THE TREASURY
Kaitohutohu Kaupapa Rawa

13 February 2017

Mr Mat Danaher
fyi-request-5203-a1cd6402@requests.fyi.org.nz

Dear Mr Danaher

Thank you for your Official Information Act request, received on 13 January 2017. You requested:

> "In the November 2016 report "Using IDI Data to Estimate Fiscal Impacts of Better Social Sector Performance" by Robert Templeton on page 2 on the third sentence from the bottom the author states that one of his parameters that they be earning a "living wage".
>
> He describes this as about two thirds of the media wage. Could you please let me know the evidence he used to decide that a Living Wage is two thirds of the median wage?
>
> What does the author consider to be the median wage in November 2016?"

Information to be Released

We propose to respond to each point in the request as below:

1. Could you please let me know the evidence he used to decide that a Living Wage is two thirds of the median wage?

   - Earning 2/3rds of the median wage is one of the 'on track' measures applied to a study of a group of individuals born in 1993 and analysed up to 21 years of age (reference: Treasury analytical paper 16/04 *"Using IDI Data to Estimate Fiscal Impacts of Better Social Sector Performance"*)

   - The Treasury analysis set out to make comparisons (in the 'on-track' rates) between different sub-groups of the 1993 cohort. Different wage criteria did not greatly affect the comparisons between different groups.

   - The comment in the analytical paper that the criteria was approximately the same as the living wage is discussed in detail below.

The relevant section of the paper states that one of the measures of being "on track at 21" is "being employed and earning more than two-thirds of median wage for most of their 21st year (approximately the "living wage")".

The figure of "two-thirds of median wage" is $28,667, based on data available in the IDI and was selected after consideration of a range of wage and salary indicators. The report author then compared it with the living wage figure as this is a term that the report audience would be familiar with. Once converted to an annual salary for a single person, the living wage gives a figure of $27,454. Full details of the calculation are below.

The median wage figure was used for research purposes only, to give a basis for comparison between different sub-groups within the analysis. To make these comparisons, it was important to use a consistent measure across the study population, rather than a measure that was precisely in line with other data sources. Different wage criteria did not greatly affect the outcomes for different groups. The Treasury has not conducted any specific work on the living wage.

The Living Wage

Waldegrave and King (Report of an Investigation into Defining a Living Wage for New Zealand, Dec 2012) argue for $18.40 as an appropriate living wage to support a two adult and two children household, assuming one adult is working full time and the other working part time (also earning a living wage). The analysis is based on data from 2011.

Details of the calculations used

In a cohort study based on a population who were born in 1993 and who can be observed in the IDI data until they are 21 years old, the report author needed to make some adjustments to the living wage to make this comparison:

- convert the living wage rate into an annual fulltime salary (as there is no hourly wage rate data in the IDI)

- adjust the rate so that it is appropriate for a single person (using a household equivalence scale)

- adjust for inflation between 2011 and 2014 (The IDI tax return data used refers to 2014, which is the year the 1993 cohort (the bases of the analysis in the Treasury report) is 21.)

Specifically the steps are:

- rating up the salary into an annual salary for fulltime workers (i.e. multiplied by 40 (hours per week) and 52 (weeks in the year)),

- multiplying the living wage rate by 1.5 to take into account the other wage earner, then adjust by a factor 1.41/.65 = 2.16, which is the ratio of (Jensen) household equivalence scale for a 2 person 2 child household to the scale for a single adult,

- Adjusting the amount for inflation (3.3%) between 2011 and 2014.

This gives a figure of $27,454. The ratio of this figure to the median wages and salaries data that is available in the IDI (based on individual IRD tax returns covering the year 2014) is .64 (or about 2/3rds).

2. What does the author consider to be the median wage in November 2016?

To refer to a more recent median wage and salary figure the report author would use the latest Statistics New Zealand Income survey (June 2015) which gave a figure of $882 per week. Two thirds of this (as a fulltime annual wage) is $30,729. However the report author would not necessarily expect this to match the IRD tax return data that closely, as it is derived from a different data source with a different sample and purpose.

The data available through the IDI is a valuable source of information that has relatively recently become available. As such we welcome discussion on the concepts and methods underlying our analytical work.

Please note that this letter (with your personal details removed) and enclosed documents may be published on the Treasury website.

This fully covers the information you requested. You have the right to ask the Ombudsman to investigate and review my decision.

Yours sincerely

Andrew Hunter
Manager - Analytics & Insights