The Treasury

Families Package Information Release

Release Document

March 2018

www.treasury.govt.nz/publications/informationreleases/families-package

Key to sections of the Official Information Act 1982 under which information has been withheld.

Certain information in this document has been withheld under one or more of the following sections of the Official Information Act, as applicable:

[1] 9(2)(f)(iv) - to maintain the current constitutional conventions protecting the confidentiality of advice tendered by ministers and officials;

[2] 9(2)(g)(i) - to maintain the effective conduct of public affairs through the free and frank expression of opinions;

[3] 9(2)(h) - to maintain legal professional privilege;

[4] 9(2)(k) - to prevent the disclosure of official information for improper gain or improper advantage.

Where information has been withheld, a numbered reference to the applicable section of the Official Information Act has been made, as listed above. For example, a [4] appearing where information has been withheld in a release document refers to section 9(2)(k).

In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) of the Official Information Act.

THE TREASURY
Kaitohutohu Kaupapa Rawa

Treasury Report: Updated distributional impacts of the Families Package

Date:	Monday, 4 December 2017	Report No:	T2017/2749
		File Number:	SH-13-5-2-4

Action Sought

	Action Sought	Deadline
Minister of Finance (Hon Grant Robertson)	**Note** the contents of this report	Tuesday, 5 December 2017

Contact for Telephone Discussion (if required)

Name	Position	Telephone		1st Contact
[2]		[4]	[4]	✓
Andrew Hunter	Manager - Analytics & Insights			

Actions for the Minister's Office Staff (if required)

Return the signed report to Treasury.

Note any feedback on the quality of the report	

Enclosure: No

Executive Summary

This report provides you with the projected impacts of the Families Package in the form of gains/losses by income decile and the number of children in low-income households relative to current settings in the absence of the Budget 2017 changes.

The Families Package is projected to:

- reduce the number of children in low income households by 48% in 2021 (using the 50% of moving line median equivalised before housing costs household income measure);
- increase the weekly incomes of approximately 385,000 families with dependent children by an average of $66 a week in the tax year ending 31 March 2019; and
- increase the weekly incomes of approximately 626,000 families without dependent children by $13 a week (when the increase is averaged over a year) in the tax year ending 31 March 2019.

The projected number of children in low-income households can vary significantly due to survey data, modelling assumptions, and projected economic conditions, and is expected to change with each data update (even in the absence of policy changes). This means that any further modelling, including analysis that may be required as part of Budget 2018, may change the projected reduction in child poverty numbers.

This report presents projected future numbers (for tax years 2019 to 2021) derived using the Treasury's microsimulation model. These projections are not comparable to the values in the Household Incomes Report published by the Ministry of Social Development, which uses the most recent survey data (2016) and is an analysis of past child poverty measures.

The analysis in this report represents the first opportunity that officials have had to model the impact of the Families Package against current settings, and therefore the projections will be different than in previous reports and the Cabinet paper [CAB-17-MIN-0516 refers] on the Families Package.

Recommended Action

We recommend that you:

a **Note** that this report presents the impacts of the Families Package on child poverty (income) measures, and gains and losses across the distribution of families, relative to the current settings in the absence of the Budget 2017 changes;

b **Note** that this is the first opportunity that officials have had to model these impacts against current settings, and therefore the projections will be different than in previous reports and the Cabinet paper [CAB-17-MIN-0516 refers];

c **Note** that the numbers are highly dependent on the underlying survey data, modelling assumptions and economic conditions, and therefore are subject to change where there is further modelling required based on updated information, including any analysis required as part of Budget 2018;

d **Note** that these numbers are also modelled projections and not forecasts;

e **Note** that the projections on child poverty are different from the values used in the annual Household Incomes Report published by MSD (which are based on past measures), and these measures therefore are not comparable;

f **Note** that the impacts of the Families Package is expected to reduce the number of children in low income households (using the 50% of moving line median equivalised before housing costs household income measure) by 44% (or around 71,000) in the tax year ending 31 March 2019, nine months after the implementation of the Package (holding all else constant);

g **Note** that the reduction in child poverty using the same measure increases to 48% of children in low income households (or around 88,000) by the tax year ending 31 March 2021 (holding all else constant);

h **Note** that around 385,000 families with dependent children will gain an average of $66 per week in the tax year ending 31 March 2019 with the Families Package;

i **Note** that around 626,000 families without dependent children will gain an average of $13 per week in the tax year ending 31 March 2019 with the Families Package;

j You may wish to **refer** this report to the Minister for Child Poverty Reduction and the Ministers forming the governance of the Families Package (Housing and Urban Development, Social Development, Revenue, and Children); and

k **Indicate** whether these impacts against current settings should be used in communications material that officials are currently preparing.

Yes / No

Andrew Hunter
Manager - Analytics & Insights

Hon Grant Robertson
Minister of Finance

Treasury Report: Updated distributional impacts of the Families Package

Purpose of Report

1. The Families Package Cabinet paper, considered by Cabinet on 27 November 2017 (CAB-17-MIN-0516 refers), sets out the details and impacts of the Families Package. The paper includes gains/losses by income decile and an initial estimate of the projected impacts on children in low-income households (using two measures), relative to Budget 2017 changes. As you requested, this report provides you with these projected impacts relative to current settings in the absence of the Budget 2017 changes.

Analysis

2. All data in this report have been estimated using Treasury's Tax and Welfare Analysis model (TAWA) based on data from the Household Economic Survey (HES).[1]

3. The analysis in this report is based on modelled projections, which aside from policy changes assume no deviations from the existing forecast track. The impacts will be affected by factors outside the TAWA modelling. If, for example, the median income rises more strongly than projected, then the low-income thresholds will be higher than projected and the reductions in poverty (compared to the starting point) will be lower.

4. The distributional estimates are the best available at this time, and they incorporate modelling improvements that weren't available for the Cabinet paper. There are still known differences between the forecast fiscal costs presented in the Cabinet paper and the fiscal costs implied by TAWA. This is because TAWA uses survey data, whereas the fiscal costs in the Cabinet paper are based on administrative data. Starting next year, the Treasury will investigate the extent to which administrative data can improve the fiscal and distributional measures.

5. These projections are not directly comparable to estimates published annually by the Ministry of Social Development in the Household Incomes Report, which are ex-post measures. That is, the MSD figures are estimates based on the most recent HES data, whereas TAWA figures are estimated using projections of the HES data into the future based on current economic forecasts.

The impact of the package on families with children

6. TAWA can only currently model the impact of the Package on incomes before deducting housing costs (BHC). A full assessment of the likely impact of the package on poverty would also require consideration of incomes after housing costs and non-income measures such as MSD's material deprivation index (DEP-17).

7. The 50% of median (moving line) household income before housing costs is a common low-income measure used internationally, with the incomes equivalised to adjust for

[1] Access to the Household Economic Survey data was provided by Statistics New Zealand under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented here are the work of Treasury, not Statistics New Zealand.

household size and composition. This measure is used as the point of comparison for these projections.

8. Overall, the package is expected to reduce the number of children living in households below this low-income threshold by 48% when compared to a status quo based on the pre-Budget 2017 settings. Tables 1 and 2 below present the projected reductions relative to the 50% before housing costs measure for the Families Package and settings legislated in Budget 2017 (Family Incomes Package), respectively, compared to the same status quo.

Table 1 Projected reduction in number of children in low-income households under the **Families Package**

Tax Year	50% of Median Equivalised BHC Income				60% of Median Equivalised BHC Income			
	Children in Poverty				Children in Poverty			
	Status Quo	Reform	Reduction	Reduction (%)	Status Quo	Reform	Reduction	Reduction (%)
2016	157,000				265,000			
2019	161,000	90,000	71,000	44%	273,000	217,000	56,000	20%
2020	164,000	92,000	72,000	44%	286,000	225,000	61,000	21%
2021	181,000	93,000	88,000	48%	303,000	229,000	74,000	24%

Table 2 Projected reduction in number of children in low-income households under the Budget 2017 **Family Incomes Package**

Tax Year	50% of Median Equivalised BHC Income				60% of Median Equivalised BHC Income			
	Children in Poverty				Children in Poverty			
	Status Quo	Reform	Reduction	Reduction (%)	Status Quo	Reform	Reduction	Reduction (%)
2016	157,000				265,000			
2019	161,000	106,000	55,000	34%	273,000	239,000	34,000	12%
2020	164,000	119,000	45,000	28%	286,000	253,000	33,000	11%
2021	181,000	132,000	49,000	27%	303,000	266,000	37,000	12%

9. The change in the numbers below such thresholds is estimated by TAWA on an 'all else unchanged' basis. In the absence of any changes, the number of children in low income households is projected to increase to 181,000 by 2021, due to projected increases in the median income. The Families Package is estimated to reduce the number of children in low-income households from 181,000 to 93,000, or a reduction of 48% compared to the 181,000 children who would otherwise be in these low-income households.

10. The TAWA values in this paper are not comparable with the Household Incomes Report values because:

a TAWA numbers for Tax Years 2019–2021 are projections, and the Household Incomes Report does not contain values for these years because it is based on the survey year;

b The TAWA numbers for 2016 are also based on projections of the HES 2014/2015 survey, whereas the Household Incomes Report numbers are directly calculated using the survey data from HES 2015/2016; and

c TAWA applies an extra calibration step to align the results with known administrative values.

11. Like all projections, these numbers need to be treated with caution. The numbers reported using future survey data may be different for various reasons. In particular, they may increase or decrease because:

    a income projections may not be realised; and

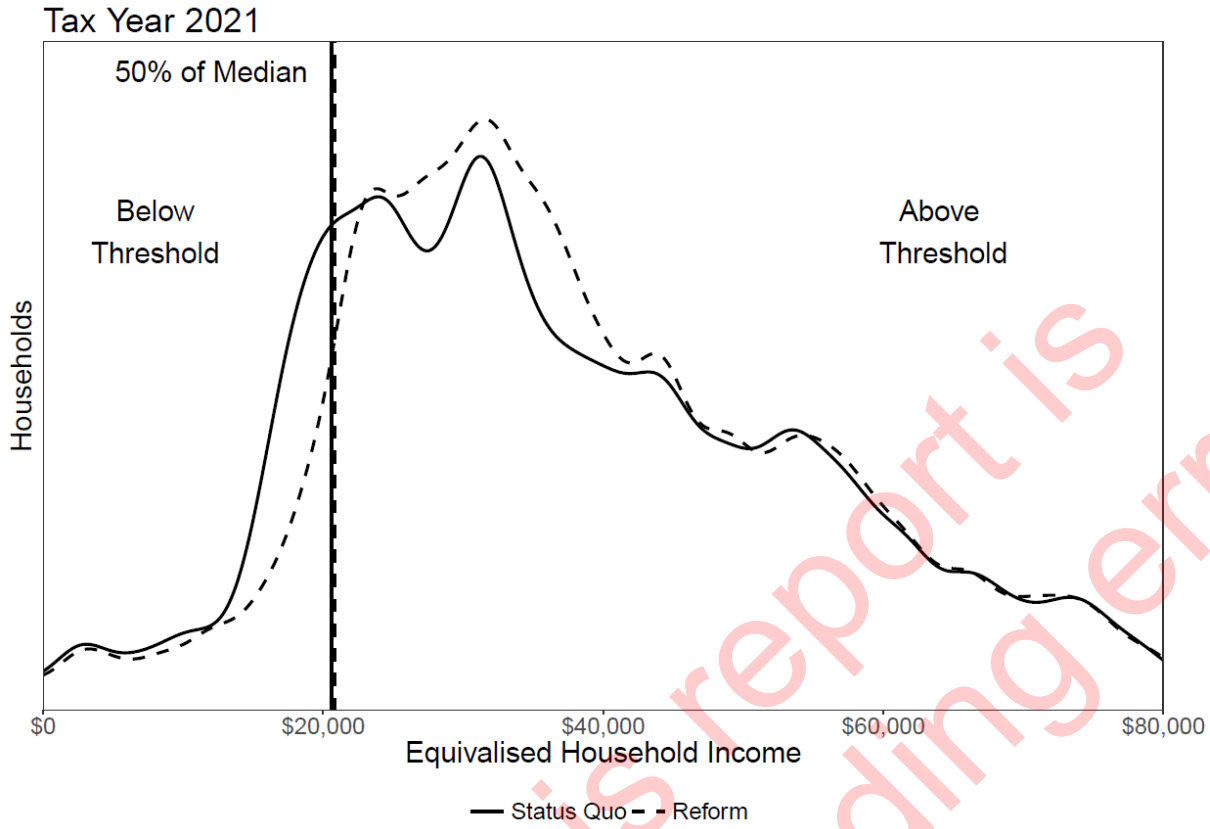
    b the small sample size and variability in the data may lead to revised estimates due to the inherently large margins of error.

12. In addition, Figure 1 shows that there are many households with incomes clustered around this low-income threshold. Small changes in the median income or the income distribution as a result of the reasons outlined above could move a significant number of children above or below the low-income threshold without materially changing their living standards.

13. Updates to the input data will also change the estimated income distribution in the area around this threshold, and will lead to increases/decreases in the number of children in low-income households even in the absence of any economic or policy changes. The updated HES data for 2016/17 will be incorporated into TAWA by March 2018 (note that TAWA currently uses HES 2014/15 data, for consistency with previous advice).

14. Figure 1 demonstrates that the Families Package is projected to materially increase the incomes of a substantial number of households with children, and many of them will move across the low income threshold. The area underneath the curve and to the left of the threshold represents the number of children in low income poverty (the solid line refers to the status quo and the dashed line refers to the Families Package). There are less children in this region under the Families Package than under the status quo, and the income distribution has shifted further into the region above the threshold (towards the right).

Figure 1 Distribution of incomes of households with children, for the March 2018 settings (Status Quo) and under the Families Package (Reform)



Distributional Analysis

15. Relative to the settings in the absence of the Budget 2017 changes, the Families Package will give an average of $66 per week to approximately 385,000 families with dependent children in 2019, increasing to $75 per week in 2021 when the Best Start payment is fully in place – see Tables 3–5.

16. For families without children, around 650,000 families will gain approximately $13 per week (averaged over the year) due to increases to the Accommodation Supplement and the Winter Energy Payment.

17. Technical modelling assumptions resulted in a very small number of disadvantaged families who were modelled to stop receiving one transfer payment in favour of a different transfer payment with lesser value. This loss is a product of the modelling and would not occur in practice.

18. Aside from the technical result mentioned above, there are no families who are financially disadvantaged in the Treasury's modelling of the Families Package.

Table 3 Distributional impacts for Tax Years 2018/2019 compared to pre-Budget 2017 legislation

Tax Year 2019

	Families with Children			Families without Children		
Family Taxable Income Decile	Number of Families	Families Gaining	Average gain per week for Families that gain	Number of Families	Families Gaining	Average gain per week for Families that gain
1	61,000	61,000	$ 65.84	185,000	*	*
2	60,000	60,000	$ 84.03	185,000	95,000	$ 15.26
3	61,000	60,000	$ 70.33	185,000	136,000	$ 11.91
4	61,000	61,000	$ 69.30	184,000	82,000	$ 12.87
5	61,000	57,000	$ 59.97	185,000	103,000	$ 13.81
6	61,000	44,000	$ 54.68	185,000	47,000	$ 13.97
7	61,000	23,000	$ 41.69	184,000	47,000	$ 14.12
8	61,000	10,000	$ 47.46	185,000	34,000	$ 12.42
9	61,000	4,000	$ 47.60	185,000	39,000	$ 12.84
10	61,000	*	*	184,000	40,000	$ 13.05
ALL	608,000	385,000	$ 65.70	1,845,000	626,000	$ 13.46

Table 4 Distributional impacts for Tax Years 2019/2020 compared to pre-Budget 2017 legislation

Tax Year 2020

	Families with Children			Families without Children		
Family Taxable Income Decile	Number of Families	Families Gaining	Average gain per week for Families that gain	Number of Families	Families Gaining	Average gain per week for Families that gain
1	65,000	65,000	$ 70.39	188,000	*	*
2	59,000	59,000	$ 79.23	187,000	94,000	$ 15.54
3	61,000	61,000	$ 67.66	187,000	142,000	$ 11.82
4	62,000	62,000	$ 74.08	188,000	83,000	$ 13.15
5	61,000	59,000	$ 69.53	187,000	102,000	$ 13.68
6	61,000	44,000	$ 57.50	188,000	49,000	$ 13.82
7	62,000	21,000	$ 40.31	188,000	47,000	$ 13.99
8	61,000	9,000	$ 52.73	187,000	36,000	$ 12.27
9	61,000	4,000	$ 46.83	188,000	42,000	$ 12.86
10	61,000	*	*	187,000	41,000	$ 13.06
ALL	614,000	385,000	$ 68.04	1,875,000	638,000	$ 13.44

Table 5 Distributional impacts for Tax Years 2020/2021 compared to pre-Budget 2017 legislation

Tax Year 2021

	Families with Children			Families without Children		
Family Taxable Income Decile	Number of Families	Families Gaining	Average gain per week for Families that gain	Number of Families	Families Gaining	Average gain per week for Families that gain
1	65,000	65,000	$ 78.24	191,000	*	*
2	60,000	60,000	$ 93.42	190,000	95,000	$ 15.88
3	62,000	62,000	$ 74.77	190,000	147,000	$ 11.70
4	62,000	62,000	$ 81.17	191,000	90,000	$ 13.77
5	62,000	59,000	$ 75.44	190,000	95,000	$ 13.53
6	62,000	44,000	$ 54.10	190,000	49,000	$ 14.10
7	62,000	16,000	$ 44.28	191,000	48,000	$ 13.30
8	62,000	9,000	$ 62.46	190,000	38,000	$ 12.12
9	62,000	*	*	191,000	42,000	$ 12.98
10	62,000	*	*	189,000	45,000	$ 13.13
ALL	620,000	384,000	$ 75.44	1,902,000	652,000	$ 13.51

Notes for Tables 3–5:

- All measures of change are relative to relative to system settings prior to the changes to legislation of Budget 2017.
- This analysis was carried out using Treasury's micro-simulation model of the tax and welfare system – TAWA. All calculations should be considered as estimations.
- Deciles and decile boundaries are determined by family taxable incomes in the status quo.
- Families are counted as gaining (losing) if their annual disposable income increases (decreases) by 0.1c or more.
- Elements with stars "*" are suppressed for confidentiality as values must have more than 3000 counts (weighted) and 10 or more sample units.