Migrant Employment Data

Ministry of Social Development Sector Output Data dictionary for October 2024 release

This data dictionary details the various outputs produced by the MED process, defines the variables observed in the data, and provides a comprehensive list of all categories encountered in the data.

The October 2024 release of the Migrant Employment Data (MED) Ministry of Social Development (MSD) Sector Output contains finalised data from January 2012 through May 2024 inclusive, and provisional data from June 2024 through October 2024 inclusive. The data set includes figures on the head count number of people employed by visa status, area of residence, and industry of employment.

The MED is produced from the Integrated Data Infrastructure (IDI), managed by Stats NZ. The results are not official statistics. They have been created for research purposes from the IDI. The opinions, findings, recommendations, and conclusions expressed in this report are those of the authors, not Stats NZ.

Access to the anonymised data used in this study was provided by Stats NZ under the security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this report have been confidentialised to protect these groups from identification and to keep their data safe.

Careful consideration has been given to the privacy, security and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the IDI available from www.stats.govt.nz.

Contents

Background and context

The MED MSD Sector Output provides a measure of the headcount number of people in waged and salaried employment, per month, per category, for a number of different categories. We categorise people based on their visa status, area of residence, and industry of employment.

The MED is produced through the Stats NZ Integrated Data Infrastructure (IDI). The IDI is a powerful database of unit-level data on New Zealand and New Zealanders. By coupling this data with Immigration New Zealand's administrative dataset on people's visa status, we are able to produce an incredibly detailed base dataset that we then aggregate to form the MED.

The MED includes people in the labour force who are in New Zealand for less than 12 months, such as some seasonal workers and working holiday-makers. These people are not included in official migration statistics published by Stats NZ (see Stats NZ's webpage on International Migration[1]), and will be generally classified as visitors to New Zealand (irrespective of their visa type on arrival).

This dataset is built from administrative data, which may be subject to change. While we make every effort to ensure that this data is accurate, you may still see revisions to data between releases. For more information, please see our section **Caveats and assumptions**.

NOTES FOR THIS RELEASE

The release notes below apply only to this most recent release of the MED MSD Sector Output. For historical release notes, please **contact us**.

No specific notes for this release.

USAGE NOTES

The following disclaimer applies to this data. If you publish data from the MED, we ask that you publish this disclaimer alongside the data, in compliance with Stats NZ's policies:

> This report contains output produced from the Integrated Data Infrastructure (IDI), managed by Stats NZ. The results are not official statistics. They have been created for research purposes from the IDI. The opinions, findings, recommendations, and conclusions expressed in this report are those of the authors, not Stats NZ.
>
> Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Data and Statistics Act 2022. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.
>
> Careful consideration has been given to the privacy, security and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the IDI available from www.stats.govt.nz.

HOW TO ACCESS THE MED

We provide the MED in two forms:

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[1]https://www.stats.govt.nz/publications/?filters=International+migration%2CInformation+releases

- as a series of zipped collections of comma-separated value (CSV) files, provided through MBIE's website
- through MBIE's `WIN7207` SQL server.

Please note that the CSV files, even zipped, are relatively large (on the order of 10MB). This makes them impractical to email to our stakeholders. By offering them through MBIE's website we are able to provide you with a link to download the files.

Data on the `WIN7207` SQL server is only accessible to MBIE employees. If you wish to access this data through SQL, please get in touch so we can set up your access permissions. If you have access to the data in the `WIN7207` SQL server, please see the section **Accessing data through SQL** at the end of this dictionary for more information on the table structure.

We will notify you via email when we update the MED. This email will include a link to download the CSV files off of MBIE's website.

DATA ANONYMISATION

We take privacy seriously when producing the MED, and rigorously follow Stats NZ's microdata output guide to ensure the privacy of New Zealanders. We apply the following rules to all counts released as part of the MED:

- Any counts below six (including zero counts) are suppressed.
- All counts which are not suppressed are random rounded base three. This means:
    - If a count is a multiple of three, it is not altered.
    - If a count is not a multiple of three, it is randomly rounded either to the nearest multiple of three (two thirds chance) or to the next-nearest multiple of three (one third chance).

This means that all counts within the MED have an inherent introduced uncertainty of ±2. When two counts are added or subtracted, their uncertainty is also added together (so if two counts both have an uncertainty of ±2, the sum of the counts has an uncertainty of ±4). This process—referred to as 'compounding'—means that totals derived from random-rounded figures tend to have a high uncertainty. We recommend that rather than adding together values within the MED yourself, you instead use the data provided by our team at the more aggregated level.

OUTPUT FREQUENCY

We release the MED every three months. Until our December 2021 release (released in February 2022), we released the MED two months after the end of the quarter, ie:

Data to the end of...	...will be released at the end of
March	May
June	August
September	November
December	February

From the March 2022 release (to be released in June 2022) onwards, we anticipate releasing the MED three months after the end of the quarter, ie:

Data to the end of...	...will be released at the end of
March	June
June	September
September	December
December	March

List of outputs

The MED MSD Sector Output contains information on the number of people employed per MSD sector, MSD region, and visa type per month. The dataset contains three-way breakdowns of the data, providing a total of one discrete dataset. This dataset is randomly-rounded.

CATEGORY AND COLUMN DEFINITIONS

Migrant Employment Data counts are broken down by a number of different categories. The categories used in creating the MED MSD Sector Output, and their definitions, are as follows. Descriptions of possible values (for category variables) are defined following this section.

Date

> **Relevant column:** Date

The date for which this data applies. Data is provided on a monthly basis, and each date is given as the last day of the month. Each value is a snapshot as at that month.

This release contains finalised data from January 2012 through May 2024 inclusive, and provisional data from June 2024 through October 2024 inclusive.

MSD Region

> **Relevant column:** MSD_Region

A person's region is determined based on their current residential address at the time of the measurement, which is in turn calculated based on administrative data (including health, tax, and other data which is linked to a person's residential address). If a person does not have a recognised residential address, their area is assigned based on the area of their employer.

The following values of region occur in the MED MSD Region:

- Auckland
- Bay of Plenty
- Canterbury
- Central
- East Coast
- Nelson
- Northland
- Other
- Southern
- Taranaki
- Waikato
- Wellington

Counts of people who have an address, but whose address cannot be linked to a region, are given the region *Other*. Counts of people who cannot be linked to an address are given the region *Other*.

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Sector

> **Relevant column:** Sector

Sectors represent groupings of ANZSIC Level 4 classifications which do not exist within the ANZSIC standard. They have been created by MBIE and are based on requirements from the Ministry of Social Development.

The full list of sectors is as follows:

- Aged Care
- Dairy Farming
- Forestry
- Horticulture
- Meat
- Seafood
- Employment Services
- Child Care
- Social Services
- Security
- Cleaning
- Hair/Beauty

A number of industries do not fall under any defined Sector. If a person is employed in an industry which is not classified as part of a given sector, they will instead be classified as part of **Other**.

A number of people will work for a business which cannot be allocated to an industry. These people will be classified as part of the **Unknown** sector.

ANZSIC Division and Subdivision

> **Relevant columns:** ANZSIC1_Code, ANZSIC1_Description, ANZSIC2_Code, ANZSIC2_Description

Each person is allocated to an industry based on the enterprise that pays their wages. Almost all people are allocated at an Enterprise level, rather than a Business Unit (eg site or plant) level. It should be noted that many Enterprises operate in multiple industries: in this case the Enterprise (and the people it pays) will be allocated to the industry that most closely matches the Enterprise's main activity. The Australian and New Zealand Standard Industrial Classification (ANZSIC) is a classification system for industries and industry groupings. We provide our data grouped by **ANZSIC division** and **ANZSIC subdivision**, and provide both the ANZSIC code and the text description of each ANZSIC division and subdivision code. A person is allocated to a given ANZSIC division and subdivision based the Enterprise they are paid by.

ANZSIC divisions represent the most aggregated categorisation of industry levels, and can be represented either by a a one-letter code (eg 'A') or by a broad description (eg 'Agriculture, Forestry and Fishing').

ANZSIC subdivisions represent a more granular layer of detail than ANZSIC divisions, and are represented either by a three-symbol code (eg 'A01') or a more detailed description (eg 'Agriculture').

Our data is broken down into a total of 20 ANZSIC divisions and 87 ANZSIC subdivisions. For reasons of space, we do not list all of these divisions and subdivisions here. The full list can be found on Stats NZ's Ariā[2] page.

Visa Type

> **Relevant column:** Visa_Type

New Zealand's population can be divided into:

- **New Zealand citizens**. This includes:

    – Anyone who is born in New Zealand.
    – Anyone who we know holds a New Zealand passport.
    – Anyone who has been a New Zealand resident for five years or longer.

- **Recent residents**, who have been residents or permanent residents for less than five years.
- **Temporary migrants**, including people in New Zealand on work or student visas.

Each of these categories is further divided into a number of subgroups, as detailed below:

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[2]http://aria.stats.govt.nz/aria/#ClassificationView:uri=http://stats.govt.nz/cms/ClassificationVersion/CARS5587

Name	Description	Application criteria
NZ Citizen	Anyone born in New Zealand, who we know holds a New Zealand passport, or who has held a Residence visa for five or more years.	
Recent Resident - Skilled	Anyone in New Zealand on a Skilled Residence visa. This includes Skilled Migrant Category and Residence from Work visas as well as the 2021 Residence Visa	Skilled Migrant, Talent - Accredited Employer/Sports/Arts and Culture, Long Term Skill Shortage List Occupation, 2021 Resident Visa, 1995 General Skills, Religious Worker, South Island Contribution, 1991 General category
Recent Resident - Other	Anyone in New Zealand on any other Residence class visa. This group mainly comprises those who achieve their Residence visa through family or international/humanitarian criteria.	
Work - AEWV	Anyone in New Zealand on an Accredited Employer Work Visa. Visa applications opened on 4 July 2022.	This visa has replaced the Essential Skills Work Visa, Essential Skills Work Visa - approved in principle, Talent (Accredited Employer) Work Visa, Long Term Skill Shortage List Work Visa, Silver Fern Job Search Visa and Silver Fern Practical Experience Visa.
Work - ES	Anyone in New Zealand on an Essential Skills visa.	Essential Skills, General, Approved in Principle, Essential Skills - Level 1, Specialist Skills
Work - Hort and Vit	Anyone in New Zealand on a Horticulture and Viticulture seasonal work visa (including WHS Extension visas).	Recognised Seasonal Employer, WHS Extension, Supplementary Seasonal Employment, Transitional Recognised Seasonal Employer
Work - WHS	Anyone in New Zealand on a Working Holiday Scheme visa (does not include WHS Extension visas).	All bilateral Working Holiday Scheme visas
Work - PSW	Anyone in New Zealand on a Post-Study Work visa.	Post-study - Open, Post-Study - Employer Assisted, Practical experience post study
Work - WTR	Anyone in New Zealand on a Work to Residence visa.	Talent (Accredited Employer, Long Term Skill Shortage List Occupation, South Island Contribution, Skilled Migrant, Talent - Arts, Culture and Sports, Global Impact Visa, Job Search
Work - Family	Anyone in New Zealand on a Family-related Work visa.	Partner of a worker, Partnership, Partner of Student, Partner of NZAID Student, Partner of Entrepreneur, Spouse/Partner of Worker, Partnership deferral, Spouse of NZ cit/res, De factor partner of NZ cit/res, Fiance(e) of NZ cit/res, Child of NZ cit/res
Work - Other	Anyone in New Zealand on a work visa which is not listed above. This can include Work visas granted via Ministerial direction or visas to work at specific events.	Specific purpose or event, Section 61, Religious Worker, Crew of foreign fishing vessel
Student	Anyone in New Zealand on a student visa.	
Other	Anyone in New Zealand on any other visa type. This includes diplomatic, official, and military visas, as well visas for specific events and emergencies	Diplomatic, Official, Consular, Military, Events (Wedding, funeral, etc.), Family Emergency, Medical treatment, Milestone events

Number of people

Relevant column: Number_of_People

For each row in the data, we provide the head-count number of people who fall into the specified categories for the given month. In particular:

- A person is considered to be on a given visa type for the month if they spent any time during the month on that visa type.
- A person is considered to be in a given region for the month if their residential address was listed in the region at any point in the month.
- A person is considered to be working in a given industry for the month if:
  - they receive any wages or salaries during the month from a business which is considered to be in that industry

- they receive wages or salaries from the same business for both the previous and the following months, and that business is considered to be in that industry. This allows us to bridge small gaps in a person's pay, which will generally be due to extended leave or administrative issues and will not actually reflect the person's leaving and re-entering employment.

Note that this means a person may be double-counted in the data. For example, if a person switches from a Student visa to a Post-Study Work visa during the month, they will appear under both the *Student* visa category and the *Work - PSW* visa category for that month. Similarly, someone shifting regions or industries may be double-counted in the data.

In addition, this is merely a measure of the number of people working in each visa/region/industry, and is not a measure of full-time equivalents.

Status

Each value is given a status, which may be *Provisional* or *Final*. *Provisional* values are produced based on Inland Revenue's ad-hoc weekly tax filings, while *Final* values are produced based on Inland Revenue's cleaned Employer Monthly Scheduling (EMS) data.

For more information on the difference between provisional and final data, please see the **Caveats and assumptions** section.

Caveats and assumptions

These results are not official statistics. They have been created for research purposes from the Stats NZ Integrated Data Infrastructure (IDI), which is carefully managed by Stats NZ. For more information about the IDI, please visit Stats NZ's website[3].

COVERAGE OF EMPLOYEES

The figures provided in this data only include people who are aged 15 or over, are employed, and receive a wage or salary. This means that the data excludes:

- people aged 14 and under
- most people who are self-employed
- people who are unemployed
- people who are not in the labour force.

It is worth noting that some people who are self-employed are also waged or salaried. This may occur if the person operates a business as a sole trader, and the business then pays the person a wage or salary. In this case, the person *is* included in the MED.

PROVISIONAL AND FINAL DATA

We attempt to make the MED as timely a series as possible. We do this by using both cleaned and ad-hoc tax data provided to the datalab by Inland Revenue (IR).

As IR's ad-hoc tax data is added to their cleaned data series, we may see some revisions. This means you may see changes to the data from release to release. When data is derived from IR's ad-hoc tax data, we have marked it as *Provisional*, which means it may change between this release and then next (when it will become *Final*). We expect the last (approximately) half-year of data in each release to be provisional: as IR's cleaned tax data becomes available we will replace previous provisional data with the new final data.

While provisional data should give a good idea of recent trends, we may still see revisions to this data as it is reconciled with final data. We may also see an increase in the number of people listed against the *Unknown* region and/or industry in our provisional data.

You may also see revisions to final data between releases. This may be because of revisions IR has made to its tax data, revisions we have made to our migration data, or improvements we have made to our methodology. We expect these changes, when they do occur, to be minor. Where possible, we will advise you of these changes through our release notes.

FURTHER INFORMATION ON DATA PROCESSING

If you have any concerns about the quality of your data, or further questions about the methodology and assumptions made in assembling the MED series, we encourage you to get in touch.

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[3] https://www.stats.govt.nz/integrated-data/

Contact us

The MED series is produced by the Migration team, Evidence & Insights. For information about the series, and to be notified when the data is updated, please get in touch with the team through the following email:

migration_evidence_insights@mbie.govt.nz.

Appendix A: Accessing data through SQL

When you are approved for SQL access, you will be granted `SELECT` access to the `Migration.med` schema on the WIN7207 SQL Server. This database consists of:

- A series of data warehousing tables which store historical and current MED data.
- A series of views which allow you to access the current MED data.

We recommend accessing the MED through the provided SQL views, which are prefixed with `vw_`. For example, you could fetch MED for the Auckland region for 2020 as follows:

```
SELECT *
  FROM [Migration].[med].[vw_base_anzsic2_region_visa]
WHERE
[Region] = 'Auckland Region'
AND
YEAR([Date]) = 2020;
```

For more information on SQL access, please contact us.

Appendix B: MSD Sector allocation of ANZSIC classes

Allocations are defined below. Any industry that does not fall under a given sector is assumed to fall under the sector Other. A number of people will work for a business which cannot be allocated to an industry. These people will be classified as part of the Unknown sector

AGED CARE

ANZSIC_Code	Description
Q860100	Aged Care Residential Services

DAIRY FARMING

ANZSIC_Code	Description
A016000	Dairy Cattle Farming

FORESTRY

ANZSIC_Code	Description
A030100	Forestry
A030200	Logging
A051000	Forestry Support Services

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HORTICULTURE

ANZSIC_Code	Description
A011100	Nursery Production (Under Cover)
A011200	Nursery Production (Outdoors)
A011300	Turf Growing
A011400	Floriculture Production (Under Cover)
A011500	Floriculture Production (Outdoors)
A012100	Mushroom Growing
A012200	Vegetable Growing (Under Cover)
A012300	Vegetable Growing (Outdoors)
A013100	Grape Growing
A013200	Kiwifruit Growing
A013300	Berry Fruit Growing
A013400	Apple and Pear Growing
A013500	Stone Fruit Growing
A013600	Citrus Fruit Growing
A013700	Olive Growing
A013900	Other Fruit and Tree Nut Growing
A052900	Other Agriculture and Fishing Support Services
C114000	Fruit and Vegetable Processing
C121400	Wine and Other Alcoholic Beverage Manufacturing
F360500	Fruit and Vegetable Wholesaling
N732000	Packaging Services

MEAT

ANZSIC_Code	Description
C111100	Meat Processing
C111200	Poultry Processing
C111300	Cured Meat and Smallgoods Manufacturing
F360200	Meat, Poultry and Smallgoods Wholesaling

SEAFOOD

ANZSIC_Code	Description
A020100	Longline and Rack (Offshore) Aquaculture
A020200	Caged (Offshore) Aquaculture
A020300	Onshore Aquaculture
A041100	Rock Lobster and Crab Potting
A041200	Prawn Fishing
A041300	Line Fishing
A041400	Fish Trawling, Seining and Netting
A041900	Other Fishing
C112000	Seafood Processing
F360400	Fish and Seafood Wholesaling

EMPLOYMENT SERVICES

ANZSIC_Code	Description
N721100	Employment Placement and Recruitment Services
N721200	Labour Supply Services

CHILD CARE

ANZSIC_Code	Description
Q871000	Child Care Services

SOCIAL SERVICES

ANZSIC_Code	Description
Q879000	Other Social Services

SECURITY

ANZSIC_Code	Description
O771200	Investigation and Security Services

CLEANING

ANZSIC_Code	Description
N731100	Building and Other Industrial Cleaning Services
S953100	Laundry and Dry-Cleaning Services

HAIR/BEAUTY

ANZSIC_Code	Description
S951100	Hairdressing and Beauty Services

Appendix C: MSD Region allocation of Territorial Authorities

Allocations are defined below.

AUCKLAND

Territorial_Authority
Auckland

BAY OF PLENTY

Territorial_Authority
Kawerau District
Opotiki District
Rotorua District
South Waikato District
Taupo District
Tauranga City
Western Bay of Plenty District
Whakatane District

CANTERBURY

Territorial_Authority
Ashburton District
Christchurch City
Hurunui District
Selwyn District
Waimakariri District

CENTRAL

Territorial_Authority
Carterton District
Horowhenua District
Manawatu District
Masterton District
Palmerston North City
South Wairarapa District
Tararua District

EAST COAST

Territorial_Authority
Central Hawke's Bay District
Gisborne District
Hastings District
Napier City
Wairoa District

NELSON

Territorial_Authority
Buller District
Grey District
Kaikoura District
Marlborough District
Nelson City
Tasman District
Westland District

NORTHLAND

Territorial_Authority
Far North District
Kaipara District
Whangarei District

OTHER

Territorial_Authority
Area Outside Territorial Authority
Chatham Islands Territory
Unknown

SOUTHERN

Territorial_Authority
Central Otago District
Clutha District
Dunedin City
Gore District
Invercargill City
Mackenzie District
Queenstown-Lakes District
Southland District
Timaru District
Waimate District
Waitaki District

TARANAKI

Territorial_Authority
New Plymouth District
Otorohanga District
Rangitikei District
Ruapehu District
South Taranaki District
Stratford District
Waitomo District
Whanganui District

WAIKATO

Territorial_Authority
Hamilton City
Hauraki District
Matamata-Piako District
Thames-Coromandel District
Waikato District
Waipa District

WELLINGTON

Territorial_Authority
Kapiti Coast District
Lower Hutt City
Porirua City
Upper Hutt City
Wellington City