



11 May 2023

Mr Lance Watson
fyi-request-22437-a3808a1f@requests.fyi.org.nz

Tēnā koe Lance Watson,

On 12 April 2023, you sent two emails to the Ministry of Social Development (the Ministry) requesting, under the Official Information Act 1982 (the Act), the following information:

- *A breakdown of the number of New Zealand Superannuation and Veteran's Pension recipients for each of the categories listed here:*

<https://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fworkandincome.govt.nz%2Fmap%2Fdeskfile%2Fnz-superannuation-and-veterans-pension-tables%2Fnew-zealand-superannuation-and-veterans-pension-ra.html&data=05%7C01%7CSimon.Bennett019%40msd.govt.nz%7Ce%2F2e56d5419c4b3d2b2b08db3b98e50f%7Ce40c4f5299bd4d4bf7ed001a2ca6556%7C0%7C0%7C638169300093721936%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Iik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=HsiBpJGy5kDhtMi7%2FJLGVJGIb1nQrFHZ7gkuWw%2ByMcI%3D&reserved=0>

This includes different tax codes. As an example:

M Tax code:

Single, living alone:

Single, sharing accommodation:

Married person or partner in a civil union or de facto relationship:

Married or in a civil union or de facto relationship, both qualify:

Married or in a civil union or de facto relationship, grandparented non-qualified partner included on or after 1 October 1991:

Married, grandparented non-qualified partner included before 1 October 1991:

Hospital rate:

And then the same for S tax code, and SH, ST, SA.

This does not need to show separate stats for NZS and VP, these can be combined.

Can this please be the numbers as at 1 April 2023. If not possible, then current numbers are fine.

- Based on my understanding, the net rate of superannuation is calculated with the following method:*

Gross Rate - Tax (rounddown to nearest cent).

As an example, the current Single, Living Alone rate of NZ Super is \$578.67 Gross per week. For the M Tax code, the formula for calculating the net rate is as follows (In Excel Formula formatting):

*=578.67 - ROUNDDOWN(269.23*0.105 + (ROUNDDOWN(578.67,0) - 269.23)*0.175,2)
=496.37*

269.23 is the tax bracket 14000 divided by 52 to get the weekly tax bracket, and rounded down.

This comes from documentation received from MSD, and can be confirmed by checking current NZ Super rates in MAP, and further confirmed by replacing 578.67 with other M tax code rates to see that the method still works.

My concern here are two components of the calculation.

- 1. 269.23, it is exceptionally odd in a tax calculation to round a tax bracket before it is put into a calculation, as this means we're using a slightly incorrect tax bracket.*
- 2. ROUNDDOWN(578.67,0), It is fairly common to round down annual income to the nearest dollar when paying tax, but this doesn't apply to weekly/fortnightly amounts. No other benefit type does this. In this instance it means (0.67*52=)\$34.84 is going untaxed each year.*

My Official Information Request is as follows:

- 1. Can you confirm the method MSD uses to calculate the net rate of NZS from the gross rate, or if this is calculated in reverse after Annual Gross Adjustment, the method to calculate the gross rate from the net. Especially if the calculation is different from my understanding above.*
- 2. Why does MSD round down the tax bracket when performing the gross to net calculation?*
- 3. Why does MSD round down the weekly/fortnightly gross rate, leaving the remaining cents untaxed?*

Please find below **Appendix One** containing **Table One** that answers your request for the number of recipients of New Zealand Superannuation (NZS) and the Veteran's Pension (VP), broken down by payment rate and tax code.

You will note that the information regarding some individuals is withheld under section 9(2)(a) of the Act in order to protect the privacy of natural persons. The need to protect the privacy of these individuals outweighs any public interest in this information.

In the interest of clarity, I will respond to each question from the second part of your request in turn.

- 1. Can you confirm the method MSD uses to calculate the net rate of NZS from the gross rate, or if this is calculated in reverse after Annual Gross Adjustment, the method to calculate the gross rate from the net. Especially if the calculation is different from my understanding above.*

NZS rates are updated each April according to [section 15](#) and [section 16](#) of the New Zealand Superannuation and Retirement Income Act 2001 (NZSRIA).

Section 15 states that the net rates must be increased by the amount of the annual Consumers Price Index (CPI) change for the most recent December year.

Section 16 states that, if necessary, the net married/coupled rate is adjusted so that it is at least 66% of the net average wage, but no more than 72.5%. The two main single net rates are then set at 60% (single sharing) and 65% (single living alone) of the married/coupled net rate.

Thereafter, the Ministry calculates the gross rates from the new net rates.

For the married/coupled rate:

Net April 23 = \$381.82 per week per person

An initial estimate of gross is created as below. The Ministry then adjusts it by the required amount to ensure that net to gross followed by gross to net takes us back to original net.

$$\begin{aligned}\text{Gross} &= \text{GrossThres2} + (\text{NetRate} - \text{NetThres2}) / (1 - \text{TaxRate2}) \\ &= \$269.23 + (\$381.82 - \$240.96) * (1 - 0.175) \\ &= \$269.23 + \$170.74 \\ &= \$439.97 \text{ (439.9684 as no rounding in some parts)}\end{aligned}$$

$$\text{GrossThres2} = \text{Round} (14,000/52,2) = \$269.23$$

$$\text{NetRate} = \$381.82$$

$$\text{NetThres2} = \text{GrossThres2} * (1 - \text{TaxRate1}) = \$269.23 * (1 - 10.5\%) = \$240.96$$

To calculate Net we start with integer part of gross:

$$\begin{aligned}\text{Tax} &= \text{Int}(\text{Gross}) * \text{TaxRate1} + (\text{Int}(\text{Gross}) - \text{Thres1}/52) * (\text{TaxRate2} - \text{TaxRate1}) \\ &= \$439 * 0.105 + (\$439 - \$269.23) * (.175 - .105) \\ &= \$46.10 + \$11.88 \\ &= \$57.98 \text{ (57.97885)}\end{aligned}$$

This is then truncated to two decimal places = \$57.97

$$\begin{aligned}\text{Net} &= \text{Gross less Tax} \\ &= \$439.97 - \$57.97 \\ &= \$382.00\end{aligned}$$

This differs to the original CPI/wage adjusted net amount of \$381.82 by 18 cents.

The 18 cents is, therefore, deducted from the initial gross calculated above to give a final gross amount of \$439.79.

These calculations may be seen in columns U and AJ to AO in the sheet named [Table1] of the Annual General Adjustment (AGA) spreadsheet that the Ministry supplied to you last year.

They give the same results as calculations inside the Ministry's payment system (SWIFTT) does.

The weekly lookup tables published by Inland Revenue (IRD) includes the ACC earners levy (see the link below):

<https://www.ird.govt.nz/-/media/project/ir/home/documents/forms-and-guides/ir300---ir399/ir340/ir340-2023.pdf?modified=20220321212434&modified=20220321212434>

However, if we alter our tax rates to include the 1.46% levy (April 22 to March 23 year as linked above) then the calculations outlined above will give a gross married person rate of \$440.00. Looking this up on page 27 of the IRD table

gives tax of \$64.57. This exactly agrees with the fictional net amount of \$375.43 (please note: the net rate differs because the 1.46% ACC levy is treated in the AGA model as a tax change to be incorporated before the CPI adjustment is made).

The fact that these amounts are the same indicates that the calculation is correct.

The Ministry is aware that the answer may be slightly different when using the IRD online calculator. On several occasions, Inland Revenue assured the Ministry that both versions are correct, and that they do not have a preferred approach.

The Ministry notes that the process below gives the identical answers to above, given the gross amount already calculated.

$$\begin{aligned} \text{gw} &= \text{int}(\text{Gross}) \\ \text{paye} &= \text{gw} * \text{TaxRate1} \\ \text{tax} &= \text{paye} + (\text{gw} - \text{Thres1}/52) * (\text{TaxRate2} - \text{TaxRate1}) \end{aligned}$$
$$\begin{aligned} \text{Tax} &= \text{Int}(\text{Round}(100 * \text{tax}, 1)) / 100 \\ \text{Net} &= \text{Gross} - \text{Tax} \end{aligned}$$

2. Why does MSD round down the tax bracket when performing the gross to net calculation?

The tax bracket is simply rounded after dividing by 52. It is not rounded down.

Further, the rounded figure is only used when estimating which tax bracket, the given net or gross amount falls into. It is also used to estimate the net threshold and the initial gross amount.

The formula (Thres1/52) used immediately above and on the previous page for net calculations is not rounded.

It is also noted that the rounding difference in the 14,000/52 tax threshold is 0.00077 cents, producing negligible differences that would be easily covered by rounding elsewhere in the calculations.

3. Why does MSD round down the weekly/fortnightly gross rate, leaving the remaining cents untaxed?

As indicated in the second part of the answer to question 1, the tax tables published by IRD truncate weekly payment rates to the next lowest dollar.

For those who declare other earnings in addition to NZS or VP, there may well be residual income tax to be paid to IRD at the end of the income tax year.

Please note that the tax tables long predate IRD's online calculators.

Section 15 (2) of the NZSRIA states that the gross rates listed in Schedule 1 are adjusted in accordance with changes to the CPI "after the deduction of standard tax".

Section 15 (1) defines "standard tax" as "the amount of tax reckoned on a weekly basis that would be deductible in accordance with the tax code "M" stated in schedule 5, part A, [clause 4](#), table row 1 of the Tax Administration Act 1994."

This will account for why the Ministry uses the weekly tables rather than the fortnightly tables.

Earlier references to specific tax legislation included the weekly tax table as an appendix. At the time, the Ministry was instructed to use the figures in the appendix. This approach remains, whereby the Ministry agrees with tax amounts published in the weekly tax tables (without the ACC levy).

In each case, the IRD tables say to use the lower whole dollar amount (i.e., drop any cents per week) and notes that the tables may differ to the online calculator results (both on page 9).

The principles and purposes of the Official Information Act 1982 under which you made your request are:

- to create greater openness and transparency about the plans, work and activities of the Government,
- to increase the ability of the public to participate in the making and administration of our laws and policies and
- to lead to greater accountability in the conduct of public affairs.

This Ministry fully supports those principles and purposes. The Ministry therefore intends to make the information contained in this letter and any attached documents available to the wider public. The Ministry will do this by publishing this letter and attachments on the Ministry's website. Your personal details will be deleted, and the Ministry will not publish any information that would identify you as the person who requested the information.

If you wish to discuss this response with us, please feel free to contact OIA_Requests@msd.govt.nz.

If you are not satisfied with this response about New Zealand Superannuation, Veteran's Pension and tax, you have the right to seek an investigation and review by the Ombudsman. Information about how to make a complaint is available at www.ombudsman.parliament.nz or 0800 802 602.

Ngā mihi nui

A handwritten signature in blue ink, appearing to read 'Bede Hogan', with a long horizontal stroke extending to the right.

Bede Hogan
Policy Manager (Income Support)



Appendix One

Table One: The number of recipients of New Zealand Superannuation (NZS) and Veteran's Pension, broke down by payment rate and tax code

Tax code	Payment rate	NZS/VP
M	Single, living alone	183,099
	Single, sharing accommodation	104,583
	Married or in a civil union or de facto relationship, both qualify	381,927
	Married or in a civil union or de facto relationship, grandparented non-qualified partner included on or after 1 October 1991	14,406
	Married, grandparented non-qualified partner included before 1 October 1991	S
	Hospital rate	51
	Total	684,066
S	Single, living alone	12,210
	Single, sharing accommodation	5,313
	Married or in a civil union or de facto relationship, both qualify	43,662
	Married or in a civil union or de facto relationship, grandparented non-qualified partner included on or after 1 October 1991	393
	Hospital rate	S
	Total	61,581
SH	Single, living alone	9,036
	Single, sharing accommodation	4,194
	Married or in a civil union or de facto relationship, both qualify	30,834
	Married or in a civil union or de facto relationship, grandparented non-qualified partner included on or after 1 October 1991	72
	Hospital rate	S
	Total	44,139
ST	Single, living alone	16,380
	Single, sharing accommodation	6,348
	Married or in a civil union or de facto relationship, both qualify	54,390
	Married or in a civil union or de facto relationship, grandparented non-qualified partner included on or after 1 October 1991	24
	Total	77,139
SA	Single, living alone	501
	Single, sharing accommodation	153
	Married or in a civil union or de facto relationship, both qualify	3,465
	Total	4,119
Total		871,044

Notes:

- The data tables include the number of NZS and VP recipients, tax codes ('M', 'S', 'SH', 'ST', 'SA'), and payment rate categories.
- These data tables have had random rounding to base three applied to all cell counts in the table.
- A value of one or two will always be rounded to three.
- The impact of applying random rounding is that columns and rows may not add exactly to the given column or row totals.
- The published counts will never differ by more than two counts.
- In certain circumstances, low numbers may potentially lead to individuals being identified. Due to privacy concerns, numbers for some categories of clients were suppressed and replaced by an 'S'.