

The Treasury

Budget 2017 Information Release

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[40]	Not in scope	

In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) and section 18 of the Official Information Act.

Reference: T2017/1409

TF-4-7

Date: 22 May 2017

To: Minister of Finance
(Hon Steven Joyce)

Deadline: None



Aide Memoire: Family Incomes Package - Impacts Including the Terranova Settlement

In a meeting with officials on 15 May, 2017 you requested a quintile analysis combining the impacts of the Family Incomes Package with the Terranova settlement.

Methodology

Treasury's Taxwell microsimulation model uses the Household Economic Survey (HES) data, which was not designed to provide representative samples of occupational data. As a result, the number of affected individuals identified in Taxwell is much smaller than the 55,000 care and support workers estimated to benefit from the Terranova settlement. Consequently, the Taxwell model cannot be used directly to estimate the full impact of the Terranova settlement.

As a consequence we developed an alternative modelling approach to estimate the combined impact of the Package and the Terranova wage increases. Wage increases were applied to randomly sampled individuals in the HES data who have a similar wage rate (in the absence of the Terranova settlement), regardless of their recorded occupational industry. We repeated this process 1000 times using different random samples and ran each new dataset through Taxwell. Based on our analysis of the distributions of the samples, we have confidence that the mean estimates in Tables 1 to 4 are robust.

This method provides an indicative assessment of the combined impact of the Family Incomes Package and the Terranova settlement which is consistent with the limited data available.

Indicative Results

Table 1 presents estimates of the combined impacts of the Family Incomes Package and the Terranova settlement for the New Zealand population, including NZ superannuitants and families with independent students. By including the superannuitants and students, we are able to more appropriately match the characteristics of care and support workers. Under the combined effect of the Family Incomes Package and the Terranova settlement, 88 percent of families gain, on average, \$28 per week. This is \$5 higher than the average weekly gain from the Family Incomes Package.

Table 2 provides a quintile analysis for families that benefit from the Terranova settlement. 55,000 families will gain an average of \$176 per week from the Terranova settlement changes.

Tables 3 and 4 provide similar results to Tables 1 and 2 but with both superannuitants and students excluded. This is consistent with the quintile analysis provided for the Family Incomes Package. 16,000 families who will benefit from the Terranova settlement are superannuitants or students. Within this subpopulation, 90 percent of families will gain an average of \$31 per week from the combined Family Incomes Package and Terranova settlement. This is \$6 higher than the average weekly gain from the Family Incomes Package.

Assumptions

We have used the following assumptions in this analysis:

- All results relate to Tax Year 18/19.
- HES data with the weights adjusted for Accommodation Supplement (as used in previous quintile analyses) can be used to provide representative hourly wage rates.
- Care and support workers are members of families that have similar interactions with the tax and transfer system as other workers with similar wage rates.
- The Home and Community Support workers (24,000 workers) are representative of the wider care and support workforce. These are the workers for whom we hold relevant data, including survey data about qualifications and years of service (provided in the March 2016 MOH Home and Community Support Services (HCSS) Workforce Survey cited in the Cabinet paper “Care and Support Workers Pay Equity Settlement Agreement” (Cab-17-MIN-0179)).
- Wage changes have been modelled by adding \$7.00 per hour to each of the randomly selected individuals who will benefit from the Terranova settlement. This assumption was derived to be consistent with an aggregate cost of \$515m for 55,000 individuals in 18/19.

Caveats and quality assurance

- The results are indicative estimates based on the limited data available.
- In practice, there are likely to be some differences between the HCSS survey respondents and other parts of the workforce.
- Terranova only applies to a small proportion of the population therefore caution is required in the interpretation of this analysis.

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Table 1 Quintile analysis of the combined Package and Terranova impacts.

Quintile	Total families	Number of families who gain	Proportion of families who gain	Average gain for those who gain	Proportion of families who lose	Proportion of families who lose	Average loss for those who lose	Difference between average gain for package with and without Terranova
1	475,000	192,000	40%	\$ 32.16	*	*	*	\$ 2.49
2	474,000	469,000	99%	\$ 20.65	*	*	*	\$ 5.39
3	475,000	473,000	100%	\$ 22.66	*	*	*	\$ 4.88
4	475,000	472,000	99%	\$ 31.66	*	*	*	\$ 6.73
5	475,000	475,000	100%	\$ 34.76	*	*	*	\$ 2.21
	2,374,000	2,081,000	88%	\$ 27.89	6,000	0%	(\$4.00)	\$ 4.60

Table 2 Quintile analysis of Terranova

Quintile	Number of families who gain from Terranova	Average gain from Terranova for those who gain
1	7,000	\$ 82.58
2	14,000	\$ 176.11
3	12,000	\$ 194.42
4	16,000	\$ 198.45
5	5,000	\$ 192.75
	55,000	\$ 176.49

Table 3 Quintile analysis of the combined Package and Terranova impacts, excluding students and superannuitants.

Quintile	Total families	Number of families who gain	Proportion of families who gain	Average gain for those who gain	Proportion of families who lose	Proportion of families who lose	Average loss for those who lose	Difference between average gain for package with and without Terranova
1	299,000	155,000	52%	\$ 36.76	*	*	*	\$ 1.44
2	298,000	296,000	99%	\$ 25.12	*	*	*	\$ 10.02
3	298,000	296,000	99%	\$ 29.96	*	*	*	\$ 6.27
4	298,000	298,000	100%	\$ 32.54	*	*	*	\$ 6.30
5	298,000	298,000	100%	\$ 35.17	*	*	*	*
	1,492,000	1,343,000	90%	\$ 31.41	6,000	0%	(\$4.00)	\$ 5.59

Table 4 Quintile analysis of Terranova, excluding students and superannuitants.

Quintile	Number of families who gain from Terranova	Average gain from Terranova for those who gain
1	3,000	\$ 79.64
2	15,000	\$ 203.11
3	10,000	\$ 194.12
4	9,000	\$ 210.77
5	*	*
	39,000	\$ 192.26