



MINISTRY OF SOCIAL  
DEVELOPMENT

TE MANATŪ WHAKAHIATO ORA

# What happened to people who left the benefit system

## Technical notes



# Technical information - What happened to people who left the benefit system during the year ended 30 June 2021

## This analysis uses data from the IDI

The analysis for this report uses data from Stats NZ's Integrated Data Infrastructure (IDI). The IDI contains data from government agencies, Stats NZ surveys, and non-government agencies (NGOs) about people, households, and firms. It collects data on a wide range of areas such as education, income, benefits, migration, justice, and health. This allows researchers to better understand how people interact with a variety of government agencies over the long-term. This data is anonymised so that individuals can't be identified<sup>1</sup>.

## This work builds on earlier published analysis:

- In February 2017, the Social Policy Evaluation and Research Unit (Superu) released the first *Off-benefit transitions: Where do people go?* report<sup>2</sup>. The report examined the characteristics of 140,000 people who exited main benefits in the year to 30 June 2011 and their outcomes over the next two years.
- In August 2018, MSD released the report *What happened to people who left the benefit system during the year ended 30 June 2014*<sup>3</sup>.
- In February 2020, MSD released *What happened to people who left the benefit system during the year ended 30 June 2016*<sup>4</sup>
- In April 2021, MSD released *What happened to people who left the benefit system during the year ended 30 June 2019*<sup>5</sup>.
- In September 2022, MSD released the next iteration of this reporting *What happened to people who left the benefit system during the year ended 30 June 2020*<sup>6</sup>

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<sup>1</sup> Please see [Integrated Data Infrastructure | Stats NZ](#) for more information.

<sup>2</sup> <https://thehub.sia.govt.nz/resources/off-benefit-transitions/>

<sup>3</sup> <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/benefit-system/what-happened-to-people-who-left-benefit-system-during-the-year-ended-30-june-2014.html>

<sup>4</sup> <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/benefit-system/what-happened-to-people-leaving-the-benefit-system-2016.pdf>

<sup>5</sup> <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/benefit-system/people-who-went-off-the-benefit-in-year-ended-30-june-2019.html>

<sup>6</sup> <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/benefit-system/what-happened-to-people-who-left-the-benefit-system-year-during-the-ended-june-2020.html>



## The study population

The welfare system provides financial support to help people with low incomes or not in paid employment and to support people to find or retain employment. The subset of income-tested main benefits that we consider throughout this report and the average number of people receiving those benefits each month in the year ended June 2021, are summarised in the table below<sup>7</sup>:

**Table 1: Types of main benefits used to define the study population (ie, cohorts) in this report**

Benefit type	Code	Description	Average number of people each month during the year to June 2021
Jobseeker Support – Work Ready + Youth Payment	JS – WR/YP	Not in, but available for full-time employment + Unsupported youth aged 16-17 years	140,630
Jobseeker Support – Health Conditions and Disability	JS – HCD	Jobseeker Support beneficiaries having reduced or deferred work obligations due to health condition or disability	78,280
Emergency Benefit	EB	Not eligible for another benefit and in hardship	3,470
Sole Parent Support and Emergency Maintenance Allowance + Young Parent Payment	SPS/YPP	Sole parent with youngest child aged under 14 years old + Young parents aged 16-19 years	70,280
Supported Living Payment – Carers	SLP – Carers	Payment paid to carers (excluding partners) that look after those who require full time care and attention	9,340
Supported Living Payment – Health Conditions and Disabilities	SLP – HCD	Permanently and severely restricted in capacity to work due to health condition or disability	84,780

People are included in the study population if they:

<sup>7</sup> The numbers reported within this analysis differ from official MSD benefit statistics due to the difference in counting rules.



- exited a main benefit within one of the cohort periods of interest (see below)
- remained off benefit for at least one calendar month
- were aged between 16 to 64 years old when they exited a main benefit
- received one of the above main benefit types immediately prior to exiting the benefit system

Note that people on a main benefit but who are aged 65 years or older are excluded from this analysis.

Please note instances where people have received the Jobseeker Support – Student Hardship (JSSH), New Zealand Super (NZS), or Veteran’s Pension (VP) at any point have been excluded from the scope of this analysis.

These instances are excluded because these payments are provided either for temporary support between planned periods of study (JSSH) or are permanent payments (NZS and VP).

## Defining measures used in analysis

### Cohorts

Cohorts are used throughout this analysis to refer to the period of time that a person exited off a main benefit:

- 2017/2018 cohort: Exited off benefits between July 2017 and June 2018
- 2018/2019 cohort: Exited off benefits between July 2018 and June 2019
- 2019/2020 cohort: Exited off benefits between July 2019 and June 2020
- 2020/2021 cohort: Exited off benefits between July 2020 and June 2021

Differences in many of the measures in this report between the different cohorts could be at least partly due to differences in the characteristics and histories of the cohorts. For example, differences could reflect differences in policy, strategic focus and in the economic environment over time. Further work would be needed to control for these factors.

If someone exits benefit multiple times within a cohort we only include their first exit in that cohort in this analysis.

### Calendar months are used as a base unit of analysis

To align our analysis with other datasets available in the IDI, which are recorded by calendar month we have restricted our analysis to that basis. A person is counted as having left the benefit system only once they have not received a main benefit for a full calendar month. This means:

- if a person exited off a main benefit on the first or last week of the month (eg, January) they are not counted until they have been off a main benefit for all of the next month (eg, February)



- if a person exits off a main benefit in the first week of the month (eg, January) and does not return to the benefit system till the last week of the next month (eg, February) they are counted as being 'on benefits' for both months (eg, both January and February)

## Likelihood of exits

The likelihood of exiting a main benefit over a 12-month period is defined, as:

$$1 - \left(1 - \left(\frac{a}{b}\right)\right)^{12}$$

Where:

*a*: The average number of people exiting off a main benefit each month over that 12-month period

*b*: The average number of people receiving a main benefit each month over that 12-month period

The likelihood of exiting to employment is then scaled against the overall likelihood of exiting as:

$$x \left(\frac{y}{z}\right)$$

Where:

*x*: The overall likelihood of exiting a main benefit over 12-months

*y*: Number of people who exited into employment over that 12-month period

*z*: Total number of people who exited off a main benefit over that 12-month period

The same equation is used to calculate the likelihood of exits into tertiary education and exits into targeted/industry training where *y* is replaced by the number of people who enrolled into a tertiary qualification or entered into targeted/industry training respectively.

## Remaining off benefit

To calculate the proportion of people who remain off benefit after for at least a year we count the number of people who exited a main benefit for a given cohort (excluding people who reached retirement age or died) and count those who remained off benefit 12-months after their exit.



## Employment and sustained employment definitions

We measure **exits to employment** by including all exits from a main benefit where a person has earnings of at least \$1,696 per month (ie the exit reasons 'Employment' and 'Other with income equal to or greater than \$1,696' shown in Table 3).

We then look at the proportion of people within this group who maintained employment earnings of at least \$1,696 each month for the first year after they exited into employment. This is referred to as **sustained employment, maintained employment, or sustained employment earnings** throughout this report. If a person changes jobs but still maintained income over \$1,696 each month then they were still counted as sustaining their employment.

### **MSD's count of work exits, and the exit to employment measure used in this analysis differ**

Like all measures contained in these reports, the number of people exiting to employment analysed in this reporting will differ from MSD's official reporting of work exits<sup>8</sup>. Some reasons for this difference include:

- People can enter and exit the benefit system multiple times, particularly if they are engaging in seasonal employment. We only count their first exit in each year in this analysis.
- People may exit into employment but not earn over the income threshold of \$1,696 (the equivalent of more than the minimum wage for 20 hours per week).
- Additionally, if a person leaves benefit for multiple reasons, such as beginning a tertiary course, that may be prioritised over employment in this analysis.

For more on the difference between MSD's official counts and the numbers used in this analysis please see the sections 'Defining reasons for exiting off a main benefit' and 'Differences between official MSD benefit statistics and research numbers used in this analysis'.

## Ethnicity definition

We have used Stats NZ's ethnicity variable from personal details table in the IDI. This captures each ethnicity that has ever been assigned to a person across many datasets in the IDI. For this report we have used a total response ethnicity view. This means that when a person has more than one ethnicity they are counted once within each ethnicity group (eg, a person may be counted as both European and Māori). As some people have multiple recorded ethnicities this will result in the sum of ethnicities being greater than the total number of people within each cohort.

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<sup>8</sup> As reported in MSD's Benefit Fact Sheets: <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/statistics/benefit/index.html>



Prior to the previous report published in May 2021, earlier reports prioritised ethnicity so that each person was only counted in one ethnicity group. The order of prioritisation was Māori, Pacific Peoples, Asian, Other and New Zealand European.

## Using highest qualification to measure education

A person's education level is determined by the highest qualification they hold when they exited off a main benefit. These levels are based on the New Zealand Qualification Framework (NZQF). The NZQF is divided into 10 levels: levels 1 to 3 align with NCEA certificates; level 4 – post school certificates; levels 5 to 6 – diplomas; level 7 – Bachelor's Degrees, Graduate Diplomas and Certificates; level 8 – Postgraduate Diplomas and Certificates plus Bachelor Honours Degrees; level 9 – Masters Degrees, and level 10 – Doctoral Degrees.

This information is sourced from Ministry of Education data, 2013 and 2018 Census data, and MSD data.

## Income definition

Throughout this report we have used employment income. This is defined as the gross income earned from employment inflated using the Consumer Price Index (CPI) to September 2022. It includes wages and salaries as well as withholding payments (from Inland Revenue's Employee Monthly Schedule and Employment Information – Employer datasets).

## Excluding self-employment earnings

Most self-employed income declarations from IRD apply to whole year periods ending 31 March and cannot be used to determine how much of that income was earned in each month after a person exits off-benefits.

To understand how much this might impact this analysis, the report published in February 2020<sup>9</sup> calculated a rough upper limit of the proportion of people who exited from the 2015/16 cohort that may have had self-employment earnings that were not included:

1. 10% of people whose exit reason was 'other with earnings less than \$100'
2. 3% of people whose exit reason was 'employment' or 'other earnings >= \$1,260 per week'
3. 3% those who exited benefits with any of the remaining exit reasons.

## Seasonal industries

By analysing the pattern in the number of people employed in 213 sub-industries over time we identified sub-industries with that were likely to have a large seasonal workforce. This was done by:

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<sup>9</sup> <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/benefit-system/what-happened-to-peopole-leaving-the-benefit-system-2016.pdf>





1. Identifying sub-industries that had a regular repeating pattern in employment e.g., peaks and troughs in the number of people employed within the same quarter every year
2. Identifying sub-industries where there was at least a 10 percent difference between the average peak and trough in the number of people employed
3. Determining whether this was a seasonal pattern or the changes in the number of people employed was due to random variation

The 29 sub-industries identified as having seasonal employment patterns are listed below.

**Table 2: Sub-industries identified as having a seasonal employment pattern**

Main industry	Sub-industry	Industry code
Agriculture, Forestry and Fishing	Nursery and Floriculture Production	A011
	Mushroom and Vegetable Growing	A012
	Fruit and Tree Nut Growing	A013
	Grain, Sheep and Beef Cattle Farming	A014
	Other Crop Growing	A015
	Dairy Cattle Farming	A016
	Deer Farming	A018
	Other Livestock Farming	A019
	Fishing	A041
	Forestry Support Services	A051
	Agriculture and Fishing Support Services	A052
Manufacturing	Meat and Meat Product Manufacturing	C111
	Seafood Processing	C112
	Fruit and Vegetable Processing	C114
	Beverage Manufacturing	C121
	Leather Tanning and Fur Dressing	C132
Accommodation and Food Services	Accommodation	H440
Transport, Postal and Warehousing	Water Passenger Transport	I482
	Scenic and Sightseeing Transport	I501
Administrative and Support Services	Packaging and Labelling Services	N732
Education and Training	Preschool Education	P801
	School Education	P802





	Tertiary Education	P810
	Adult, Community and Other Education	P821
	Educational Support Services	P822
Arts and Recreation Services	Parks and Gardens Operations	R892
	Sport and Physical Recreation Activities	R911
	Horse and Dog Racing Activities	R912
	Amusement and Other Recreation Activities	R913

## Defining reasons for exiting off a main benefit

Throughout this report we have defined a list of 12 reasons for people exiting off benefits. Using Stats NZ IDI data, each person within a cohort is assigned an exit reason based on their data immediately prior to, and the month following their exit.

### Important features of the exit reason hierarchy

The exits listed below are in a hierarchical order so that if a person has multiple reasons for exiting off a main benefit then the reason that has the highest hierarchy is allocated as that person's exit reason. For example, if a person has a gross income greater than \$1,696 in the month that they exited off a main benefit and they started a part-time tertiary course in that same month, they will be categorised with the exit reason "Part-time student" rather than "Employment".

It's also possible that some of the people assigned to the 'Other income, less than \$1,696 may actually earn more, for example if they have significant self-employed income that cannot be measured in this analysis.

Except for the 'Partnership' exit reason, we do not use MSD exit reason records. To see the exit reason for exits used in this report compared to the MSD exit reason code see Table 4.

We refer to the last month that a person received a main benefit as 'month 0'. The month following this, being the first month no longer receiving a main benefit, is month 1, and so on.

The income threshold of \$1,696 is used to define the "Employment" exit reason for exiting off a main benefit. This figure is based on the following calculation:

$$\mathbf{20 \text{ hours} \times \text{minimum wage}^{10} (\$21.20) \times 4 \text{ weeks}}$$

It represents the monthly employment income for a person who works 20 hours per week at the minimum wage and with an average of four weeks of work per month.

<sup>10</sup> This was the minimum wage as of 1 April 2022. For more details please see: <https://www.employment.govt.nz/hours-and-wages/pay/minimum-wage/minimum-wage-rates/>



The threshold of 20 hours or more of work per week was selected as it previously represented the eligibility threshold for the In-Work Tax Credit (IWTC)<sup>11</sup> for single parents, which is not available to welfare beneficiaries. Note that this threshold is not related to the income cut-out point for any particular main benefit type. It has been chosen to align with previous published analyses.

**Table 3: Exit reasons used in this report for the year to June 2021**

*In this table month 0 refers to the month that someone exits a main benefit*

Exit reason	Abbreviation	Number of exits	Assigned if a person:
Death	Death	2,830	Dies during months -2 through to 1
Reached age 65+	Retirement	80	Is aged greater than or equal to 64.917 at the end of month 0
Overseas	Overseas	5,370	Departs on an overseas trip during months -1 through to 1, and spends at least 14 days overseas during this time
In detention	Detention	5,540	Spends 14 days or more in remand or prison during months -1 through to 1
Started a targeted/ industry training course	Training course	2,680	Begins a targeted or industry training education course in any month during months -2 through to 1
Started a full-time tertiary course	Tertiary full-time	9,590	Begins a formal tertiary education course for which they are studying full-time in any month during months -2 to 1
Started a part-time tertiary course	Tertiary part-time	3,330	Begins a formal tertiary education course for which they are studying part-time in any month during months -2 to 1
Employment	Employment	78,740	Has a gross income ('Wages and salary') of \$1,696 or more during month 1, and their gross income during month 1 is greater than the average gross income during months -2 and -1
Other with income ≥ \$1,696	Other: Income ≥ \$1,696	8,210	Has gross income ('Wages and salary') of \$1,696 during month 1, but does not meet the increase in earnings test for the employment exit reason

<sup>11</sup> Eligibility for In-Work Tax Credit is dependent on your weekly income. For more details see: <https://www.ird.govt.nz/-/media/project/ir/home/documents/forms-and-guides/ir200---ir299/ir271-2022/ir271-2022-v2.pdf?modified=20210630213608&modified=20210630213608>



Partnered	Other: Partner	4,660	Identified as having a change in partnership status from Working for Families tax data during months -1 to 1 or have a Ministry exit reason code of "Not eligible (partner)"
Other with income $\geq$ \$100 but less than \$1,696	Other: Income \$100-\$1,696	6,190	Does not fall into any of the above exit reason groups and has a gross income of \$100 or more during month 1
Other with income $<$ \$100	Other: Income $<$ \$100	19,110	Does not fall into any of the above exit reason groups, and has gross earnings of less than \$100 during month 1

## Differences between official MSD benefit statistics and research numbers used in this analysis

The exit numbers used in this report are research numbers developed specifically for this reporting. The exit numbers within this report are lower than official counts of main benefit cancels for a number of reasons including:

- This report only counts a person the first time they exit off a main benefit during that cohort year, whereas official statistics count each time a person exits within a year as multiple exits.
- As described above, to draw on different IDI data sources, this analysis requires a person to be off a main benefit for at least a full calendar month before being counted as an exit. Official cancellation statistics do not have this requirement.
- Some people transfer between main benefit types and this can sometimes involve cancelling the initial main benefit they transferred from. These are counted in official cancellation statistics but are excluded from our exit definition.
- Cancels from Jobseeker Support - Student Hardship are also excluded from this analysis exit definition and subsequent analysis as this benefit type is a temporary support between planned periods of study. However, they are counted in official cancel statistics.

## Comparing this analysis' exit reasons with MSD exit reason codes

The below table shows how people would be re-categorised across the exit reasons for exiting off a main benefit if internal data based on the MSD exit reason code were used instead of the definitions used for this study.

**Table 4: Comparing how people would be categorised using MSD exit reason codes (rows) against the exit reason definitions used throughout this report (columns) in year to June 2021**

Please note that due to suppression rules in the IDI, the totals for each exit reason defined for this analysis (column totals) are lower than what was produced in **Table 3**.

		Reason for exiting off a main benefit used in this report												
MSD exit reason code		Age >65	Death	Overseas	In detention	Full-time student	Part-time student	Training course	Employment	Other: Partner	Other: Earnings ≥ \$1,696	Other: Earnings \$100-\$1,696	Other: Earnings < \$100	Grand Total
	Age 65	40	-	-	-	-	-	-	-	-	-	-	-	70
Death	-	2,760	-	-	-	-	-	-	10	-	-	-	160	<b>2,930</b>
Overseas	-	-	4,180	-	-	-	-	-	60	-	20	10	470	<b>4,740</b>
Detention	-	-	-	5,000	10	-	-	80	-	20	30	720	<b>5,860</b>	
Education	-	-	30	20	7,430	1,470	30	210	20	50	240	1,310	<b>10,810</b>	
Employment	30	-	710	260	1,530	1,530	2,430	72,970	290	6,580	4,680	9,500	<b>100,510</b>	
Not eligible (medical)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not eligible (obligations)	-	-	170	150	90	50	70	1,500	40	610	390	2,010	<b>5,080</b>	
Not eligible (partner)	-	-	20	20	90	80	20	510	4,120	90	-	-	<b>4,950</b>	
Not eligible (other circumstances)	-	-	-	10	10	10	-	70	-	10	30	150	<b>290</b>	
Not grouped	-	40	70	40	80	50	50	1,390	40	280	320	1,640	<b>4,000</b>	
Transfer	10	-	10	20	200	80	10	250	40	50	60	590	<b>1,320</b>	
Other	-	20	170	40	160	80	70	1,680	110	480	440	2,500	<b>5,750</b>	
<b>Grand Total</b>	<b>80</b>	<b>2,820</b>	<b>5,360</b>	<b>5,560</b>	<b>9,600</b>	<b>3,350</b>	<b>2,680</b>	<b>78,730</b>	<b>4,660</b>	<b>8,190</b>	<b>6,200</b>	<b>19,120</b>	<b>146,350</b>	

## **IDI datasets used in this analysis**

The datasets used throughout this analysis are based on the October 2022 IDI data refresh.

### **The Benefit Dynamics Dataset (BDD)**

These datasets were used to identify, who was supported by benefits, when they were supported by benefits and what type of benefit(s) they received.

### **Inland Revenue (IR) tax data**

Tax data from the Inland Revenue (Te Tari Taake) Employer Monthly Schedule and Employment Information – Employer datasets were used to establish employment as a reason for a person to exit off a main benefit or as a post-exit activity. It was also used to identify the number of months spent working after leaving the benefit system, income (if any) after their exit, the type of industry a person was employed in and whether that industry had seasonal and/or non-seasonal employment.

### **Ministry of Education tertiary and industry/targeted training course data**

Datasets from the Ministry of Education (Te Tāhuhu o te Mātauranga) were used to determine the beginning of a training or tertiary course as the reason a person exited a main benefit. From these datasets we could also identify who was enrolled in full-time or part time tertiary study and for all education programs how many months the course lasted for. To gain an understanding of a person's highest qualification this information was combined with the 2013 and 2018 Census data, and MSD data.

### **Department of Corrections sentencing and remand data**

Sentencing and remand data from the Ara Poutama Aotearoa: Department of Corrections was used to determine whether a person left a main benefit due to being remanded in or sentenced to prison, and for how long (in months). Other Correction-managed sentences were excluded (eg community detention) as this does not typically result in a benefit cancellation.

### **Department of Internal Affairs (DIA) death records**

Data from the Department of Internal Affairs (DIA) – Te Tari Taiwhenua was used to establish death as a reason a person no longer received a main benefit and to identify deaths that occurred within 12-months after a person had left a main benefit.

## **Ministry of Business, Innovation and Employment (MBIE) immigration records**

Data from the Ministry of Business, Innovation and Employment (MBIE) was used to determine departures from New Zealand as the reason a person left the benefit system and to identify how many months people spent overseas.

### **IDI Disclaimer**

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit <https://www.stats.govt.nz/integrated-data/>

The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.