



## Proactive Release

The following Report has been proactively released by the Department of the Prime Minister and Cabinet, on behalf of Rt Hon Jacinda Ardern, Minister for Child Poverty Reduction:

Stats NZ'S Release of 2018/19 Child Poverty Rates [Embargo 10.45 Tues]

Date of release: 25 March 2020

The following document have been included in this release:

***Stats NZ'S Release of 2018/19 Child Poverty Rates [Embargo 10.45 Tues]***

Some parts of this information release would not be appropriate to release and, if requested, would be withheld under the Official Information Act 1982 (the Act). Where this is the case, the relevant section of the Act that would apply has been identified. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

### Key to redaction code:

- 9(2)(a): to protect the privacy of natural persons.

# Briefing

## STATS NZ'S RELEASE OF 2018/19 CHILD POVERTY RATES [EMBARGO 10.45 TUES]

To: Rt Hon Jacinda Ardern, Prime Minister, Minister for Child Poverty Reduction  
 cc: Hon Grant Robertson, Minister of Finance; Hon Carmel Sepuloni, Minister for Social Development; Hon Tracey Martin, Minister for Children

Date	24/02/2020	Priority	MEDIUM
Deadline	25/02/2020	Briefing Number	DPMC-2019/20-701

### Purpose

- 1 This report provides you with advice on Stats NZ's release of child poverty rates on 25 February 2020. It includes the figures that Stats NZ are scheduled to release, which we have received under embargo conditions, and some contextual information to assist you with interpreting what those figures mean.

### Executive Summary

- 1 At 10:45 am on 25 February 2020, Stats NZ will release rates of child poverty for 2018/19 under the Child Poverty Reduction Act 2018. This will be the first release of progress against the Government's child poverty targets, and the first report that has the potential to show an initial impact from the Government's Families Package on child poverty rates. The Child Poverty Unit has been provided with an advance copy of the rates under a 24 hour embargo period.
- 2 The reporting is based on the 2018/19 Household Economic Survey, and reflects annual household incomes over a rolling two-year period: from mid-2017 to mid-2019. As noted in past advice (*DPMC-2020/20-619 refers*), these reporting timeframes mean that the changes in rates from 2017/18 to 2018/19 will only reflect a *partial* impact from the Families Package. It will not be until the next report in 2021 that the bulk of the impact will be reported.
- 3 As well as rates being subject to standard statistical variation ('sampling error'), Stats NZ has also made methodological changes for the 2018/19 survey that may have had a very small (likely upward) impact on estimated rates. Stats NZ reports that comparisons between baseline and 2018/19 can still be made largely because, in order to produce the baseline rates, changes were made to their previous standard procedures in anticipation of most of the 2018/19 changes.
- 4 Officials have now received embargoed rates from Statistics New Zealand, which show:
  - a decline of 1.6 ppt on the before-housing-cost primary measure (14,900 children) and 2.0 ppt on the after-housing-cost primary measure (18,400 children). These declines are the same as, or slightly smaller than, the estimated

sampling error for changes from year-to-year, which means they are not statistically significant.

- **no significant change on the material hardship measure (from 13.3% in 2017/18 to 13.4% in 2018/19).** The impact from the Families Package on this measure was always expected to be relatively small this year, as there is a lag between additional income increases and any measurable change in material hardship for households.
- **across the suite of measures in the Child Poverty Reduction Act 2018, seven of nine measures have seen reductions.** Of these, the one measure that shows a statistically significant fall is the BHC60 measure.

5 Because they are marginally smaller than the sampling error estimates, we cannot say with a high degree of certainty whether the declines in levels of child poverty on the income measures are real world reductions, but they are broadly consistent with what we expected to see in the numbers for partial impact. The release in 2021 will enable us to make a more conclusive assessment of the Families Package's impact and progress towards the targets.

## Recommendations

It is recommended that you:

- 6 **note** that on 25 February 2020, Stats NZ will release rates of child poverty for 2018/19 under the Child Poverty Reduction Act 2018
- 7 **note** that Stats NZ's upcoming reporting is based on annual household incomes across a two-year period from mid-2017 to mid-2019, so the impact of the Families Package will only be partially captured in the upcoming release
- 8 **note** the rates are subject to standard statistical variation (sampling error), both for estimates of the rate in any one year, and estimates of change from one year to the next
- 9 **note** that Stats NZ have also made methodological changes for the reporting, which may have had a very small (likely upward) impact on estimated rates
- 10 **agree** to proactively release this report Agree / Disagree



Kristie Carter  
Director, Child Poverty Unit,  
Department of the Prime Minister and  
Cabinet

24.1.2020

Rt Hon Jacinda Ardern  
Prime Minister  
Minister for Child Poverty Reduction

...../...../2020

Contact for telephone discussion if required:

Name	Position	Telephone	1st contact
Kristie Carter	Director, Child Poverty Unit	s9(2)(a)	✓
Tim Garlick	Principal Analyst, Child Poverty Unit		

Minister's office comments:

- Noted
- Seen
- Approved
- Needs change
- Withdrawn
- Not seen by Minister
- Overtaken by events
- Referred to

Proactively Released by the Department of the Prime Minister and Cabinet

## Child poverty: 2018/19 rates and changes from 2017/18

11 The table below sets out the rates for 2018/19, and their change from the previous year.

	Measures	2018/19 rate (%)	Number of children	Sampling error for rate	Change from 17-18 (ppt, # of children)	Sampling error for change
Primary measures*	50% BHC moving line	14.9%	168,500	1.0%	-1.6 ppt. -14,900	1.6 ppt
	50% AHC fixed line	20.8%	235,400	1.2%	-2.0 ppt. -18,400	2.4 ppt
	Material Hardship (6+)	13.4%	151,700	1.1%	+0.2ppt. +4,100	2.6 ppt
Supplementary measures	60% BHC moving line	23.3%	263,400	1.2%	-2.0 ppt. -17,800	1.9 ppt
	60% AHC moving line	29.0%	328,200	1.3%	-1.6 ppt. -12,900	2.9 ppt
	50% AHC moving line	21.4%	241,600	1.2%	-1.4 ppt. -12,200	2.4 ppt
	40% AHC moving line	14.8%	167,600	1.0%	-0.8 ppt. -6,700	2.6 ppt
	Severe Material Hardship (9+)	5.8%	66,100	0.6%	0.0 ppt. +1,300	1.6 ppt
	Low Income (AHC60) and Material hardship (6+)	8.2%	92,300	0.9%	-0.7 ppt. -6,000	2.1 ppt

\* Persistent poverty not required until 2025/26

12 On rates for the primary measures, the figures show:

- a decline of 1.6 ppt (around 14,900 children) on the before-housing-cost primary measure (BHC50 moving line)
- a decline of 2.0 ppt (around 18,400 children) on the after-housing-cost primary measure (AHC50 fixed line)
- no significant change on the material hardship measure (from 13.3% in 2017/18 to 13.4% in 2018/19).

13 These declines are the same as, or slightly smaller than, the estimated sampling error for changes from year-to-year, which means they are not statistically significant.

14 On the supplementary measures, the year-to-year changes are broadly consistent with those for the primary measures. Both the before-housing-cost and after-housing-cost measures of low income show reductions, but the level of the reductions are lower for those in deepest poverty, and are lower than sampling errors for changes from year-to-year. Measures of severe material hardship show no significant change. Of all the measures reported, the one measure that shows a statistically significant fall is the BHC60 measure.

- 15 Because of the expansion in the sample, Stats NZ will now be able to routinely report on annual rates of poverty for different ethnic groups and by region each year. We have included advice on these breakdowns in Appendices Two and Three.

### Child poverty: longer-term trends for rates

---

- 16 It is important to see these rates within the context of the longer-term trends on the measures in the Child Poverty Reduction Act. They are broadly as follows:
- Rates on the before-housing-cost moving line measures (including the **BHC50 moving line** primary measure) have been slowly tracking up since 2008/09, which is the result of incomes growing faster at the middle of the income distribution than at the bottom.
  - The rate on the fixed line after-housing-cost measure (the **AHC50 fixed line** primary measure) has been steadily tracking downwards, as wage growth has outpaced growth in housing costs for most (but not all) low income households.
  - After a rise between 2007 and 2011 following the Global Financial Crisis, **material hardship** rates had been tracking down, primarily due to improvements in the economy and employment, especially for second income earners.
  - Rates on the after-housing cost moving line measures (AHC 40, 50 and 60) have been broadly flat.
- 17 These trends are all consistent with broadly favourable economic conditions and growth in employment and wages, which has been offset for some households by rising housing costs.

### Reporting timeframes and the impact of the Families Package

---

- 18 As previously advised, because of the way child poverty reporting works, there is a significant 'lag' between the Families Package being implemented and its impact showing on rates. While the upcoming reporting on 25 February by Stats NZ will be the first to show any impact from the Families Package in 2018/19, the impact of the Families Package will only be *partially* captured in the figures released this year. [DPMC-2020/20-619 refers].
- 19 As you know, the reporting is based on the Household Economic Survey, which surveys households over the course of a year, and asks them their income in the 52 weeks prior to the date they are surveyed. Because these rates are based on a survey conducted in 2018/19, Stats NZ's upcoming reporting reflects household incomes across a rolling two-year period - incomes from mid-2017 to mid-2019. The Families Package was largely implemented in July 2018, which means that around half the incomes data will be from before the package came into effect.
- 20 Officials' previous 'best estimate' was that the February child poverty figures were likely to show between a third and a half of the full impact that the modelling suggests the Families Package is actually having in 2018/19. This translated to reductions in the order of around 2 ppt, or around 20,000 children, on each measure of low income.

- 21 Modelling is not available for estimating the impact of the package on the material hardship measure, but we would expect that the impact from the package to be lower than for the other measures - as this is driven by many factors other than income, and there will also be a lag in any measurable change for households after they receive additional income increases. The 2021 release is more likely to show an impact from the package on material hardship.

### Sampling error and statistical significance

---

- 22 Child poverty reporting is subject to the standard statistical uncertainties that apply when using a survey sample to estimate levels for the whole population. When data obtained from a sample is used in this way, there is always an element of uncertainty about the estimate ('sampling error'). Sampling errors apply to both estimates of the rate in any one year, and estimates of change from one year to the next.
- 23 Sampling error on the year-to-year change is estimated at between 1.6 and 1.9 percentage points for the before-housing-cost measures, 2.4 and 2.9 percentage points for after-housing-cost measures, and 2.6 percentage points for material hardship. A change that is larger than this is deemed to be 'statistically significant' – that is, the change falls within the 95% confidence interval used by Stats NZ and most other statistical agencies around the world. Changes that are smaller than this could still reflect real world increases or decreases, particularly if they are close to the threshold, but there is a lower degree of certainty that this is the case.

### The impact of methodology changes

---

- 24 Stats NZ has made some methodological changes to the Household Economic Survey data, many of which were anticipated when preparing the baseline rates for 2017/18, and incorporated into the methodology for last year's release. A summary of the key changes is included as Appendix 4 to this report. Stats NZ's view is *'that the methodological changes may have led to a very small increase in low-income and material hardship rates in 2018/19 compared to what they would have been if the enhanced 2017/18 methodology had been used in both years. It is not possible to isolate or precisely quantify the impact of the methodological changes from other changes in child poverty rates. However, our analysis has shown that the 2018/19 estimates can be validly compared with 2017/18 and the rest of the back series'*.
- 25 Overall, while the changes made by Stats NZ in preparing the 2017/18 baseline rates will have mitigated the impact that would otherwise have occurred from this year's methodology, there may still be a small "upward push" that has a dampening impact on any reduction, leading to a small reduction in reported decreases compared with what they would have been (or to a small increase rather than a small decrease).

### Assessing progress from the baseline rates

---

- 26 Taking into account the combination of the size of the previous estimates of the impact of the Families Package; the thresholds for statistical significance for year-to-year changes (which are of a similar order of magnitude to the expected impact from the Families

Package); and the possibility of a very small 'upward push' from new methodology, it is difficult to determine whether small declines in levels of child poverty are real world reductions.

- 27 The fact that the declines are not statistically significant does not necessarily mean that the Families Package is having less of an impact than expected, or that the reductions in poverty that were previously projected are now no longer expected to be the case. It is simply too early to judge either way. The release in 2021 will enable us to make a more conclusive assessment of the Families Package's impact and of progress towards the targets.

Proactively Released by the Department of the Prime Minister and Cabinet



Appendix one: summary of poverty rates

	2017/18 Baseline		2018/19 Year		Change	
	2017/18 rate	Sampling error	2018/19 rate	Sampling error	Change	Sampling error
50% BHC moving line	16.5%	1.1%	14.9%	1.0	-1.6 pp	1.6%
50% AHC fixed line	22.8%	1.9%	20.8%	1.2	-2.0 pp	2.4%
Material Hardship (6+)	13.3%	2.3%	13.4%	1.1	+0.2 pp	2.6%
60% BHC moving line	25.3%	1.2%	23.3%	1.2	-2.0 pp	1.9%
60% AHC moving line	30.6%	2.4%	29.0%	1.3	-1.6 pp	2.9%
50% AHC moving line	22.8%	1.9%	21.4%	1.2	-1.4 pp	2.4%
40% AHC moving line	15.7%	2.2%	14.8%	1.0	-0.8 pp	2.6%
Severe Material Hardship	5.8%	1.4%	5.8%	0.6	0.0 pp	1.6%
Low Income and Material hardship	8.8%	1.8%	8.2%	0.9	-0.7 pp	2.1%
<b>Numbers of children</b>	<b>2017/18 Baseline</b>		<b>2018/19 Year</b>		<b>Change</b>	
	2017/18 rate	Sampling error	2018/19 rate	Sampling error		
50% BHC moving line	183,400	12,200	168,500	11,200	-14,900	
50% AHC fixed line	253,800	21,600	235,400	13,500	-18,400	
Material Hardship (6+)	147,600	25,100	151,700	12,300	+4,100	
60% BHC moving line	281,200	13,600	263,400	13,200	-17,800	
60% AHC moving line	341,100	26,500	328,200	14,300	-12,900	
50% AHC moving line	253,800	21,600	241,600	13,500	-12,200	
40% AHC moving line	174,300	24,600	167,600	11,600	-6,700	
Severe Material Hardship	64,800	15,600	66,100	7,100	+1,300	
Low Income and Material hardship	98,300	19,500	92,300	10,600	-6,000	

Proactively Released by the Department of the Prime Minister and Cabinet

## Appendix two: poverty rates by ethnicity

- 28 Previously, only limited analysis by ethnicity was reported because of the relatively small sample sizes for Māori, Pacific and other ethnic groups, with only broad relativities across multiple survey years available, and for AHC 50 (relative) only.
- 29 The increased sample size in HES 2018/19 allows for annual analysis and reporting of poverty rates by ethnicity, including - as required by legislation - for Māori children. The following table identifies poverty rates by ethnicity using the primary measures.

Region	Primary Measures					
	50% BHC moving		50% AHC fixed		Material Hardship (6+)	
	% in poverty	No. of children	% in poverty	No. of children	% in poverty	No. of children
European	11.0	80,300	17	124,300	9.8	72,700
Māori	19.6	55,000	24.7	69,100	23.3	64,200
Pacific peoples	21.2	30,200	24.7	35,000	28.6	40,600
Asian	16.1	29,300	25.7	46,900	6.3	11,600
Middle Eastern/ Latin American/African	30.5	7,000	36.2	8,300	23.6	5,400
Other	28.9	6,600	35.4	8,100	15.0	3,500

- 30 Stats NZ's 2018/29 HES analysis reports the expected broad pattern of higher poverty rates amongst Māori and Pacific children, and their over-representation amongst children in poverty (relative to their percentage of the total population). This was most recently reported in MSD's 2019 Household Incomes Report, which identified the following for the AH50 (relative) measure using the average of three consecutive HES years:

- Rates of poverty for Māori and Pacific children were much higher than for Pakeha children - around 14% of European/Pakeha children lived in low-income households, 32% of Māori children, and 36% of Pacific children. The average rate for all children was 22%.
- Māori and Pacific children made up a disproportionate percentage of those in poverty - around half of children in low-income households were Māori or Pacific (35% of all children are Māori or Pacific)

- 31 At first glance the HES 2018/19 data seem to suggest that there has been a notable decline in AHC poverty rates for Māori and Pacific children, when compared with the MSD figures. We would caution against this interpretation, given the different sampling methodology (single survey vs. averaged over several samples), different income sources (survey vs admin) and measures (AHC50 fixed vs. relative) used.

- 32 We also recommend caution in interpreting the poverty rates for the 'other' and 'MELAA' (Middle Eastern / Latin American / African) ethnic groups, as they are very small sample sizes with significant sampling errors (11.8 – 13.1 percent).

**Appendix three: poverty rates by region**

- 33 We now have rates on child poverty measures for 12 regional groupings, based on regional council areas (the Gisborne and Hawke’s Bay regions are merged together, as are West Coast, Tasman, Nelson, and Marlborough regions). The proviso here is that the sampling error for some of the smaller regions is quite large (e.g. 7.7 – 9.3 ppt for Southland).
- 34 The following table presents child poverty rates in each of the 12 regions, using the primary measures in the Child Poverty Reduction Act.

Region	Primary Measures					
	50% BHC moving		50% AHC fixed		Material Hardship (6+)	
	% in poverty	No. of children	% in poverty	No. of children	% in poverty	No. of children
Northland	18.5	8,200	26.7	11,800	14.0	6,100
Auckland	15.1	57,900	22.3	85,600	13.5	51,500
Waikato	17.5	20,400	21.7	25,300	15.9	18,900
Bay of Plenty	14.4	11,100	22.9	17,600	14.0	10,900
Gisborne / Hawkes Bay	16.2	8,800	17.9	9,700	14.8	8,100
Taranaki	17.6	5,300	21.4	6,400	18.3	5,400
Manawatu-Whanganui	16.7	10,000	20.9	12,500	18.0	10,800
Wellington	12.2	13,700	17.3	19,400	9.5	10,600
Tasman-Nelson-Marlborough-West Coast	14.0	5,700	21.5	8,700	15.4	6,200
Canterbury	9.8	13,500	16.7	23,100	10.3	14,200
Otago	16.7	8,300	21.8	10,800	12.2	6,100
Southland	23.5	5,700	18.4	4,500	12.0	2,900

- 35 The AHC50 and material hardship measures are likely to be better than BHC50 for the purposes of making comparisons of low living standards across the regions. This is because of the impact that regional variations in both housing costs and the Accommodation Supplement have on the resources available to households.
- 36 Using the AHC50 measure, the data shows that Northland, Bay of Plenty and Auckland have the highest child poverty rates. However, the regions with the greatest number of children in poverty are Auckland, Waikato and Canterbury. Between them, these three regions contain 57 percent of all children in poverty in New Zealand.

## Appendix four: summary of recent methodology changes

- 37 Up until 2017/2018, we relied on reporting on child poverty through MSD's Household Incomes Report, based on data from the Household Economic Survey and Treasury modelling of some income components such as beneficiary incomes which are generally not reported accurately in surveys (the HES-TAWA dataset). The sample size for the survey was generally around 3,000-5,000 households (with slightly larger surveys of 5,500 households in 2014/15 and 2017/18). To enable population estimates from the samples, Stats NZ created weights using benchmarks from the census relating to both individual characteristics (region, age, sex, and ethnicity) and households (two-adult households and non-two adult households).
- 38 While the HES-TAWA dataset and MSD's reporting was sufficient for broad trends and general policy purposes, reporting based on the HES was not adequate for measuring child poverty at the level of precision necessary to monitor progress against targets under the Child Poverty Reduction Act 2018. In addition, there were ongoing concerns about possible sample bias in many of these surveys, caused by the higher non-response rates for low-income and high-deprivation households. Stats NZ received additional funding to improve the data sources for measuring child poverty, including for a substantial increase in the survey - to 28,500 dwellings - with the aim of achieving 20,000 responding households for use in the sample.
- 39 Because the expanded survey was not available in time for the baseline rates, Stats NZ officials made a number of changes ahead of time intended to address issues with the 2017/18 dataset used for child poverty reporting last year. They replaced the survey data on incomes with administrative data from the Integrated Data Infrastructure, and for the before-housing-cost measure linked this with HES and Household Labour Force Survey data on household composition to create a larger sample size of 20,000 households. This reduced sample errors for the before housing cost measure from around 3 percentage points to around 1 ppt. For the after-housing-cost income and material hardship measures, HES data on households was used and sample errors remained at around 2 – 2.5 ppt. SNZ were also able to use revised benchmarks for developing their weights for the time series through to 2017/18. These better adjusted for possible under-coverage of certain population groups.
- 40 Stats NZ officials implemented some further changes for the 2018/19 survey year. In addition to the substantial increase in the sample size (which reduced sample errors to around 1-1.5% for each measure at the national level), they also improved the survey design and collection to ensure a good representation of lower socio-economic households in the survey. They also used additional benchmarks to weight the sample data, including the number of people receiving a government benefit.
- 41 Conscious that some of the methodological changes could potentially impact on 2018/19 rates, Stats NZ have released a high level assessment of the expected impact of the most notable changes to the methodology. These are:
- **The use of admin income data rather than survey data** – the admin data used for income information raises the reported rates as there are more very low-income households in admin data rather than survey data. However the admin data was used to create the baselines in 2017/18 and earlier. The reported movement between

## IN CONFIDENCE

2017/18 to 2018/19 will be unaffected by this methodology change, albeit the actual levels are a little higher than when using survey data.

- **Sample design changes** – changes were made to the design and operation of the survey to get better representation in the 2018/19 survey of households with low income and/or high material deprivation in the sample. Increasing the number of people with low-income and/or high material deprivation in the sample will increase the precision of the estimates and may have reduced non-response bias. This change has the potential to increase 2018/19 rates compared to what they would have otherwise been using the previous sample design. The precise size of that impact cannot be quantified, but analysis on both 2017/18 and 2018/19 response rates by different socio-economic status showed that while the sample coverage has improved, this is expected to have only a small impact on the change between 2017/18 and 2018/19 results.
- **Weighting improvements** – In 2017/19, Stats NZ were unable to implement all of the anticipated weighing calibration changes that they introduced in 2018/19. The main difference in 2018/19 was the inclusion of the number of people receiving a government benefit as an additional benchmark. Analysis has shown that the addition of this benchmark has had very little impact on the estimates, given the other changes that were made.

42 Stats NZ's view is that *“overall, the changes made in preparing the baselines in 2017/18 will have largely mitigated the impact that would otherwise have occurred. The methodological changes may have led to a very small increase in low-income and material hardship rates in 2018/19 compared to what they would have been if the enhanced 2017/18 methodology had been used in both years. It is not possible to isolate or precisely quantify the impact of the methodology changes from other changes in child poverty rates. However, our analysis has shown that the 2018/19 estimates can be validly compared with 2017/18 and the rest of the back-series.”*<sup>1</sup>

---

<sup>1</sup> Stats NZ, *Changes to the Household Economic Survey 2018/19*. [www.stats.govt.nz](http://www.stats.govt.nz) Date of access: 21 February 2020