

# Measuring the living standards of people receiving income-tested main benefits

Working paper

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# Abstract

This paper uses data from the linked New Zealand General Social Survey to provide information on the living standards of individuals receiving income-tested main benefits. We use a range of indicators to measure outcomes for individuals on benefit and provide comparisons with the rest of the working-age population not receiving an income-tested main benefit. Our descriptive analysis shows a high prevalence of both material hardship and other adverse outcomes among people in receipt of a benefit.

# Introduction

The welfare system provides income support and employment assistance for working age individuals and their dependents who are unable to earn enough income due to events and circumstances such as unemployment, ill health, disability, or separation from a partner.

Individuals are eligible for an income-tested main benefit if they meet specific eligibility criteria related to these events and circumstances. As well as a main benefit, there are also a variety of supplementary assistance payments available for those with higher costs.

Eligibility and the rate of payment for main benefits and supplementary assistance depend on family income (a person's own individual income and that of their partner where relevant). To qualify for a benefit, a person's family income must be below various thresholds, and payments are abated for those on higher incomes.

A small proportion of the population relies on welfare payments for their income at any point in time. In 2016 just over 10% of the population aged 18 to 64 years were receiving an income-tested main benefit. In addition, approximately 17% of all children under the age of 18 years of age were living in families supported by income-tested main benefits. From a life course perspective, it is likely that a much larger proportion of the population receive benefit payments at some point during their lives.

A key public policy question is whether the overall level of income provided by welfare is sufficient to provide an adequate standard of living.

This paper provides a descriptive analysis of the living standards of income-tested main benefit recipients.<sup>1</sup> We use indicators of both material hardship and wider wellbeing. We report outcomes for individuals receiving benefits and compare these with the outcomes recorded for the rest of the population aged 18 to 64 years.

This paper is structured as follows. We firstly describe the linked New Zealand General Social Survey (NZGSS) and explore the extent to which it captures a representative sample of the New Zealand population. The paper then describes the demographic characteristics of individuals receiving welfare benefits relative to the rest of the population under 65 years. The paper provides some experimental data on incomes for benefit recipients using administrative data in the Statistics New Zealand Integrated Data Infrastructure (IDI), and then describes a wide variety of outcomes for those on benefit compared to the rest of the working age population. We also discuss some limitations of the data and analysis and point to some useful directions for future research.

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<sup>1</sup> For brevity we refer to 'benefit recipients', but it is important to be aware that this excludes people in receipt of New Zealand Superannuation, as well as individuals receiving supplementary payments but not a main benefit (e.g. only receiving the Accommodation Supplement). Income-tested main benefits include Job Seeker Support, Sole Parent Support, Supported Living Payment, Young Parent Payment, and others.

# Linked New Zealand General Social Survey used for this study

The paper uses data from the New Zealand General Social Survey (NZGSS) which has been linked to administrative records in the Statistics NZ Integrated Data Infrastructure (IDI). Respondents receiving a main benefit during the week of the survey interview are identified via administrative records. Survey information regarding benefit receipt over the prior 12 months varies in its accuracy, so the ability to identify benefit recipients from administrative data is particularly valuable. Linking to IDI data also means we can augment information derived from the survey questionnaire with other administrative data. We use data from the 2016 wave of the linked NZGSS, but also report comparable data from the 2014 wave of the survey in Annex 1.

## New Zealand General Social Survey

For the 2016 wave of the NZGSS respondents were surveyed between 1 April 2016 and the end of April 2017.

The NZGSS provides a representative sample of the population aged 15 years and over in private dwellings located in the North Island, South Island, or Waiheke Island. The target population for the survey explicitly excludes several groups including:

- people living in non-private dwellings such as hotels, motels, boarding houses, hostels; homes for the elderly, patients in hospitals, or residents of psychiatric and penal institutions; and people living on offshore islands (excluding Waiheke Island)
- New Zealand usual residents temporarily staying elsewhere in New Zealand (including other permanent and temporary private dwellings, institutions, and non-private dwellings; and people who have no fixed abode, but stay at private dwellings) who don't return within the survey period
- New Zealand usual residents who live in remote areas that are costly or difficult to access.

The NZGSS uses a three-stage sample selection method like other household surveys. For the 2016 wave 1,200 primary sampling units were selected from the Household Survey Frame. Eligible dwellings within the selected primary sampling units were then selected in the second stage.

In the third stage an individual respondent was chosen at random from all eligible individuals in the dwelling.

The NZGSS has both a household and personal questionnaire. Both are administered using computer-assisted personal interviews which take an average of 45 minutes. One individual in the household aged 15 years or over is randomly selected to answer the personal questionnaire. Some questions in the personal questionnaire (such as those related to material wellbeing) are not always asked of respondents who are under 18 years of age.

For 2016, the survey was answered by 8,493 individuals, with a response rate of just over 84% (Statistics New Zealand, 2018).

Survey responses are weighted to be representative of the New Zealand population aged 15 years and older. The weights are calculated in three stages, to account for the probability of selecting the person, and then to adjust for survey non-response, and lastly to calibrate to population benchmarks.

The main respondent and other members of the household are linked to the IDI spine using name, sex, and date of birth of survey respondents (Statistics New Zealand, 2014).<sup>2</sup> The linking always preserves the confidentiality of individuals in the dataset. The initial matching is carried out by a data linkage team at Statistics New Zealand working with only the information required to identify the records. This is used to produce an anonymous identification number which is used to link records across different collections. The identities of other members of the household in the NZGSS have recently been linked to the IDI and are used in this analysis to estimate family incomes.

Linking can be imperfect due to the nature of the underlying data (e.g. if the date of birth is transposed in one dataset or a person informally changes their name). Errors can be either false negatives (individuals are not linked to administrative data, even though there is data about them in other collections) or false positives (individuals are wrongly linked to administrative data about another person). The linking process is designed to minimise false positives.

In 2016 approximately 87% of primary respondents could be linked. We have reweighted the IDI sample to the existing population benchmarks to account for the loss in the sample. To do this we used GREG (generalised regression) and calibrated the linked data weights so that the resulting population resembles the original NZGSS data.

More information about the NZGSS including the questionnaires and data dictionaries can be found on the Statistics New Zealand website.

## Data for this study

For the analysis reported in this paper we restrict the population to individuals aged 18 to 64 years who were primary respondents to the NZGSS and who have been linked to the IDI (N=5,373).

Linking with administrative data means we can identify respondents who were receiving an income-tested main benefit at the time when they are surveyed. For the 2016 linked NZGSS there were 573 individuals between the ages of 18 to 64 years receiving an income-tested main benefit in the sample. In addition, there were 4,800 respondents not receiving an income-tested main benefit.

An important caveat of this paper is that the linked NZGSS appears to record a lower proportion of the population on benefit compared to Ministry of Social Development (MSD) data. Table 1 shows estimates of the proportion of the population receiving an income-tested main benefit from the linked survey suggest that the NZGSS may be reporting rates that are around two percentage points lower than the official counts. This under-count is most evident among people between

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<sup>2</sup> The IDI spine is the dataset containing information for all people resident in New Zealand. It is compiled from individuals with tax (from 1999), births (from 1920), and from specific visas (from 1997).



aged 25 to 60 years and is more pronounced for men than women. The 2014 wave of the survey also shows an undercount of the benefit population at similar levels.

**Table 1: Percentage of adult population 18 to 64 years supported by income-tested main benefits: Linked NZGSS compared to administrative data (year to March 2017)**

	Women	Men	Total
<b>Ministry of Social Development data</b>	12	9	10
<b>Linked NZGSS estimate</b>	10	6	8

Source: Statistics New Zealand and Ministry of Social Development

There are several possible reasons why the linked survey might record a lower proportion of the population receiving a benefit. Only people within private dwellings are surveyed, and people who are homeless or in non-private dwellings are excluded. In addition, it is possible that individuals receiving a benefit may be less likely to respond to the survey, and the survey and linkage weights may not be estimated correctly.

The nature and reasons for the under-count is an important question which deserves further detailed investigation. It raises the possibility that the linked survey data is not a representative sample of the New Zealand population, and is an important caveat of the analysis in the paper. We suspect that if this is occurring the data could be under-estimating the extent of hardship and other poor outcomes among those on benefit. This might occur if people on a benefit experiencing high levels of hardship due to homelessness and transience are missing from the survey.

## Characteristics of people receiving income-tested main benefits in the linked NZGSS

Even with the caveats discussed above the linked NZGSS provides important insights into the nature and characteristics of individuals receiving an income-tested main benefit. Table 2 reports both the prevalence of income-tested benefit receipt among different sub-groups, and the overall composition of the benefit population in 2016. The reported estimates should be treated as indicative due to the small sample of those on a benefit, and the possible effects of the undercount of the benefit population.

**Table 2: Characteristics of the adult population 18 to 64 years supported by income-tested main benefits (NZGSS 2016)**

<b>Category</b>	<b>Sub-category</b>	<b>Proportion of group receiving a benefit (prevalence)</b>	<b>Share that group makes up of all those on benefit (composition)</b>
<b>Sex</b>	Men	6%	37%
	Women	10%	63%
<b>Age</b>	18 to 19	9%	3%
	20 to 24	11%	16%
	25 to 29	8%	11%
	30 to 34	8%	10%
	35 to 39	7%	8%
	40 to 44	7%	9%
	45 to 49	5%	7%
	50 to 54	7%	9%
	55 to 59	8%	10%
	60 to 64	13%	15%
<b>Ethnicity (total counts)</b>	European	8%	57%
	Māori	22%	35%
	Pacific	12%	12%
	Asian	5%	8%
	Middle Eastern, Latin American or African	6%	1%
	Other	13%	2%
<b>Highest qualification</b>	Less than upper secondary	17%	39%
	Upper secondary	9%	42%
	Tertiary	4%	18%
	Other	3%	1%
<b>Dependent children</b>	Has dependent children	9%	46%
	No dependent children	8%	54%

<b>Family type</b>	Couple with adult children and dependent children under 18 years	4%	3%
	Couple with adult children only	6%	9%
	Couple with dependent children under 18 years only	3%	11%
	Couple without children	3%	10%
	Single without children	12%	26%
	One parent with adult children and dependent children under 18 years	28%	6%
	One parent with adult children only	21%	9%
	One parent with dependent children under 18 years only	39%	25%
<b>Long-term benefit receipt^</b>	More than 183 days on benefit in last year	90%	85%
<b>Contact with Corrections^</b>	Contact with Corrections in previous 12 months	54%	6%
<b>Tertiary study</b>	Any time spent in tertiary education in last year	9%	14%
<b>Labour force status</b>	Employed	2%	21%
	Unemployed	37%	18%
	Not in labour force	33%	61%
<b>Household tenure status</b>	Rent from public landlord	41%	22%
	Rent from private landlord	11%	49%
	Own home	4%	30%
<b>Self-assessed health status</b>	Excellent	4%	11%
	Very good	5%	22%
	Good	10%	33%

	Fair	16%	21%
	Poor	38%	14%
<b>Total</b>	<b>Total</b>	<b>8%</b>	<b>100%</b>

Source: Linked NZGSS 2016 data. Population aged 18-64 years. ^Measured using administrative data. See Annex 2 for further definition of variables.

Table 2 shows that approximately 10% of women aged 18 to 64 years received an income-tested benefit compared to 6% of men. As mentioned, these rates are lower than those recorded by official figures.

The sample shows a higher measured prevalence of benefit receipt among people recording Māori, Pacific, and the Middle Eastern Latin American and African grouping of ethnicities (MELAA).<sup>3</sup> Despite the lower prevalence, due to the larger size of the underlying population, individuals who identify as European made up the majority (57%) of all individuals receiving a benefit.

Table 2 also shows that individuals with less than upper secondary school level qualifications are more likely to receive a benefit (17%), and this group made up a sizeable minority of all benefit recipients (39%).

Sole parents with dependent children also have a high prevalence of benefit receipt in the linked data and made up around 31% of all those recorded as receiving a benefit. Couples with dependent children had low rates of benefit receipt and made up around 14% of those on benefit. Individuals who are single and not living with dependent children have above average rates of benefit receipt and made up around 35% of the benefit population. This last group appears to be under-represented in the survey data compared to the administrative data.

Table 2 also shows that at any point in time most benefit recipients received a benefit for more than six months. The table also shows the relationship between labour force status and benefit receipt. As would be expected, individuals who are employed have a low prevalence of benefit receipt. Among the population aged 18 to 64 years, roughly one third of the unemployed, and one third of those 'not in the labour force' were receiving a benefit.

The housing tenure of respondents is also recorded in the survey, and this shows that 49% of beneficiaries were living in a house rented from a private landlord, and 22% were renting from a public landlord. The survey shows that approximately 30% of benefit recipients own their own home, which is slightly higher than suggested by MSD data.

Table 2 also reports the self-assessed health status of individuals on a benefit. As would be expected there is a higher prevalence of benefit receipt among those in poorer health.

<sup>3</sup> Total response classification of ethnicity means individuals can be recorded in a number of ethnic groups if they declare more than one ethnic affiliation.

# Measuring the incomes of individuals receiving income-tested main benefits

Information about annual household income collected in the NZGSS is relatively imprecise. To address this, we use administrative data to construct experimental estimates of weekly family incomes for people on a benefit. These estimates use information from a range of different sources including benefit payments, tax credits and earnings.

Table 3 shows estimates of total weekly income for families on benefit when they were surveyed in 2016. ‘Transfer payments’ (benefits, student allowances and tax credits) and ‘other’ incomes (mainly earnings) are also reported, as well as average family size.

**Table 3: Experimental estimates of average after-tax weekly family income of benefit recipients (2016)**

Family type	Transfer payments	Other income	Total income	Average number of people in family
Single with no dependent children	\$285	\$52	\$337	1.0
Couple with no dependent children	\$393	\$210	\$579	2.0
Sole parent with dependent children	\$490	\$73	\$564	2.9
Couple with dependent children	\$649	\$330	\$965	4.6

Source: Linked NZGSS 2016 for population aged 18 to 64 years. Note 1: Experimental results estimated from administrative data. Transfer payments include benefits, student allowances, housing subsidies (Accommodation Supplement and the Income Related Rent Subsidy) and Working for Families tax credits. Other payments are mostly earnings, and do not include non-taxable payments from friends and family. Child support deductions are not measured. Note 2: Payment rates for those on a benefit are now higher because of changes implemented as part of the Families Package in 2018.

The experimental nature of our estimates of weekly income has some important caveats. A key issue is that several components of income are derived from monthly (e.g. earnings) or annual (e.g. self-employment income) time periods. Using information from these longer time periods over-estimates weekly income at the time of the survey.

A further important consideration in the measurement of income is that extended families and friends often share resources, particularly people living within the same household. Official measures often focus on household rather than family income for this reason (Perry, 2017a; Stiglitz et. al., 2009). Our estimates of weekly family income relate to the survey respondent and their partner, and do not include other adult members of the household.

# Living standards of people receiving income-tested main benefits

Average income provides a useful proxy measure of potential living standards but does not account for the differing size of families, the cost of housing or other differences in needs and resources. In this section we report more direct measures of living standards using indicators of material hardship. We also report wider measures of wellbeing related to other areas including health, safety, social connections, ūkaipōtanga/cultural identity and self (Social Investment Agency, 2018).

Table 4 and 5 set out indicators for survey respondents receiving a benefit, separately identifying those with and without dependent children. To provide a comparison, we also report indicators for the rest of the working-age population. The comparison is summarised as either the relative risk (i.e. rate ratio) or the difference in the mean outcome where it is measured as a continuous variable. The statistical significance of the risk ratios and differences are also reported.

It is important to understand that the indicators will reflect many different factors, including age, incomes, health, family structure and neighbourhood amenities. Our comparisons highlight differences in average outcomes between groups. The comparisons do not control for compositional differences between the groups.

Table 4 sets out 12 different indicators of material hardship, as well as summarised rates of deprivation using the MWI-9 index. The MWI-9 index is a measure of material living standards and is based on the combined responses to the nine questions highlighted in Table 4. The index ranges from 0 to 20, with a score of 7 or less indicative of material deprivation (Perry, 2018b).

**Table 4: Material hardship indicators by benefit status for adults 18-64 (NZGSS 2016)**

Percentage reporting outcome	With dependent children			No dependent children			Percentage with adverse outcome who are benefit recipients
	Benefit	No benefit	Rate ratio	Benefit	No benefit	Rate ratio	
In the last 12 months, to keep costs down, have you postponed or put off visits to the doctor 'a lot'? †	19%	7%	2.8*	26%	6%	4.4*	24%
In the last 12 months, to keep costs down, have you gone without fresh fruit or vegetables to keep costs down 'a lot'? †	17%	3%	5.5*	20%	4%	5.5*	33%

<b>In the last 12 months, to keep costs down, have you done without, or cut back on trips to the shops or other local places 'a lot'? †</b>	31%	12%	2.6*	37%	9%	4.2*	23%
<b>In the last 12 months, to keep costs down, have you spent less on hobbies or other special interests than you would like 'a lot'? †</b>	59%	23%	2.6*	50%	16%	3.2*	20%
<b>In the last 12 months, to keep costs down, have you put up with feeling cold 'a lot'? †</b>	23%	4%	5.4*	23%	4%	5.4*	32%
<b>In the last 12 months, to keep costs down, have you delayed replacing or repairing damaged appliances 'a lot'? †</b>	27%	10%	2.8*	28%	6%	4.3*	24%
<b>When you need to buy clothes or shoes for yourself, do you feel very limited by the money available? †</b>	52%	13%	4.0*	42%	9%	4.7*	28%
<b>Couldn't buy a \$300 non-essential item that you would like †</b>	73%	26%	2.8*	59%	20%	3.0*	21%
<b>More than once in the last 12 months not paid utilities because of a shortage of money? †</b>	30%	8%	3.6*	24%	5%	4.5*	26%
<b>Not enough money to meet every day needs such as accommodation, food, clothing and other necessities</b>	36%	9%	3.8*	46%	8%	5.9*	30%
<b>Household crowding (one or more bedrooms needed using Canadian crowding index)</b>	29%	14%	2.1*	16%	4%	3.6*	19%

<b>House or flat has a major problem with dampness or mould</b>	13%	6%	2.4*	18%	5%	3.8*	21%
<b>Material deprivation based on MWI-9 index</b>	48%	11%	4.4*	41%	8%	5.1*	28%

Source: Linked NZGSS 2016 data. Note 1: † shows that this is a component of the MW-9 index. Note 2: Statistical significance at the 0.05 level are identified with '\*'. Note 3: Annex 2 has detailed description of variables.

The material hardship indicators provide insights into the constraints imposed by limited financial resources and the circumstances of benefit receipt. As an example, consider the question about the prevalence of restricted access to primary healthcare. Approximately 19% of people on benefit with children indicated that they have postponed or put off visits to the doctor 'a lot' in order to keep costs down. This prevalence of hardship was roughly three times higher than those with children who were not receiving a benefit. Among people without dependent children, 26% indicated they had put off visits to the doctor 'a lot' due to cost. This was over four times the rate of those without children not on a benefit. As shown in the last column, in total 24% of the population 18 to 64 years who put off visits to the doctor 'a lot' because of costs were receiving a benefit.

Across all the hardship indicators it is evident that people on a benefit are considerably more likely to experience material hardship compared to the rest of the working age population. As well as putting off visits to the doctor, there were high rates of people reporting going without fresh fruit and vegetables, restricting visits to the shops and other places, cutting back on hobbies and interests, delaying repairing or replacing appliances, not paying utility bills on time, not heating the home, and living in crowded, damp or mouldy housing.

Among people on benefit with dependent children, approximately 29% were in over-crowded housing, which was twice as high as parents not on a benefit.

Of those on a benefit without dependent children, 46% indicated that their income was insufficient to meet basic needs, a rate that was 5.9 times higher than the comparable group not on a benefit.

Table 4 also reports the summary measure of material hardship using the MWI-9 index (Perry, 2018b). Almost half of individuals in receipt of a benefit with dependent children are classified as being in material hardship using this measure. For those on benefit without children the rate was 41%.

Overall, among those receiving benefits, both people with and without dependent children experienced high rates of material hardship. The pattern of hardship was however slightly different across these two groups. For example, there was more crowding among those with children as would be expected. Overall, people with children in receipt of benefits were slightly worse off when measured using the MWI-9 index, although the difference was not statistically significant.



The last column of Table 4 reports the share that benefit recipients make up of all working age people experiencing material hardship. While those receiving benefits tend to have a high risk of material hardship, this last column shows that numerically they are not the majority. Between 19% and 33% of all working-age individuals experiencing material hardship were receiving a benefit.

Table 5 sets out indicators of wellbeing related to a wider range of different aspects to people's lives. These include indicators of discrimination, criminal victimisation, poor health, depression, loneliness, life satisfaction and overall sense of purpose. We have organised these according to the Social Investment Agency's (SIA) approach to measuring wellbeing.

**Table 5: Indicators of wider dimensions of wellbeing, by benefit status for adults 18-64 years (NZGSS 2016)**

Panel A: Percentage reporting outcome	With dependent children			No dependent children			Percentage with adverse outcome who are benefit recipients
	Benefit	No benefit	Rate ratio	Benefit	No benefit	Rate ratio	
<b><i>Civic engagement and governance:</i></b> In the last 12 months have you been discriminated against?	30%	18%	1.6*	27%	17%	1.6*	12%
<b><i>Civic engagement and governance:</i></b> Most people in New Zealand cannot be trusted	4%	1%	2.6*	9%	1%	6.3*	29%
<b><i>Safety:</i></b> Were you a victim of crime in the last 12 months?	26%	14%	1.8*	21%	15%	1.4	12%
<b><i>Safety:</i></b> Not safe walking alone in your neighbourhood after dark	66%	41%	1.6*	48%	40%	1.2	11%
<b><i>Ūkaipōtanga /cultural identity:</i></b> Not easy to be yourself in New Zealand	20%	14%	1.5	26%	12%	2.1*	14%
<b><i>Health:</i></b> Depressed in last four weeks	28%	16%	1.8*	43%	15%	2.9*	18%
<b><i>Health:</i></b> Pain interfered with work inside and outside the home during the last four weeks	10%	7%	1.5	26%	9%	3.0*	17%
<b><i>Social connections:</i></b> Felt lonely in the last four weeks	6%	6%	1.1	14%	6%	2.5*	14%
<b><i>Life satisfaction:</i></b> Low subjective life satisfaction	8%	3%	3.0*	22%	4%	5.4*	29%

<b>Self: Low sense of purpose</b>	11%	4%	2.5*	28%	7%	3.8*	23%
<b>Panel B: Average of index</b>	<b>With dependent children</b>			<b>No dependent children</b>			<b>Percentage with adverse outcome who are benefit recipients</b>
	<b>Benefit</b>	<b>No benefit</b>	<b>Difference</b>	<b>Benefit</b>	<b>No benefit</b>	<b>Difference</b>	
<b>Health: SF12 mental health index (0 to 100 with higher score indicating better health)</b>	44.5	49.4	-5.5*	39.8	50	-9.9*	n/a
<b>Health: SF12 physical health index (0 to 100 with higher score indicating better health)</b>	48.4	51.3	-3.9*	41.7	50.9	-9.8*	n/a

Source: Linked NZGSS 2016 data. Note 1: Statistical significance at the 0.05 level are identified with '\*'. Note 2: Annex 2 has detailed definition of the indicators.

These indicators show high rates of adverse experiences and outcomes for people on a benefit. For example, individuals receiving benefits are between three and five times more likely to report low levels of life satisfaction compared to those not on a benefit.

The relatively poor physical and mental health of many individuals receiving a benefit is also very evident, with high rates of depression and chronic pain being particularly apparent for people without dependent children. Low levels of life satisfaction and sense of purpose are also particularly evident for those receiving a benefit without dependent children.

Annex 1 provides similar tables based on the 2014 wave of the NZGSS. Generally, this shows the same overall pattern of outcomes as measured in 2016. Importantly, across several material deprivation indicators there were some small improvements for people on a benefit between 2014 and 2016, although these changes between the two time periods were not statistically significant.

# Future directions for research

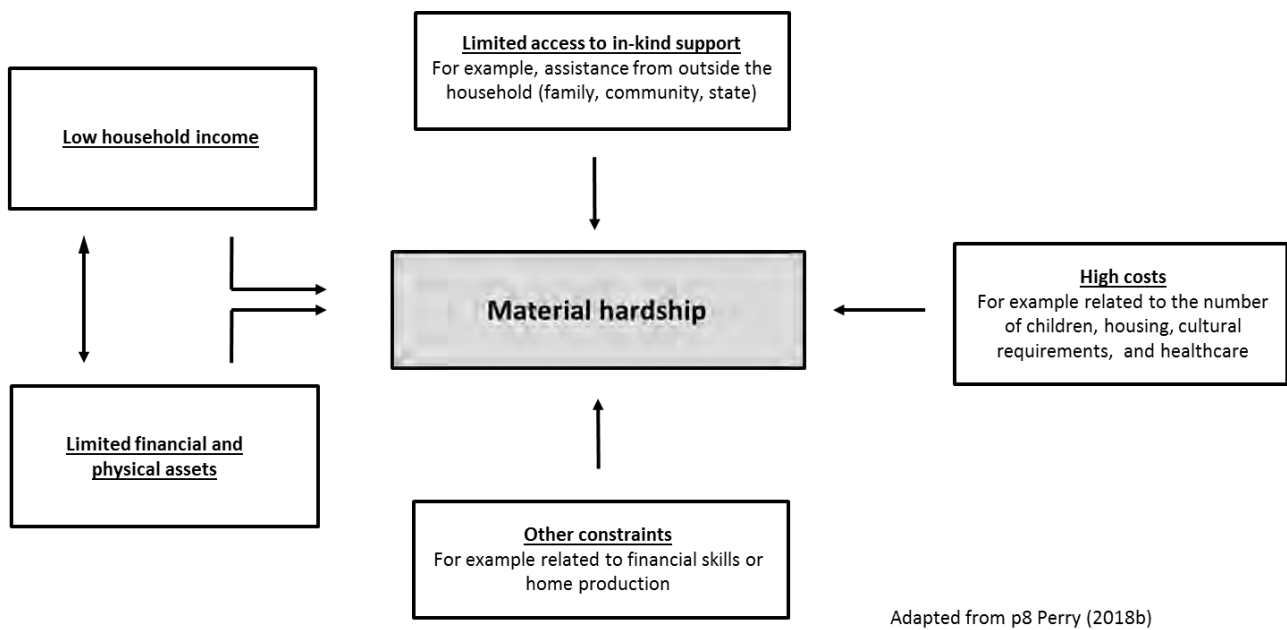
The data presented in this paper shows that individuals receiving benefit payments experience higher rates of material hardship compared to the rest of the population.

Given that benefit payments provide a modest level of financial support it would be expected that much of the high prevalence of material hardship among people in receipt of a benefit reflects low income, particularly compared to the rest of the population.

However, it is important to recognise that while income will be important, it is not the only factor influencing material hardship. Other factors, which are represented diagrammatically in Figure 1, include the number of children and adults in the household, other resources such as savings, support from wider family, the extra costs created by a health condition or disability, the cost of housing, and the existence of subsidised local services.

Some of the difference in the extent of material hardship for people on a benefit compared to the rest of the population will reflect these other factors.

**Figure 1: The determinants of material hardship**



The existing research documents a relationship between income and material hardship, but also finds that other factors are important in determining the extent of material hardship (Jensen et al., 2006; Perry, 2018b). Overall there is some uncertainty about the actual magnitude of the relationship between income and material hardship after controlling for differences in characteristics and circumstances. Estimating this relationship could usefully be addressed by future research. This would require not only good measurement of household incomes, but also data on the range of other factors that influence material hardship.

Estimating the relationship between income and material hardship is important for public policy as changes in payment rates are a key means to address material hardship. Estimates of how material hardship might vary depending on the level of income for different family types would also be valuable for normative decisions about income support payment rates.

## Research limitations

Some caution is required in the use of the analysis presented in this paper.

Our analysis is purely descriptive in the sense that it documents the living standards of individuals in receipt of benefits and makes comparisons with the rest of the working age population. The study is not an investigation of the extent to which current policy and service delivery settings are able to influence the overall extent of hardship and other poor outcomes for people accessing support.

In terms of data, a key issue is the apparent undercount of those on a benefit and the extent to which the linked NZGSS provides a truly representative sample of the New Zealand population. We suspect that some of the groups facing the highest level of material deprivation or other poor outcomes will be missing from our data, and this may mean we are under estimating the extent of hardship for subgroups of individuals receiving a benefit.

It is also important to note that when analysing the material hardship and wider wellbeing of people on a benefit we have a relatively small sample, which introduces a level of imprecision in some of the analysis. However, the fact that there is a broadly similar picture of low living standards for people receiving income-tested main benefits in the 2014 NZGSS survey provides confidence in the findings.

Recent changes implemented in 2018 as part of the Families Package and other reforms mean that the living standards may now be different to what was observed in 2016.

# Conclusion

The benefit system provides income support for individuals who do not have enough money to support themselves and their dependents because of events and circumstances such as unemployment, poor health, disability, or loss of a partner. A key purpose is to alleviate hardship, and it is important to be able to measure the material living standards and wellbeing of people who need to access income support.

This paper has reported on a variety of indicators of living standards and wider measures of wellbeing. The analysis shows a high incidence of material hardship among people supported by main benefits (Jensen et al., 2007; Perry 2018b). The data shows high rates of respondents reporting that they were postponing visits to the doctor because of costs, living in over-crowded and poor-quality housing, and being unable to afford necessities. In addition, those receiving income-tested main benefits fared relatively poorly across many of the wider measures of wellbeing.

The analysis shows that across virtually all indicators the average standard of living of benefit recipients is considerably lower than the rest of the community.

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# Annex 1: Living standards data from the 2014 New Zealand General Social Survey

This annex reports key data on living standards from the 2014 wave of the NZGSS. There was a slightly higher overall rate of benefit receipt in 2014 compared to 2016, but the same overall picture of differences in living standards is evident. Table A1.1 shows indicators of material hardship for individuals on a benefit compared to the rest of the population.

**Table A1.1: Material hardship indicators by benefit status for adults 18-64 (NZGSS 2014)**

Percentage reporting outcome	With dependent children			No dependent children			Percentage with adverse outcome who are benefit recipients
	Benefit	No benefit	Rate ratio	Benefit	No benefit	Rate ratio	
In the last 12 months, to keep costs down, have you postponed or put off visits to the doctor 'a lot'? †	30%	6%	5.0*	22%	6%	3.4*	30%
In the last 12 months, to keep costs down, have you gone without fresh fruit or vegetables to keep costs down 'a lot'? †	26%	4%	5.7*	27%	4%	7.4*	41%
In the last 12 months, to keep costs down, have you done without, or cut back on trips to the shops or other local places 'a lot'? †	40%	13%	3.0*	40%	8%	4.9*	29%
In the last 12 months, to keep costs down, have you spent less on hobbies or other special interests than you would like 'a lot'? †	59%	24%	2.50*	51%	15%	3.4*	24%
In the last 12 months, to keep costs down, have you put up with feeling cold 'a lot'? †	24%	5%	4.5*	28%	6%	4.6*	32%



<b>In the last 12 months, to keep costs down, have you delayed replacing or repairing damaged appliances 'a lot'? †</b>	30%	10%	3.1*	29%	6%	5.0*	29%
<b>When you need to buy clothes or shoes for yourself, do you feel very limited by the money available? †</b>	54%	14%	3.8*	49%	9%	5.5*	33%
<b>Couldn't buy a \$300 non-essential item that you would like †</b>	61%	25%	2.4*	56%	17%	3.3*	23%
<b>More than once in the last 12 months not paid utilities because of a shortage of money? †</b>	38%	10%	3.6*	26%	5%	5.1*	31%
<b>Not enough money to meet everyday needs such as accommodation, food, clothing and other necessities</b>	45%	10%	4.3*	40%	9%	4.4*	31%
<b>Household crowding (one or more bedrooms needed using Canadian crowding index)</b>	24%	10%	2.5*	8%	5%	1.6	19%
<b>House or flat has a major problem with dampness or mould</b>	18%	7%	2.5*	18%	5%	3.6*	24%
<b>Material deprivation based on MWI-9 index</b>	54%	13%	4.2*	44%	8%	5.5*	32%

Source: Linked NZGSS 2014 data. Note 1: † shows that this is a component of the MWI-9 index. Note 2: Statistical significance at the 0.05 level are identified with '\*'. Note 3: See Annex 2 for detailed description of variables.

Table A1.2 reports on a wider set of wellbeing indicators for individuals on a benefit compared to the rest of the population.

**Table A1.2: Indicators of wider dimensions of wellbeing, by benefit status for adults 18-64 (NZGSS 2014)**

Panel A: Percentage reporting outcome	With dependent children			No dependent children			Percentage with adverse outcome who are benefit recipients
	Benefit	No benefit	Rate ratio	Benefit	No benefit	Rate ratio	
<b><i>Civic engagement and governance: In the last 12 months have you been discriminated against?</i></b>	31%	19%	1.7*	33%	16%	2.1*	16%
<b><i>Civic engagement and governance: Most people in New Zealand cannot be trusted</i></b>	8%	1%	8.3*	4%	1%	3.7*	37%
<b><i>Safety: Were you a victim of crime in the last 12 months?</i></b>	26%	15%	1.8*	19%	14%	1.3	14%
<b><i>Safety: Not safe walking alone in your neighbourhood after dark</i></b>	51%	38%	1.3*	56%	38%	1.5*	13%
<b><i>Ūkaipōtanga /cultural identity: Not easy to be yourself in New Zealand</i></b>	19%	15%	1.3*	31%	13%	2.4*	16%
<b><i>Health: Depressed in last four weeks</i></b>	36%	14%	2.7*	44%	14%	3.1*	23%
<b><i>Health: Pain interfered with work inside and outside the home during the last four weeks</i></b>	19%	6%	2.9*	28%	7%	4.0*	27%
<b><i>Social connections: Felt lonely in the last four weeks</i></b>	10%	3%	3.0*	7%	3%	2.1*	21%

<b>Life satisfaction: Low subjective life satisfaction</b>	10%	3%	3.2*	17%	3%	4.9*	30%
<b>Self: Low sense of purpose</b>	16%	5%	3.1*	26%	7%	3.8*	26%
<b>Panel B: Average of index</b>	<b>With dependent children</b>		<b>No dependent children</b>			<b>Percentage with adverse outcome who are benefit recipients</b>	
	<b>Benefit</b>	<b>No benefit</b>	<b>Difference</b>	<b>Benefit</b>	<b>No benefit</b>		<b>Difference</b>
<b>Health: SF12 mental health index (0 to 100 with higher score indicating better health)</b>	41.9	49.4	-6.9*	39.8	50.2	-9*	n/a
<b>Health: SF12 physical health index (0 to 100 with higher score indicating better health)</b>	47.9	52.2	-4.1*	42.3	51.8	-10.1*	n/a

Source: Linked NZGSS 2014 data. Note 1: Statistical significance at the 0.05 level are identified with '\*'. See Annex 2 for detailed description of variables

## Annex 2: Definitions of variables used in the analysis of the linked New Zealand General Social Survey

**Table A2.1: Variables in the linked NZGSS dataset**

<b>Variable</b>	<b>Definition</b>
<b>Sex</b>	NZGSS personal questionnaire.
<b>Age</b>	Derived from date of birth in NZGSS personal questionnaire.
<b>Ethnicity</b>	NZGSS personal questionnaire. Six level total response categorisation of Māori, Pacific, European, MELAA, Asian, Other.
<b>Highest qualification</b>	NZGSS personal questionnaire. OECD classification into four levels of no qualifications, lower secondary, upper secondary and tertiary
<b>Caring for dependent children</b>	NZGSS household questionnaire derived from family type variable.
<b>Family type</b>	NZGSS household questionnaire. Statistics New Zealand classification of 10 family types based on partnership status (single or couple) and the presence of children (dependent, adult, status unknown).
<b>Income-tested main benefit</b>	Linked IDI data from MSD benefit data. In receipt of an income tested main benefit at the date of responding to the NZGSS. Type of benefit also identified.
<b>Contact with Corrections in year before interview</b>	Linked IDI data using Corrections records. Any custodial or community sentence in the year before NZGSS interview.
<b>Tertiary study in year before interview</b>	Linked IDI data using Ministry of Education records. Any tertiary enrolment in the year before the NZGSS interview.
<b>Labour force status</b>	NZGSS personal questionnaire. Statistics New Zealand categorisation of employed, unemployed and not in labour force.
<b>Household tenure status</b>	Derived variable from NZGSS household questionnaire. Three categories of private rent, public rent and owned.

<b>Estimated after-tax weekly family income</b>	Linked IDI administrative data from a range of weekly, monthly and annual sources including benefits, student allowances, housing subsidies, tax credits (Working for Families and Independent Earner Tax Credit), earnings and other taxable income. Income estimated for the week when responding to the survey for each adult in the family. Family income is treated as missing if a partner cannot be linked in the IDI.
<b>Self-assessed health status</b>	NZGSS personal questionnaire. In general, would you say your health is excellent, very good, good, fair or poor?
<b>Postponed or put off visits to the doctor 'a lot' due to costs?</b>	NZGSS personal questionnaire. In the last 12 months, to keep costs down, have you postponed or put off visits to the doctor? Binary variable coded to identify response 'a lot'.
<b>To keep costs down, have you gone without fresh fruit or vegetables 'a lot'?</b>	NZGSS personal questionnaire. In the last 12 months, to keep costs down, have you gone without fresh fruit or vegetables? Binary variable coded to identify response 'a lot'.
<b>To keep costs down, have you done without, or cut back on trips, to the shops or other local places 'a lot'?</b>	NZGSS personal questionnaire. In the last 12 months, to keep costs down, have you done without, or cut back on trips, to the shops or other local places? Binary variable coded to identify response 'a lot'.
<b>To keep costs down, have you spent less on hobbies or other special interests than you would like 'a lot'?</b>	NZGSS personal questionnaire. In the last 12 months, to keep costs down, have you spent less on hobbies or other special interests than you would like? Binary variable coded to identify response 'a lot'.
<b>To keep costs down, have you put up with feeling cold 'a lot'?</b>	NZGSS personal questionnaire. In the last 12 months, to keep costs down, have you put up with feeling cold? Binary variable coded to identify response 'a lot'.
<b>To keep costs down, have you delayed replacing or repairing damaged appliances 'a lot'?</b>	NZGSS personal questionnaire. In the last 12 months, to keep costs down, have you delayed replacing or repairing damaged appliances? Binary variable coded to identify response 'a lot'.
<b>When you need to buy clothes or shoes for yourself, do you feel very limited by the money available?</b>	NZGSS personal questionnaire. When you need to buy clothes or shoes for yourself, how limited do you feel by the money available? Responses include: not at all limited; a little limited; quite limited; very limited. Binary variable coded to identify response 'very limited'.

<b>Couldn't buy a \$300 non-essential item that you would like.</b>	NZGSS personal questionnaire. Imagine that you have come across an item in a shop or on the internet that you would really like to have. It has a price tag of \$300. It is not an essential item for accommodation, food, clothing or other necessities – it's an extra. If this happened in the next month, how limited would you feel about buying it? Binary variable coded to identify response 'couldn't buy it'.
<b>More than once in the last 12 months not paid utilities because of a shortage of money?</b>	NZGSS personal questionnaire. In the last 12 months have you or your partner not paid electricity, gas, rates or water bills on time because of a shortage of money? Binary variable coded to identify response 'more than once'.
<b>Not enough money to meet everyday needs for things such as accommodation, food, clothing and other necessities</b>	NZGSS personal questionnaire. How well does [you / you and your partners combined] total income meet your everyday needs for such things as accommodation, food, clothing and other necessities. Binary variable coded to identify response 'not enough money'.
<b>Household crowding</b>	One or more bedrooms needed based on the Canadian National Occupancy Standard. Derived from NZGSS household questionnaire
<b>House or flat has a major problem with dampness or mould</b>	NZGSS personal questionnaire. Does your house or flat have no problem, a minor problem or a major problem with dampness or mould? Binary variable coded to identify response 'major problem'
<b>Material deprivation (MWI-9 score of 7 or less)</b>	MWI-9 is derived variable from multiple living standards questions in NZGSS personal questionnaire. Scores range from 0 to 20 with higher indicating better living standards. A score of 7 or less is used to define material deprivation.
<b>In the last 12 months have you been discriminated against?</b>	NZGSS personal questionnaire. In the last 12 months have you been discriminated against? Indicator variable coded to identify response 'yes'.
<b>Most people in New Zealand cannot be trusted</b>	NZGSS personal questionnaire: In general, how much do you trust most people in New Zealand? Indicator of 'most people in New Zealand cannot be trusted' based on bottom 2 responses from 11-point scale.
<b>Victim of crime in the last 12 months?</b>	NZGSS personal questionnaire: In the last 12 months, were any crimes committed against you? Responses includes damage to personal property, theft, assault, and threats.

<b>Not safe walking alone in your neighbourhood after dark?</b>	NZGSS personal questionnaire. Thinking about crime, how safe or unsafe do you feel walking alone in your neighbourhood after dark? 'Not safe' includes responses of 'neither safe nor unsafe', as well as 'unsafe', and 'very unsafe'.
<b>Not easy to be yourself in New Zealand</b>	NZGSS personal questionnaire. People in New Zealand have different lifestyles, cultures, and beliefs that express their identity. How easy or hard is it for you to be yourself in New Zealand? 'Not easy' includes responses of 'sometimes easy, sometimes hard', 'hard' or 'very hard'
<b>Depressed in last four weeks</b>	NZGSS personal questionnaire. During the past four weeks, how much of the time have you felt downhearted and depressed? Variable coded to include responses of 'all', 'most', or 'some of the time'.
<b>Pain interfered with work inside and outside the home during the last four weeks</b>	NZGSS personal questionnaire. During the past four weeks, how much did pain interfere with your normal work including both work outside the home and housework? Variable coded to include responses of 'extremely' and 'quite a bit'.
<b>Felt lonely in the last four weeks</b>	NZGSS personal questionnaire. In the last four weeks, how much of the time have you felt lonely? Variable coded to include responses of 'all' or 'most of the time'.
<b>Low subjective life satisfaction</b>	NZGSS personal questionnaire. General question about life as a whole these days, including all areas of your life. If 0 is completely dissatisfied, and 10 is completely satisfied, how do you feel about your life as a whole? Variable coded so that bottom six options indicate low subjective life satisfaction.
<b>Low sense of purpose</b>	NZGSS personal questionnaire. Overall, to what extent do you feel the things you do in your life are worthwhile? Scale from 0 (not at all worthwhile) to 10 (completely worthwhile). Variable coded so that bottom six options indicate low sense of purpose.
<b>SF12 mental health index</b>	Derived variable from NZGSS personal questionnaire using multiple questions. Variable ranges from 0 to 100 with higher score indicating better health.

<b>SF12 physical health index</b>	Derived variable from NZGSS personal questionnaire using multiple questions. Variable ranges from 0 to 100 with higher score indicating better health.
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