The timing, duration and severity of poverty during childhood have been identified in research as influencing longer term outcomes for children. In general, those experiencing poverty early or for prolonged periods have been shown to have worse outcomes than those exposed to poverty only during adolescence, or for shorter periods of time [10,11]. Further, the duration of income poverty also influences the severity of material deprivation. Analysis of the data from Statistics NZ’s Survey of Family Income and Employment (SoFIE) indicates significant correlations between the length of time spent on a low income, and levels of material deprivation [12].

In 2012 the Office of the Children’s Commissioner’s Expert Advisory Group on Child Poverty recommended that the Government monitor the severity and persistence of poverty for families with children [3]. Measures of poverty persistence and severity are much less developed than the headline income poverty and material deprivation measures. The Household Economic Survey (HES) provides data on a cross section of households showing poverty over time. However, different sets of households are included in each survey, so there is no continuity and the survey cannot provide information on how many of the households who were poor in one survey are still poor in the subsequent survey [5].

A number of measures are available to assess the depth and severity of poverty but these are not updated regularly [5]:

- The ratio of the number below the 50% line to the number of those below the 60% line (the higher the ratio, the greater the depth of poverty).
- Median poverty gap ratio, defined as the ratio of the gap between the poverty threshold and the median income of those below the threshold with the threshold itself.
- The total poverty gap that measures the total resources ($m) required to bring all those identified as poor to just above the poverty line via targeted tax transfers.

The quality of HES data for households with very low incomes is a concern, according to Perry, and may have a detrimental impact on the robustness of measures of poverty depth [5].

The Statistics NZ’s longitudinal Survey of Family, Income and Employment (SoFIE) that ran between 2002 and 2009 has provided a range of reasonably robust measures of poverty persistence [5] but no further updates are planned.

Given their significant influence on long term outcomes for children, despite the limitations in the data, poverty severity and persistence need to be monitored. In the absence of more robust measures, or in the case of persistent poverty more up to date data, the following sections present two proxy indicators that capture different aspects of the severity and duration of child poverty in New Zealand.

**Poverty Severity**

- The proportion of children living in households below the 50% income poverty threshold, as measured using HES data [5].
- The proportion of children living in households who were both income poor and experiencing material deprivation, as measured using HES data [5].

**Poverty Persistence**

- The proportion of children exposed to chronic low income, as measured using data from Statistics New Zealand’s Longitudinal Survey of Families, Income and Employment (SoFIE) up until 2009 [5,13].

It is hoped that in time, these proxy indicators will be replaced by more robust measures, which better capture the severity and persistence of poverty for New Zealand children.
## Poverty Severity

### Data Source and Methods

#### Indicator

1. Proportion of children aged 0–17 years who are both income poor and materially disadvantaged
2. Proportion of children aged 0–17 years living below the 50% income poverty threshold before and after housing costs

#### Data Source

New Zealand Household Economic Survey (NZHES n=2,800–3,500 households per survey) via Perry 2014 [5]. Note: Child Poverty measures are reported on by the Ministry of Social Development using NZHES data with data being reported on 2-yearly from 1982–1998 and 3-yearly thereafter. Since 2007, income data have been reported annually using the new HES Incomes Survey. The full NZHES (including expenditure data), however, remains 3-yearly. For more detail on methodology see Perry 2014 [5].

#### Interpretation

The <50% relative poverty measure is based on a poverty benchmark (50% of the median income) that rises and falls with changes in national median incomes (i.e. poverty is defined in relation to the incomes of others in the same year).

For further detail see Perry 2014 [5].

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### Children in Income-poor Households Experiencing Material Hardship

One approach to assessing the severity of child poverty in the absence of more robust measures, is to identify children living in households that are both income poor and experiencing material hardship. Perry notes that living above the poverty threshold reduces the risk of material hardship, but does not remove it. Those in hardship with incomes above the poverty line may have some expectation of living standards improving. For those in hardship and who also have low incomes, there is little chance of an improvement unless their income increases and stays up [5].

**Figure 1** shows the proportion of those who are both income poor and materially disadvantaged for the population as a whole and for households with children [5].

### Children in Households with Incomes less than 50% of Contemporary Median

A second approach to assessing the severity of child poverty in the absence of more robust measures, is to select an income threshold lower than the traditional 60% cut-off. Where all else is the same, children in households with incomes below the 50% moving line threshold, will experience greater material disadvantage than those just below the 60% threshold.

**Figure 2** reviews the proportion of children aged 0–17 years living in households with incomes below 50% of the contemporary median, before (BHC) and after (AHC) adjusting for housing costs. Using the <50% poverty measure, during the 1980s the proportion of children living in poverty was similar before and after adjusting for housing costs. However, from 1992 onwards, child poverty rates were much higher after adjusting for housing costs, with the most rapid rises in child poverty between 1990 and 1994 being seen when the AHC measure was used. While child poverty rates in 2012 were similar to those in the early 1980s using the BHC measure, when the AHC measure was used, rates remained much higher than those in the 1980s.

An increase in child poverty (<50% AHC measure) was also evident between 2007 and 2011. In 2012, 20% of children were living in severe poverty (**Figure 2**) with a slight drop to 19% in 2013.
Figure 1. Trends in the Percentage of those who are both income poor and materially deprived, New Zealand 2007–2012 HES years


Figure 2. Percentage of dependent children aged 0–17 years living below the 50% of median income poverty threshold, New Zealand 1982–2013 HES years

**Poverty Persistence**

The child poverty measures in the previous section were based on data from the Household Economic Survey (HES), this survey samples a different set of households in each survey, so it is not possible to explore poverty persistence at the household level using HES data. However, Statistics NZ's Survey of Family, Income and Employment (SoFIE) that began in October 2002, followed the same group of individuals and has longitudinal data available for seven years, from 2002–03 to 2008–09 [5].

The following section uses SoFIE data to show the proportion of children who in 2002–03 were aged 0–17 years (living below 60% gross median threshold) or 0–11 years (living below the 50% gross median threshold) and who experienced persistent poverty (i.e. an average family income below the low income threshold) across the seven years.

<table>
<thead>
<tr>
<th>Data Source and Methods</th>
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<tbody>
<tr>
<td><strong>Definition</strong></td>
</tr>
<tr>
<td>1. Proportion of children aged 0–17 years (using 60% gross median threshold) in year one of Statistics New Zealand's Survey of Family, Income and Employment (SoFIE) who were exposed to persistent poverty</td>
</tr>
<tr>
<td>2. Proportion of children aged 0–11 years (using 50% gross median threshold) in year one of Statistics New Zealand's Survey of Family, Income and Employment (SoFIE) who were exposed to persistent poverty</td>
</tr>
<tr>
<td><strong>Data Source</strong></td>
</tr>
<tr>
<td>Statistics New Zealand's Survey of Family, Income and Employment (SoFIE)</td>
</tr>
<tr>
<td>The information in this section is drawn from Perry's 2014 Household Incomes Report [5], which is based on the analysis of SoFIE data published by Carter and Imlach Gunasekara (2012) [13] and some otherwise unpublished data provided to Perry by Carter and Imlach Gunasekara.</td>
</tr>
<tr>
<td><strong>Interpretation</strong></td>
</tr>
<tr>
<td>The initial SoFIE sample in 2002–03 included around 11,500 households with almost 30,000 respondents (22,000 being aged 15+ years). In the final year of SoFIE (2008–09), just under 14,000 adults (aged 15+ years) were left. The overall attrition rate (63% remaining after seven years) is comparable to similar international longitudinal surveys. In this analysis, SoFIE participants who were eligible in the first year (2002–03) and who responded in all seven survey years have been included, giving a sample of just under 19,000.</td>
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<tr>
<td><strong>Persistent Poverty</strong></td>
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<tr>
<td>In this analysis, participants’ average income over the seven years was compared with an average low income (poverty) line over the same period. People whose average income across all seven years was below the average low income (poverty) line were said to be in persistent poverty. As income was averaged across all seven years, participants may have been above the income poverty line in some years, but still classified as being in persistent poverty [5].</td>
</tr>
<tr>
<td><strong>Current Poverty</strong></td>
</tr>
<tr>
<td>Participants were considered to be in current poverty if they fell below the income poverty line for which ever survey year was under review [5].</td>
</tr>
<tr>
<td>Note: In this analysis the poverty benchmarks used are based on 50% and 60% of gross income. This is different to the benchmarks used in the earlier income poverty section which are based on 60% of disposable income. Perry [5] notes that the two 60% benchmarks are not comparable (due to differences in the methodology used), and that that where comparisons are required, that the 50% gross is the most appropriate, as it is closer to the usual poverty figures reported (60% median disposable income).</td>
</tr>
</tbody>
</table>

**Proportion in Current and Persistent Income Poverty <60% Gross Median Threshold**

Of the children who were aged 0–17 years in the first year of SoFIE (2002–03), 24% lived in households experiencing persistent poverty (i.e. an income which, when averaged across all seven years, was below 60% of the gross median) and 29% were deemed to be in current poverty (i.e. with an income below 60% of the gross in the year under review) (Figure 3). The reason for this difference is because in any given year, those in poverty comprise a mix of those who have transiently moved into poverty and moved out in later surveys, and those who were living in long term poverty.
When the threshold used is 50% of the gross median income, 16% of children who were aged 0–11 years in the first year (2002–03) were deemed to be in persistent poverty and 19% in current poverty (Figure 3). Perry [5] notes that in any one year, 60% of those in current poverty were also in persistent poverty (using the 50% gross median threshold). There was also a further group of children who, although not in poverty in the current year, were in persistent poverty when their households’ incomes were averaged over the seven survey years.

Figure 3. Percentage of children with current and persistent low incomes, Statistics New Zealand’s Survey of Family, Income and Employment (SoFIE) 2002–2009

![Graph showing percentage of children with current and persistent low incomes.](image-url)