Duration of care;
- Employment status before and after caring;
- Income before caring; and
- Superannuation balance at commencement of caring.

At the mean, and at current subsidy settings, Australian carers will lose:

- \$392,500 in lifetime earnings to age 67; and
- \$175,000 in superannuation at age 67.

Some who are carers for extended periods of time will lose substantially more, with the most affected 10% losing at least \$940,000 in lifetime income, and \$444,500 in retirement savings.



- Other socio-economic factors (is there wealth which makes income foregone less important?);
 - Age and proximity to end of expected working life, or for that matter whether someone is post-retirement; and
 - Expected duration of care responsibilities.
- Further to the above, there remains the question as to whether there is any available alternative in terms of formal substitute care, if the potential carer were to prefer remaining in work. This is a matter of universal supply constraints, which are particularly amplified in regional Australia.

In the absence of appropriate survey data on how carers subjectively value the care experience, however, the only common metric which can be used is financial impact. This is felt in two ways: first in terms of lost income during working life; and second, in the longer-term reduction in the accrual of superannuation caused by foregone income. This is an opportunity cost valuation.

Both income and superannuation measures are central to the microsimulation model developed in support of this paper.



The share of the Australian population who provide informal care at least weekly (13.8% in 2018) is slightly higher than the average share across OECD countries (12.6%). It is significantly below the share in the United Kingdom (18.2%) but higher than the share in the USA (6.9%).⁸

Most informal carers in Australia are spouses, but adult children and in particular daughters, are also often informal carers. Almost half (46.7%) of older people who receive informal care receive that care from a spouse and more than quarter (29.6%) receive that care from a daughter. Only about one in ten (12.2%) older people who receive informal care receive that care from someone who is not a relative. For people of all ages with a disability who live in a household and who receive informal care, about eight in ten (40.5%) receive that care from a partner and slightly more than a quarter (27.0%) receive that care from a parent. Again, only one in ten (12.3%) people of all ages with a disability who live in a household and who receive informal care receive that care from someone who is not a relative.

Primary carers are overwhelmingly female (71.8% of all primary carers). They are also older, on average, than the Australian population. More than a quarter of primary carers (26.6%) are aged 65 or older. Only one in ten (11.1%) primary carers are aged between 15 and 34 – whereas this age group makes up a third (34.3%) of the population aged 15 or older. Primary carers are also more likely than the general population to have a disability themselves. Over one-third (37.4%) of primary carers had a disability in 2018, which is more than twice the rate of non-carers (15.3%). About 7.0% of primary carers reported having a profound or severe limitation themselves.

Economically, people who provide informal care are likely to earn less than those who do not. In 2018, the median gross personal income per week for people who provided no informal care was \$863 compared to \$525 for primary carers and \$729 for other informal carers. They are also much more likely to be in receipt of government pensions or allowances. Government pensions or allowances were the main source of income for 46.4% of primary carers and 26.5% for other informal carers, compared to 17.6% for people who provided no informal care. Caring also has an impact on workforce participation. For people aged 15-64, some 58.8% of primary carers were in the labour force, compared to 81.5% for people who provided no informal care and 76.6% for other informal carers. Primary carers are more likely to own their own home (37.4%) compared to people who provide no informal care (26.8%).

Note, however, that some of these economic differences are, at least in part, artefacts of the age and gender distributions of informal carers compared to the general population. These existing disparities do, however, appear to be heightened by the opportunity costs of care-giving.

Carers provide a wide range of support. Some carers provide full-time care, and in other instances formal and informal carers share responsibilities. Informal care can be a substitute for or supplement to domestic, personal care or nursing work.⁹ Carers may provide assistance to the person for whom they care with mobility issues, communication issues, medication management, personal care, household chores, property maintenance and transport. Carers also frequently provide emotional, social and financial support.¹⁰

In 2018, almost three quarters of primary carers (74.0%) reported assisting the person for whom they cared with mobility issues – for example, assisting the person to get in or out of bed or to move about. More than half reported providing assistance with self care (56.5%) – for example, assistance with bathing or toileting. More than half (54.1%) also reported providing assistance with communication.

⁸ OECD, *Health at a Glance 2021: OECD Indicators*. Paris: OECD Publishing, 2021, Figure 10.16.

⁹ F Colombo et al, "Help Wanted?: Providing and Paying for Long Term Care", OECD Publishing: Paris, 2011, p.136.

¹⁰ Carers Australia, *About carers webpage*, <https://www.carersaustralia.com.au/about-carers/>, Accessed November 2021.



and the carer will continue to provide care when they are discharged. Both the carer and the person cared for must also be Australian residents. Carer Payment recipients can engage in employment or study for up to 25 hours per week (including travel time) and remain eligible for payment.

The maximum rate of Carer Payment payable to an individual depends on whether or not they are in a relationship; and on whether or not they are a homeowner. These maximum rates are the same as for other income support payments like the Age Pension and the Disability Support Pension. The amount of Carer Payment payable to an individual depends on their income and assets. The amount of Carer Payment payable to a person is equal to the relevant maximum rate reduced by the amount determined by the income test or by the amount determined by the assets test, whichever is the greater reduction. The means test is the same as that which applies to other income support payments like the Age Pension and the Disability Support Pension. The income-tested reduction amount is equal to 50% of the assessable income of the individual (or the couple) above the level of the relevant income free threshold. The asset-tested reduction amount is equal to 7.8% of the assessable assets of the individual (or the couple) above the level of the relevant asset free threshold. The Carer Payment does not count as taxable income if both the carer and the person cared for are both under the Age Pension eligibility age.

In June 2021, some 300,121 people were in receipt of the Carer Payment. That is, some 1.5% of all Australians aged 16 or older were in receipt of the Carer Payment. About a third of primary carers (32.4%) were in receipt of the Carer Payment. The number of Carer Payment recipients has grown significantly in the last twenty years (from 57,816 in 30 June 2001) at an average annual growth rate of 8.6% – about six times the rate of growth of Australia population.¹⁸

Almost three quarters of all Carer Payment recipients (70.6%) are female and slightly more than half (52.9%) have a partner. Almost three quarters of all Carer Payment recipients (70.5%) are aged 45 or older, including 18.8% who are aged 65 or older. Only about one in ten Carer Payment recipients (12.4%) are aged under 35 and only 2.6% are aged under 25. Some 6.1% of all Carer Payment recipients identify as Indigenous and 35.3% of Carer Payment recipients were not born in Australia.

Almost half (48.1%) of all recipients of the Carer Payment receive it for more than five years, including 21.5% who receive the Carer Payment for more than 10 years. About a quarter (26.0%) receive the Carer Payment for less than two years, including 13.3% who receive it for less than one year. On average, Carer Payment recipients receive the Carer Payment for 6.2 years. However, among those carers who receive the Carer Payment for more than ten years, the average duration is 14.4 years.

Recipients of the Carer Payment often transition to or from other income support payments. Only 5.0% of Carer Payment recipients are in receipt of income support payments (of any kind) for less than one year and 45.0% are in receipt of income support payments for more than ten years. The average duration on income support for Carer Payment recipients is 10.9 years (18.5 years for those who are in receipt of income support payments for more than ten years).

The cost of the Carer Payment to the Australian Government in 2020-21 was \$6.5 billion – equivalent to 8.4% of the combined amount expended in the same year on the Age Pension, Disability Support Pension and Carer Payment. In the 20 years from 2001 to 2021, Australian Government expenditure on income support for carers grew in nominal terms by \$6.0 billion – an annual average nominal growth rate of 13.9%. Over the next decade (to 2032), expenditure is projected to more than double in nominal terms to \$18 billion.

¹⁸ Except where otherwise specified the data in this section are drawn from: Australian Department of Social Services, *DSS Payment Demographic Data, June 2021*, and from the annual reports of the Australian Department of Social Services and its predecessors.



payment.²² Third, the constant care and attention requirement was replaced in 1988 by the requirement that personal care in connection with bodily functions (including eating, toileting and medication) or constant supervision to prevent injury to the person being cared for or others was required.

From 1995, no new people were able to receive the Wife’s Pension. Instead, new applicants needed to meet the eligibility criteria for the Carer Pension. From 1997, the Carer Pension was renamed the Carer Payment.

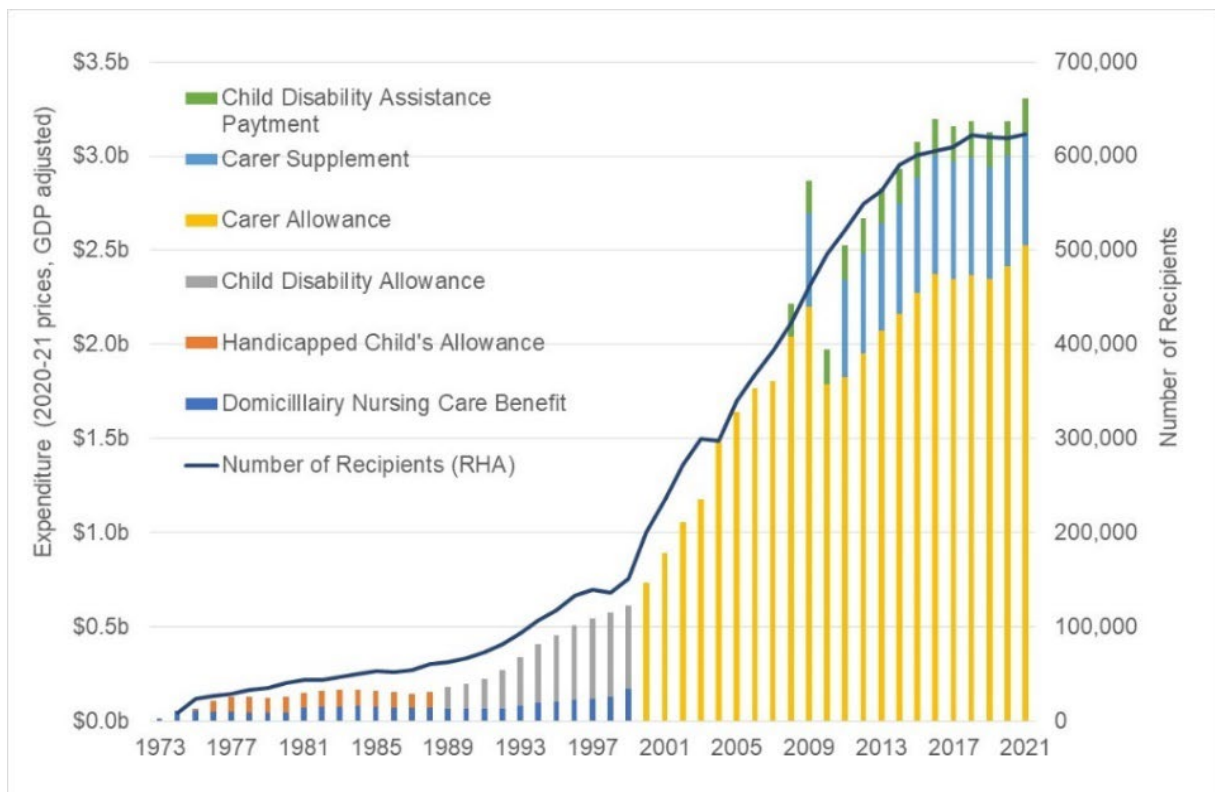
In 1943, the maximum rate of the income support payment for carers was equivalent to 15% of average weekly earnings and 28% of the maximum rate of the pension. In 2021, the maximum rate of income support for carers, which is now equivalent to the maximum rate of the Age/Disability Support Pension, was equivalent to 27.8% of average weekly ordinary time earnings for singles and 21.0% for members of couples.

Financial assistance

The Australian Government has provided financial assistance with the costs of caring to carers since 1972 through a series of programs, including the Domiciliary Nursing Care Benefit, from 1972 to 1997; the Handicapped Child’s Allowance, from 1974 to 1987; the Child Disability Allowance, from 1987 to 1999; the Carer Allowance, from 1997; the Child Disability Assistance Payment, from 2008; and the Carer Supplement, from 2009.

Figure 2 provides further details on how the level of financial assistance provided to carers by the Australian Government has grown over the last fifty years.

Figure 2: Expenditure on Financial Assistance for Carers, 1972-73 to 2020-21



²² In 1991, the eligibility criterion was extended to include severely handicapped people in receipt of any income support payment. This criterion was further widened in 1996, when the Carer Pension became payable even where the person receiving care was not receiving a security payment.



It is evident here that the past decade, and particularly the past five years, have been a period of relatively modest growth compared to the preceding two decades.

The Commonwealth introduced the Domiciliary Nursing Care Benefit in 1972 at the same time as the Wife's allowance was phased out. The benefit was designed to support those carers who had responsibility for the provision, in their home, of the professional nursing care and supportive services required by an older relative on a continuing and regular basis. Through this benefit the Commonwealth sought to assist carers and to provide an incentive towards home care as an alternative to institutional care. The benefit was paid to the carer, with eligibility criteria applying to both the carer and the person they cared for. The statutory criteria for eligibility for the benefit were that the person being cared for had to be sufficiently ill or disabled to be approved for admission to a nursing home under the *National Health Act 1953*. A doctor's certificate was used to establish entitlement. The person being cared for also had to be at least sixty-five²³ and had to be related to the carer who received the benefit. Finally, the carer had to provide adequate nursing care of the person in the home in which both the person and the carer lived. A registered nurse had to certify that they visited at least twice weekly.

The rationale for the benefit was to provide assistance with the costs of home care for people who would otherwise be admitted to a nursing home. As the benefit was not intended to be an income support payment, no income or assets test was applied to it and it was not considered to be taxable income. Initially, the rate of the benefit was set at \$28 per fortnight. The rate was such that it provided a 25 per cent supplement to the income of a couple whose only income was from the Age Pension. The rate remained fixed until 1980, when it was increased to \$42 per fortnight. It then remained fixed again until 1993, when it was raised to \$52 per fortnight. After 1993, the rate was indexed annually by the CPI.

The real (CPI-adjusted) value of the financial assistance payment for carers was significantly eroded over time. Between, 1972-73 and 1998-99, the real value of the Domiciliary Nursing Care Benefit decreased by 60.8 per cent. The decline in value is even more marked when compared to the cost of long term institutional care. When the benefit was first introduced, its value was equivalent to 57.1% of the average Nursing Home Benefit. By 1998-99, its value was equivalent to 7.9% of the average Residential Care Subsidy and to around 5% of the average Australian Government subsidy paid for high level (nursing home) residential care. However, the other support programs that were by then available to carers and the people they care for must be taken into account in assessing the effect of this apparent decline. Through these programs, like the Home and Community Care Program and the National Respite for Carers Program, significant levels of additional support were now available to carers and the people for whom they cared.

In 1974, the Handicapped Child's Allowance of \$10 per week was introduced for parents or guardians caring for severely handicapped children under the age of 16 years who were at home and in need of constant care and attention on a permanent or long-term basis. The allowance was not taxable, nor was it subject to an income test. In 1977, eligibility for the Handicapped Child's Allowance was extended to persons caring for children who were substantially, rather than severely, handicapped. In 1987, the Handicapped Child's Allowance was replaced by the Child Disability Allowance. The new allowance was payable at the rate of \$144 per month.

At the time of the introduction of the Handicapped Child's Allowance, the amount of the allowance was slightly more than two-thirds (71.4%) of the amount of the Domiciliary Nursing Care Benefit. By contrast, the rate of the new Child Disability Allowance was equal to 171% of the rate of the Domiciliary Nursing Care

²³ From 1979, the lower age limit was reduced to sixteen.



Benefit. In 1998, the rate of the Domiciliary Nursing Care Benefit was aligned with the Child Disability Allowance. In 1999, the two payments were combined into the Carer Allowance. The rate of the Carer Allowance is indexed on 1 January each year in line with movements in the CPI.

When the Carer Allowance was first introduced (as the Domiciliary Nursing Care Benefit) its value was equivalent to:

- 25% of the income of a couple whose only income was from the Age Pension;
- 93% of the Australian Government Personal Care Subsidy payable in respect of a person in an approved Aged Person's Hostel;
- 57% of the Australian Government Basic Nursing Home Benefit payable in respect of a person in an approved Nursing Home; and
- 33% of the Australian Government Extensive Nursing Home Benefit payable in respect of a person in an approved Nursing Home and receiving extensive care.

The value of the Carer Allowance has significantly decreased in real time since its introduction and is currently equal to just:

- 10% of the income of a couple whose only income was from the Basic Age Pension;
- 6% of the average Australian Government Basic Care Subsidy payable in respect of a person in an approved Aged Care Home; and
- 1.5% of the average amount payable in respect of a person with a disability living in shared accommodation.

This is a significant decoupling of carer support from government's broader willingness to pay for formal care, or for income support at retirement. There is no coherent policy argument for this, and it appears manifestly unjust. This issue is discussed further below.



Theoretical considerations

Dealing with heterogeneity

Because the model presented in this paper focuses strictly on the financial impacts of a decision to provide (or not provide) informal care, there are essentially five forms of heterogeneity present for those presented with that decision. These are:

- The age at which a person is first presented with demand for informal care;
- The duration over which care is provided;
- The gender of the person (as Australian incomes are unevenly distributed);
- Future work patterns after care;
- The current and expected future income of the person (so what is foregone); and
- What other resources (wealth) the potential carer may have to defray the impact of income losses.

A number of observations are made on each of these. However, as a preliminary note, Evaluate has only looked at informal care demand which reduces capacity to work: while there are many more carers who will provide informal care on weekends or during evenings while otherwise working, this group is not bearing the financial opportunity cost of care to the same extent, and any benefits will be significantly affected by income testing.

First, the age at which a person first becomes a carer has two significant impacts. One is that – as with any age – it is an interruption to career progress. However, the earlier this interruption occurs, the more significant the lifetime impact in terms of income, as the carer will always be one step behind their expected uninterrupted or ‘normal’ career trajectory. The cumulative effect of this is that total lifetime income will be reduced not only by the cost of the career break, but by an ongoing discount against all future work.

The associated issue is that as the value of superannuation payments are subject to compound interest or other compounding market factors, loss of any superannuation contributions at an earlier age will have a more significant impact at the point of retirement.

Consequently, the model looks principally at lifetime income and superannuation effects depending on age called to care for an extensive range of age cohorts across normal working life, up to age 65.

Duration of care provided further compounds these effects. The longer the interruption, the more income which may be immediately foregone, but equally the greater the discount to future earnings compared to a normal trajectory. Similarly, the longer the interruption, the more profound the impact on retirement savings due to longer periods without superannuation contribution.

Accordingly, the model contains an observed distribution of care duration for each age group, from brief calls to care, through to the remainder of a person’s working life. On this, Evaluate assumes that expected duration of care is not a factor affecting decision to care per se: the argument here is that for any individual prospective carer, there is a frequent decision not only as to whether to initially provide care, but whether to continue in that role.



With respect to gender, for each age group, the model has two streams: one female and one male. This is not simply relevant to income, but also has implications for future work patterns.

The issue of future work patterns is particularly important. While at the mean, the decision to care is typically accompanied by a significant financial loss, this is unevenly distributed. Accordingly, there is a distribution in the model where those who care and then cease providing informal care, follow a range of trajectories. These are based on observed patterns of employment, and take into account that for some who choose not to meet the demand for informal care, they may in any case face significant periods of unemployment.

A consequence of this is that across the total distribution, there are some people who, despite the immediate cost of care, may be better off in the long term, as caring is a better financial outcome than unanticipated unemployment.

The current and expected future income are what is fundamentally at stake in the decision to provide care, or to reject the call. This financial fulcrum leads to highly asymmetric impacts, which can be illustrated by considering three different examples:

- An extensively educated and highly-remunerated mid-career professional who would be making a very substantial financial sacrifice in order to leave work and provide informal care;
- An unskilled worker at any career stage whose financial loss from agreeing to informal care would be much smaller; and
- An early retiree or long-term unemployed person, whose trade-off is predominantly the opportunity cost of leisure, rather than any measurable financial impact.

The impact of these differential effects on the individual care decision with respect to prevailing prices of informal care is discussed later in this paper: but within the model there is again a very broad distribution of potential sacrifices to be considered.

It is presumed that - *ceteris paribus* with respect to other costs and benefits of care – those who face a lower financial opportunity cost in terms of both income and retirement savings are more likely to meet demand for informal care. Returning here to the question of justice, this would suggest a compounding effect on persons living in lower socio-economic circumstances, which for those individuals, would be a peculiar form of intergenerational burden. Given that some care demand – particularly that stemming from certain chronic diseases – is asymmetrically distributed, this will also compound the financial impact on poorer Australians.

Finally, there is the question of other resources (wealth) which may affect the care decision. While this is acknowledged, it is not included in the model, though it will have some impact on means testing and income testing (the latter due to investment yield).

The individual decision to care

The model described above provides an extensive simulation of the impact of agreeing to care, but does not fully answer the question about how people address that financial impact. As noted, the cost of caring is highly asymmetric, despite means- and income-testing. This asymmetry is illustrated in extensive detail in the model appended to this report.

Focusing on these costs, and the individual decision to provide or not provide informal care in the face of such economic sacrifice, takes us away from the replacement cost approach, toward a focus on opportunity cost.



Opportunity cost itself is a measure of the relative injustice accorded to informal carers, who bear these losses (foregone income and retirement benefits) directly, but it is not a complete story. As discussed, a comprehensive analysis of the costs and benefits of caring need to take into account other factors, such as carers' health, and the vicarious utility carers may receive from improvements in the health and happiness of those for whom they care.

This then brings us to the contingent valuation approach, which argues that the proper valuation of informal care lies subjectively with actual and prospective informal caregivers. The questions to be asked respectively:

- At what price are informal caregivers willing to accept the responsibility to care for a loved one?; and
- Conversely, what are informal carers willing to pay in order to purchase services which obviate demand for their care services?

These 'willingness to accept' (WTA) and 'willingness to pay' (WTP) measures implicitly capture all the non-financial dimensions of the care equation, as discounts and multipliers.

For our purposes, the WTA measure is the important one, but in any case, the most compelling recent research suggests that WTA and WTP are at close to parity.²⁵ This is an important observation, because unlike formal care, informal care is not provided on a limited-hours basis: when assessing their own WTP for a marginal hour's reduction in care provided, carers will take into account the total cost of providing care (WTA) and the continuous demand on their time.

Importantly, this continuous demand aspect of informal care strongly argues that the correct comparator in a replacement cost sense is not episodic ambulatory care, but comprehensive residential care. The key to this argument is the recognition that while informal carers may not be constantly providing direct care, they are nonetheless constantly available.

Three measures and three elastic bands

All of this leads us to three measures for the valuation of informal care with respect to an individual or average carer. These are variously:

1. The replacement cost for continuous informal care, which is what may be saved if one more care recipient can be cared for at home. This is the alternative price of residential care. Importantly, this is not a basis for aggregating the total value of informal care currently provided, but is the basis for potential savings from an increase in the rate at which those called to provide informal care meet that demand;
2. Opportunity cost, which is the principal study of this paper and its associated model, expressed in terms of income and retirement savings foregone. This permits discussion on how much would need to be spent to improve the short- and long-term lots of individual carers; and
3. Contingent valuation, which is the individual or average carer's WTA price.

Each of these is used in the following calculations. The last is the most challenging, as it requires a detailed survey of the preferences of actual and potential carers, which is not currently available. However, there are useful indicative factors in the available literature.

²⁵ Bernard van den Berg et al, "The economic value of informal care: a study of informal caregivers' and patients' willingness to pay and willingness to accept for informal care", *Health Economics*, 2005 (14).



The WTA price is most important because it allows for analysis of comparative government funding, to derive some measure of elasticity: this is done by looking at how increases in carer funding – and conversely reductions in the nett impact of caring – affect the rate at which prospective carers will meet care demand.

This is not a well-studied phenomenon. However, a compelling survey-based study from 2010 observes two elasticities, viz.:²⁶

1. A wage-elasticity of informal care for men at -1.8, which means that a 10% increase in available wages would lead to an 18% reduction in the provision of informal care by men; and
2. A much greater wage-elasticity of -3.6 for women, which means that a 10% increase in wages would lead to a 36% reduction in informal care provision by women.

The counter-hypothesis which may be made here is that a 10% reduction in wages should shift the dial in the other direction, increasing willingness to provide care by a similar margin. Accordingly, an increase in carer subsidies by the equivalent of 10% of mean wages should have the same effect, as it reduces income foregone by the same amount.

These calculations are based on data from the Health and Retirement Study carried out at the University of Michigan.²⁷ This is a longitudinal study of 20,000 Americans, who act in an economy with very different wage structures, health protections and alternative care prices compared to Australia. Consequently, rather than importing these factors to Australia, Evaluate's main conclusion are that it is reasonable to assert both:

- A substantial negative wage elasticity for informal care provision; and
- Translating this to our data, a substantial positive elasticity for reductions in income foregone, through increases in carer subsidies.

In particular, it is reasonable to assume that an expected elasticity of 0.67 will prevail with respect to modest changes in carer income.

Of course, elasticity for any population only occurs at the mean. While demand for care is fairly randomly distributed across the population, as noted above potential carers may have radically different circumstances. We might describe three different bands of elasticity, where changes in potential subsidies have different levels of incentive effect, due to their variation as percentages of income foregone:

1. Potential carers who are retired or otherwise expect extensive periods of unemployment, for whom any increase in subsidy is effectively a windfall, and will not affect supply;
2. Those at the mean, who make marginal decisions on price as to whether they will meet demand for informal care; and
3. Those with higher incomes whose willingness to supply care is not elastic to small percentage changes in prospective income foregone, but more likely dependent on non-financial factors.

This means in turn that there is one group who will supply regardless of an increase in the carer subsidy, because it is not defraying income foregone, and another group for whom such increases will not increase supply.

²⁶ Olena Y Nizalova, "The wage elasticity of informal care supply: Evidence from the health and retirement study", Institute of Labor Economics: IZA Discussion Paper No. 5192, 2010

²⁷ <https://hrs.isr.umich.edu/about> Accessed November 2021.



On the initial group, some policymakers may see any increase in funding as waste, as it has no incentive effect. In the first instance, this ignores any questions about justice, and also ignores how much more efficient that informal care is compared to the alternative price of formal care. There will still be savings, even if informal care prices are substantially increased.

On the latter, while there is no cost, there is also no effect.

However, at the mean of this distribution, the expected elasticity is sufficient that significant changes to carer payments may be made in a way that is close to fiscally neutral. This is central to the policy options discussed further below.



Micro simulation results

Evaluate estimates that, on average, a primary carer will, as a result of their decision to become a primary carer, face a real reduction in their lifetime earnings during their working life of about \$393,000 and a real reduction in their superannuation balance at age 67 of about \$175,000 (see Table 1 below).

Table 1: Financial Impact of Decision to become a Primary Carer

	Average	10th percentile	25th percentile	Median	75th percentile	90th percentile
Impact on superannuation balance at age 67	-\$175,500	-\$444,500	-\$216,000	-\$90,500	-\$39,000	-\$19,000
Impact on lifetime earnings to age 67	-\$392,500	-\$940,000	-\$497,500	-\$233,000	-\$107,500	-\$48,500

This is based on a comprehensive microsimulation which considers the impact of informal care demand for 10,000 Australians, taking into account:

- An observed distribution of different ages when a person is first called to care, between 18 and 65;
- Different pathways and impacts for male and female carers;
- The decision to care or not to care;
- An observed distribution of care durations; and
- An observed distribution of alternative economic pathways for individuals, whether or not they choose to care.

The impact of becoming a primary carer is highly variable (see 6 and 7). For a given gender and age, it is primarily determined by the carer’s annual income and superannuation balance at the time that they become a primary carer, and by the length of time that they remain a primary carer. A quarter of people who become primary carers will face a real reduction in lifetime earnings of more than \$497,500 and a real reduction in their superannuation balance at age 67 of more than \$216,000. One in ten people who become primary carers will face a real reduction in lifetime earnings of more than \$940,000 and a real reduction in their superannuation balance at age 67 of more than \$424,500.



Figure 6: NPV Impact on Superannuation Balance at Age 67

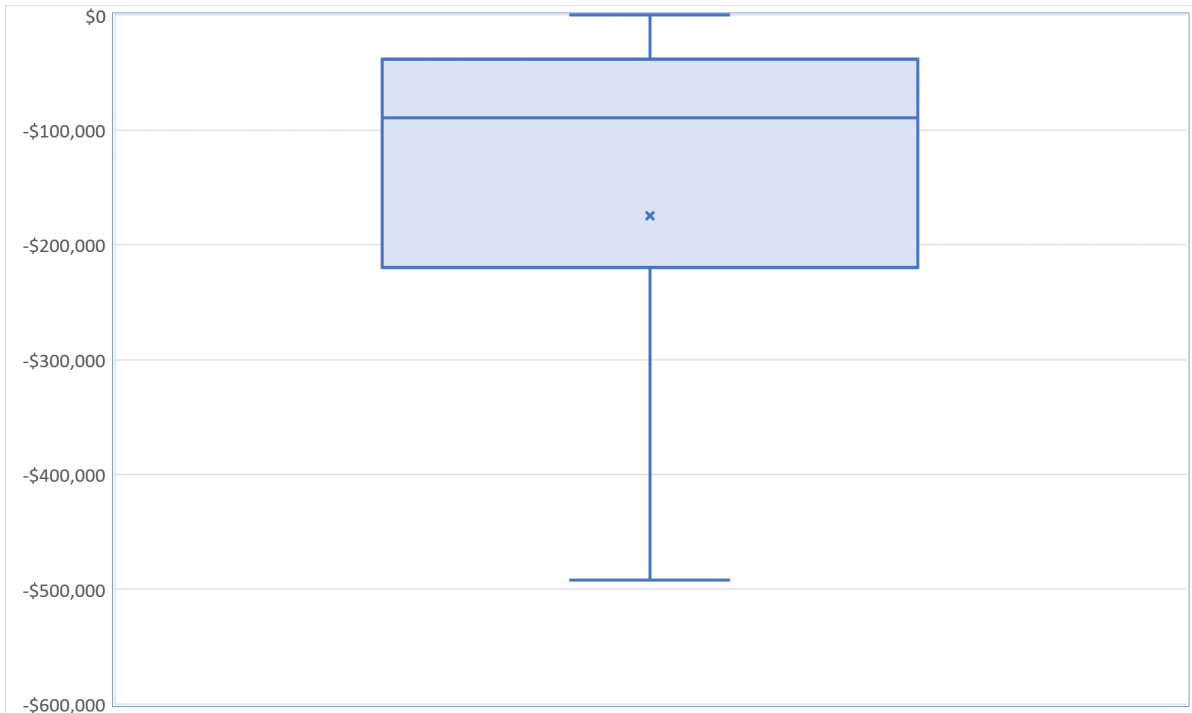


Figure 7: NPV Impact on Lifetime Income to Age 67

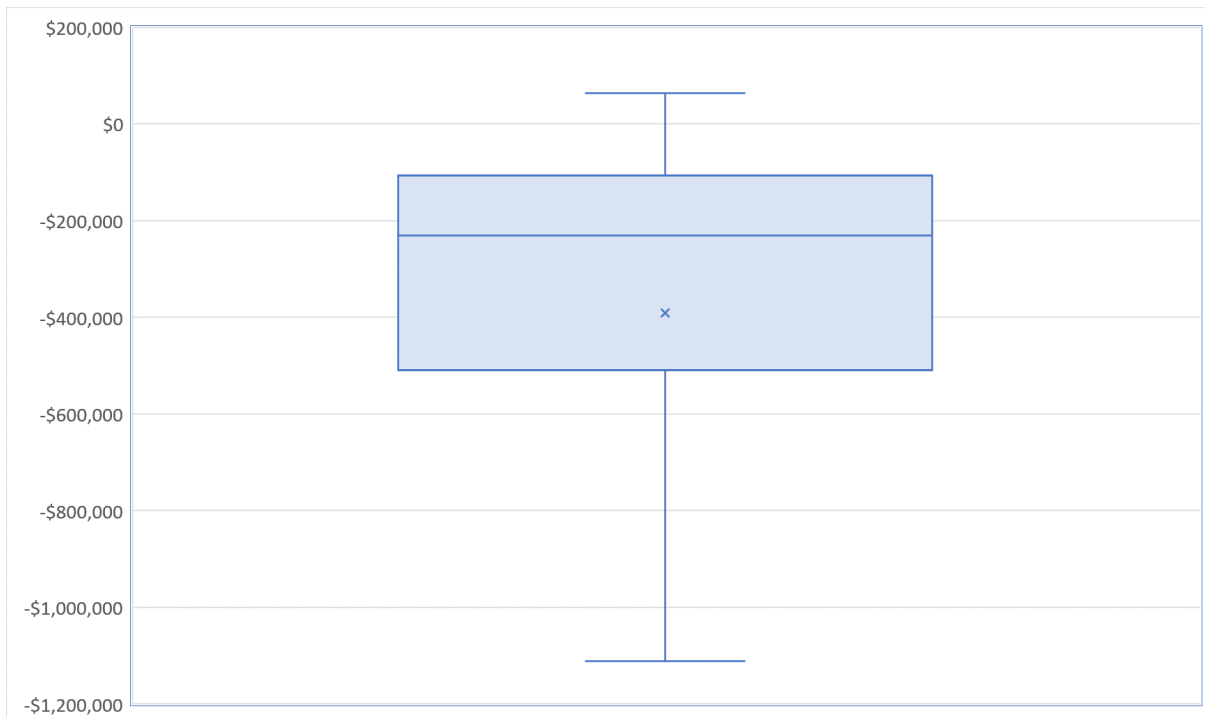


Table 2 sets out the results of a regression analysis that illustrates how the impact of becoming an informal carer on the superannuation balances at age 67 depends on their gender, the age at which they become an informal carer, the number of years for which they are an informal carer and their annual income at the time they become a primary carer. Table 3 similarly sets out the results of a regression analysis that illustrates how the impact of becoming an informal carer on the lifetime income to age 67 also depends on their gender, the age at which they become an informal carer, the number of years for which they are an informal carer and their annual income at the time they become a primary carer.



Table 2: Regression analysis of the impact of caring on superannuation balances at age 67

Multiple R	0.80
R Square	0.64
Adjusted R Square	0.64
Standard Error	135361
Observations	10000

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	3.26E+14	8.16E+13	4451.876	0
Residual	9995	1.83E+14	1.83E+10		
Total	10000	5.09E+14			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-629,338	7466.408	-84.2892	0
Gender	-117,022	4581.866	-25.5403	0
Age	12,435.3	126.2012	98.53548	0
Years caring	-17,717.6	252.2476	-70.2388	0
Income pre caring	0.312324	0.113425	2.75357	0.0059

Table 3: Regression analysis of the impact of caring on lifetime income to age 67

<i>Regression Statistics</i>	
Multiple R	0.78
R Square	0.62
Adjusted R Square	0.62
Standard Error	285,914.4
Observations	10001

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	1.31E+15	3.28E+14	4011.161	0
Residual	9995	8.17E+14	8.17E+10		
Total	10000	2.13E+15			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-822,151	15770.81	-52.1312	0
Gender	-253,613	9677.979	-26.2052	0
Age	21,899.79	266.5667	82.15502	0
Years caring	-39,636.3	532.8063	-74.3915	0
Income pre caring	-3.84224	0.239581	-16.0374	0



On average, the superannuation balance at age 67 of a person who becomes a primary carer is reduced by about \$17,700 for every year that they are a primary carer. Similarly, their lifetime earnings are reduced by \$39,600 for every year that they are a primary carer. The results are every different for men and women, reflecting their differing annual incomes and superannuation balances at the time they typically become a primary carer. On average, men who become primary carers will have their superannuation balance at age 67 reduced by about \$117,000 more than women who become primary carers. Similarly, their lifetime earnings to age 67 are reduced by about \$254,000 more than women who become primary carers. In the main, this is a function of both gender-based wage disparity and gender-based work patterns in Australia.

The coefficient of the age variable is positive and significant in both regressions. In other words, the younger a person becomes a primary carer the greater the impact that their caring will have on both their superannuation balance at age 67 and their lifetime earnings to age 67. On average, a person who becomes a primary carer at the age of 35, say, and who then remains a primary carer for the same number of years as a person who becomes a primary carer at age 45, will have a superannuation balance at age 67 that is \$124,400 lower than the other primary carer. While a person at 45 is likely to forego more immediate income than a person at 35, the more significant factor here is the loss of early superannuation, which means foregoing substantial growth in retirement assets.

The level of a person's income before they become an informal carer also has a statistically significant effect on the impact of becoming a personal carer on superannuation balances at age 67 and lifetime incomes to age 67. Not surprisingly, the higher paid a person is before they become a primary carer the larger the impact that the caring will have on their superannuation balances at age 67 and lifetime incomes to age 67.

Any reduction in superannuation balance at age 67 can have flow on impacts of government expenditure in retirement. Indeed, depending on the other assets and income held by the individual, a reduction in superannuation balance at age 67 of \$175,000 would increase eligibility for age pension by about \$20,400 per year. Given that life expectancy at age 67 is currently 20.5 years (weighted for the gender balance of the population of informal carers), this equates to an average lifetime increase in expenditure by the Australian Government on the Age Pension for each primary carer of about \$279,500.



Potential policy solutions

Policy Option 1 – Government pays Superannuation Guarantee Contribution on the Carer Payment

This scenario examines the impact of the Government paying into the superannuation accounts of primary carers based on the amount of Carer Payment that they receive.

Against current policy, this change would have a significant impact on the superannuation balances of primary carers at age 67. On average, the policy would increase those superannuation balances by about \$52,500. For one in four primary carers it would increase their superannuation balance at age 67 by more than \$66,000. For one in ten carers it would increase their superannuation balance at age 67 by more than \$122,500 (see 4).

Table 4: Impact of Policy Option 1 – Superannuation on Carer Payment

	Average	10th percentile	25th percentile	Median	75th percentile	90th percentile
Impact on superannuation balance at age 67	\$52,500	\$8,000	\$14,500	\$30,500	\$66,000	\$122,500

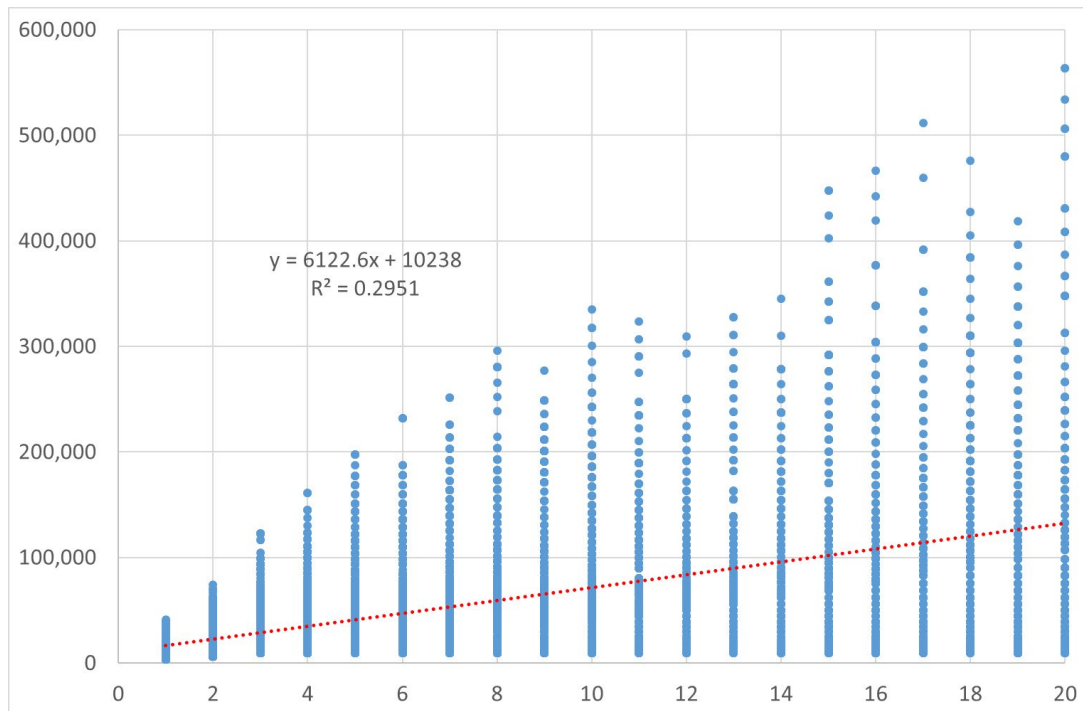
Based on the 2021 budget,²⁸ for the 2022-23 financial year, given an expected total expenditure on the Carer Payment of \$6.780 billion, and at an SGC rate of 10.5%, the first-year cost of this measure would be \$711.9 million. While this is not insignificant, it pales next to projected expenditure increases for formal care services. Per the discussion below, on a lifetime cost basis, there is an actual saving from this measure.

On average, this change in policy would close the superannuation deficit that arises from making the decision to become a primary carer by about 37%. Moreover, as Figure 8 shows, the impact of the policy increases in relative as well as absolute terms the longer a person is a primary carer. Of course, in absolute terms the increase in the superannuation balance because of this policy change would be much higher for those who cared for longer. The regression analysis reported above, showed that, on average, each year of caring reduced the superannuation balance at age 67 by \$17,800. A person who cared for one year would have a superannuation balance at age 67 that was \$7,200 higher than it would otherwise be as a result of this policy (which would offset 27.8% of the loss in superannuation that they suffered because they became a carer). A person who was a carer for twenty years would on average have a superannuation balance at age 67 that was \$99,000 higher than it would otherwise be as a result of this policy (which would offset 40.7% of the loss in superannuation that they suffered because they became a carer).

²⁸ <https://www.dss.gov.au/about-the-department/publications-articles/corporate-publications/budget-and-additional-estimates-statements-budget-2020-21/portfolio-budget-statements-2020-21-budget-related-paper-no-112> Accessed November 2021.



Figure 8: Relative Impact on Superannuation Balance of Policy Option 1, \$ by Years of Caring



As noted above, any change in the superannuation balance at age 67 has a potential impact on the amount of age pension for which a person can be eligible. Increasing a superannuation balance at age 67 by about \$52,500 has the potential to reduce age pension costs to the Commonwealth over the person's remaining lifetime by up to \$84,000. This is significantly more than the costs of paying superannuation on Carer Payments, which would cost the Commonwealth only \$18,000 over the carer's lifetime.

While it is true that for many carers the age pension savings that would be realised because of the increase in the superannuation balance would be less than the maximum possible of \$84,000 (because those carers have other income and assets at retirement) it is most likely true (given that 66.7% of age pension are in recipient of the full age pension and that only 14.7% of age pensioners have their pension entitlement determined by the assets test) that the savings in age pension generated by the higher superannuation balances would on average more than offset the additional expenditure by the Commonwealth on superannuation contributions.

Policy Option 2 – Increase the Carer Allowance

This scenario examines the impact of the Government increasing the level of Carer Allowance. This change lever has been chosen in preference to an increase in the Carer Payment because the Carer Payment is an income support payment and its settings align with other income support payments. The Carer Allowance, on the other hand, is intended to compensate the primary carer for the financial impact of the decision to be a carer and so is the appropriate policy instrument to adjust that compensation.

In this regard, it should be noted (as discussed above) that when the Carer Allowance was first introduced (as the Domiciliary Nursing Care Benefit) its value was equivalent to:

- 25% of the income of a couple whose only income was from the Age Pension;
- 93% of the Australian Government Personal Care Subsidy payable in respect of a person in an approved aged person's hostel;



- 57% of the Australian Government Basic Nursing Home Benefit payable in respect of a person in an approved Nursing Home; and
- 33% of the Australian Government Extensive Nursing Home Benefit payable in respect of a person in an approved nursing home and receiving extensive care.

The amount of the Carer Allowance is currently equal to just:

- 10% of the income of a couple whose only income was from the Basic Age Pension; and
- 6% of the average Australian Government Basic Care Subsidy payable in respect of a person in an approved Aged Care Home; and
- 1.5% of the average amount payable in respect of a person with a disability living in shared accommodation.

The following policy option is considered in this scenario:

- Increasing the Carer Allowance by 150% for those who are in receipt of the Carer Allowance but not the Carer Payment to return its relativity to 25% of the income of a couple whose only income was from the Basic Age Pension; and
- Increasing the Carer Allowance by 475% for those who are in receipt of the Carer Payment to return its relativity to 33% of the average Australian Government Basic Care Subsidy payable in respect of a person in an approved Aged Care Home. This would acknowledge the need for high-intensity care.

The impact of these possible changes on the lifetime earnings of primary carers at age 67 are set out in Table 5 in absolute terms.

Table 5: Impact of Policy Option 2 – Increase the Carer Allowance

	Average	10th percentile	25th percentile	Median	75th percentile	90th percentile
Impact on lifetime earnings to age 67 of a 150% increase in the Carer Allowance	\$31,500	\$5,000	\$10,500	\$25,500	\$46,500	\$67,000

On average, increasing the Carer Allowance by 475% would offset 31.0% of the loss in lifetime income to age 67 that a primary carer would face as a result of the decision to become a primary carer. Moreover, one in four primary carers would recover more than 55% of the loss in lifetime income to age 67 that they would face because they became a primary carer.

Alternatively, increasing the Carer Allowance by 150% would only offset 9.6% of the loss in lifetime income to age 67 that a primary carer experiences. Only one in ten primary carers would recover more than 25% of the loss in lifetime income to age 67 that they would face because they became a primary carer.

The direct costs of increasing the Carer Allowance in the first year from the 2022-23 estimate of \$2.445 billion²⁹ (noting that 48% of Carer Allowance recipients receive the Carer Payment) would be:

- \$1.907 billion for a 150% increase in the Carer Allowance to return it to parity with 25% of a couple’s basic age pension, for those who are in receipt of the Carer Allowance but not the Carer Payment; and

²⁹ Ibid., combination of Adult and Child Carer Allowance budgets.



- \$5.575 billion for a 475% increase in the Carer Allowance to return it to parity with 33% of the formal care price for an aged care resident, for those who are in receipt of the Carer Payment.

These are certainly expensive options, though they have the effect of reinstating some measure of relationship between carer subsidies and other pensions and care expenditure. While they are far from complete, either would significantly assist in reducing the financial burden which is randomly and exogenously allocated to those called to care.

Finally, the expenditure projected above is not entirely incremental, because as carer income increases, more people presented with demand for informal care will choose to provide that care.

Given the elasticities of demand discussed above it is likely that the number of people willing to be primary carers would increase as a result of the increase in the Carer Allowance. If we use a low wage-elasticity supply for care of 0.67, this will increase the number of carers who would qualify as Carer Payment recipients by 16.8% and of carers who only qualify for the Care Allowance by 5.3%.

This would in turn lead to:

- An increase of \$9.925 billion in overall expenditure, including the 475% and 150% increases for existing carers; but
- Savings from new informal carers in lieu of replacement formal care of \$4.569 billion;
- Meaning that the nett cost of these measures would be \$5.357 billion.

This is assuming a much lower wage-elasticity rate than that recorded in the literature. Evaluate has selected a low nominal rate because of the observed heterogeneity discussed at length above. While much higher elasticities are observed from survey of existing carers, it is likely that those currently choosing not to care are less responsive to changes in relative wages.

If however we were to use the male lower bound observed elasticity of 1.8 then the increase in carers would be 45.4% for Carer Payment recipients and 14.3% for Carer Allowance only recipients.

The consequence of this would be a net cost of these measures of only \$1.744 billion.

Finally, following the observation that 71.8% of carers are female, then a weighted average of the lower elasticity bounds of 1.8 for males and 3.6 for females gives us a figure of 3.09.

If this were to prevail, then we could expect the increase in carers to be 77.9% and 24.6% respectively. This would in turn provide net savings of \$2.369 billion.



Table 6: Summary of Sensitivity testing of Policy Option 2 – Increase the Carer Allowance

Average Income forgone because of caring	\$392,500			
Average Income returned by measure	\$99,000			
Share returned	25.2%			
Assumed Elasticity of Supply	67%	100%	180%	309%
Impact on Supply of Carer Payment Recipients	16.8%	25.2%	45.4%	77.9%
Impact on Supply of Carer Allowance only Recipients	5.3%	8.0%	14.3%	24.6%
Current 2022-23 Estimate				
Carer Payment	\$6.8b	\$6.8b	\$6.8b	\$6.8b
Carer Allowance paid to Carer Payment recipients	\$1.2b	\$1.2b	\$1.2b	\$1.2b
Carer Allowance paid to other carers	\$1.3b	\$1.3b	\$1.3b	\$1.3b
Extra Payments to existing recipients of payments				
Carer Payment	-	-	-	-
Carer Allowance paid to Carer Payment recipients	\$5.575b	\$5.575b	\$5.575b	\$5.575b
Carer Allowance paid to other carers	\$1.907b	\$1.907b	\$1.907b	\$1.907b
Payments to new Carers attracted by higher payments				
Carer Payment	\$1.140b	\$1.710b	\$3.078b	\$5.284b
Carer Allowance paid to Carer Payment recipients	\$1.135b	\$1.702b	\$3.064b	\$5.259b
Carer Allowance paid to other carers	\$0.169b	\$0.253b	\$0.456b	\$0.782b
Total new payments to carers	\$9.925b	\$11.147b	\$14.079b	\$18.808b
Direct services replaced by new Carers	\$4.569b	\$6.853b	\$12.336b	\$21.176b
NET COST TO GOVERNMENT	\$5.357b	\$4.294b	\$1.744b	-\$2.369b
MEMORANDUM ITEMS				
Direct services replaced by all carers	\$46.745b	\$49.029b	\$54.512b	\$63.353b
Total Payments to Carers	\$19.150b	\$20.372b	\$23.304b	\$28.033b



Further Calculations

The model which underpins this paper is a functional microsimulation which can produce alternative selected data, and can test the impact of other funding measures on both lifetime income and superannuation effects.

As examples:

- If there is a concern about the impact on a particular cohort, e.g. women between the ages of 45-55, parameter-specific impact data can be produced; or
- If there is interest in testing the adjustment another element of carer subsidies, or using a different multiplier on the Carer Allowance, this can equally be produced by the current model.

Similarly, changes in eligibility rules or other regulations can be modelled, by translating them into financial impacts and their distributions.

As a standard measure, the model should be updated as actual policy measures are implemented, or adjustments are made to prices, e.g. for annualised CPI increases.



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