The economic contribution and sacrifices of unpaid family, whānau and aiga carers in New Zealand

for Alzheimers NZ, Carers NZ, the Carers Alliance, IHC and the Ministry of Social Development

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Infometrics

Economics put simply

Authorship

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Executive summary

Unpaid carers are people who care for friends, family, whānau and aiga members with a disability, health condition or illness who need help with everyday living. The majority are unpaid for their caring work. Approximately 1 in every 7 adult New Zealanders identifies as being an unpaid carer – 432,000 people, 14% of the adult population based on the 2018 Census. Due to Census undercounting the true number could be as much as 50% higher – 655,000 people. However, we think the actual count of carers should be used, with the qualification that this count is likely a significant under-count. The higher number is based on assumptions that cannot be verified.

Aside from being undercounted, unpaid carers are a hidden workforce for other reasons, not least because many consider caring to be part of their family responsibilities. But the reality is that without unpaid carers, the already overburdened health system would not be able to cope with the extra demand for its services. To put this in context, there are 7.9 unpaid carers for every practising nurse[1], and 9.6 unpaid carers for every personal care assistant or aged and disability sector carer.[2]

Purpose

Carers NZ, Alzheimers NZ, the Carers Alliance, and the Ministry of Social Development asked Infometrics to update and expand the analysis of Infometrics' earlier report about the economic value of unpaid caring carried out in 2014.[3] It aligns with the objective of recognising carers and their contributions in *Mahi Aroha the Carers' Strategy Action Plan 2019-2023*[4], specifically Action 1.4, which is to improve data about carers. We start by looking at the characteristics of carers using 2018 Census data and findings from Synergia's 2021 State of Caring Survey, the results of which are published in the recently released *State of Caring in Aotearoa* report[5]. This helps us understand which sections of the population caring responsibilities fall on the most.

Carer characteristics

Caring is not something that happens in isolation. Unpaid carers often face other challenges which influence and are influenced by their caring responsibilities. Understanding the characteristics of carers helps us assess how caring sits within the broader context of their lives. Comparing our results with previous Census data means we can get a sense of how the unpaid caring population is changing (or not changing) over time.

We find that the key characteristics of carers have changed little over the past 20 years:

- unpaid caring responsibilities fall disproportionately on females,
- the majority of carers identify as NZ European, and
- the largest concentration of unpaid carers lives in Auckland

[1] Count of practising nurses taken from Nursing Council, Workforce Statistics 2018-19
[2] Source: Infometrics
[3] Source: Infometrics, The economic value and impacts of informal care in New Zealand, (2014)
[4] Source: Ministry of Social Development
[5] Source: Synergia (2022)

Compared with the total adult population:

- NZ Europeans, Māori, and Pacific People are more likely to have unpaid caring responsibilities,
- unpaid carers have an older age profile,
- taking their older age profile into account, they are less likely to be partnered and more likely to be sole parents, and
- are less likely to live in Auckland.

The fact that two-thirds of carers are females goes to the heart of how we value the caring role and how we value women in New Zealand.

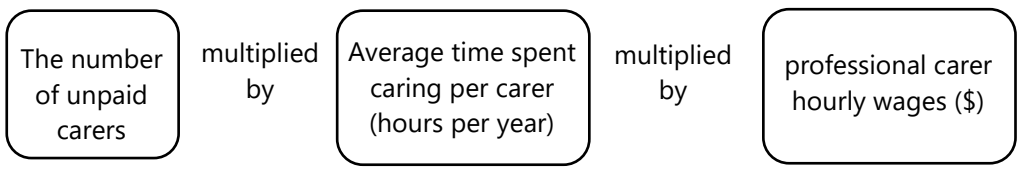
The higher incidence of caring responsibilities among sole parents suggests that caring responsibilities may be a factor in family breakups. Sole parents also tend to have lower household incomes which creates a direct link between caring responsibilities and poverty.

The higher incidence of caring responsibilities among people who identify as Māori and Pacific People, particularly among younger carers, needs to be viewed alongside the other challenges these carers experience. Young Māori and Pacific People face challenges in terms of school achievement, post-school education and labour market participation. Caring responsibilities only add to these challenges.

The economic contribution of carers

Estimating the economic value of the time that unpaid carers spend caring is one way to highlight the crucial contribution that unpaid carers make in supporting others to live fulfilling lives and participate in their communities.

We estimate the annual labour costs of unpaid care if that care were provided commercially. Labour costs are calculated as follows:



We base our estimates on:

- the number of unpaid carers from the 2018 Census,
- estimates of the time spent caring from the 2013 Time Use Survey, and
- professional carer wages from the Care and Support Workers Pay Settlement rates at as 1 July 2022.

Our preferred estimate is that the economic contribution of caring is **$17.6bn** or **5.4% of GDP**. As a share of GDP, this estimate has changed very little since the 2014 analysis. To put this in context, the health and social services sector accounts for 6.4% of GDP. There is a large degree of uncertainty in our estimate due to uncertainties in the number of hours of care provided and the number of carers.

The economic sacrifice of carers

Unpaid carers make sacrifices. In addition to the day to day costs of caring such as food, fuel and other expenses, the time unpaid carers spend caring is time they are unable to spend at work, studying, at leisure, or looking after their own health. Reduced ability to work results in lost earnings and lost Kiwisaver contributions. Furthermore, the broader effects of lost leisure and respite result in a loss of wellbeing.

The key differences between unpaid carers and non-carers is that unpaid carers are more likely to work part-time and, within certain age groups, have lower employment rates than non-carers. In other respects, such as qualification level, occupation, unpaid carers are no different to non-carers.

These issues are particularly acute for young unpaid carers who miss out on study and work at a crucial time in their personal development. The income penalty for caring is highest among younger carers. At a time when most young people are developing their skills, starting to enjoy the fruits of a working income, building up assets, saving money for an overseas experience and/or a deposit on a house, young carers are already falling behind their peers because of their caring responsibilities. And the sacrifices young unpaid carers make can leave scarring effects such as periods of unemployment, employment in lower-skilled jobs, lower earnings, and consequently lower-self esteem many years after their caring responsibilities have ended.

Projecting revenue lost to carers over several years is dependent on their precise circumstances, in particular how long they remain out of work or work fewer hours as a result of their caring responsibilities. We have created three scenarios which reflect common types of carer situations.

Based on the differences in employment rates and hours worked, we estimate that carers lose **$1,536m** in employment revenue per annum. The vast majority (97.3%) is lost earnings, a further 2.2% is from lost employer Kiwisaver contributions (based on a 3% contribution) and 0.5% from lost government Kiwisaver contributions. The revenue lost by carers unable to work makes up 51% of the total. The remaining 49% is lost by carers working fewer hours compared with non-carers.

We also estimate that, as a result of these lost earnings, the Government loses **$540m** in tax revenue annually. Add to that the benefit payments that carers receive. We have not attempted to calculate carer benefit payments here due to lack of information about exactly what benefits they receive. But this calculation would be a worthwhile endeavour as it would add to our understanding of the potential savings that would accrue to any measures designed to support carers into work or to work more hours.

If we scale these figures up 50% to account for a potential undercount of carers in the Census, carers could lose an estimated $2,319m in employment revenue per annum, with $769m lost in tax revenue. However, as noted earlier, this higher number is based on assumptions that cannot be verified.

Scenario 1: A female carer who works 30 hours per week instead of 40 between the ages of 35 and 65 - this carer sacrifices **$896,000** in lost revenue during the time that she is working part-time. This comprises $888,000 in lost gross earnings and $8,000 in lost employer Kiwisaver contributions; $284,000 is also lost to the Government in tax revenue.

Scenario 2: A female carer who retires early at age 45 having previously worked full-time - this carer sacrifices **$1,651,000** in lost revenue as a result of retiring early. This comprises $1,628,000 in lost gross earnings and $23,000 in lost employer and government Kiwisaver contributions; $358,000 is also lost to the Government in tax revenue.

Scenario 3: A young Māori female who cares for an elderly relative between the ages of 18 and 34, delays post-school study for four years until age 22, and enters the workforce at age 25 working part-time until age 34, working full-time thereafter - this carer sacrifices **$427,000** in lost revenue, which doesn't take into account the potential scarring effects mentioned earlier. This lost revenue comprises $419,000 in lost gross earnings and $8,000 in lost employer and government Kiwisaver contributions.; $92,000 is also lost to the Government in tax revenue.

COVID-19

The onset of the COVID-19 pandemic made a very challenging situation all the more difficult, with household management services, support worker visits, and other help being disrupted or cut off. Children had to remain at home rather than go to school and, like the general population, carers' employment was disrupted. This left unpaid carers isolated, exhausted and more anxious about their financial situation.[6]

More recently, the sharp rise in the cost of living has left unpaid carers vulnerable. Households with carers and people with disabilities or long-term sickness tend to be lower-income households, and already face higher living costs as a result of their realities. Rising inflation on essential items such as food, fuel and energy, as well as the rising cost of external carers due to labour shortages in this workforce, is stretching carers' budgets and in all likelihood plunging many of them into financial hardship, if they were not already. The 2021 State of Caring Survey[7] found that 59% of survey respondents said they cannot afford their bills without struggling financially and 15% said they had been in debt because of caring.

Aside from the day-to-day financial challenges, carers also worry about saving for the future to ensure the person they care for will be financially secure if the carer were to fall ill themselves or die.

It's not going to get easier

This is not a problem that will work itself out as the economic effects of the pandemic run their course. The demand for carers is growing because more people are living longer which leads to more (older) people having disabilities and multiple long-term health conditions. At the same time, more people are living at home rather than going into institutional care, in part because the health system simply can't cope with the demand.

The 2021 State of Caring Survey indicates that many carers are struggling financially, do not feel valued and are less likely to be satisfied with their lives. Is there more that society could do for these people who make an important contribution to national wellbeing?

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[6] Source: Carers New Zealand, The Caring in Lockdown Survey

[7] Source: Synergia (2022), The State of Caring Aotearoa

Recommendations

Analysis of responses to the 2021 State of Caring Survey indicates that there are several policies which, if well designed and implemented effectively, are likely to have materially beneficial impacts for the wellbeing of carers in New Zealand (and by implication also for those whom they care for). These policies are about promoting enhanced access to:

1. a viable emergency back-up plan,
2. adequate finances,
3. wellbeing support services,
4. support from family and friends,
5. support from the carers' employers,
6. enhancing access to GPs and other primary health care providers.

Our analysis indicates that from a national wellbeing perspective there is considerable scope for achieving cost-effective wellbeing gains from promoting initiatives in these areas (see Appendix 2).

These recommendations align with many aspects of the Mahi Aroha Carers' Strategy Action Plan 2019-2023[8], including:

- enabling carers to take a break from their care role (recommendations 1 and 4),
- supporting carers with adequate financial assistance (recommendation 2),
- supporting the health and wellbeing of carers (recommendations 3 and 6), and
- enabling carers to balance paid work, study and other interests (recommendation 5).

Adequate finances

Adequately funded support services and personal budgets would ensure that carers have access to a range of wellbeing support services. Funding increases should keep pace with the rising cost of living specifically associated with caring rather than simply being pegged to the Consumer Price Index (the headline inflation rate).

Evaluation of the effectiveness of new schemes such as Mana Whaikaha, Enhanced Individualised Funding, and Enabling Good Lives should happen as soon as possible with findings implemented quickly. For carers and disabled people, choice cannot happen quickly enough including carers having targeted choice about breaks, how they are valued and paid, and other supports to improve their wellbeing.

Carer Support payments have not kept pace with inflation or rising costs of relief care. Payments should be increased to cover the full costs of using a support person or other respite option while the carer takes a break. Payments should also take account of the rising costs of respite and be regularly increased accordingly. Implementation of flexible use of Carer Support should happen quickly across the wider health and disability system, and funding increased to adequately cover the full user population.

The Supported Living Payment should be available to anyone with caring responsibilities from age 15 years or older, including spouses. The payment should correspond to the cost that would be incurred if the care were provided in a commercial setting. In

[8] Source: Ministry of Social Development

addition, the government should make Kiwisaver contributions for carers unable to work, or working fewer hours than they would otherwise, to compensate them for lost contributions. These policies would ensure that carers were adequately valued for the work they do, and have adequate finances to live with dignity, build up assets for retirement, and ensure the person they care for has adequate finances should the carer die or be unable to provide for other reasons such as disability or long-term illness.

Continued controversy regarding how many hours carers are paid for and what their hourly rate should be needs to be resolved as soon as possible.

Respite infrastructure

More investment is needed in respite infrastructure especially for carers of older people. There are not enough options for facility-based breaks across the country due to a lack of investment in facilities over time.

Wellbeing support services

Funding is only a means to an end. It is equally important to ensure that adequate care-related services and products are available to spend the money on.

Support for carers in employment

Aside from the right to request flexible working arrangements, there are a number of other supports the Government could offer to support carers in employment.

- **Paid leave entitlements** – for carers who need to take time off work to care for a family member. Considerations include how much is paid, for how long, who is eligible.
- **Tax credits or deductions** – can be used to offset the cost of caring related expenses or simply as an alternative to in-work benefit payments. Considerations include who is eligible, what types of expenses are eligible, and how much is paid.
- **Pension and superannuation contributions** – for carers whose Kiwisaver contributions (self, employer and government) fall because they have to reduce their paid working hours to care for a family member. The government makes contributions on the carer's behalf. Considerations include who is eligible, and how much is paid.

Careful consideration will also need to be given to how carers are treated within the proposed social unemployment insurance scheme. For example, will the Government step in to make contributions when a carer's salary levy falls because they are forced to reduce their working hours to care for someone? Could payments for time off work to care for a family members be covered by the insurance scheme?

Further work

We know more about unpaid carers in New Zealand than ever before. But there are plenty of avenues for further research.

- The specific circumstances, challenges and needs of Māori, Pacific, and Asian carers.

- The specific circumstances, challenges and needs of young carers, especially how caring at a young age can affect participation in education and work as the carer gets older.
- Gaining a deeper understanding of how caring responsibilities affect labour market engagement (for example, are some occupations or industries better suited to carers, or is it more about the attitude of the employer)?
- Self-employment is more common among carers than the adult population as a whole. What types of self-employment work for carers and why does it work?
- Understanding how increasing cost of living pressures are affecting carers.

Characteristics of carers

According to the 2018 Census of Population and Dwellings, there were:

- 226,386 New Zealanders "looking after a member of own household who is ill or has a disability" (referred to in this report as "household carers"), and
- 256,275 New Zealanders "helping someone who is ill or has a disability who does not live in own household" (referred to in this report as "non-household carers"),
- 50,988 New Zealanders who were both household and non-household carers,
- in total, there were 431,673 unpaid carers (referred to in this report as "carers" in New Zealand (see Table 1),
- to put this number in context, there were 54,456 practising nurses in New Zealand in 2019,[9] that's 7.9 unpaid carers for every nurse, and 45,000 personal care assistants or aged and disability sector carers in 2018, that's 9.6 unpaid carers for every personal care assistant or aged and disability sector carer[10]
- the total number of family, whānau and aiga carers changed little between 2013 and 2018, the number of household carers increased and the number of non-household carers decreased,
- the proportion of the New Zealand population who are carers fell slightly from 14.3% to 13.9% between 2013 and 2018.
- According to the 2021 State of Caring Survey 75% of carers aged 35-64 care for just one person – 18% care for two, 5% for three and 3% for four or more.[11]

Caring is not something that happens in isolation. Caring is just one part of unpaid carers' lives, and they often face other challenges which influence and are influenced by their caring responsibilities. Understanding the characterises of the carer population enhances their visibility and helps us understand how their caring role sits within the broader context of their lives. Comparing our 2018 results with previous Census years means we can get a sense of how the unpaid caring population is changing (or not changing) over time.

[9] Source: Nursing Council, Workforce Statistics 2018-19

[10] Source: Infometrics

[11] Source: Synergia (2022), The State of Caring in Aotearoa

Table 1

Carers in New Zealand, 2001-18

Carer type	Household carers	Non-household carers	Total unpaid carers
		2001	
Male	80,415	77,868	140,109
Female	120,201	144,420	230,631
Total	200,616	222,288	370,740
% Female	60%	65%	62%
		2006	
Male	86,427	88,236	155,208
Female	134,799	170,472	264,126
Total	221,226	258,708	419,334
% Female	61%	66%	63%
		2013	
Male	86,520	91,461	159,321
Female	136,638	175,839	272,328
Total	223,155	267,303	431,649
% Female	61%	66%	63%
		2018	
Male	88,842	86,217	159,054
Female	137,544	170,058	272,619
Total	226,386	256,275	431,673
% Female	61%	66%	63%

Source: Stats NZ

A potential under-count of carers

An increase in the number of carers between 2013 and 2018 was expected because the New Zealand total population increased during that time. One of the reasons this increase didn't materialise in the Census results was that the 2018 Census saw a large increase in the number of people who did not respond to the question about unpaid activities, from 356,000 in 2013 (an 11% non-response rate) to 661,000 in 2018 (a 17% non-response rate). The fall in response led Stats NZ to rate the quality of the unpaid activities data from the 2018 Census as 'poor'.[12]

- If the proportion of non-respondents had remained at 11% in the 2018 Census, the number of carers could have been as high as 487,000.
- If we assume that the proportion of all non-respondents who are carers is the same as the proportion of respondents, there would have been 466,000 carers in 2006, rising to 482,000 in 2013 and 523,000 in 2018.

A further reason why the number of carers could be under-counted is that carers looking after a child in their own household who is ill or has a disability could report that they are either "Looking after a child who is a member of own household" or "Looking

[12] Source: Stats NZ

after a member of own household who is ill or has a disability". Any carer who chooses the former would not show up in our count of carers.

The same applies to anyone who is looking after a child who is sick or has a disability in another household. The carer could report that they are either "Looking after a child who does not live in own household" or "Helping someone who is ill or has a disability who does not live in own household".

This ambiguity applies to the 2001, 2006, 2013 and 2018 Census results.[13] The 2001 and 2013 New Zealand Disability Surveys found that 11% of children aged 0-14 years had a disability.

- If we assume that 11% of people who reported looking after a child in their own or another household were looking after a child with a disability, and we assume that some of these carers are looking after children both in their own household and in another household, then the total number of carers rises to 597,000 in 2006, 617,000 in 2013 and **655,000** in 2018. This would make the 2018 estimate **52% higher** than the 2018 actual Census count

The Census question relating to caring responsibilities only counts responses from people aged 15 years and older. It therefore excludes younger carers.

Estimates of the potential under-count of carers are summarised in Table 2. Our view is that the actual count of carers should be used, with the qualification that this count is likely a significant under-count for the reasons stated earlier. The other estimates in Table 2 are based on assumptions that cannot be verified.

Table 2

Carers in New Zealand

	2006	2013	2018
Actual count	419,334	431,649	431,673
Assuming zero non-response	466,137	482,463	523,228
Assuming all child carers included	596,660	616,837	655,275

Source: Stats NZ & Infometrics estimates

International comparisons

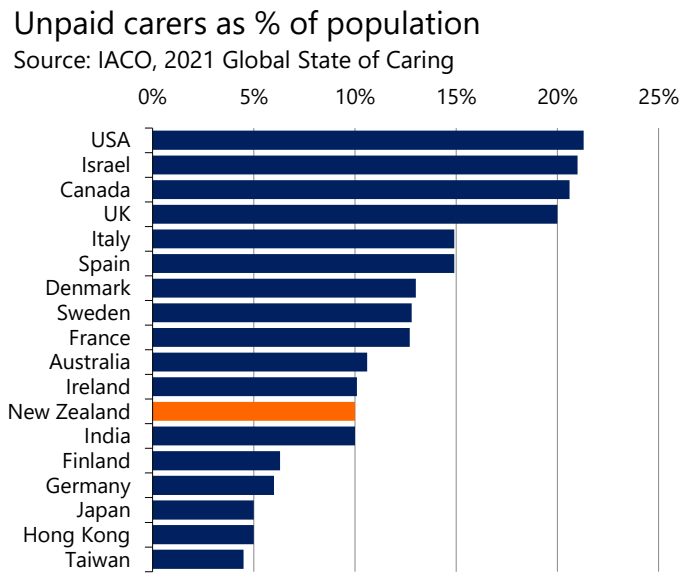
The International Alliance of Carer Organizations report 2021 Global State of Caring estimates the number of carers and their proportion of the population across a number of countries in North America, Europe, Asia and Oceania.

Based on the 2018 Census of Population and Dwellings, the number of carers in New Zealand is estimated in the Global State of Caring report to make up 10% of the total population. Our view is that this is an under-estimate. It looks like the number of carers is taken as a proportion of the total New Zealand population, rather than the number of people who answered the relevant Census question. Based on our calculations, the proportion is 14%.

[13] The 2001 Census was the first to ask questions about carers living in the same house or in another location.

Chart 1 is an extract from the 2021 IACO report which compares numbers of carers across a range of countries including New Zealand.

Chart 1



New Zealand is in the lower half of the chart, but is by no means an outlier.

Based on our calculation, that carers make up 14% of the New Zealand population, New Zealand would sit around the upper-middle of the chart with a reasonably high proportion of carers compared with the other countries measured.

There are a number of reasons why estimates of the proportion of the population who are carers might differ across countries.

Differences in measurement methods

Each country has its own definition of the collectively used term 'carer'. While definitions are largely the same, there are subtle differences. Small differences can influence the number of carers being counted, particularly in sample surveys.

Some definitions refer to carers who are family members or friends, while others only specify family members.

- For example, Taiwanese estimates refer to 'Family Caregivers', defined as 'family members who take care of a family loved one and provide daily long-term care without compensation'.
- Israeli estimates also refer to 'Family Caregivers' but they are defined more broadly as 'individuals, such as family members, friends or other significant people, who take on a caring role...'

There are differences in the age range of carers across countries.

- For example, Israeli estimates are of carers aged 20 years or older while Irish and New Zealand estimates are of carers aged 15 years or older, the age at which Census data starts to be captured.

There are differences in the range of conditions that carers care for.

- New Zealand refers to carers caring for people with 'a disability, health condition or illness who need help with everyday living'.
- Australia's definition is arguably more comprehensive and defines carers as caring for people with 'a disability, a mental illness, chronic condition, a terminal illness, an alcohol or other drug issue, or who are frail aged'.

There are differences in the way carer data is collected. Some countries such as the USA use a population sample survey whereas New Zealand's estimate is based on a full population census of people aged 15 years or older. Population sample surveys are subject to sample errors. Even a full Census can experience measurement errors, as was the case with some aspects of the 2018 New Zealand Census; we note that the New Zealand Census excludes carers younger than 15 years old.

There are also differences across countries in the extent to which carers have been researched which could account for differences in the number of carers counted.

In-depth research over a long period of time tends to show that caring is a much more common experience than quantitative population counts imply. Countries where analysis of caring is newer e.g. New Zealand and in the Asia Pacific region, tend to show lower projected numbers of carers.

Countries with the highest projected numbers of carers particularly the US, Canada and the UK have undertaken research over many years to both understand how many carers there are in those countries and the issues and effects of caring for families, societies, employers, economies, and governments.

Differences in the number of carers

There are a number of other reasons why the actual number of carers might differ across countries.

- An aging population may require a greater number of carers for the elderly. For example, NGOs working with dementia sufferers quote very high numbers of carers compared to Census.[14]
- Skill and labour shortages in healthcare systems may result in more care being provided by friends and family, as would policies specifically aimed at increasing the amount of unpaid care that is delivered in home or community settings.
- There may be cultural or legislative differences across countries that influence people's attitudes to caring or their willingness to self-identify as carers in population surveys or censuses. Countries differ in the extent to which carers are defined and have their rights protected in legislation. Legislation may influence, and be influenced by, cultural norms.

Types of carers

Carers NZ, the Carers Alliance, Alzheimers NZ, IHC, and the Ministry of Social Development commissioned Synergia to carry out a survey of carers to better

[14] Source: Carers New Zealand

understand their characteristics, experiences and challenges. The inaugural 2021/22 survey and report will be repeated two yearly to build a picture over time.

Analysis of the 2021 State of Caring in New Zealand Survey results[15] enabled the identification of groups of carers based on their caring experiences and perspectives. The following ten groups were the largest, but nonetheless represent a small proportion of survey respondents.

1. Retired carer of spouse with dementia/Alzheimer issues,
2. Mothers who gave up work to care for child with an intellectual or behavioural disability,
3. Mothers caring for a child with a learning disability but who still work part-time,
4. Women caring for a relation with mental health issues living independently of the carer,
5. Unemployed full-time carers of a partner with mental health or cancer issues,
6. Carers for an elderly relative with age related issues living in a care facility,
7. Carers for a parent or partner with physical or neurological disabilities,
8. Women who have given up work to care for very elderly whānau,
9. Working women caring for elderly whānau,
10. Carers who have retired early to care for a relative in a care facility.

Looking for common threads across these groups:

- Household carers tend to be caring either for their spouse/partner or a child with a disability,
- Non-household carers tend to be caring for whānau such as a parent or a grandparent (see the later section *Differences between household and non-household carers*),
- Many of the groups are populated solely by women and mothers, which underscores that carers are more likely to be women (see the later sections *Carers more likely to be women* and *Differences between female and male carers*), and
- Carers' responses to their caring responsibilities vary from having to give up work, or working part-time (see the later section *Carers' incomes affected by their working hours*).

Carers more likely to be women

The majority of unpaid carers are female which means that the way society values unpaid carers is also a reflection of how society values women. It also further entrenches gender inequalities with the economic sacrifices that make carers falling disproportionately on women. Based on the 2018 Census:

- Just under two-thirds of carers (63%) were female (see Table 1),
- This proportion has changed very little since 2001, and
- The gender imbalance is slightly higher among non-household carers – in 2018 females made up 66% of non-household carers and 61% of household carers.

[15] Source: Synergia (2022)

Carers older than the average New Zealander and aging

Carers have an older age distribution than the adult population as a whole. The carer population is also aging, which reflects the ongoing aging of the broader population. Caring responsibilities can take a physical toll on the unpaid carer, a toll which is going to be harder to bear as carers get older and become more frail themselves. An aging carer population is also going to be more dependent on government benefits, Kiwisaver and superannuation – particularly long-term carers who have had less opportunity to work and save for retirement. Based on the 2018 Census:

- 20% of carers were aged under 35 years compared with 32% of the adult population,
- some 85,000 people between the ages of 15 and 34 have caring responsibilities, which is a significant number of young people and could be higher if younger carers were counted.

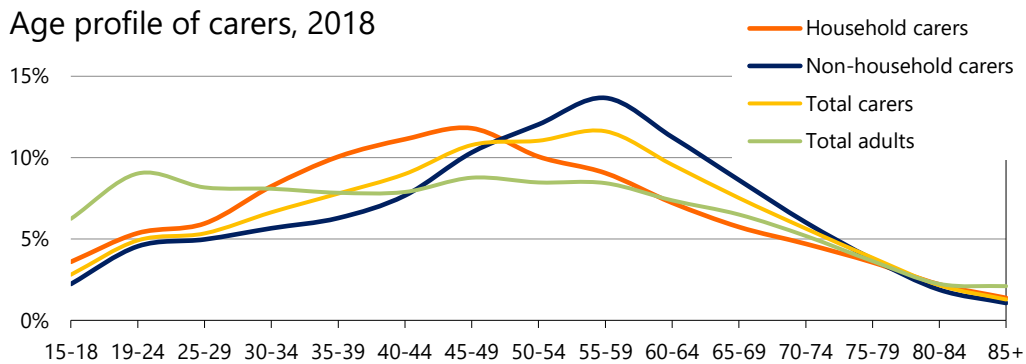
According to the Census the number of young carers aged 15-34 has fallen from 105,000 in 2001 to 85,000 in 2018. This drop has been driven partly by a fall in the total number of young people as the population ages and partly by a fall in the number of young carers as a proportion of all carers from 10.2% in 2001 to 8.7% in 2018.

- 60% of carers were aged 35-64 years compared with 49% of the adult population.

Household carers are younger than non-household carers. Based on the 2018 Census:

- 23% of household carers are aged under 25 years compared with 17% of non-household carers.

Chart 2



Carers are aging (see Chart 3 and Table 3).

- In 2001, 72% of carers were aged 35 years or more, by 2018 this proportion had increased substantially to 80%.
- In that time, the median age of carers rose from 44 to 51.
- The median age of female carers rose from 44 to 51 and of male carers 43 to 51. This reflects an ageing of the population as a whole.

Chart 3

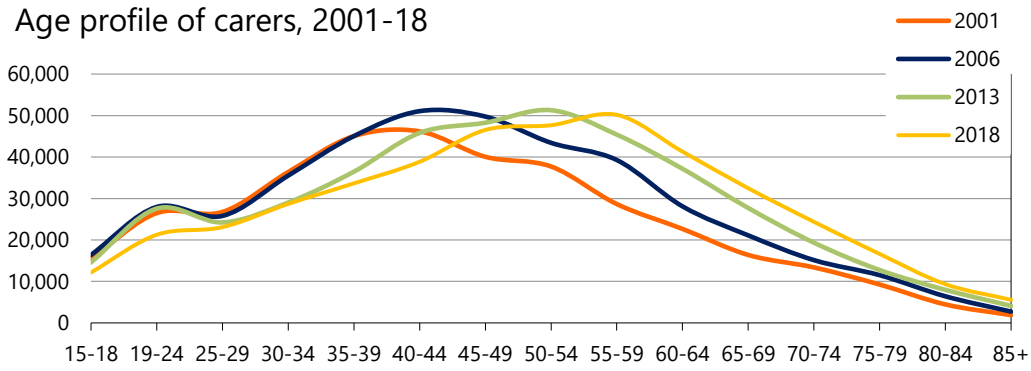


Table 3 illustrates that the median age of carers is increasing at a faster rate than that of the general population. Between 2006 and 2018 the median age of carers increased from 46 to 51. Over the same time period the median age of all New Zealand adults increased from 43 to 47. This means that the age premium between carers and the typical New Zealand adult increased from 33 months in 2006 to 56 months in 2018. Put another way, the typical carer was 6% older than the median age of New Zealand adults in 2006. By 2018 this age premium had increased to 10%.

Table 3

Age characteristics of carers, 2006-18

	2006			2013			2018		
Carer type	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
	Median age								
Household carers	43	43	43	46	45	46	48	47	47
Non-household carers	47	48	48	51	51	51	54	53	53
Total carers	45	46	46	49	49	49	51	51	51
Total adults	43	43	43	45	46	45	46	47	47
	Implied age premium, months								
Household carers	2	-4	-1	11	-0	5	19	4	10
Non-household carers	52	58	57	69	66	68	87	79	83
Total carers	30	34	33	45	43	45	59	54	56
	Implied age premium, % of national median								
Household carers	0%	-1%	0%	2%	0%	1%	3%	1%	2%
Non-household carers	10%	11%	11%	13%	12%	13%	16%	14%	15%
Total carers	6%	7%	6%	8%	8%	8%	11%	10%	10%

Source: Stats NZ

Pacific People and Māori more likely to be carers

Compared with the adult population as a whole, European/New Zealanders, Māori and Pacific People have a greater propensity to provide care, while Asian people have a lower propensity. Māori and Pacific People already face challenges in terms of educational achievement and labour market outcomes. Caring responsibilities make these challenges all the more difficult to overcome. The *Mahi Aroha Carers' Strategy Action Plan 2019-2023*[16] also notes that Māori and Pacific communities face higher rates of multiple and long-term health conditions, and are therefore more likely to be managing their own health conditions alongside caring for others. In these communities,

[16] Source: Ministry of Social Development

and among migrant Asian unpaid carers, there might also be a lack of understanding of what support is available to carers compounded in some cases by language barriers and a lack of social networks. Based on the 2018 Census:

- 78% of carers were European/New Zealanders compared with 74% of the total adult population,
- 17% of carers were Māori compared with 12% of the total adult population,
- 7% of carers were Pacific People compared with 5% of the total adult population, and
- 7% of carers were Asian New Zealanders compared with 15% of the total adult population.

Table 4

Carers' stated ethnicity, 2013-18

% of carers, total adults

Carer type	European/ New Zealand	Māori	Pacific People	Asian	Other
			2013		
Household carers	72%	20%	10%	8%	1%
Non-household carers	82%	17%	6%	4%	1%
Total carers	79%	17%	7%	6%	1%
Total adults	72%	14%	7%	11%	7%
			2018		
Household carers	71%	20%	9%	10%	2%
Non-household carers	81%	17%	6%	5%	2%
Total carers	78%	17%	7%	7%	2%
Total adults	74%	12%	5%	15%	2%

Source: Stats NZ

The greater likelihood of NZ/Europeans providing care is related to their age profile. NZ/Europeans have an older age profile than the total adult population, and older people are more likely to be carers. Controlling for age, the likelihood of NZ/Europeans providing care rises to a peak in the 55-59 age group. The likelihood of Māori and Pacific People providing care is relatively high across all age groups, especially people aged 30 to 64 years.

- Pacific carers have the youngest age profile (40% aged under 35 years), followed by Māori (32%) than European/New Zealanders (17%).

A key change between 2013 and 2018 is that Asian people made up an increasing share of the total adult population. Much of this growth was the result of high levels of net inward migration, particularly from Asian countries, during this time. Visa criteria result in migrants tending to be of working age, and less likely to have dependents, which could explain the lower propensity of Asian people to be carers.

Among carers, Māori and Pacific People are more likely than European/New Zealanders and Asian New Zealanders to be carers. Based on the 2018 Census:

- 20% of Māori, 18% of Pacific People, 14% of European/New Zealanders, and 7% of Asian New Zealanders, were carers.

Among carers, European/New Zealanders are more likely to provide care to a non-household member whereas Pacific Peoples are more likely to provide care to a household member. Based on the 2018 Census:

- 62% of European/New Zealanders carers were non-household carers, 48% were household carers,
- 49% of Pacific carers were non-household carers, 70% were household carers, and
- 59% of Māori carers were non-household carers, 62% were household carers.

There could be cultural reasons for why Māori and Pacific carers are more likely to care for people in the same household. Māori and Pacific People may be more likely to live in households with extended whānau such as grandparents. Māori and Pacific carers might also be more likely to have siblings or parents living in the same household who need care. Census data does not give insights about this.

Carers less likely to have a partner

On the face of it, carers are more likely to be partnered (Table 5). Based on the 2018 Census:

- 70% of household carers and 61% of non-household carers were partnered compared with 61% of the total adult partnered population

Table 5

Carers' partnership status, 2018

% of carers, total adults

Carer type	Non-partnered				Partnered			
	Divorced	Never married	Other	Total	De facto	Spouse	Other	Total
				Female				
Household carers	6%	20%	8%	34%	13%	52%	1%	66%
Non-household carers	10%	19%	13%	41%	12%	46%	1%	59%
Total carers	8%	19%	11%	38%	12%	49%	1%	62%
Total adults	6%	23%	11%	41%	13%	45%	1%	59%
				Male				
Household carers	3%	19%	4%	25%	15%	59%	1%	75%
Non-household carers	6%	21%	8%	35%	13%	51%	1%	65%
Total carers	5%	20%	6%	30%	14%	55%	1%	70%
Total adults	4%	26%	6%	36%	14%	49%	1%	64%
				Total				
Household carers	5%	19%	7%	30%	14%	55%	1%	70%
Non-household carers	9%	20%	11%	39%	12%	48%	1%	61%
Total carers	7%	19%	9%	35%	13%	52%	1%	65%
Total adults	5%	25%	9%	39%	14%	47%	1%	61%

Source: Stats NZ

However, a more in-depth analysis suggests that the partnership status of carers is related to their age. Carers have an older age profile than the total adult population, and older people are more likely to be partnered.

Taking age into account, between the ages of 30 and 64 carers – particularly household carers - are more likely to be non-partnered compared with the total adult population.

Caring is obviously a much more difficult task when there isn't a second adult in the house to help out, or to be the main income earner. Carers who are not partnered are

probably more likely to feel isolated and exhausted, and are likely to have lower household incomes. That unpaid carers are less likely to be partnered also suggests that caring responsibilities can place pressure on relationships, or make it more difficult for carers to form relationships, as the following section shows in more detail.

Carers more likely to be sole parents

This section looks at carers who are part of a family (referred to as 'family carers'). This includes couples with or without children and sole parents. It excludes carers who are not partnered and don't have children. Comparisons are made with the total adult population (referred to as the 'total family adult population') who are also part of a family.

Just over half of all carers are also parents, which is slightly higher than the total adult population. In some cases, family carers will be caring for a disabled child, in others a disabled spouse or other family member such as a parent. Based on the 2018 Census:

- Of the 431,673 carers in New Zealand, 226,713 (53%) were also parents, compared with 48% of the total adult population, and
- Compared with the total family adult population, family carers are more likely to be sole parents and less likely to be in a couple either with or without children.

This finding about family carers might seem inconsistent with the earlier conclusion that all carers are more likely to be partnered. By excluding carers who are not partnered and don't have children from this part of the analysis, we are focussing on a younger demographic which has different characteristics to the carer population as a whole.

The earlier section entitled *A potential under-count of carers* explains how the number of carer parents may be underestimated by the Census. Family carers' greater likelihood of being sole parents is an indication of how caring responsibilities for a disabled child may increase household pressures and in some cases lead to breakdowns in parental relationships and marriages (the previous section entitled *Household carers more likely to have a partner* also indicates this). Based on the 2018 Census:

- 16% of total family carers, 18% of household family carers and 15% of non-household family carers are sole parents compared with 12% of the total family adult population.

Table 6

Carers' family type, 2018

% of carers, total adults

Carer type	Couple With Child(ren)	Couple Without Children	One Parent With Child(ren)
		Female	
Household carers	52%	25%	23%
Non-household carers	41%	40%	19%
Total carers	46%	34%	20%
Total adults	48%	37%	15%
		Male	
Household carers	59%	30%	11%
Non-household carers	47%	45%	8%
Total carers	53%	38%	9%
Total adults	53%	39%	8%
		Total	
Household carers	55%	27%	18%
Non-household carers	43%	42%	15%
Total carers	49%	35%	16%
Total adults	50%	38%	12%

Source: Stats NZ

Sole parents are also more likely to face acute pressures when they also have a caring role. Sole parent households tend to have lower average incomes due to their inability to work, or need to work fewer hours, than couple households, as well as facing additional costs associated with caring for a disabled child.

Among carers, their family type depends on whether they are household carers or non-household carers. Household family carers are more likely than non-household family carers to be parents. This is because household family carers are more likely to be caring for a disabled child. Compared with the total family adult population, household family carers are more likely to be part of a couple with children or sole parents.

- 55% of household family carers and 43% of non-household family carers are part of a couple with children compared with 50% of the total family adult population.
- 18% of household family carers and 15% of non-household family carers are part of a couple with children compared with 12% of the total family adult population.

Compared with the total family adult population, non-household family carers are more likely to be part of a couple without children.

- 42% of non-household family carers and 27% of household family carers are part of a couple without children compared with 38% of the total family adult population.
- Among people aged 15-24 years, 59% household family carers are part of a couple with children compared with 64% of the total family adult population.

- This is more than offset by household family carers aged 25+ years of whom 55% are part of a couple with children compared with 48% of the total family adult population.

Household composition related to partnership status

Household composition is strongly related to partnership status and family type. Carers are very similar to the total adult population in terms of their household composition. There are, however, differences between household carers and non-household carers.

Compared with the total adult population, household carers are less likely to be in a couple without children household, and more likely to be in a sole parent household or in a couple with children household. Based on the 2018 Census:

- 22% of household carers are in a couple only household compared with 29% of the total adult population,
- 15% of household carers are in a sole parent household compared with 9% of the total adult population, and
- 47% of household carers are in a couple with children household compared with 39% of the total adult population.

Compared with the total adult population, non-household carers are less likely to be part of a couple with children household, and are more likely to be in a one-person household, part of a couple without children, or sole parent household.

- 32% of non-household carers are in a couple with children household compared with 39% of the total adult population,
- 16% of non-household carers are in a one-person household compared with 10% of the total adult population,
- 31% of non-household carers are in a couple without children household compared with 29% of the total adult population, and
- 11% of non-household carers are in a sole parent household compared with 9% of the total adult population.

Carers more likely to live outside Auckland

The largest concentration of unpaid carers live in Auckland simply because Auckland is where a large proportion of the broader population resides. However, carers (especially non-household carers), are less likely than non-carers to live in Auckland (see Table 7) and are more likely to live elsewhere in the North Island. Carers in Auckland tend to be younger than the national average. We can also assume that the Pacific carer population is concentrated in Auckland, since this is where the broader Pacific population is concentrated. Based on the 2018 Census:

- 28% of carers, 31% of household carers and 26% of non-household carers, lived in Auckland compared with 32% of the total adult population,
- 47% of carers, 47% of household carers and 48% of non-household carers, lived elsewhere in the North Island compared with 42% of the total adult population, and
- 25% of carers, 23% of household carers and 26% of non-household carers, lived in the South Island compared with 25% of the total adult population.

- 52% of Auckland carers are aged under 50 years and 22% are aged under 35 years compared with 47% and 20% of the national carer population.

Table 7

Carers' region of residence, 2018

% of carers, total adults

Region	Household carers	Non-household carers	Total carers	Total adults
Northland Region	5%	5%	5%	4%
Auckland Region	31%	26%	28%	32%
Waikato Region	10%	10%	10%	10%
Bay of Plenty Region	7%	7%	7%	6%
Gisborne Region	1%	1%	1%	1%
Hawke's Bay Region	4%	4%	4%	3%
Taranaki Region	3%	3%	3%	3%
Manawatu-Wanganui Region	6%	6%	6%	5%
Wellington Region	11%	12%	12%	11%
North Island excl. Auckland	**47%**	**48%**	**47%**	**43%**
Nelson Region	1%	1%	1%	1%
Tasman Region	1%	1%	1%	1%
Marlborough Region	1%	1%	1%	1%
West Coast Region	1%	1%	1%	1%
Canterbury Region	12%	14%	13%	14%
Otago Region	4%	5%	5%	5%
Southland Region	2%	2%	2%	2%
South Island	**23%**	**26%**	**25%**	**25%**

Source: Stats NZ

This regional profile has changed very little since the 2013 Census.

Carers in different regions might face different challenges. Carers living in regions with smaller populations may face greater isolation or difficulties accessing services. Carers living in the major population centres, especially Auckland, will face housing affordability challenges compounded in some cases by carers' lower incomes which are a consequence of their inability to participate fully in the workforce.

Differences between female and male carers

As already noted, around two-thirds of carers are female, a proportion which has changed very little since the counting of carers began in 2001. This means that the challenges that carers face and the sacrifices that they make fall disproportionately on females. This is compounded by the fact that female carers are also more likely to be Māori and sole parents, groups which face challenges in terms of education, personal health, workforce participation and low incomes, on top of the challenges of caring. The disproportionate number of female carers also means that the way society values caring and the way it values women are closely related.

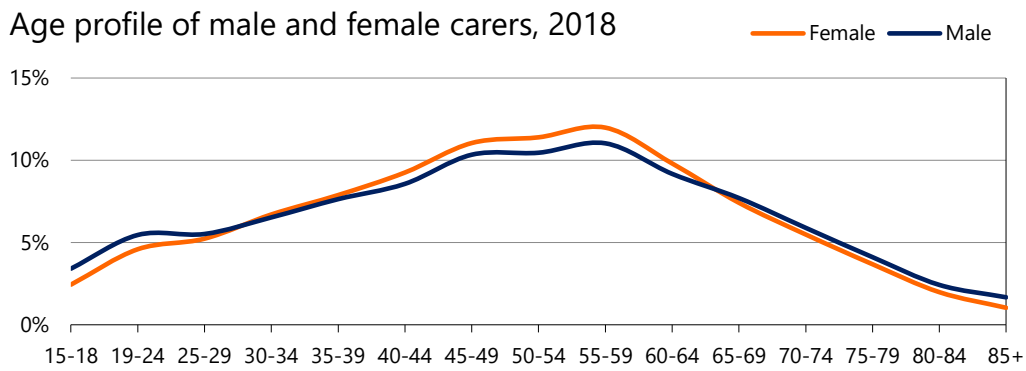
This section outlines the key differences between female and male carers.

Female carers are slightly older than male carers (see Chart 4). Based on the 2018 Census:

- 53% of female carers were aged 40-64 years compared with 50% of male carers, and
- 7% of female carers were aged under 25 years compared with 9% of male carers.

This female/male age distribution reflects the male and female age distribution in the broader adult population. However, both female and male carers have an older age distribution than the broader adult female and male populations.

Chart 4



Female carers are more likely to be Māori. This characteristic is unique to carers and is not reflected across the broader adult population. Based on the 2018 Census:

- 18% of female carers identified as Māori compared with 15% of male carers.

Female carers are less likely to be partnered. Based on the 2018 Census:

- 62% of female carers were partnered compared with 70% of male carers.

This characteristic is reflected across the broader adult population with males more likely to be partnered than females. But both male and female carers are more likely to be partnered than the total male and female adult populations because carers have an older age profile and older people are more likely to be partnered.

Female carers are more likely to be sole parents. Based on the 2018 Census:

- 20% of female carers were sole parents compared with 9% of male carers.

This characteristic reflects the broader male and female adult populations, but female carers are more likely to be sole parents compared with the total female population.

Female carers are less likely to be in a couple with/without children. Based on the 2018 Census:

- 46% of female carers were part of a couple with children compared with 53% of male carers; 34% of female carers were part of a couple without children compared with 38% of male carers.

These characteristics are also shared with the broader male and female adult populations.

Differences between carers across age groups

As noted earlier, carers have an older age distribution than the adult population as a whole and carers are aging over time which has implications for carers' ability to carry out the more physical aspects of their role, as well as their increasing dependence on benefits, Kiwisaver and superannuation as they approach and pass into retirement from paid work. This section outlines the key differences between younger and older carers. Based on the 2018 Census:

- 7% of female carers were aged under 25 years compared with 9% of male carers.
- Older carers are more likely to be European/New Zealanders: 66% of carers aged 15-34 years identified as European/New Zealander compared with 80% of carers aged 35+.
- Younger carers are more likely to be Māori, Pacific People and Asian: 27% of carers aged 15-34 years identified as Māori compared with 14% of carers aged 35+; 14% of carers aged 15-34 years identified as Pacific People compared with 5% of carers aged 35+; 12% of carers aged 15-34 years identified as Asian compared with 6% of carers aged 35+.

This age by ethnicity profile reflects trends across the total adult population. However, a key difference is that young carers are more likely to be Māori or Pacific People than the total adult population.

- 27% of carers aged 15-34 years identified as Māori compared with 15% of the total adult population; 14% of carers aged 15-34 years identified as Pacific People compared with 8% of the total adult population.
- Younger carers are less likely to be partnered: the proportion of carers who are not partnered is highest among 15-19 year olds (96%), declines steadily to 26% among 40-44 year olds then rises steadily to 33% among carers aged 65+.

This pattern of partnership reflects the broader adult population, but carers are less likely to be partnered compared with the total adult population across all but the youngest and oldest age groups.

- Younger carers are more likely to be sole parents: the proportion of carers who were sole parents was highest among 15-19 year olds (31%) then declined steadily to just 6% of carers aged 65+.
- Younger carers are more likely to be part of a couple with children: 59% of carers aged 15-34 years were part of a couple with children compared with 46% of carers aged 35+.
- Older carers are more likely to be part of a couple without children: 16% of carers aged 15-34 years were part of a couple without children compared with 40% of carers aged 35+.

These family characteristics reflect trends in the broader adult population who are partnered and/or have children. But regardless of age, carers are more likely to be sole parents and are less likely to be part of a couple without children.

As the nation's largest population centre, 28% of all carers reside in Auckland, which is more than double the next largest centre, Canterbury, with 13%.

- Younger carers are more likely to live in Auckland: 32% of carers aged 15-34 lived in Auckland compared with 27% of carers aged 35 years+.

This reflects a broader preference of young people to live in Auckland across the whole adult population. But across every age group, carers are less likely to live in Auckland compared with the total adult population.

Differences between household and non-household carers

This section outlines the key differences between household carers and non-household carers. Based on the 2018 Census

- While all carers are more likely to be female, this is particularly the case for non-household carers: 61% of household carers were female compared with 66% of non-household carers.

- Household carers tend to be younger than non-household carers: 56% of household carers were aged under 50 years compared with 42% of non-household carers. This finding suggests that household carers are more likely to be looking after their children and non-household carers are more likely to be looking after elderly whānau.

- NZ/European carers are more likely to be non-household carers, Pacific and Asian carers are more likely to be household carers: 48% of NZ European carers are household carers and 62% are non-household carers; in contrast, 70% of Pacific carers are household carers and 49% are non-household carers, the figures for Asian carers are 69% and 41%, and for Māori 62% and 59%. The difference between NZ/European and Pacific carers could be because the latter's households tend to include parents and grandparents, whereas in NZ/European households parents and grandparents tend to live separately from their adult children.

- The majority of carers are partnered and household carers are more likely to be partnered; this applies across both males and females (70% of household carers were partnered compared with 61% of non-household carers). These results apply across all age groups so they are not influenced by the older age profile of non-household carers.

- Household carers are more likely to be part of a couple with children or a sole parent, non-household carers are more likely to be part of a couple without children, this applies across females and males: 55% of household carers were part of a couple with children compared with 43% of non-household carers, 18% of household carers were sole parents compared with 15% of non-household carers, and 27% of household carers were part of a couple without children compared with 42% of non-household carers. These results apply across most

age groups so they are not influenced by the older age profile of non-household carers.

- Carers' family circumstances strongly influence their household composition, with household carers more likely to live in a couple with children household or a one-parent household, and non-household carers more likely to live in a couple only household. This result still applies when we remove one-person households from the population. Including one-person households skews the results because, by definition, household carers cannot live in a one-person household.
- Household carers are more likely to live in the Auckland region: 31% compared with 26% of non-household carers. This applies across both females and males. The Auckland region has a relatively young population with just 16% aged 65 years or above compared with 21% across the rest of New Zealand. It could be that non-household carers are living close to elderly relatives.

The economic contribution of carers

Carers make a considerable contribution to the New Zealand economy and society. By providing physical and emotional support to some of society's most vulnerable people, carers help relieve stress on an already overburdened health system. That carers give their time and energy freely should not detract from the value that society places on them and the care they give. Yet it does. The sacrifices that thousands of family, whānau and aiga carers make on a daily basis are invisible to many of us because their services do not incur an economic cost. And this contribution from carers appears to be associated with low levels of life satisfaction (see *Carer perspectives* on page 50). The purpose of this section here is to highlight the critical role of carers in New Zealand society by placing a dollar value on the care that they give.

The first analysis of the economic value of carers was carried out in 2014.[17] As we did in the 2014 analysis, we address the uncertainty associated with the valuation of non-commercial activities by providing a range of estimates in Table 8 that vary depending on assumptions about the number of caring hours involved and the appropriate pay rate for valuing care services provided to families, whānau and āiga.

Table 8

Estimates of replacement value of carers, 2022

	Low	Central	High
Average carer hours per week	24	30	36
Total carer hours per year (million)	530	672	814
	Estimated value ($m)		
Minimum wage ($21.50)	11,421	14,276	17,132
Carer wage ($26.16)	14,093	17,616	21,140
Median wage ($27.76)	14,955	18,694	22,433
Health care industry wage ($37.31)	20,208	25,260	30,312
	Estimated value (% of GDP)		
Minimum wage ($21.50)	3.5%	4.4%	5.2%
Carer wage ($26.16)	4.3%	**5.4%**	6.4%
Median wage ($27.76)	4.6%	5.7%	6.8%
Health care industry wage ($37.31)	6.2%	7.7%	9.2%

Source: Stats NZ, Infometrics

Our lower estimate of the replacement value of support provided by unpaid carers in 2022 is $11.4bn, equivalent to 3.5% of GDP[1]. Our central preferred estimate is that the value of unpaid care is **$17.6bn**, or **5.4% of GDP**. Our upper estimate is $30.3bn or 9.2% of GDP (see Table 8). To put this in context, the health care and social assistance sector accounts for 6.4% of GDP.[1]

We consider that the $11.4 bn estimate can be regarded as a lower estimate because it discounts the evidence from the Time Use Survey to the maximum degree and then

[17] Source: Infometrics, The economic value and impacts of informal care in New Zealand, (2014)

values this time at the statutory minimum wage rate. The upper estimate is also extreme, as it assumes the upper statistical limit of caregiving time provided by the Time Use Survey, values this time at the average wage rate for all health professionals and takes into account the potential under-count of carers in the Census (see earlier section *A potential under-count of carers*).

There are a number of reasons to treat even this broad range of estimates with caution. Firstly, we are estimating what the labour cost would likely be if the care services were provided commercially rather than by families and whānau. This does not account for any overhead costs such as supervision, management, or capital costs.

Our count of carers is uncertain. Our estimates are based on our count of 432,000 carers in New Zealand from the 2018 Census. Taking into account a possible under-count of carers in the Census (see the section entitled *A potential under-count of carers*) there could be as many as 655,000 carers in New Zealand. This would raise our central estimate of their economic value to $25.6bn (a 52% increase) or 7.8% of GDP. Although, this higher figure is based on assumptions that cannot be verified.

Combining two different data sources (the Census and the Time Use Survey) is also problematic because they collect information in different ways which can influence the results. For example, the Census, asks about unpaid activities in the past 2 weeks whereas the Time Use Survey collects information about activities in the past 48 hours.

Estimating wage rates

A range of wage rates are used for this analysis, reflecting the fact that were caring to be provided commercially, carers may work for a range of pay rates. The lowest wage used was the Minimum Wage as at 1 April 2022[18]. The median wage is the expected wage as at 4 July 2022, the Health Care Industry average wage is for the 2022 March quarter[19].

The carer wage is based on the Care and Support Workers Pay Equity Settlement for the year beginning 1 July 2022[20]. The Settlement actually specifies five wage levels, varying from $22.49ph to $28.25ph depending on carer's qualifications or years of experience or service. We have used the $26.16ph wage paid for a level 3 role or 8 years of service. If we used the upper wage of $28.25ph, the central estimate of the economic value of carers increases to $19.0bn (an 8% rise) or 5.8% of GDP.

Estimating time spent caring

Table 8 uses estimates of the time spent caring based on Stats NZ's 2009/10 Time Use Survey. The same data source was used in the 2014 analysis.

Based on the 2009/10 Time Use Survey the average family caregiver devotes 30 hours per week or more than one-quarter of their waking time to providing caregiving services every week of the year.

The 2009/10 Time Use Survey was a sample survey which is subject to sample measurement error. We use the sample error estimates from the Time Use Survey to

[18] https://immigrant.kiwi.nz/median-wage-increases-to-27-76-in-july/

[19] Source: Stats NZ, Quarterly Employment Survey

[20] https://www.health.govt.nz/new-zealand-health-system/pay-equity-settlements/care-and-support-workers-pay-equity-settlement/support-workers-minimum-wage-rates-update

provide an indication of the sensitivity of estimates to measurement error. The Time Use Survey indicates a 21-23% sample error rate for questions regarding unpaid care. This implies that the low-end estimate from the Time Use Survey is just under 24 hours of care provided per carer each week and the high end estimate is 36 hours of care provided per carer each week (see Table 8).

The 2021 State of Caring Survey results[21] showed much higher estimates of caring hours. We have used time survey estimates in our analysis, despite it being less recent. The Time Use Survey was based on a diary of actual activities, carefully coded, from a representative sample. The State of Caring survey in contrast is subject to both self-selection and recall biases. The distribution of the survey through carer networks might also have skewed the results towards people with more significant caring responsibilities, assuming these types are carers are more likely to be part of a caring network. For example, respondents may have had difficulty distinguishing between attendance (e.g. being at home) and care activities. In the Time Use Survey respondents would have been forced to follow rules to distinguish caring activities. No such distinctions can be assumed in the 2021 State of Caring Survey. This might explain why more than half of respondents in the State of Caring Survey said caring took up more than 90 hours per week.

We recognise that there are many grey areas in terms of what might be considered 'care'. For example, should cooking for a disabled child be considered caring or is this any different to cooking for a non-disabled child? This dilemma often arises in negotiations between the Government and carers with ACC, for example, not paying carers for 'natural support' despite the fact that carers are unable to engage in other activities (such as work and leisure) while they perform cooking, cleaning and other duties for a person who can't do these things themselves.

Comparing our latest estimates with the 2014 results

Table 9 compares our current estimates of the replacement value of carers with the results of our 2014 analysis. Our 2014 and 2022 estimates differ in terms of the wage rates used, and the estimate of GDP. The estimates of time spent caring remain the same. And the Census count of carers in 2013 and 2018 were virtually the same (see the earlier section *A potential under-count of carers)*.

Consequently our estimates of the replacement value of carers have changed only to the extent that wage rates have kept pace with GDP. The median wage and the health care industry wage rates used in the 2014 and 2022 analysis increased only 29% and 30% respectively. Consequently the replacement values of carers based on these wage rates have fallen as a % of GDP. The minimum wage and the carer wage have risen slightly more than GDP so the replacement values of carers based on these wage rates have risen slightly as a % of GDP.

[21] Source: Synergia (2022)

Table 9

Central estimates of replacement value of carers

	Wage rates			% of GDP	
	2014	2022	2014-22	2014	2022
Minimum wage	$13.75	$21.50	56%	4.3%	4.4%
Carer wage	$16.10	$25.00	55%	5.0%	5.1%
Median wage	$21.58	$27.76	29%	6.7%	5.7%
Health care industry wage	$28.63	$37.31	30%	8.9%	7.7%

Source: Stats NZ, Infometrics

Economic sacrifice of caregiving

Aside from the economic value of the care that carers give – for which they are largely uncompensated – time spent caring also incurs sacrifices for carers because they are unable to perform other tasks such as paid work, leisure activities, or looking after their own health. Reduced ability to work results in lost earnings and lost Kiwisaver contributions. The broader effects of lost leisure and respite result in a loss of wellbeing. Analysis of the 2021 State of Caring Survey suggests that:

- Carers are more likely to be dissatisfied with their lives than the general population.
- This dissatisfaction is associated with carers facing financial distress, and that
- Financial distress is associated with carers making some form of earning sacrifice such as giving up work, reducing hours of work or shifting into a lower responsibility role to accommodate caring.

This section looks at the income penalty that carers incur as a result of their caring responsibilities, and examines why this penalty occurs. It is followed by a more in-depth analysis of the revenue (earnings and employer/Government Kiwisaver contributions) that carers sacrifice and how these accumulate over time.

Carers have lower household incomes

Non-carers have a higher median household income than carers (see Table 10). Based on the 2018 Census:

- non-carers had a median household income of $97,400 compared with $87,100 for carers – an income penalty for caring of 10.6%. This penalty has changed little since 2013.

Household carers have a slightly higher median income compared with non-household carers. Based on the 2018 Census:

- household carers had a median income of $87,700 compared with $86,100 for non-household carers.

Table 10

Carers' household incomes, 2001-18

Carer type	2001	2006	2013	2018
	Household median income, $			
Household carers	$44,657	$58,432	$70,671	$87,700
Non-household carers	$44,318	$57,398	$69,741	$86,100
Total carers	$44,478	$57,911	$70,445	$87,100
Non-carers	$48,891	$63,533	$78,480	$97,400
	Carer income penalty, $			
Household carers	$4,234	$5,101	$7,808	$9,700
Non-household carers	$4,573	$6,135	$8,739	$11,300
Total carers	$4,413	$5,622	$8,034	$10,300
	Carer income penalty, % of median non-carer income			
Household carers	8.7%	8.0%	9.9%	10.0%
Non-household carers	9.4%	9.7%	11.1%	11.6%
Total carers	9.0%	8.8%	10.2%	10.6%

Source: Stats NZ

Carers' incomes affected by their working hours

Carers' household incomes are affected by their ability to work and the low second income in households where the second adult has a disability or long-term sickness that renders them unable to work and dependent on benefits. When labour force status and working hours are taken into account, carers (especially non-household carers) have higher median personal incomes than non-carers (see Table 11) but lower household incomes.

Table 11

Carers' personal incomes by labour force status, 2018

Labour force status	Total carers	Non-carers	Income penalty
Employed Full-time	$ 57,000	$ 55,900	102%
Employed Part-time	$ 23,500	$ 20,400	115%
Unemployed	$ 12,200	$ 7,700	158%
Not in the Labour Force	$ 17,500	$ 16,400	107%

Source: Stats NZ

Household carers have a slightly higher median household income compared with non-household carers, but a lower median personal income. This suggests that household carers' household incomes are being supplemented by benefits, superannuation and other sources to a greater extent than non-household carers' household incomes.

Carers are less likely than the total adult population to be working full-time (see Table 12). Based on the 2018 Census:

- 46% of carers were working full-time compared with 50% of the total adult population,

- 17% of carers were working part-time compared with 14% of the total adult population, and
- 5.1% of carers were unemployed compared with 3.9% of the total adult population,
- 32% of carers were not in the labour force compared with 32% of the total adult population.

There are numerous reasons why people are not in the labour force such as retirement, looking after children, studying, or looking after another adult. We would expect that compared with the total adult population, the 32% of carers who are not in the labour force are more likely to be so because of their caring responsibilities.

Compared with non-household carers, household carers were less likely to be in the labour force, more likely to be unemployed, less likely to be working part-time and less likely to be working full-time. It could be that caring for a household member such as a child or spouse requires a greater time commitment than, say, caring for an elderly relative in another household. This would explain household carers' lower employment rates. These differences in labour force characteristics are evident across all qualification levels.

Table 12

Carers' labour force status, 2018

% of carers, total adults

Carer type	Employed Full-time	Employed Part-time	Unemployed	Not in the Labour Force
Household carer	45%	16%	5.7%	34%
Non-household carer	46%	18%	5.1%	30%
Total carers	46%	17%	5.1%	32%
Total adults	50%	14%	3.9%	32%

Source: Stats NZ

Carers' reliance on part-time work has changed little between 2006 and 2018, reflecting a similar trend across the whole adult population (see Table 13).

Table 13

Carers' reliance on part-time work, 2018

Carer type	% of working-age population			Quotient		
	2006	2013	2018	2006	2013	2018
Household carer	16%	15%	16%	110%	111%	110%
Non-household carer	18%	18%	18%	126%	130%	128%
Total carers	17%	16%	17%	117%	121%	118%
Total adults	14%	14%	14%	100%	100%	100%

Source: Stats NZ

Looking at hours worked in more detail, compared with the total employed adult population, employed carers are less likely to work 40-49 hours per week and are more likely to work 10-39 hours per week (see Table 14). Based on the 2018 Census:

- 39% of employed carers worked 40-49 hours per week compared with 46% of the total employed adult population,
- 37% of employed carers worked 10-39 hours per week compared with 31% of the total employed adult population.

Table 14

Employed carers' hours worked, 2018

% of employed carers, employed adults

Type of carer	1-9	10-19	20-29	30-39	40-49	50-59	60+
				Employed carers			
Females	8%	11%	17%	20%	32%	7%	5%
Males	4%	4%	5%	10%	49%	17%	11%
Total	6%	9%	12%	16%	39%	11%	7%
				Employed adults			
Females	7%	10%	15%	20%	38%	6%	4%
Males	4%	4%	5%	9%	53%	16%	9%
Total	6%	7%	10%	14%	46%	11%	6%

Source: Stats NZ

Carers less likely to be earning wages

Compared with the total adult population, carers are less likely to be earning wages but are more likely to be deriving income from self-employment (see Table 15). Based on the 2018 Census:

- 57% of carers derived income from wages compared with 61% of the total adult population,
- 17% of carers derived income from self-employment compared with 15% of the total adult population, and

The proportion of carers deriving income from some form of employment is similar to the total adult population, reflecting the fact that carers are just as likely to be in work (see Table 12).

Carers are more likely than non-carers to have income from benefits or allowances.

- 8.2% of carers had income from Jobseeker Support or Sole Parent Benefit compared with 7.8% of the total adult population reflecting the fact that carers were more likely to be unemployed.
- 4.5% of household carers and 3.0% of non-household carers had income from the Supported Living Payment compared with 1.8% of the total adult population.
- 25% of non-household carers and 17% of household carers had income from interest, dividends, rent and other investment compared with 17% of the total adult population. This reflects the fact that non-household carers tend to be older than household carers. Older people are more likely to derive income from investments.

Table 15

Carers' source of household income, 2018

% of carers, total adults

	Household carers	Non-household carers	Total carers	Total adults
No source of income during that time	7%	4%	5%	6%
Wages, salary, commissions, bonuses etc	56%	58%	57%	61%
Self-employment or business	16%	19%	17%	15%
Interest, dividends, rent, other investments	17%	25%	22%	17%
Regular payments from ACC or a private work accident insurer	2%	2%	2%	2%
New Zealand Superannuation or Veteran's Pension	17%	20%	19%	17%
Other superannuation, pensions, or annuities	3%	3%	3%	2%
Jobseeker Support	5%	5%	5%	6%
Sole Parent Support	4%	3%	3%	2%
Supported Living Payment	5%	3%	4%	2%
Student Allowance	2%	2%	2%	2%
Other government benefits, payments or pension	8%	5%	6%	4%
Other sources of income	2%	2%	2%	2%

Source: Stats NZ

Carers' sources of income have changed very little since 2013. The biggest change is that the proportion of carers with income from superannuation has grown from 16% to 19%, which is consistent with the aging of the carer population shown in Chart 3.

Table 16

Carers' income source, difference from total adults, 2018

Carer % less total adult %

	Household carers	Non-household carers	Total carers
No source of income	0%	-2%	-1%
Wages, salary, commissions, bonuses etc	-5%	-2%	-4%
Self-employment or business	1%	4%	3%
Interest, dividends, rent, other investments	1%	8%	6%
Benefits or allowances	8%	2%	4%
Super, annuities or pensions	-1%	4%	3%

Source: Stats NZ

A quarter of carers have a degree or higher qualification

Carers have broadly similar qualification levels to the total adult population which suggests that educational attainment is not responsible for carers' lower household incomes. However, household carers have lower qualifications than non-household carers (see Table 17) which explains why the latter have slightly higher personal incomes. Based on the 2018 Census:

- 19% of household carers had no qualification compared with 15% of non-household carers and 18% of the total household population, and
- 24% of household carers had a Bachelor degree or above compared with 27% of non-household carers and 26% of the total household population.

Holding a Bachelor degree is highest among people aged 25-44 years. So, the younger age profile of household carers compared with non-household carers skews the proportion of household carers with a Bachelor degree upwards. However, non-household carers have higher qualifications than household carers across all age groups.

Between 2013 and 2018, the proportion of carers with a Bachelor degree or above has jumped from 19% to 26%. This jump reflects a similar change across the adult population as a whole. So carers' are managing to keep up with the broader population despite their caring responsibilities.

Table 17

Carers' qualification level, 2018

% of carers, total adults

Carer type	Household carers	Non-household carers	Total carers	Total adults
No qualification	19%	15%	17%	18%
Level 1 certificate	12%	13%	12%	11%
Level 2 certificate	10%	11%	10%	10%
Level 3 certificate	11%	10%	10%	11%
Level 4 certificate	9%	10%	9%	8%
Level 5-6 diploma	11%	13%	12%	10%
Bachelor degree and above	24%	27%	26%	26%
Other	5%	3%	4%	6%

Source: Stats NZ

Table 18

Qualification quotient, 2018

Relative to total adults

Carer type	Household carers	Non-household carers	Total carers
No qualification	104%	85%	94%
Level 1 certificate	105%	113%	109%
Level 2 certificate	103%	109%	106%
Level 3 certificate	100%	93%	95%
Level 4 certificate	113%	116%	113%
Level 5-6 diploma	111%	132%	122%
Bachelor degree and above	92%	102%	98%
Other	73%	42%	58%

Source: Stats NZ

Carers more likely in professional, personal service and clerical roles

Household carers are less likely than non-household carers to work in professional, community and personal service, and clerical and administration roles, and are more

likely to work in technician and trade, sales, machinery operator and labourer roles. This skewing of household carer work towards lower-skilled roles reflects household carers' lower qualifications. Based on the 2018 Census:

- 27% of carers worked in professional roles compared with 25% of the total adult population,
- 12% of carers worked in community and personal service roles compared with 9% of the total adult population,
- 13% of carers worked in clerical and administration roles compared with 11% of the total adult population,
- 9% of carers worked in technical and trade roles compared with 12% of the total adult population, and
- 7% of carers worked in sales roles compared with 9% of the total adult population

Table 19

Carers' occupation, 2018

% of carer type, total adults

Carer type	Household carers	Non-household carers	Total carers	Total adults
Managers	18%	18%	18%	19%
Professionals	26%	28%	27%	25%
Technicians and Trades Workers	10%	8%	9%	12%
Community and Personal Service Workers	11%	13%	12%	9%
Clerical and Administrative Workers	12%	13%	13%	11%
Sales Workers	8%	7%	7%	9%
Machinery Operators and Drivers	5%	4%	5%	5%
Labourers	10%	8%	9%	10%

Source: Stats NZ

Between 2013 and 2018 the proportion of carers employed as professionals increased from 19% to 27%, and the proportion employed as managers has increased from 15% to 18%. The proportion employed as technicians and trade workers fell from 15% to 9%. All these changes reflect similar trends across the entire workforce.

Table 20

Occupation quotient, 2018

Relative to total adults

Carer type	Household carers	Non-household carers	Total carers
Managers	94%	94%	95%
Professionals	104%	115%	110%
Technicians and Trades Workers	83%	72%	78%
Community and Personal Service Workers	126%	140%	130%
Clerical and Administrative Workers	108%	118%	114%
Sales Workers	87%	82%	85%
Machinery Operators and Drivers	99%	72%	84%
Labourers	99%	82%	88%

Source: Stats NZ

Differences between female and male carers

This section outlines the key differences between the economic sacrifices made by female and male unpaid carers. With almost two-thirds of carers being female, there is a clear gender imbalance in the economic sacrifice made by unpaid carers. The key difference is that female carers who are in work tend to work fewer hours than male carers and are more likely to be out of the labour force. This is despite the fact that female carers tend to be more highly qualified. Female carers' employment is also concentrated across a different range of occupations.

These differences in labour force status and occupational employment between female and male carers reflect to a large degree differences between all adult females and males. However, the key difference is that female carers are more likely to work part-time compared with the total female adult population.

Based on the 2018 Census, Female carers had a lower household income than male carers: $84,200 compared with $91,900. This is because female carers have lower employment rates and work fewer hours than male carers, and that female carers are more likely to be in sole parent households, rather than couple households. Sole parent households tend to have lower incomes because there are fewer adults in the house to earn an income.

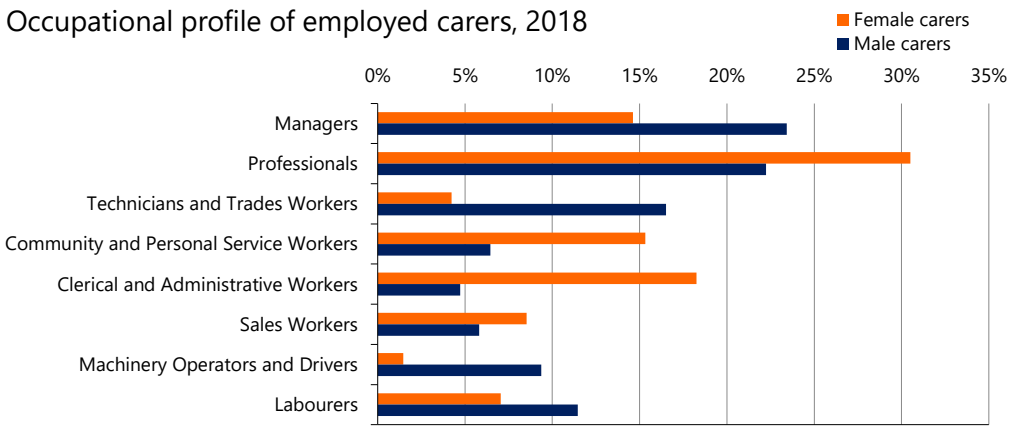
The income penalty for caring was very similar for both males and females (10%), which was very similar to the income penalty in 2013.

Based on the 2018 Census:

- Female carers were less likely to be in work: 60% of female carers were in work compared with 67% of male carers.
- Female carers were more likely to be working part-time: 22% of female carers worked part-time compared with 9% of male carers, and compared with 19% of the total female adult population.
- Female carers were less likely to be working full-time: 38% of female carers worked full-time compared with 58% of male carers.

- Female carers were more likely to be out of the labour force: 35% of female carers were not in the labour force compared with 28% of male carers.
- Female carers were more likely to be unemployed: 5.3% of female carers were unemployed compared with 4.7% of male carers.
- Female carers were more likely to derive income from Sole Parent Support: 5% of female carers derived income from this source compared with 1% of male carers.
- Female carers were less likely to derive income from self-employment: 15% of female carers derived income from this source compared with 22% of male carers.
- Female and male carers were just as likely to derive income from wages and salaries.
- Female carers were less likely to have a trade level qualification and more likely to have a higher qualification: 8% of female carers had a level 4 certificate compared with 15% of male carers; 24% of female carers had a level 6-7 diploma or Bachelor degree compared with 18% of male carers.
- Employed female carers were less likely to be employed in manager, technicians and trade, machinery operator or labourer roles, and were more likely to be employed in professional, clerical and administration, community and personal service and sales roles.

Chart 5



Carer income differences across age groups

This section looks at how carers' income sacrifices vary across age groups. Non-carers have a higher median income than carers across all age groups. It is particularly concerning that the income penalty for caring is highest among younger carers. At a time when most young people are starting to enjoy the fruits of a working income, build up assets, save money for an overseas experience and/or a deposit on a house, young carers are already falling behind their peers because of their caring responsibilities.

Based on the 2018 Census:

- The income penalty for caring peaks at 18.4% for 25-29 year olds and falls to just 0.2% for people aged 65+.

- In the prime working age groups (25-59 years), the proportion of carers working full-time is fairly consistent at roughly 59%, as is the proportion working part-time at roughly 17%, and the proportion not in the labour force at roughly 19%.
- The carer unemployment rate falls steadily from a high of 17% among 15-19 year olds to 1% among people aged 65+.

These labour force characteristics reflect the characteristics of the whole adult population. However, across almost every age group carers are less likely to be employed full-time and more likely to be employed part-time, or to be unemployed or not in the labour force. The higher carer unemployment rate is particularly noticeable among younger carers.

In the prime working age groups (25-59 years), among carers in work, younger carers tend to work more hours per week, reflecting a similar trend across the total employed adult population. However, compared with the total adult population, carers are less likely to work 40-49 hours, and more likely to work fewer hours across all age ranges.

In the prime working age groups (25-59 years), younger carers are more likely to derive income from wages and salaries and government benefits; older carers are more likely to derive income from self-employment and investments. These income patterns reflect similar trends across the whole adult population. A key difference is that across all prime working age groups, carers are less likely to derive income from wages and salaries and are more likely to derive income from benefits compared with the total adult population.

Younger carers tend to be more highly qualified:[22] 33% of carers aged 25-44 years had a Bachelor degree or higher compared with 26% of carers aged 45+, 12% of carers aged 25-44 years had no qualification compared with 21% of carers aged 45+.

The carer qualification profile reflects qualification levels held across different age groups in the total adult population. However, across younger age groups, carers are less likely to have a Bachelor degree or higher compared with the total population, and are more likely to have a lower qualification or no qualification. In contrast, older carers are less likely than the total adult population to have no qualification.

Younger carers are less likely to work in managerial roles and are more likely to work in technical and trade, and community and personal service roles. This reflects the occupational profile of the employed adult population as a whole. However, compared with the employed adult population as a whole across all age groups, carers are less likely to work in managerial roles and technical and trade roles and are more likely to work in community and personal service roles. Older carers are also more likely to work in professional roles, and less likely to work in machinery operator and driver and labourer roles compared with the older employed adult population.

Differences between household and non-household carers

This section looks at how the income sacrifice that carers incur compares between household and non-household carers. In 2018, household carers had a slightly higher median household income than non-household carers: $87,700 compared with $86,100.

[22] 15-19 year olds are an exception because many have not yet finished their education.

This difference is despite household carers being less likely to be employed. However, among those carers who are employed, household carers are more likely to work full-time. This could explain why employed household carers have higher median household incomes than employed non-household carers.

Among carers who are out of work, household carers have lower median personal incomes but higher median household incomes, with benefits and allowances (for which their partner is eligible) most likely making up the difference. Based on the 2018 Census:

- The income penalty is higher for non-household carers: 10% for household carers and 11.6% for non-household carers (see Table 10).
- Household carers aged 35-39 years have a higher median income than non-household carers of the same age. Among younger and older carers, non-household carers have higher median incomes.
- Non-household carers are more likely to be in work: 65% compared with 60% of household carers. There is very little difference between household and non-household employed carers' reliance on part-time work. This result applies across all age ranges, and across females and males. However, household carers are slightly more likely to work 40+ hours a week: 51% compared with 48% of non-household carers.
- Household carers who are in work have a higher median personal income than non-household carers in work. Household carers who are not in work have a lower personal median income than non-household carers not in work. Household carers have higher median household incomes than non-household carers regardless of their labour force status. This suggests household carers who are out of work have additional sources of income that non-household carers do not have.
- Household carers are more likely to receive income from benefits or allowances, non-household carers (particularly older carers) are more likely to receive income from investments and superannuation. The income that household carers receive from benefits and allowances could explain why their median household income when out of work is higher than that of non-household carers, despite their median personal income being lower.
- The occupations in which household and non-household carers are employed are broadly similar. Household carers are slightly more likely to work in lower-skilled labourer, machinery operator and driver and sales roles, as well as technician and trade roles. Non-household carers are slightly more likely to work in higher-skilled professional roles, as well as community and personal service, and clerical and admin roles.
- Non-household carers are more highly qualified than household carers: 35% had a level 6 diploma or above compared with 31% of household carers, 16% of non-household carers had no qualification compared with 20% of household carers. This finding is consistent with household carers being more likely to be employed in lower-skilled roles.

COVID-19

The onset of the COVID-19 pandemic made a very challenging situation all the more difficult for unpaid carers, with household management services, support worker visits, and other help being cut off. Children had to remain at home rather than go to school and, like the general population, carers' employment was disrupted. This left unpaid carers isolated, exhausted and more anxious about their financial situation.

The Caring in Lockdown Survey[23] found that:

- 64% of unpaid carers provided more care during COVID-19, 51% of whom did so because of services being reduced or closed,
- 76% of carers spent more money, 64% on food and 46% on household bills,
- During lockdowns, 16% either lost their jobs or were unable to work because of Alert Level rules, and
- 37% reported feeling overwhelmed and worried about burning out.

More recently, the sharp rise in the cost of living has left unpaid carers vulnerable. Households with carers and people with disabilities or long-term sickness tend to be lower income households, and already face higher living costs as a result of their additional needs. Rising inflation on essential items such as food, fuel and energy, as well as the rising cost of external support workers due to labour shortages, is stretching carers' budgets and in all likelihood plunging many of them into financial hardship, if they were not already.

Aside from the day-to-day financial challenges, carers also worry about saving for the future to ensure the person they care for will be financially secure if they fall ill themselves or die.

[23] Source: Carers New Zealand

Lost revenue from caring

This section presents estimates of the total revenue per annum that is lost to carers from not working or working fewer hours. We also examine carers who work past retirement age, presumably because they do not have the financial resources to retire, and we attempt to project the revenue that carers lose over time.

Lost revenue per annum

We estimate that carers lose $1,536m in revenue per annum. The vast majority (97.3%) is lost earnings, a further 2.2% is from lost employer Kiwisaver contributions and 0.5% from lost government Kiwisaver contributions. See Table 21.

Two-thirds of the lost revenue is lost by female carers. The revenue lost by carers unable to work at all makes up 51% of the total. The remaining 49% is lost by carers working fewer hours compared with non-carers.

Table 21

Lost revenue to carers and lost tax revenue

	Lower employment rate	Fewer working hours	Total
		Lost earnings	
Female	$ 503,553,925	$ 495,761,771	$ 999,315,696
Male	$ 261,985,471	$ 233,087,200	$ 495,072,671
Total	$ 765,539,396	$ 728,848,971	$1,494,388,367
		Lost employer Kwiwsaver constributions	
Female	$ 11,481,029	$ 11,303,368	$ 22,784,398
Male	$ 5,973,269	$ 5,314,388	$ 11,287,657
Total	$ 17,454,298	$ 16,617,757	$ 34,072,055
		Lost government Kwiwsaver constributions	
Female	$ 4,080,213	$ 1,072,884	$ 5,153,096
Male	$ 1,885,544	$ 180,979	$ 2,066,523
Total	$ 5,965,757	$ 1,253,863	$ 7,219,620
		Total losses to carers	
Female	$ 519,115,167	$ 508,138,023	$1,027,253,190
Male	$ 269,844,284	$ 238,582,567	$ 508,426,851
Total	$ 788,959,451	$ 746,720,590	$1,535,680,041
		Lost tax revenue	
Female	$ 181,883,678	$ 179,069,152	$ 360,952,829
Male	$ 94,629,152	$ 84,191,097	$ 178,820,249
Total	$ 276,512,830	$ 263,260,248	$ 539,773,078

Source: Infometrics

To derive these estimates we compare employment rates and hours worked of carers and non-carers, across age groups and sex. Carer employment rates are lower than non-carers. Carers also work fewer hours than non-carers. Lost revenue is calculated as the difference between carers and non-carers in terms of lost hours, average hourly wage rates, and employer Kiwisaver contributions at 3% of earnings. Appendix 1 outlines a more detailed methodology.

Making up for lost earnings

Female carers aged 65 and over are more likely to be employed than female non carers. Male carers are employed at the same rate as male non-carers.

- In 2018, 22% of female carers aged 65+ years were employed compared with 17% of female non-carers of the same age.

Carers may be forced to work beyond the traditional retirement age because their caring responsibilities meant they were unable to earn (and then save) enough money for retirement.

- If female carers aged 65+ years were employed at the same rate as female non-carers, this would mean 2,800 fewer female carers working past the retirement age.

Carers aged under 65 years are also more likely than non-carers of the same age to be working 50 or more hours per week. This could be to cover existing costs of caring, or carers could be working more hours to make up for working fewer hours (and having lower earnings) in previous years.

- In 2018, if carers aged under 65 years worked the same hours as non-carers of the same age, 4,100 fewer carers would need to work 50 or more hours per week (2,100 female carers and 2,000 male carers).
- We assume that long working weeks (50 hours or more) reflect necessity rather than preference. So for the remainder of this section our calculations focus on work of fewer than 50 hours per week.

Projected lost revenue

Projecting revenue lost to carers over several years is dependent on the precise circumstances of carers, in particular how long they remain out of work or work fewer hours as a result of their caring responsibilities. We don't have data on which to base these estimates. Instead we have created three scenarios which reflect different types of carer situations.

These scenarios use hourly earnings data taken from the June quarter 2022 Household Labour Force Survey. This data source estimates hourly earnings across males and females, ethnicities, age groups and for part-time and full-time work.

Scenario 1

A female carer who works 30 hours per week instead of 40 between the ages of 35 and 65

This carer sacrifices $896,000 in lost revenue during the time that she is working part-time. This comprises $888,000 in lost gross earnings and $8,000 in lost employer Kiwisaver contributions. She would still receive the maximum government Kiwisaver contributions while working part-time so there is no loss in revenue from that source. This sacrifice is equivalent to 12 years working full-time at the female average full-time wage. An estimated $284,000 would also be lost to the government in terms of tax paid by carers on gross earnings.[24]

Scenario 2

A female carer who retires early at age 45 having previously worked full-time

This carer sacrifices $1,651,000 in lost revenue as a result of retiring early. This comprises $1,628,000 in lost gross earnings and $23,000 in lost employee and government Kiwisaver contributions. An estimated $358,000 would also be lost to the government in terms of tax paid by carers on gross earnings.

Scenario 3

A young Māori female who cares for an elderly relative between the ages of 18 and 34, delays post-school study for four years until age 22, and enters the workforce at age 25 working part-time until age 34, working full-time thereafter

This carer sacrifices $427,000 in lost revenue, comprising $419,000 in lost gross earnings and $8,000 in lost employer and government Kiwisaver contributions. This sacrifice is equivalent to 5.7 years working full-time at the female average full-time wage. An estimated $92,000 would also be lost to the government in terms of tax paid on gross earnings.

A young carer's sacrifice could be greater due to the scarring effects of entering the labour market later than they would otherwise. These scarring effects could include lower wages or periods of unemployment even when their caring responsibilities have ended. A lack of previous work experience can place young carers at a disadvantage to more experienced candidates when applying for jobs. This is because a lack of work in those early years means young carers miss out on the opportunity to develop job-specific skills and prospective employers use information about previous work experience to gauge a person's attributes. Some researchers also suggest that non-employment may alter individuals' job application behaviour, making them more prone to accept unsuitable or poor quality jobs.[25] These economic effects can be compounded

[24] In all our scenarios we assume current tax rates and that tax brackets increase every year at the same growth rate we have assumed for earnings.
[25] Tanzi, G. M. Scars of Youth Non-employment and Labour Market Conditions (2022)

by wellbeing effects associated with living on a lower income, the psychological distress of unemployment, and dissatisfaction with career progression later in life.[26]

To project lost revenue across the three scenarios we use current estimates of average hourly earnings for sex, age group, ethnicity and full-time/part-time status from the June quarter 2022 Household Labour Force Survey. Earnings are assumed to grow over time at the long-term average annual growth rate of 3.7%pa. Employer Kiwisaver contributions are assumed to be 3% of earnings. Estimates of lost government Kiwisaver contributions are based on current policy settings. To calculate net present value we use discount rates relating to the rise in consumer prices of 2%pa, a risk-free rate of interest on savings of 0.65%pa, and an equity risk premium of 7%pa. Appendix 1 outlines a more detailed methodology.

[26] Source: Egdell, V. & Beck, V. A Capability Approach to Understand the Scarring Effects of Unemployment and Job Insecurity: Developing the Research Agenda

Carer perspectives

Detailed analysis of the 2021 State of Caring Survey is presented in the complementary report: *Analysing the perspective of carers*. The report uses cluster analysis of individual survey responses to examine similarities and differences between different groups of carers. Econometric regression analysis is also used to investigate whether the way people responded to the survey can offer any lessons about problems shared by carers. This econometric regression analysis underpins policy recommendation made in the main report.

The key take-away messages from this analysis include the following.

1. There is a wide range of situations faced by carers as people are caring for a wide range of people (from children to the elderly) with a wide range of mental and physical conditions, with the carers themselves coming from a wide range of backgrounds and stages of life.
2. An implication is that effective supportive policies need to be bespoke and effectively target specific issues faced by individual carers.
3. Having said that, the self-assessed life satisfaction of carers appears to be well below what is typically a high level of life satisfaction by New Zealanders in general.

Our analysis of responses to the 2021 State of Caring Survey suggests that New Zealand would be well served by spending non-trivial amounts on promoting enhanced access of carers to:

- a viable emergency back-up plan and support,
- adequate finances,
- wellbeing support services,
- support from family and friends,
- support from carers' employers,
- support for employers to be carer friendly, and
- support and advice from GPs and primary health.

Policy implications

A full presentation of the analysis underpinning the development of policy recommendations is presented in *Appendix 2: policy recommendation methodology*. Here we discuss the implication of the analysis.

The policy analysis reflects the observation that carers appear to have a low propensity to be satisfied with the life that they are leading. In 2021, Statistics New Zealand reports that 81% of people aged 15 and over in New Zealand responding to the General Social Survey rated their life satisfaction at 7 or over on a scale from 0 to 10 (where 0 is low and 10 is high)[27]. In comparison the 2021 State of Caring Survey indicated that just 32% of carers were either satisfied or very satisfied with life. Just as many carers were likely to report that they were somewhat or very unsatisfied with life.

[27] https://www.stats.govt.nz/information-releases/wellbeing-statistics-2021/

One always needs to be cautious comparing results between different surveys, but it does appear that carers are considerably less likely to be satisfied with their lives than the typical New Zealander. It does not suggest that unpaid carers are obtaining sufficient other forms of life-affirming paybacks from caring that justifies, in their minds at least, the sacrifices that they have made. This perspective is perhaps reflected in just 29% of carers responding that they felt that their role was valued by society.

The policy analysis therefore focuses on using individual responses to the 2021 State of Caring Survey to identify issues that are likely to be associated with either reducing life dissatisfaction or promoting life satisfaction for carers. These results are then valued by Treasury recommendations for valuing life satisfaction (using the wellbeing year values recommended in the Treasury CBAx model). Using these values we match breakeven policy budgets (on a per person per year basis) with policies that appear likely to improve carer wellbeing. That is, effective policies that have a lower per person annual spend are likely to generate net national wellbeing benefits.

Policies such as the universal provision of emergency plans and encouragement of employer support for carers in particular appear to be low hanging fruit in the support for caring policy space; they are likely to produce very large net national wellbeing benefits for modest amounts of public investment. Emergency plans and helping carers understand their training and employment options, and carer advocacy with employers, are also initiatives that are likely to provide wellbeing benefits to a wide range of carers. According to the 2021 State of Caring Survey, such initiatives could result in a material improvement in wellbeing perceptions for two-thirds to three-quarters of carers in New Zealand.

Other policy initiatives highlighted are more likely to have ongoing costs. However, our initial estimates suggest that there is plenty of scope for New Zealand to increase its public investment and support for carers and generate net wellbeing benefits. For example, the wellbeing benefit from supporting carers to have workable emergency plans and improved support and advice from GPs and other primary health care providers, looks sufficient to generate national wellbeing gains even from reasonably generous schemes such as free GP visits for carers.

There also seems to be scope for providing meaningful financial support and/or the funding of direct wellbeing support to carers (e.g. access to respite care, counselling, nursing support, equipment, etc) that would generate net national wellbeing benefits. Although it is not clear to what extent financial support might be an alternative to spending on wellbeing support[28], there appears to be scope for enhancing national wellbeing by increasing public spending on supporting carers. Our initial estimates suggest that financial or in-kind support to the tune of $20,000 to $40,000 per carer per year would have a net positive impact on national wellbeing (the derivation of this assessment is presented in Appendix 2).

We also note the importance of bespoke support packages. Our cluster analysis of the 2021 State of Caring Survey has demonstrated there is a wide variety of caring activities

[28] At least part of the financial distress experienced by carers appears to relate to personal expenditure and/or lost earnings resulting from caring activities. Providing financial assistance can provide carers with greater flexibility to manage their affairs and afford caring support. Alternatively, the provision of in-kind support, eg respite care, equipment etc, can reduce carers' call on their own finances. Here we would note the importance of bespoke support packages.

and personal circumstances. Matching support to individual circumstances is likely to be more effective both in terms of wellbeing benefits and cost efficiency.

In this regard, the final policy domain highlighted in the tables is in one sense the most straightforward, but also perhaps the most difficult to be supported by government policy. Caring can make it difficult for carers to lead ordinary lives, to do the activities they enjoy and be able to meet up with friends and family. Financial support can help give people flexibility, but it may not be the solution to issues of loneliness or lost opportunities to do things that are of value to individual carers.

There may not be any clear and obvious policy solutions that will help carers do the things that they value. Responses to other parts of the 2021 State of Caring Survey, however, do provide some pointers towards the types of support that might make a meaningful difference for carers:

- For carers susceptible to loneliness, it would appear that access to respite care, access to support in times of stress or emergency, and support increasing accessibility for the person(s) they care for appear important.
- Ready access to appropriate information appears important for reducing carer stress, with issues related to the transition from child to adult services a particularly stressful issue for parents.
- Supporting physical health seems to be an important mechanism for reducing mental health pressures.
- And financial support seems important for supporting both physical and mental health.

Appendix 1: revenue loss methodology

Annual loss of revenue to all carers

Lost revenue estimates are derived by comparing employment rates and hours worked for carers and non-carers. We have assumed 3% Kiwisaver contributions, making our estimates of lost employee Kiwisaver contributions conservative.

Lost revenue from lower carer employment rates

We estimate that approximately 14,400 additional carers (9,400 female carers and 5,000 male carers) would be in work if the age by sex employment rates of carers aged under 65 years were the same as non-carers.

If these out of work carers worked the same hours as non-carers (up to 49 hours per week), that would result in an additional 410,300 hours worked per week (275,000 additional hours for female carers and 135,300 for male carers).

Our hours data is in bands. We use the mid point in each band. For example, for carers working 10-19 hours per week, we assume an average of 15 hours a week. The exception is the 40-49 hours band. Here we assume the average is 40 hours.

Based on average hourly earnings for the June 2022 quarter[29] of $35.21 for females and $37.24 for males, these lost carer hours worked amount to a loss of $766m earnings per annum ($504m for female carers and $262m for male carers).

Lost employer Kiwisaver contributions, assuming a 3% contribution taxed at the effective marginal tax rate of 24%, amount to $17m per annum ($11m for female carers and $5.9m for male carers).

Estimating lost government Kiwisaver contributions is highly dependent on how many hours would be worked. However, assuming that the out-of-work carers worked the same hours as non-carers, lost Kiwisaver contributions from the government amount to $6.0m per annum ($4.1m for female carers and $1.9m for male carers).

Assuming a 24% effective marginal tax rate[30] on gross earnings and employer Kiwisaver contributions, and a 15% GST rate spent on after tax income, this amounts to an estimated lost tax revenue per annum of $277m.

Lost revenue from employed carers working fewer hours

If working carers worked the same hours as non-carers (up to 49 hours per week), that would result in an additional 391,100 hours worked per week (270,800 additional hours for female carers and 120,400 for male carers).

[29] Source: Household Labour Force Survey
[30] Source: The Treasury, Discount Rates

Based on average hourly earnings for the June 2022 quarter[31] of $35.21 for females and $37.24 for males, these lost carer hours worked amount to $729m lost earnings per annum ($496m for female carers and $233m for male carers).

Lost employer Kiwisaver contributions, assuming a 3% contribution taxed at the effective marginal tax rate of 24%, amount to $16m per annum ($11m for female carers and $5.3m for male carers).

Estimating lost government Kiwisaver contributions depends on existing hours worked and additional hours that would be worked. We estimate that carers working fewer than 20 hours per week would gain additional government contributions from working more hours. Assuming that each carer working under this hours threshold would each receive the full $521.34 from the government if they worked more hours, this amounts to a loss of $1.3m per annum ($1.1m for female carers and $181,000 for male carers).

Assuming a 24% effective marginal tax rate[32] on gross earnings and employer Kiwisaver contributions, and a 15% GST rate spent on after tax income, this amounts to an estimated $263m per annum in lost tax revenue.

Projected lost revenue, scenario analysis

We use June 2022 quarter Household Labour Force Survey estimates of average hourly full-time and part-time female earnings (from wages and salaries) by age group for our earnings estimates. This dataset also offers earnings by age group and ethnicity.[33]

Māori-specific data is available only for Māori female hourly earnings (from wages and salaries) by age group - not for full-time and part-time workers separately. For scenario three we estimated Māori female full-time and part-time earnings (from wages and salaries) by age group by calculating the ratio of Māori female earnings to total female earnings across age groups, and applying the ratio to average hourly full-time and part-time female earnings (from wages and salaries) by age group for all ethnicities.

Future earnings are projected to grow at 3.7% per annum. This growth rate is the average annual growth rate in hourly female earnings (from wages and salaries) from 1998 to 2021 and is therefore assumed to be the long-term average earnings growth rate.[34] Year-to-year growth rates will vary around this average. Recent cost of living pressures, which have caused wages to increase at a faster rate than this long-term average, are an example of this.

To estimate their net present value, projected earnings are discounted at a rate of 2.65% per annum. Future earnings are worth less than current earnings because prices rise over time and current earnings can attract interest in a savings account or other investment. Our discount rate therefore incorporates 2.0% growth in prices and a 0.65% risk-free rate of interest on savings.[35]

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[31] Source: Stats NZ, Household Labour Force Survey
[32] Source: The Treasury, Discount Rates
[33] Source: https://nzdotstat.stats.govt.nz/, Incomes tables
[34] Source: https://nzdotstat.stats.govt.nz/, Incomes tables
[35] Source: The Treasury, Discount Rates

Employer Kiwisaver contributions are 3% of annual projected earnings less the employer superannuation contribution tax (ESCT). We also estimate lost Government Kiwisaver contributions based on current policy settings. To estimate their present value, projected Kiwisaver contributions are discounted at a rate of 9.0% per annum. Future Kiwisaver contributions are worth less than current contributions because prices rise over time and current contributions can be invested in the stock market. Our discount rate therefore incorporates 2.0% growth in prices and a 7.0% equity risk premium.[36]

[36] IBID

Appendix 2: policy recommendation methodology

Lessons from 2021 State of Caring Survey for guiding policy

Probit econometric analysis is used to investigate policy interventions that are likely to have a material impact on the wellbeing of unpaid carers in New Zealand (and by implication potentially on the wellbeing of those cared for).

We focus on influences of life satisfaction as this is likely to be a key way of summarising the state of wellbeing for carers. Individuals place different weights on different life outcomes (material possessions, physical activity, status, spirituality, etc), which means it can be difficult, and perhaps inappropriate, to measure or assess life outcomes for others. But individuals themselves will have a good idea about whether it has been "all worth it".

In 2021, Statistics New Zealand report that 81% of people aged 15 and over in New Zealand responding to the General Social Survey rated their life satisfaction at 7 or over on a scale from 0 to 10 (where 0 is low and 10 is high)[37]. In comparison the 2021 State of Caring Survey indicated that just 32% of carers were either satisfied or very satisfied with life. Just as many carers were likely to report that they were somewhat or very unsatisfied with life. One always needs to be cautious comparing results between different surveys, but it does appear that carers are considerably less likely to be satisfied with their lives than the typical New Zealander. It does not suggest that unpaid carers are obtaining sufficient other forms of life-affirming paybacks from caring that justifies, in their minds at least, the sacrifices that they have made. This perspective is perhaps reflected in just 29% of carers responding that they felt that their role was valued by society.

The probit econometric analysis provides a mechanism for assessing what types of policy interventions carers think are likely to have more profound impacts on their perceptions of life satisfaction. The analysis can be presented both in terms of the expected scale of impact for individual carers, and also in terms of weighting this impact by the prevalence of relevant issues across all carers. The 2021 State of Caring Survey did not collect any objective measurements of respondents' financial situation, so the survey results cannot be used to estimate financial trade-offs associated with life satisfaction. Instead our analysis makes use of the values for wellbeing adjusted life years (WELLBYs) recommended by Treasury in their wellbeing cost benefit analysis model CBAx.[38]

The probit coefficient estimates provide a probability estimate of an explanatory variable being associated with the variable of interest. Thus, for example, in the equation with dissatisfaction with life as the dependent variable[39], the coefficient for "Finances: I am

[37] https://www.stats.govt.nz/information-releases/wellbeing-statistics-2021/

[38] See https://www.treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/plan-investment-choices/cost-benefit-analysis-including-public-sector-discount-rates/treasurys-cbax-tool

[39] Coefficient for variable Q41O in equation 2, Life dissatisfaction in the Appendix.

struggling to make ends meet" is 0.575 (standard error = 0.099), which suggests that there is a 57.5% probability that those who state that they are struggling to make ends meet will also state that they are moderately or very unsatisfied with their life at the moment. By weighting this response by the proportion of respondents that stated that they were struggling to make ends meet we can come up with an estimate of the proportion of carers who would potentially be less dissatisfied with life if they were no longer struggling to make ends meet, i.e. the weighted impact on life satisfaction. In formula terms the weighted impact on life satisfaction is estimated as:

$$WI_i = \beta_i \frac{n_i}{N}$$

That is the weighted impact of factor i is the associated estimated coefficient, β_i, multiplied by the number of people stating that they are impacted by factor i, n_i, as a proportion of the total number of survey respondents, N.

In the situation of finances, 344 of the 1495 survey respondents stated they were struggling to make ends meet. The implication is that 13% fewer respondents were likely to state that they were dissatisfied with life if they were not also struggling to make ends meet (0.575 x 344/1495).

Analysis of the equations investigating life satisfaction and dissatisfaction (equations 1 and 2 respectively in the appendix) produce very similar policy conclusions – that is, the presence of something associated with life satisfaction is similar to that which, when absent, is associated with life dissatisfaction.

Our assessment of the policy implications of these two equations are presented in **Error! Reference source not found.** and **Error! Reference source not found.**. These tables are ranked by the weighted impact on life satisfaction measures (i.e. the percentages presented in the third column of numbers). In the first column is the estimated coefficient. These coefficients can be both negative or positive depending on the direction of impact. Thus for example, the presence of an emergency back-up plan was highly correlated with positive life satisfaction (hence the positive coefficient of 0.436 in **Error! Reference source not found.**) and its absence was highly correlated with low life satisfaction outcomes (hence the negative 0.325 coefficient in **Error! Reference source not found.**). In the second column is the proportion of carers who could potentially benefit from the proposed policy. The weighted impact on life satisfaction in the third column is the product of the of the coefficient and the proportion impacted (e.g. for "having a viable emergency back-up plan in **Error! Reference source not found.**, 29% = 0.436 x 67%).

Policy implications

The two tables indicate that there are likely to be six policies that, if well designed and implemented effectively, are likely to have materially beneficial impacts for the wellbeing of carers in New Zealand (and by implication also for those whom they care for). These policies are about promoting enhanced access to:

- a viable emergency back-up plan and access to emergency support[40]
- adequate finances
- wellbeing support services

[40] By "viable" we mean that funding for support matches the scale of support identified in the emergency back-up plans.

- support from family and friends
- support from the carers' employers
- support for employers to be carer friendly
- support and advice from primary health and GP clinics

The top four policies were strongly supported by correlations identified in the equations for both those satisfied and unsatisfied with life. This evidence of impacts from both presence and absence suggests that, if done well, policies in these areas are highly likely to shift people from being unsatisfied to being satisfied with life. The final two policies were each identified on just one side each, but are included in our list of recommendations as they appear to complement the other recommendations and have the potential to have meaningful impacts on carer wellbeing.

Table 22: Life satisfaction promoting policies

				Breakeven per person per year investment		
				Assumed WELLBY point value		
Policy	Coefficient	Proportion impacted	Weighted impact on life satisfaction	$5,000	$14,000	$22,000
Having a viable emergency back-up plan	0.436	67%	29%	$10,892	$30,496	$47,923
Ensuring support from employer	0.352	76%	27%	$8,798	$24,635	$38,712
Accessing support from family and friends	0.290	69%	20%	$7,254	$20,310	$31,916
Adequate financial support	-0.605	23%	14%	$15,117	$42,327	$66,513
Accessing wellbeing support	-0.393	35%	14%	$9,832	$27,530	$43,262

Table 23: Life dissatisfaction reducing policies

				Breakeven per person per year investment		
				Assumed WELLBY point value		
Policy	Coefficient	Proportion impacted	Weighted impact on life satisfaction	$5,000	$14,000	$22,000
Having a viable emergency back-up plan	-0.325	67%	22%	$8,137	$22,782	$35,801
Accessing support from family and friends	0.417	45%	19%	$10,422	$29,182	$45,857
Enhancing access to GPs	-0.239	60%	14%	$5,987	$16,763	$26,342
Adequate financial support	0.575	23%	13%	$14,385	$40,279	$63,296
Accessing wellbeing support	0.292	35%	10%	$7,303	$20,450	$32,135

Matching spend to policy benefit

Values for wellbeing adjusted life years (WELLBYs), as recommended by Treasury in their wellbeing cost benefit analysis model CBAx, are used for estimating the breakeven per person per year investment[41]. Reflecting the uncertainty associated with valuing wellbeing, the Treasury offer a range of potential WELLBY values in the CBAx, from

[41] Essentially a WELLBY is a method of monetising the benefit people obtain from a unit improvement in self-assessed life wellbeing. Another way of thinking about it is that a WELLBY represents the amount of financial compensation the average person would accept for accepting a situation that lowers their wellbeing. There is also a time dimension to the concept, with the "Y" standing for year and signifying that the value relates to an annual payment. This also means that a 10% reduction in wellbeing over an entire year is valued the same as a 20% reduction over six months. Of course, individuals will place different values on changes in subjective wellbeing. What the concept is trying to measure is the average value in order to assist policy makers to design policies whereby the expected wellbeing benefit is proportional to the costs of implementing the policy. For a fuller account and definition of WELLBYs see https://worldhappiness.report/ed/2021/living-long-and-living-well-the-wellby-approach/#:~:text=A%20natural%20name%20for%20the,%2DYear%20(or%20WELLBY).

$5,000 to $22,000 per point increase in a 10 point wellbeing scale. We provide estimates for the low, mid and high WELLBY point values in the tables.

- Our presumption is that the effective delivery of policies results in a five point improvement in wellbeing on the Treasury 10-point wellbeing scale. This five-point assumption reflects that our econometric analysis was based on a courser grading of life satisfaction, rather than a ranking from 0 to 10, we have had to use a three-point scale: essentially good, OK, lousy. The value of the breakeven per person per year investment is calculated simply as the absolute sign of the coefficient multiplied by the WELLBY point value multiplied by 5 (as we are assuming a five point improvement in wellbeing.

To illustrate, for the first line in **Error! Reference source not found.**, related to having an emergency back-up plan, the coefficient is 0.436, which multiplied by the middle WELLBY value of $14,000, and then multiplied by 5 gives a breakeven investment estimate of $30,496 per person per year.

The valuations differ slightly between the two tables, as the estimation is of subtly different concepts. In **Error! Reference source not found.**, the measurement is about increasing the probability of carers being satisfied with their lives, while in **Error! Reference source not found.** it is about reducing the probability of carers being dissatisfied with their lives. Thus, continuing to focus on the potential benefit from emergency plans, the examination of carers satisfied with life yields a moderately higher positive correlation (0.436) than the negative correlation (-0.325) identified with carers dissatisfied with life. The direction of impact is the same: having an emergency back-up plan is associated with higher levels of life satisfaction. The scale of the expected impacts are also not drastically different with, for example, breakeven estimates of between $20,000 and 30,000 when using a WELLBY point value of $14,000.

These breakeven values imply that, say for the emergency plan proposal, if a viable emergency plan (i.e. one that is relevant, operational and effective for the individual carer) can be provided for a cost less than $22,782 per person per year then it is highly likely that the proposal will yield net national wellbeing benefits for the country (i.e. the value of the expected wellbeing benefits will exceed the expected costs). With respect to proposals with costs that are dominated by initial set up costs, such as emergency plans and encouraging employer support, it seems highly likely that initiatives can be introduced for costs well under the breakeven value (and so implying very high benefit to cost ratios).

The implication is that promoting and supporting the universal provision of emergency plans and encouragement of employer support are likely to be low hanging fruit in the support for caring policy space; they are likely to produce very large net national wellbeing benefits for modest amounts of public investment. Emergency plans and carer advocacy with employers are also both initiatives that are likely to provide wellbeing benefits to a wide range of carers. According to the 2021 State of Caring Survey, such initiatives could result in a material improvement in wellbeing perceptions for two-thirds to three-quarters of carers in New Zealand.

Other policy initiatives highlighted in the tables are more likely to have ongoing costs. However, these initial estimates suggest that there is plenty of scope for New Zealand to increase its public investment and support for carers and generate net wellbeing benefits. For example, even a scheme that made GP visits free for carers looks highly likely to generate net wellbeing benefits. Taking the most conservative valuation of WELLBYs (i.e. $5,000 per one point improvement) would seemingly justify subsidising GP

visits to a value of up to $6,000 per year per carer, which is more than enough to pay for weekly GP consultations.

The initial estimates provided in the tables suggest that there is also scope for providing meaningful financial and/or the funding of direct wellbeing support to carers (e.g. access to respite care, counselling, nursing support, equipment, etc) that would generate net national wellbeing benefits.

There is potentially some complementarity and substitutability between financial and wellbeing support. At least part of the financial distress experienced by carers appears to relate to personal expenditure and/or lost earnings resulting from caring activities. Providing financial assistance can provide carers with greater flexibility to manage their affairs and afford caring support. Alternatively the provision of in-kind support, e.g. respite care, equipment etc, can reduce carers' call on their own finances. Here we would note the importance of bespoke support packages. As our cluster analysis of the 2021 State of Caring Survey has demonstrated, there is a wide variety of caring activities and personal circumstances. Matching support to individual circumstances is likely to be more effective both in terms of wellbeing benefits and in terms of cost efficiency.

In this regard the final policy domain highlighted in the tables is in one sense the most straightforward, but also perhaps the most difficult to be supported by government policy. Caring can make it difficult for carers to lead ordinary lives, to do the activities they enjoy and be able to meet up with friends and family. Financial support can help give people flexibility, but it may not be the solution to issues of loneliness or lost opportunities to do things that are of value to individual carers.

There may not be any clear and obvious policy solutions that will help carers do the things that they value. Responses to other parts of the 2021 State of Caring Survey, however, do provide some pointers towards the types of support that might make a meaningful difference for carers:

- For carers susceptible to loneliness, it would appear that access to respite care, access to support in times of stress or emergency, and support increasing accessibility for the person(s) they care for appear important.
- Ready access to appropriate information appears important for reducing carer stress, with issues related to the transition from child to adult services a particularly stressful issue for parents.
- Supporting physical health seems to be an important mechanism for reducing mental health pressures.
- And financial support seems important for supporting physical health.