

The economic value and impacts of informal care in New Zealand

**For Carers NZ and the
NZ Carers Alliance**

June 2014

Authorship

This report has been prepared by Dave Grimmond.

Email: davidg@infometrics.co.nz

All work and services rendered are at the request of, and for the purposes of the client only. Neither Infometrics nor any of its employees accepts any responsibility on any grounds whatsoever, including negligence, to any other person or organisation. While every effort is made by Infometrics to ensure that the information, opinions, and forecasts are accurate and reliable, Infometrics shall not be liable for any adverse consequences of the client's decisions made in reliance of any report provided by Infometrics, nor shall Infometrics be held to have given or implied any warranty as to whether any report provided by Infometrics will assist in the performance of the client's functions.

Table of contents

1. Introduction	2
Summary of key findings	2
Demography	2
Economic value.....	2
Economic sacrifice.....	2
2. Demographics of carers	3
Carers typically women	3
And middle aged.....	4
European and Maori more likely to provide family care	5
3. Value to New Zealand from carers	7
Time and numbers	7
Valuing unpaid care.....	7
4. Economic sacrifice of family caregiving	9
Factors contributing to carers' lower incomes and workforce participation....	10
Sources of income	10
Qualifications	11
Occupations.....	12
Hours of work.....	13

1. INTRODUCTION

This report investigates the economic contribution of informal care services in New Zealand, and the economic impacts of family caregiving on workforce participation and household incomes. The analysis is based primarily on Census information. In the first section we present descriptive data about the demographic make-up of caregivers in New Zealand. We then make use of Time Use Survey and wage data to generate estimates of the value New Zealand obtains from unpaid family caregiving. Finally, we provide an estimate of the economic sacrifice made by caregivers and make some tentative exploration of factors that contribute to this sacrifice.

Summary of key findings

Demography

Unpaid caregivers in New Zealand are:

- Twice as likely to be female rather than male.
- Older than the typical New Zealand adult, and their median age is increasing at a faster rate than the national average.
- From all ethnic backgrounds but Europeans and Maori have a higher propensity to undertake family caregiving.

Economic value

The 2009/10 Time Use Survey indicates that 672.2 million hours of care are provided in the nation over an entire year. This means that the average carer devotes more than 1,500 hours per year to caregiving. This is equivalent to 30 hours per week, which is more than one-quarter of their waking time each week.

The value received by New Zealand from unpaid family care is estimated to lie within a range from \$7.3 bn (3.4% of GDP) to \$17.6 bn (8.1% of GDP).

Our central estimate of the value of unpaid family care is \$10.8 bn or 5% of GDP in 2013.

Economic sacrifice

In 2013 the households of unpaid caregivers typically earned 10% less than households without caregiving responsibilities.

Caregivers faced this income penalty despite having a similar propensity to be in paid employment, to be qualified, and work in higher skilled occupations.

Caregivers are more likely to be eligible for some form of benefit and be in part-time employment. Fewer hours of paid employment appears to be an important factor behind caregivers' lower incomes.

2. DEMOGRAPHICS OF CARERS

According to the Statistics New Zealand Census in 2013 there were 223,155 New Zealanders “looking after a member of own household who is ill or has a disability” (denoted in this report as carers of a “household member”) and 267,303 New Zealanders “helping someone who is ill or has a disability who does not live in own household” (denoted in this report as carers of a “non-household member”). In total there were 431,649 unpaid carers. The total number of unpaid carers is less than the sum of these two classifications as 58,809 (or 14% of unpaid carers) care for both household and non-household members.

Although there has been an increase of 60,909 carers between 2001 and 2013 (ie a 16% increase), this increase appears to simply reflect population growth, as in both 2001 and 2013 the number of unpaid carers represented 12.8% of the adult population of New Zealand.

Carers typically women

Carers are twice as likely to be female than male, with 63% of unpaid carers being women in 2013. The gender balance has been quite stable according to the three most recent Censuses (see Table 10). To provide some context to the greater propensity for women providing unpaid care, the 63:37 female:male ratio for unpaid care in 2013 compares with a 52:48 female:male ratio for all unpaid activities.

Table 1

Unpaid carers in New Zealand

Count from recent New Zealand Census

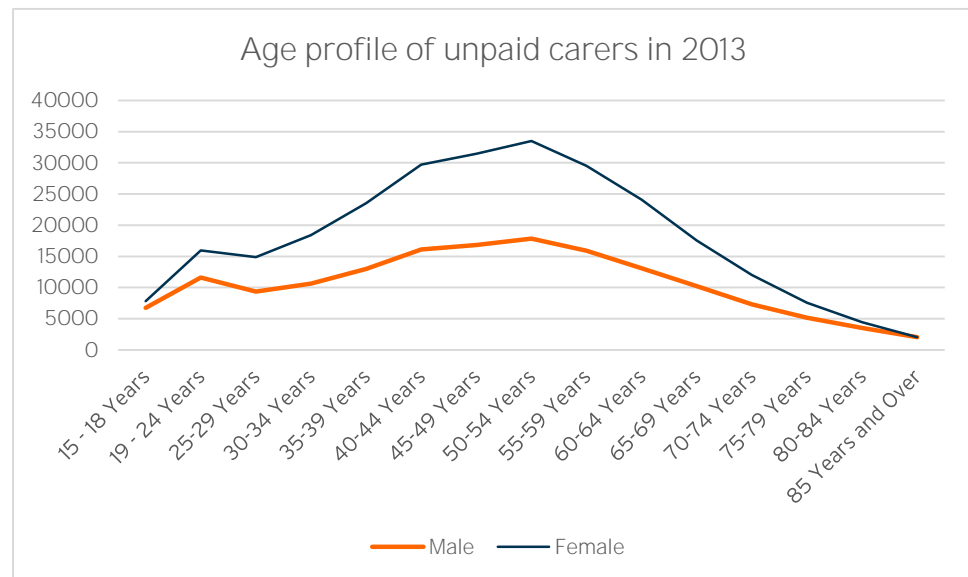
Type of carer	Household member	Non-household member	Total Unpaid Carers
<i>2001</i>			
Male	80,415	77,868	140,109
Female	120,201	144,420	230,631
Total	200,616	222,288	370,740
% Female	60%	65%	62%
<i>2006</i>			
Male	86,427	88,236	155,208
Female	134,799	170,472	264,126
Total	221,226	258,708	419,334
% Female	61%	66%	63%
<i>2013</i>			
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%

Source: Statistics New Zealand, Infometrics calculations

And middle aged

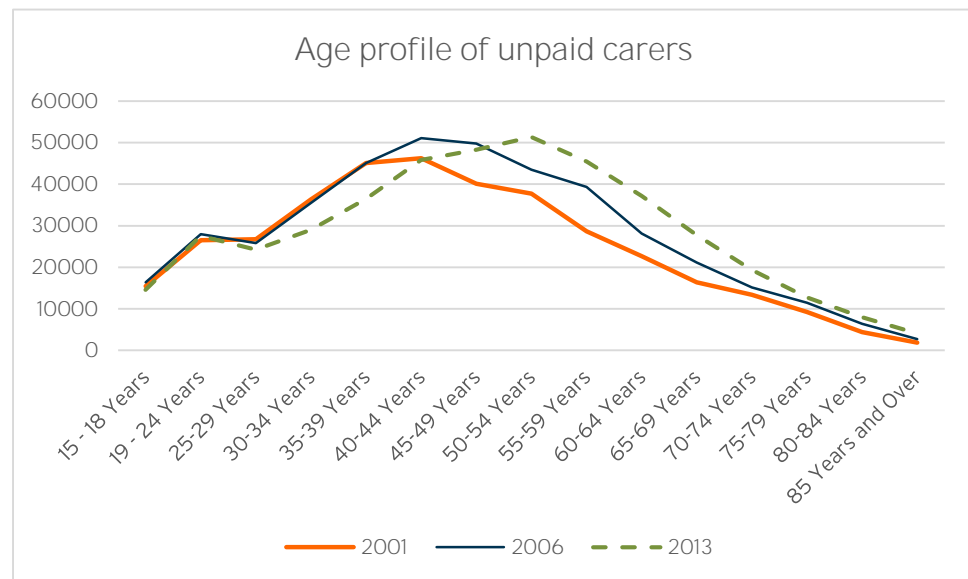
Although women are more likely to be carers, the median age of male and female carers are very close, at around 49 years in 2013 (the median age of female carers, at 49 years and 1 month was six months higher than the 48 years and 7 months for male carers). The largest five-year age bracket for carers in 2013 was from 50-54 years for both men and women (see Figure 1).

Figure 1



Source: Statistics New Zealand, Infometrics calculations

Figure 2



Source: Statistics New Zealand, Infometrics calculations

Carers are more likely to be older than the typical New Zealander, and this age premium has been increasing.

As Figure 2 illustrates, the age of carers in New Zealand has been increasing. In part this reflects a general ageing in the New Zealand population, but the median age of carers is increasing at a faster rate than the general population (see Table 2). Between 2006 and 2013 the median age of carers increased from 46 to 49, while the median age of New Zealand adults increased from 43 to 45. This meant that the age premium between carers and the typical New Zealand adult increased from 33 months in 2006 to 45 months in 2013. Put another way, the typical carer was 6.5% older than the median age of New Zealand adults in 2006. By 2013 this age premium had increased to 8.2%.

Table 2

Age characteristics of Carers

Carer type	2006			2013		
	Male	Female	Total	Male	Female	Total
<i>Median age</i>						
Household member	42.9	42.9	42.9	45.8	45.5	45.6
Non-household member	47.1	48.1	47.8	50.6	51.0	50.9
Total Unpaid Carers	45.2	46.1	45.8	48.6	49.1	49.0
New Zealand adult	42.7	43.3	43.0	44.9	45.5	45.2
<i>Implied age premium, months</i>						
Household member	2	-4	-1	11	0	5
Non-household member	52	58	57	69	66	68
Total Unpaid Carers	30	34	33	45	43	45
<i>Implied age premium, % of national median</i>						
Household member	0.3%	-0.8%	-0.2%	2.1%	-0.1%	0.9%
Non-household member	10.2%	11.2%	11.1%	12.8%	12.1%	12.6%
Total Unpaid Carers	5.8%	6.6%	6.5%	8.3%	7.9%	8.2%

Source: Statistics New Zealand, Infometrics calculations

European and Maori more likely to provide family care

On a basis of ethnicity, unpaid caregiving generally reflects the ethnic mix of New Zealand, see Table 3. However, the data about unpaid carers from the 2013 Census does suggest some differences in caregiving patterns between ethnicities. This is perhaps most apparent when examining the ethnicity quotient, see Table 4. These quotients are calculated by dividing the shares of interest by national population shares. Thus the quotient for carers of household members who identify as European or New Zealand ethnicities is 101.1%, which is the ratio of the share of European/New Zealand household member carers (ie the 72.3% in the top left hand cell in Table 3) divided by the national share of European/New Zealanders (ie the 71.6% in the bottom row of Table 3).

From Table 4 it is apparent that European/New Zealanders and Maori have a greater propensity to provide unpaid care. Pacific people have a high propensity to provide unpaid care for a member of their household, but are less likely to be providing care for a non-household member. This apparent imbalance might reflect more differences in household structures, ie Pacific people requiring care may be more likely to remain living with their family or live with extended family than to live separately.

Table 3

Caring by Ethnicity, 2013

% of carers

Type of carer	European/ New Zealand	Maori	Pacific	Asian	Other
Household member	72.3%	20.4%	9.7%	7.7%	1.4%
Non-household member	81.9%	16.8%	5.8%	4.4%	1.1%
Total Unpaid Carers	78.5%	17.2%	7.2%	6.0%	1.2%
New Zealand	71.6%	14.1%	7.0%	11.1%	6.6%

Source: Statistics New Zealand, Infometrics calculations

European/New Zealanders stand out as having a higher propensity to provide unpaid care for non-household members than for household members.

Table 4

Ethnicity caring quotient, 2013

Relative to New Zealand average

Type of carer	European/ New Zealand	Maori	Pacific	Asian	Other
Household member	101.1%	144.4%	139.7%	69.1%	20.6%
Non-household member	114.5%	119.0%	83.2%	39.2%	16.7%
Total Unpaid Carers	109.7%	122.1%	103.6%	54.0%	18.3%

Source: Statistics New Zealand, Infometrics calculations

Although Asian and other ethnicities are less likely to be providing unpaid care, if they are providing care there is a higher likelihood that the care is being provided by men (see Table 5).

Table 5

Male propensity to care by Ethnicity, 2013

Type of carer	European/ New Zealand	Maori	Pacific	Asian	Other	New Zealand
Household member	38.8%	35.0%	39.1%	41.5%	44.9%	38.8%
Non-household member	33.4%	32.4%	38.2%	43.3%	45.3%	34.2%
Total Unpaid Carers	36.3%	34.6%	39.2%	42.2%	45.3%	36.9%

Source: Statistics New Zealand, Infometrics calculations

3. VALUE TO NEW ZEALAND FROM CARERS

We estimate that the replacement value of support provided by unpaid carers in 2013 was at the very least \$7.3 bn, equivalent to 3.4% of GDP. Our central preferred estimate is that value of unpaid care was \$10.8 bn, or 5.0% of GDP. By replacement value we are estimating what the labour cost would likely be if the care services were provided commercially rather than by families and whanau. This estimate does not account for any overhead costs such as supervision, management, or capital costs. There is naturally a degree of uncertainty associated with the valuation of non-commercial activities. To address this uncertainty we have provided a range of estimates that vary depending on assumptions about the number of hours involved and the appropriate pay rate for valuing care services. The plausible range that the value of unpaid care lies within is from \$7.3 bn (3.4% of GDP) to \$17.6 bn (8.1% of GDP).

Time and numbers

According to the Census there were 431,649 unpaid caregivers in New Zealand in 2013. The 2009/10 Time Use Survey indicates that the mean time spent on care of adults was 31 minutes per day. At first blush this time may seem low to many, but this is the average across all survey participants, not just carers. To assess the implication of the Time Use Survey one needs to multiply its results by the 3,564,288 target survey population during the survey reference period, which implies an estimate of 672.2 million hours of care provided in the nation over an entire year. This total hours estimate, combined with the Census estimate of the number of unpaid carers, implies that the average carer devotes more than 1,500 hours per year to caregiving. This in turn would imply that 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.

There is, of course, an element of uncertainty in these estimates, as the sample nature of data collection means that all social measurements are measured with error. We use the sample error estimates from the Time Use Survey to 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 would imply that the low-end estimate from the Time Use Survey is just under 25 minutes per day (rather than the central estimate of 31 minutes), which would translate into an annual estimates of 530 million hours and an average of 24 hours of care provided per carer each week. The corresponding high side estimate would be 814 million hours or 36 hours of care provided per carer each week.

Valuing unpaid care

In Table 6 we present estimates of the replacement value of the service provided by unpaid carers under a matrix of assumptions. Estimates in each column differ due to different estimates of the number of hours of unpaid care. The central estimate is based on the published estimate of 31 minutes per day from the time use survey. The high and low estimates adjust these hours up and down based on the sample errors reported for the relevant measures in the Time Use Survey. Estimates in each row differ based on the wage rate used to provide an estimate of value. At the low end we use the minimum wage rate (\$13.75 per hour). The carer wage costs is essentially the minimum wage adjusted for Kiwisaver contributions, ACC levies, and other costs of employment. The median wage and health care industry costs are sourced from the Quarterly Employment Survey (year ended

September 2013). We present the estimates in 2013 \$m and as a percent of GDP (year ending September 2013).

Table 6: Estimates of replacement value of family carers

	Low	Central	High
Carers' Hours			
Average per carer per week	24	30	36
Total per year (million)	530.1	672.2	814.2
<i>Estimated value (\$m)</i>			
Minimum wage (\$13.75)	7,289	9,242	11,195
Carer wage (\$16.10)	8,535	10,822	13,108
Median wage (\$21.58)	11,440	14,505	17,570
Health care industry wage (\$28.63)	15,178	19,244	23,310
<i>Estimated value (% of GDP)</i>			
Minimum wage (\$13.75)	3.4%	4.3%	5.2%
Carer wage (\$16.10)	3.9%	5.0%	6.1%
Median wage (\$21.58)	5.3%	6.7%	8.1%
Health care industry wage (\$28.63)	7.0%	8.9%	10.8%

Source: Statistics New Zealand, Infometrics calculations

The estimates indicate that if unpaid care moved from the voluntary sector into the market economy, it would have a value of at least \$7.3 bn (or 3.4% of GDP) and could feasibly be as much as \$23.3 bn (or 10.8% of GDP). Our central estimate, based on the central scenario of the Time Use Survey and the carer wage is a valuation of \$10.8 bn (or 5.0% of GDP).

This estimate does not account for any overhead costs such as supervision, management, or capital costs. There is also a degree of uncertainty associated with the valuation of non-commercial activities. Varying the input assumptions about the hours involved and the commercial value of these hours produces a range of value estimates. At the two extremes, the value could range from \$7.3bn (or 3.4% of GDP) to \$23.3 bn (or 10.8% of GDP).

The upper estimate is extreme, as it assumes the upper statistical limit of caregiving time provided by the Time Use Survey and values this time at the average wage rate for health professionals. To some degree this approach might be interpreted as fully accounting for overhead costs, but the use of the median wage might be regarded as more appropriate than the health care industry. Thus an estimate of \$17.6bn (8.1% of GDP) might be a more plausible upper limit to the estimated value of unpaid care. We consider that the \$7.3 bn estimate can be regarded as a genuine minimum estimate, it discounts the evidence from the Time Use Survey to the maximum degree and then values this time at the statutory minimum wage rate.

4. ECONOMIC SACRIFICE OF FAMILY CAREGIVING

There appears to be an income penalty associated with providing unpaid care. Based on information from the Statistics New Zealand Censuses we calculate that the median income in households where someone is providing unpaid care was \$70,445 in 2013. Household incomes for those providing care for non-householders is typically slightly lower than for those providing care for a household member, but the difference is relatively small (\$69,741 compared with \$70,671 in 2013). There is a larger difference between the household incomes of unpaid carers and non-carers. In 2013 we calculate the median income for households without caregiving responsibilities to be \$78,480. This implies a caregiver income penalty of \$8,034 or 10.2% of the typical non-carer household income.

Further it appears that the relative size of the income penalty has been increasing in recent years. In 2001 and 2006 the carer income penalty is calculated to be 9.0% and 8.0% respectively, a full percentage point lower than the 10.2% penalty calculated for 2013. Unfortunately we are reliant on relatively infrequent Censuses to obtain information about the income of caregivers, so it is not clear whether the lower relative incomes reported in 2013 represents a sustained decline or is perhaps related to the tougher economic conditions that have prevailed since 2006.

Table 7

Income characteristics of households with unpaid carers

Carer type	2001	2006	2013
<i>Household median income, \$</i>			
Household member	\$44,657	\$58,432	\$70,671
Non-household member	\$44,318	\$57,398	\$69,741
Total Unpaid Carers	\$44,478	\$57,911	\$70,445
Non-carers	\$48,891	\$63,533	\$78,480
<i>Carer income penalty, \$</i>			
Household member	\$4,234	\$5,101	\$7,808
Non-household member	\$4,573	\$6,135	\$8,739
Total Unpaid Carers	\$4,413	\$5,622	\$8,034
<i>Carer income penalty, % of median non-carer income</i>			
Household member	8.7%	8.0%	9.9%
Non-household member	9.4%	9.7%	11.1%
Total Unpaid Carers	9.0%	8.8%	10.2%

Source: Statistics New Zealand, Infometrics calculations

Factors contributing to carers' lower incomes and workforce participation

It is beyond the scope of the current study to fully identify the reasons why unpaid carers receive a lower level of income than non-carers, but what we can do is provide some descriptive information about characteristics of carers, which may help illuminate some of the factors that transmit themselves into lower incomes. In particular we will examine sources of income, qualification levels, occupations and attachment to the labour force.

Our analysis relies on cross-tabulations of data from Statistics New Zealand Censuses. This means that we can only identify aggregate trends and examine characteristics in isolation. Examining the relative importance of different aspects would require analysis based on individual Census responses (or confidentialised individual responses). It is not obvious that even with this more sophisticated approach there would be sufficient information to shed light on the true causes behind carers' lower income outcomes. For example, below we will identify that households with carers are more likely to receive a form of government assistance. This might simply reflect the benefit entitlements of those being cared for, but in other cases it might signal an inability for carers to work in addition to providing care. Likewise the lower hours of work undertaken by carers is obviously an important factor behind lower household income, but to what extent do these lower hours result from caregiving commitments and to what extent do people get involved in caregiving because they have lower work commitments?

Sources of income

The sources of household income of carers and the national average calculated from 2013 Census results are presented in Table 8. As households can receive income from multiple sources, the sum of the columns exceed 100%.

Table 8

Source of household income

Proportion of carer type

Income source	Carer type			New Zealand adult
	Household member	Non-household member	Total Unpaid Carers	
No Source of Income During That Time	6.7%	4.7%	5.5%	6.9%
Wages, Salary, Commissions, Bonuses etc	53.6%	57.5%	55.7%	53.6%
Self-employment or Business	14.7%	17.7%	16.4%	14.3%
Interest, Dividends, Rent, Other Invest.	18.4%	25.9%	23.3%	19.4%
Payments from a Work Accident Insurer	1.4%	1.5%	1.4%	1.1%
NZ Superannuation or Veterans Pension	13.8%	16.5%	16.1%	15.6%
Other Super., Pensions, Annuities	2.1%	2.9%	2.7%	2.5%
Unemployment Benefit	4.2%	3.6%	3.8%	2.7%
Sickness Benefit	4.0%	3.5%	3.6%	2.3%
Domestic Purposes Benefit	7.6%	5.6%	6.0%	2.6%
Invalids Benefit	3.8%	3.0%	3.3%	2.2%
Student Allowance	2.4%	2.4%	2.4%	2.6%
Other Govt Benefits, Payments or Pension	7.7%	4.9%	6.0%	3.9%
Other Sources of Income	3.5%	3.2%	3.2%	9.0%

Source: Statistics New Zealand, Infometrics calculations

The comparison with New Zealand adults is perhaps clearer in Table 9. Here the difference is simply the percentage for carers less the percentage for New Zealand adults. To illustrate the -0.2% result for no source of income for household member carers in Table 9 (top left number) is calculated as 6.7% minus 6.9% from Table 8. In addition we have summed the different forms of government assistance together. Three key observations from this information are that carers:

- do not appear to be any less likely to be engaged in paid work (either employed or self employed)
- are more likely to receive income from investments, perhaps reflecting the above average age of carers (see Table 2)
- are more likely to receive some form of government assistance
- are less likely to obtain income from other sources.

Although the higher access to benefit income appears widespread across different types of benefits (see Table 8) we note that carers are typically twice as likely to be receiving the Domestic Purposes Benefit (now the Supported Living Allowance), suggesting that for a proportion of carers lower household incomes are associated with a higher reliance on benefit incomes. This issue, as well as the implication of lower access to “other sources of income” are areas that probably warrant more research.

Table 9

Difference from national average in carer's income source

Carer % less New Zealand adult %

Income source	Carer type		
	Household member	Non-household member	Total Unpaid Carers
No Source of Income During That Time	-0.2%	-2.2%	-1.5%
Wages, Salary, Commissions, Bonuses etc	0.0%	3.9%	2.1%
Self-employment or Business	0.4%	3.4%	2.1%
Interest, Dividends, Rent, Other Invest.	-1.0%	6.5%	3.9%
Benefits or allowances	11.7%	8.3%	9.8%
Other Sources of Income	-5.5%	-5.7%	-5.8%

Source: Statistics New Zealand, Infometrics calculations

Qualifications

A comparison of the qualification attainment of carers does not support a view that lack of education is materially contributing to lower incomes for carers. At least at the aggregate qualification level, carers typically appear to be as well qualified as other adults living in New Zealand. The key differences apparent from Table 10 and Table 11 is that carers appear to have a much larger propensity to have a non-university based post-school qualification and a much lower chance of having a qualification “not elsewhere included”. In noting this we would also stress that the non-university post school qualification category is comparatively small compared with other qualification fields (see Table 10). Once again it is disappointing to find that a non-descript category, “qualifications not elsewhere included”, is an area potentially important for explaining differences between carers and the rest of the population.

Table 10

Qualification of carers

% of carer type, 2013

Qualification	Carer type			Total New Zealand Adults
	Household member	Non-household member	Total Unpaid Carers	
No Qualification	20.3%	17.0%	18.5%	18.6%
School Qualification	47.5%	46.7%	46.9%	44.2%
Post-School Qualification (excluding university)	9.8%	12.3%	11.2%	8.2%
Bachelor Degree and Above	17.4%	19.8%	18.9%	17.8%
Not Elsewhere Included	5.0%	4.2%	4.5%	11.1%

Source: Statistics New Zealand, Infometrics calculations

Table 11

Qualification quotient

Relative to total New Zealand adults, 2013

Qualification	Carer type		
	Household member	Non-household member	Total Unpaid Carers
No Qualification	109%	91%	99%
School Qualification	107%	106%	106%
Post-School Qualification (excluding university)	119%	149%	136%
Bachelor Degree and Above	98%	111%	106%
Not Elsewhere Included	45%	38%	40%

Source: Statistics New Zealand, Infometrics calculations

Occupations

As with qualifications, the evidence from the 2013 Census does not provide any obvious support for a view that carers receive lower incomes because they have materially different abilities. As Table 12 and Table 13 indicate, carers typically have a higher propensity to be employed in higher skilled occupations. This evidence would suggest that New Zealand caregivers are not obviously penalised in the labour market in terms of the occupations that they work in. Their qualification attainment is not markedly different from the national average, and their occupational mix if anything above average. Caregivers seemingly earn less despite their skills and ability.

Table 12

Occupation of carers

% of carer type, 2013

Occupation of carers	Carer type			Total New Zealand Adults
	Household member	Non-household member	Total Unpaid Carers	
1 Legislators, Administrators and Managers	15%	15%	15%	15%
2 Professionals	18%	20%	19%	17%
3 Technicians and Associate Professionals	14%	15%	15%	13%
4 Clerks	10%	11%	11%	10%
5 Service and Sales Workers	14%	15%	14%	14%
6 Agriculture and Fishery Workers	5%	5%	5%	6%
7 Trades Workers	6%	5%	5%	7%
8 Plant and Machine Operators and Assemblers	6%	5%	5%	7%
9 Elementary Occupations (incl Residuals)	11%	9%	10%	11%

Source: Statistics New Zealand, Infometrics calculations

Table 13

Occupation quotient

Relative to total New Zealand adults, 2013

Occupation of carers	Carer type		
	Household member	Non-household member	Total Unpaid Carers
1 Legislators, Administrators and Managers	97%	98%	99%
2 Professionals	107%	119%	114%
3 Technicians and Associate Professionals	108%	119%	114%
4 Clerks	104%	107%	107%
5 Service and Sales Workers	103%	109%	105%
6 Agriculture and Fishery Workers	87%	87%	88%
7 Trades Workers	81%	63%	72%
8 Plant and Machine Operators and Assemblers	93%	70%	80%
9 Elementary Occupations (incl Residuals)	100%	85%	89%

Source: Statistics New Zealand, Infometrics calculations

Hours of work

A key difference between carers and average New Zealand adults is a higher propensity to work part-time (see Table 14). However, this might simply reflect the higher proportion of carers who are women. That is, women are both likely to be carers and part-time workers, and it is difficult to disentangle these factors. For example, women may already be working part-time, and therefore are more likely to be the household member that provides unpaid care when care is required. Alternatively, the need to provide care may require a family member to give up the opportunity to work full-time, and this typically (for whatever reason) is more likely to be a female member of the household.

Table 14

Reliance on part-time work

Type of carer	% of WAP		Quotient	
	2006	2013	2006	2013
Household member	15.9%	15.1%	110.7%	110.8%
Non-household member	18.1%	17.7%	125.8%	129.9%
Total Unpaid Carers	16.9%	16.4%	117.7%	120.5%
New Zealand	14.4%	13.6%		

Source: Statistics New Zealand, Infometrics calculations

Irrespective of the causes, the higher propensity for carers to work part-time does appear to impose an income cost on the households of carers. In 2006 14.4% of working aged New Zealanders were employed on a part-time basis. For carers the equivalent proportion was 16.9%. Using 2006 Census data cross tabulating personal income with labour force status we can derive median incomes earned by New Zealanders depending on their labour market status¹. Re-weighting these estimates based on the proportion of carers who worked part or full-time in 2006 suggests that the increased propensity to work part-time diminished incomes by 3.5%.

This represents over one-third of caregivers' estimated 8.8% income penalty in 2006 (see Table 7). Accounting for a higher proportion of caregivers not in any form of employment accounts for a further 2.6 percentage points of the 8.8% income gap using the same method. Thus caregiving commitments appear to be associated with fewer hours of paid work, which in 2006 is estimated to have contributed to 6.1% lower incomes for caregivers.

These are very crude estimates that are based on aggregate Census figures. More reliable estimates would require undertaking econometric analysis of individual survey responses. However, it would appear that caregivers' ability to be engaged in paid work is constrained and this constraint is likely to contribute significantly to the income penalty faced by caregivers.

¹ Relevant income data has yet to be released to enable a similar comparison using the 2013 Census