International Travel

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International Travel

Abstract

International travel statistics produced by Stats NZ measure the number and characteristics of international arrivals into New Zealand, and the number of international departures from New Zealand.

International travel counts the number of short term overseas visitor and New Zealand-resident arrivals and departures. This is obtained from electronic passport and flight records, along with details from arrival cards for every passenger, supplied to Stats NZ by the New Zealand Customs. These electronic records include flight and passport details, such as date of travel, date of birth, sex, and country of citizenship.

Purpose

The purpose of international travel statistics is to count passengers arriving into and departing New Zealand short-term. Passengers are split into one of three passenger types: overseas visitors, New Zealand-resident travellers, and migrants. Short-term travellers are overseas visitors visiting New Zealand for less than 12 months; or people who live in New Zealand and are travelling overseas for less than 12 months or arriving back after an absence of less than 12 months.

As the principal agency responsible for processing and publishing international travel statistics in New Zealand, Stats NZ seeks to provide information that meets the contractual, public policy, and community requirements for up-to-date official statistics at the local, regional, and national level.

Arrivals and departures of overseas visitors and New Zealand-resident travellers are key indicators of tourism and travel.

Population

International Travel

International Travel

International travel statistics include all people crossing New Zealand's borders, with exceptions for crew, military personnel, and Antarctic personnel as outlined in the Immigration Act 2009.
People who remain in the transit lounge and do not pass through Customs do not cross the border, and so are not included in arrival and departure statistics.
Cruise passengers arriving in and departing New Zealand on the same cruise ship are exempt from filling in arrival cards and so are not included in arrival and departure statistics. Cruise passengers who ends their journey in
New Zealand do fill out arrival cards and are counted in the statistics. Almost all of these people travel by air in the opposite direction.

International Travel

International travel and migration statistics produced by Stats NZ measure the number and characteristics of international arrivals into New Zealand, and international departures from New Zealand. This is obtained from electronic passport and flight records, along with details from arrival cards for every passenger, supplied to Stats NZ by the New Zealand Customs Service.

From November 2018, Stats NZ moved to an outcomes-based measure, based on actual movements rather than stated intentions. This allows for collection of more robust and accurate data. The new measure links actual departures and arrivals using passport data to create travel histories for passengers, which in turn is used to classify migrant movements.

Methodology

Where the data comes from

International Travel and Migration statistics are based on electronic arrival and departure records for each passenger supplied to Statistics NZ by the New Zealand Customs Service. These electronic records include flight and passport details, such as date of travel, date of birth, sex, and country of citizenship.

The New Zealand Customs Service also supplies Statistics NZ with arrival and departure cards from every passenger. Additional detail such as country of residence and travel purpose is captured from these cards and added to the information from the electronic record.

Immigration New Zealand owns the arrival and departure cards, which are used to administer numerous New Zealand laws, in addition to producing statistics. Statistics NZ only captures information from the cards for statistical purposes, and passes the cards to Immigration New Zealand after it has captured the data.

How the data is collected

Statistics NZ scans every arrival and departure card, and uses image recognition technology to automatically recognise and code responses from each. Processing staff then manually capture any required information which was not captured automatically - as not every response can be clearly recognised by automated software.

The imaging system automatically determines all the information required for almost 9 in every 10 cards (meaning about one million still require manual completion each year).

Some response fields are required from each card. These include the passport number and birth date, so each card can be matched to the electronic record supplied by Customs containing passport and flight details. Also, responses to length of stay/absence and country last/next lived in questions are required from every card, to determine the person's passenger type (overseas visitor, NZ-resident traveller, or permanent and long-term migrant).

Most other response fields are only required for a sample of passengers, and required fields vary by passenger type and direction.

Responses to some questions are not captured at all, including the first and last names of the passenger. Responses to questions on the back of the arrival card are not captured, nor are responses to the seat number, email address, and phone number questions on the front of the arrival card.

Passenger counts

International Travel and Migration statistics relate to the number of passenger movements to and from New Zealand, rather than to the number of people – that is, the multiple movements of individual people during a given reference period are each counted separately. For example, a New Zealand resident making five business trips overseas within a year would be counted as five arrivals and five departures.

Determination of passenger type

Passenger type is determined from responses to questions on the arrival and departure cards about how long the person is in or away from New Zealand, and where they are living for 12 months or more. A person's travel history (their other arrivals and departures) will also be used to determine their passenger type.

Changes in intentions

A person may change their intentions after their arrival or departure, which may mean the recorded passenger type becomes incorrect. For instance, a person who indicated they were arriving for a short-term stay may actually stay permanently. In this case, they would be recorded as a short-term overseas visitor, even though they became a permanent and long-term migrant. Statistics NZ does not revise published statistics to adjust for such changes.

Seasonally adjusted and trend series

Statistics NZ also produces seasonally adjusted and trend series for each of the passenger types and directions (eg total visitor arrivals). These series attempt to remove regular seasonal variation so each month (or quarter) can be compared.

Seasonally adjusted figures are only estimates, and are revised every month as more data becomes available. Trend series are a smoothed version of the seasonally adjusted series.

Statistics NZ can provide assistance on the interpretation of seasonally adjusted and trend series. If quoting seasonally adjusted and/or trend series, this should be clearly stated.

Confidentiality

Statistics NZ releases statistics derived from arriving and departing passenger records. It does not release the records of individual passengers.

Time Method

Data is continually collected and processed.

International travel and migration data is released at pre-specified times to ensure all users have equal access to the data. These release dates are published well in advance on the release calendar on Statistics NZ's website.

Weekly provisional statistics

Provisional international travel statistics are published on a weekly basis, usually at 2pm on a Friday. These provide provisional figures on visitor arrivals and short-term departures by New Zealand residents, including statistics for ten major source and destination countries. No further detail is available until the release of monthly data.

Release of monthly data

Monthly international travel and migration data is released at 10.45am, usually 15 working days after the end of the month. The

release of December and January data takes longer after the end of these months, due to the Christmas-New Year holidays and high passenger volumes.

Additional embargo of port data

New Zealand port and overseas port data is released two working days after the release of monthly international travel and migration statistics. This is part of an agreement with airlines and airports which allows Statistics NZ to release this otherwise confidential data.

Sampling Procedure

Actual and sampled counts

Some fields, such as citizenship, date of birth, and sex, are held for all arrivals and departures. However, some fields are only collected for a sample of passengers.

Only short-term (overseas visitors and New Zealand-resident travellers) are sampled. Required fields are collected for every permanent and long-term migrant.

Data from the sample is used to estimate the characteristics of the full population.

Published counts

The only actual (non-sampled) counts regularly published by Statistics NZ are totals by passenger type and direction (ie total visitor arrivals, total New Zealand resident departures, etc), and statistics for permanent and long-term migrants.

All other statistics published for short-term travellers are derived from a sample of records. This is true even when a field is available for all passengers (for example country of residence for visitor arrivals). This avoids confusion by publishing actual counts for a field in some instances, but sampled counts for the same field if it is cross-tabulated with another field only available for a sample of passengers.
The exception is visitor departures by country of residence. With a methodology change in August 2016 it was determined that the actual (non-sampled) counts for visitor departures by country of residence were more suitable for release than sampled counts. Series of visitor departures by country of residence are available on Infoshare using sampled counts prior to August 2016 and actual counts from August 2016 on.

Sampling ratio

Within each passenger type and direction, one in every k passengers is selected for the sample, where k is the sample ratio. Until June 2011, the sample ratios were changed every month to adjust for changes in the number of passengers, so were higher in summer than in winter. From July 2011 to July 2016, the sample ratios were kept the same every month:

• Resident arrivals: 1 in 26
• Visitor arrivals: 1 in 16
• Resident departures: 1 in 20
• Visitor departures: 1 in 26
From August 2016:

• Resident arrivals: sample weights can be 0, 1, or 20. Resident arrivals are matched to their previous departure to gather information. Depending on the sample status and passenger type of the previous journey, as well as the type of variable, the sample ratio will vary.
• Visitor arrivals: sample ratio 1 in 16
• Resident departures: sample ratio 1 in 20
• Visitor departures: sample weights can be 0, 1, or 16. Visitor departures are matched to their previous arrival to gather information. Depending on the sample status and passenger type of the previous journey, as well as the type of variable, the sample ratio will vary.
Resident departure records are selected for the sample simply by choosing every kth record processed for each passenger type and direction.

For visitor arrivals, records selected for the sample are the kth record processed for each country of residence. This ensures that the country totals derived from a sample will be close to the actual totals.

Counts from the sample of records are rated up by the sample ratio to estimate actual counts.

Sample error

Sample error is the difference between the sample estimate and the actual figure.

When the actual figure is small, the error from sampling can often be large as a percentage of this figure. When the actual figure is large, the error from sampling will usually be small as a percentage of the actual figure.

Statistics NZ does not highlight totals or differences under 500 because of the potentially large percentage sample error.

Absolute sampling error can be calculated using the following equation:

Relative sampling error gives a percentage measure of the magnitude of the error. It can be calculated using the following equation:

Sample error example

Suppose that in a particular month, there were 1,000 visitors from Brazil (population) of whom 100 (cell size) visited New Zealand to visit their friends or relatives. In this situation, the absolute sampling error is 76, which means that the true number of people arriving from Brazil for this particular purpose, at the 95 percent confidence level, could fall between 24 and 176.

Collection Events

1860-01 - 1921-04

Intended Frequency

Daily port statements and passenger lists

1921-04 -

Intended Frequency

Daily arrival and departure cards

1997-09 -

Intended Frequency

Daily electronic arrival and departure records with flight and passport details

Date	1860 -
Spatial Coverage	International travel and migration records are collected from all New Zealand airports and seaports handling international movements. New Zealand port is available as a data variable, as is territorial authority of residence (captured from address responses on arrival and departure cards) for some passenger types.
Highest Level	– National
Lowest Level	– New Zealand port, and territorial authority of residence for some passenger types

New Zealand Passenger Arrival Card

The NZ Passenger Arrival Card is used to administer immigration law, pursuant to the Immigration Act 2009. Once collected, information may be used under the Statistics Act 1975 for statistical purposes by Statistics New Zealand.
The arrival card is provided in other languages, but only to assist with completion of the English version. (Copies are available on the New Zealand Customs website)

Instrument Locations

- http://www.customs.govt.nz/globalassets/documents/forms/new-zealand-passenger-arrival-card.pdf

NZIS431 - New Zealand Passenger Departure Card July 2013

New Zealand Passenger Departure Card July 2013

The NZ Passenger Departure Card is used to administer immigration law, pursuant to the Immigration Act 2009. Once collected, information from the departure card may be used for statistical purposes by Statistics New Zealand.

Type

Self-administered questionnaire

Instrument Locations

- http://cdm20045.contentdm.oclc.org/digital/collection/p20045coll2/id/431/rec/5

International travel and migration processing system changes in August 2016

From August 2016, international travel and migration data started being processed using a new, upgraded processing system. The new system uses improved methodology, which takes greater account of travellers' history in addition to intentions stated on the arrival and departure cards. It also makes greater use of automation in the processing and classification of passenger types.

The first provisional data available from the new processing system are the Provisional International Travel Statistics released on 19 August 2016, and the first finalised data is the International Travel and Migration: August 2016 monthly release on 21 September 2016. There will be no revisions to the historical data with the new system and methodology changes.

Why have we changed

The previous international travel and migration processing system had come to the end of its life, as it was built from technology that was no longer supported. We have developed the new system to take advantage of technology advancements, future proof the system for anticipated increases in the volume of international travel, and taken the opportunity to make methodology improvements.

Methodology

New methodology and changes related to the new International Travel and Migration processing system

New methodology and system processes include:

• more automated passenger type classification rules
• greater use of passenger travel history
• greater use of previous passenger type classifications
• imputation of 'country of residence' for overseas visitor arrivals (from citizenship and port)
• move from sampled to full coverage of some variables for visitor departures and resident arrivals, where they were matched to previous movements
• introduction of some new variables for visitor departures and resident arrivals where they were matched to previous movements.
Note: Changes in rules used to determine passenger type have been minimised as much as possible to maintain the comparability in the total passenger movements over time. There have been no changes in the variables captured for permanent and long-term travellers.

Impacts of the methodology and system changes

The following impacts are seen from the changes in the methodology and processing system:

• less manual processing of records
• improved accuracy of automatic passenger type classification
• less 'not stated' 'country of residence' for visitor arrivals
• better coverage available for visitor departures 'country of residence' using matching to previous journeys
• new variables ('travel purpose' and 'length of stay') available for visitor departures using matching to previous journeys
• better coverage available for resident arrivals 'length of absence' using matching to previous journeys
• new variables ('country of main destination' and 'territorial authority') available for resident arrivals using matching to previous journeys.

Changes seen in the data because of methodology and system changes

The following changes in the ITM data are related to changes in methodology:

• Decrease in 'not stated' responses for visitor arrivals by country of residence – due to the introduction of new imputation methodology using citizenship and port information.
• New series – due to the use of matching to previous journeys (eg. travel purpose for visitor departures, territorial authority area for resident arrivals).
• Increased accuracy of 'length of stay' for visitor departures – as departures can be matched to the visitor's arrival and calculated, a useful comparison to reported intended length of stay on the arrival card.
• Increased accuracy of 'length of absence' for resident arrivals – as arrivals can be matched to the resident's departure and calculated, a useful comparison to reported intended length of absence on the departure card.
• Increased coverage for some variables – due to the use of matching to previous journeys we can get a more comprehensive set of responses, rather than relying on sampling (eg. previously 1 in 26 visitor departures 'country of residence' were sampled,

now all visitor departures 'country of residence' are captured when matched to their previous arrival).
• Increased sample volatility for some variables – due to different procedures for dealing with manual sample changes compared to the previous system (eg. when passenger type is changed on review, from its automated class).
• Increased 'not stated' responses for sampled resident departure variables (eg. 'country of main destination') – due to the use of travel history to automate passenger type assignment. Although a departing international traveller may have answered the departure card as if they were a visitor to NZ (eg. not provided information on purpose and country of destination), our automated rules may look at their travel history and determine that for ITM purposes we would class them as a resident of NZ. Please note that some of the changes may create discrepancies in time series available (particularly with capturing variables from matches to previous journeys and moving from sampled to full coverage). For example Infoshare series on visitor departures by 'country of residence' used sample counts prior to August 2016 and actual counts from matched visitor arrivals from August 2016.

Subnational Migration

Final estimates of migrant arrivals, migrant departures and net migration for Regional Council areas, Territorial Authority areas and Auckland Local Board areas.

####### Collection of final subnational estimates

The collection of final subnational estimates of migrant arrivals, migrant departures and net migration is available for Regional Council Areas (16), for Territorial Authority Areas (67) and for Auckland Local Board Areas (21) from June 2014. Final subnational migration estimates are derived from integration of the movement records and Stats NZ Integrated Data Infrastructure (IDI) address notifications data. The subnational series also include a 'Not stated' category indicating estimates of migration for the period where geographic information is not available.

IDI address notifications data

The IDI is an integrated database that consists of de-identified administrative and survey datasets from a wide range of subject matter areas and sources.

Individuals' location information is accessible in the IDI in the form of a dataset containing their full address notification histories. When an individual engages with a service for the first time in New Zealand (such as health care, education, or tax services), or when a New Zealand resident notifies an agency of an address change, the address information is updated and subsequently added to the individual's address history in the IDI.

The IDI address notifications are 'observational' in the sense that an address is recorded when a person notifies an agency of a change of address. These observation points are dates of notification, and not usually the actual date of moving to a location. All sources are likely to have missing data or other quality issues, such as a supplied address becoming out-of-date when a person moves without notifying the agency. There are also differing time lags by respective agencies in compiling address notifications. These lags are generally unknown and may change over time.

Several key agencies contribute to the regular updates of address notifications for geocoding to meshblock geographic areas by Stats NZ. Each address notification includes an administrative reference date recorded by the agency. The sources collecting information on residential address and/ or notification of address change are:

• 2013 Census (Stats NZ)

• tax registrations (Inland Revenue)

• National Health Index and Primary Health Organisation enrolments (Ministry of Health)

• motor vehicle registrations and driver's license registrations (NZ Transport Association)

• primary and secondary school rolls (Ministry of Education)

• ACC claims (Accident Compensation Corporation)

• working age benefits and superannuation (Ministry of Social Development).

Methodology

Methodology for determining the NZ-location information in migration records

The geographic location of final records of migrant arrivals and departures is determined by a process that accesses integrated border movements (sourced from NZ Customs Service) and address notifications in the Stats NZ IDI (address_notification table compiled by Stats NZ IDI).

Final records of migrant arrivals and departures are integrated with their address notifications histories. The address notifications with associated notification dates closest to the migrant movement dates are selected as the NZ-residence location. Migrants may have address notifications recorded before and after the migrant arrival or departure date. The address notification closest to the movement date is selected irrespective of the time sequence of address notification in relation to the border movement.

####### Disclaimer

The results in this collection are not official statistics They have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by 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 collection 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 Integrated Data Infrastructure available from www.stats.govt.nz.

Subnational short-term NZ-resident arrivals

Short-term NZ-resident arrivals for Regional Council areas, Territorial Authority areas and Auckland Local Board areas.

####### Description

The collection of subnational short-term NZ-resident arrivals is available for Regional Council Areas (16), for Territorial Authority Areas (67) and for Auckland Local Board Areas (21) from June 2014. Subnational short-term NZ-resident arrivals are derived from integration of NZ-residents' short-term traveller histories and Stats NZ Integrated Data Infrastructure (IDI) address notifications data. The subnational series also include a 'Not stated' category indicating the number of short-term resident arrivals for the period where geographic information is not available.

IDI address notifications data

The IDI is an integrated database that consists of de-identified administrative and survey datasets from a wide range of subject matter areas and sources.

Individuals' location information is accessible in the IDI in the form of a dataset containing their full address notification histories. When an individual engages with a service for the first time in New Zealand (such as health care, education, or tax services), or when a New Zealand resident notifies an agency of an address change, the address information is updated and subsequently added to the individual's address history in the IDI.

The IDI address notifications are 'observational' in the sense that an address is recorded when a person notifies an agency of a change of address. These observation points are dates of notification, and not usually the actual date of moving to a location. All sources are likely to have missing data or other quality issues, such as a supplied address becoming out-of-date when a person moves without notifying the agency. There are also differing time lags by respective agencies in compiling address notifications. These lags are generally unknown and may change over time.

Several key agencies contribute to the regular updates of address notifications for geocoding to meshblock geographic areas by Stats NZ. Each address notification includes an administrative reference date recorded by the agency. The sources collecting information on residential address and/ or notification of address change are:

• 2013 Census (Stats NZ)

• tax registrations (Inland Revenue)

• National Health Index and Primary Health Organisation enrolments (Ministry of Health)

• motor vehicle registrations and driver's license registrations (NZ Transport Association)

• primary and secondary school rolls (Ministry of Education)

• ACC claims (Accident Compensation Corporation)

• working age benefits and superannuation (Ministry of Social Development).

Methodology

Methodology for determining the NZ-location information in short-term NZ-resident arrival records

The geographic location of short-term NZ-resident arrivals is determined by a process that accesses integrated records of NZ-residents' unique travel histories (sourced from NZ Customs Service) and address notification histories in the Stats NZ IDI (address_notification table compiled by Stats NZ IDI).

From integration of NZ-residents' travel histories and IDI address notifications the addresses with notification dates closest to the arrival dates are selected as the NZ location. Short-term NZ-resident arrivals may have a recorded NZ location from a previous short-term overseas trip, and this is regarded as a valid NZ location when a subsequent movement for the traveller has not been linkable to the IDI.

####### Disclaimer

The results in this collection are not official statistics They have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by 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 collection 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 Integrated Data Infrastructure available from www.stats.govt.nz.

Impact on variables - from November 2018

Use the table below to see changes that will occur for the international travel and migration variables as a result of the Migration Data Transformation project and the removal of the departure cards.

Changes to international travel and migration variables
Topic
Overseas visitors
Arrivals
Demographics
Sex
Geography
Country of citizenship
Country of last/next residence
Country of main destination
Overseas state/province of residence
NZ 'territorial authority area' of residence
Length of stay
Port
Closest overseas port of flight (from Sep 1997)
Other characteristics
Visa type on arrival (from Jul 2003)
Occupation (from Oct 2009)

Migration Data Transformation

Migration Data Transformation removed the statistical dependency on the data provided by departure cards and transforming external migration data with the sustainable implementation of a new measure of migration.

Methodological changes were made to enable production of the official measures of migration, tourism, and estimates of population to continue with the removal of nearly 7 million paper-based departure cards completed by people leaving New

Zealand annually. This involves looking at how to make more use of existing information, such as border crossing information from Customs (passport data), arrival cards, and integrated administrative data.

Impact on variables
As a result of the Migration Data Transformation and the removal of the departure cards in November 2018, there were changes to international travel and migration variables (see Impact on variables - from November 2018).

The new measure of migration: Outcomes-based measure

The previous migration measure (permanent and long-term (PLT) migration) was estimated from travellers' statements on arrival or departure cards – based on how long they intended to stay in New Zealand (or be away). This intentions-based measure was timely; however, traveller behaviour was not always consistent with the stated intentions at their border crossing. This may be due to: circumstances changing, misunderstanding the questions on the traveller cards and incorrectly reporting their intentions, or deciding to extend their visa or stay/absence.

The outcomes-based measure is estimated from the actual travel histories of people travelling in and out of New Zealand. This provides a more accurate measure of migration – a traveller is classified as a migrant based on their actual movements.

The **outcomes** arrival and departure estimates are consistently higher than **intentions** PLT estimates.

The outcomes **net migration** estimates are sometimes higher, and sometimes lower, than intentions PLT estimates. In recent years, net migration using outcomes was lower than intentions.

Why migration estimates change
The outcomes-based measure of migration with provisional and final estimates is now the official way we measure migration in New Zealand. The results build on the outcomes-based measure of migration that was released from May 2017 and enabled the removal of the departure card.

The new approach uses passport data to link arrivals and departures and accurately measure how long people spend in, or out of, New Zealand after their initial border crossing. To classify a border crossing as a migrant movement, we need to observe up to 16 months of travel history.

With this new approach it takes 17 months before final migration estimates are available. To produce timely results, we use a statistical model to produce provisional migration estimates. Statistics produced using these provisional estimates have uncertainty for 16 months; after this time we can finalise the classification of all border crossings (according to the 12/16-month rule).

As new data becomes available, the provisional migration model has more information about the border crossings it is trying to estimate. So, with an extra month of data available, this causes shifts in the estimated number of migrant arrivals and migrant departures, and thus changes in the net migration estimates.

For example, the extra data will indicate travellers who have now departed New Zealand, or travellers who were away that have since returned to New Zealand.

Compared with total border crossings, the number of migrants is very small. Of every 50 people crossing our border, typically 49 are short-term movements and only 1 is a migrant arriving or departing.

The migration estimates become more certain after each subsequent month. For a typical month, 1 in 4 arrivals are classified with certainty for the first estimate after six weeks (after the end of the reference month). This increases to 9 in 10 after four months. The monthly revisions can therefore be expected to become relatively small after about five months, as we can calculate the duration of stay/absence more definitively.

Of the 14 million border crossings in the December 2018 year, 81 percent of border crossings were classified with certainty at the time of the first estimate in mid-February 2019. The remaining 19 percent represent 2.6 million border crossings, so a small change in classification can affect the migration estimates.

Customers therefore have a choice of using the most timely migration estimates which have more uncertainty, or waiting a few months until the migration estimates become more certain.

Significant events impacting this study series

1860 – first reliable coverage of New Zealand's international arrivals and departures. Earlier data did not cover all of New Zealand's provinces.

April 1921 – arrival and departure cards are introduced. Passengers are split into three passenger types - overseas visitors, New Zealand-resident travellers, and permanent and long-term migrants.

1942–1945 – limited detailed data during WWII.

April 1975 – sampling of arrival and departure records begins. Some detail is only captured from a sample of arrival and departure cards, and statistics are produced by multiplying the results by the sample ratio.

April 1978 – detailed international travel and migration statistics for this month onwards are available in electronic format. Most earlier detail is only available in hard-copy reports.

July 1979 – sampling of permanent and long-term migrants ends, with detailed data now collected for every migrant.

September 1997 – the New Zealand Customs Service begins supplying Statistics New Zealand with passport and flight data electronically for all arrivals and departures. Statistics New Zealand holds a record for each passenger movement from this date. Some detail continues to be collected from arrival and departure cards for only a sample of passengers.

June 2004 – Statistics New Zealand begins using scanning and image-recognition technology to automatically capture most of the required information from arrival and departure cards.

July 2008 – the name "International Travel and Migration" is adopted, replacing "External Migration", which had been used since 1921. The new name better reflects that the statistics include short-term travellers as well as permanent and long-term migrants.

July 2013 – New simplified departure card is released. Some changes to arrival and departure information as a result.

August 2016 – New processing system is introduced (See 'Data Collection' 'International travel and migration processing system changes in August 2016' for more information).

May 2017 - Report describing the 12/16-month rule for classifying migrant status.

November 2018 - Removal of departure card from the New Zealand border and is replaced by smarter electronic systems.

January 2019 - International migration uses the outcomes-based measure. This is a new official measure estimated from the actual travel histories of people travelling in and out of New Zealand. It provides a more accurate measure of migration – a traveller is classified as a migrant based on their actual movements. This new measure replaces the previous migration measure (permanent and long-term (PLT) migration) which was estimated from travellers' statements on arrival or departure cards – based on how long they intended to stay in New Zealand (or be away).

January 2019 - First release of the international migration data using the outcomes-based measure..

January 2019 - Separate International migration and International travel releases. Before January 2019, International migration and travel were published combined as one release.

March 2020 - New data on migrant departures to Australia. This is the first time Stats NZ has published figures showing migrant departures to Australia, since the end of traveller departure cards in November 2018.

March 2020 - Temporary release of regular border-crossing flow data to facilitate analysis of the COVID-19 international pandemic and impact on inbound and outbound tourism sectors.

Usage and limitations of the data

International travel

International travel is based on passport and flight details, and responses given on arrival cards. Responses to some questions are the passenger's intentions, which may change. Published figures are not revised to account for changes in intention.

International Migration

The outcomes-based measure of migration with provisional and final estimates is now the official way we measure migration in New Zealand. The results build on the outcomes-based measure of migration that was released from May 2017 and enabled the removal of the departure card.

The new approach uses passport data to link arrivals and departures and accurately measure how long people spend in, or out of, New Zealand after their initial border crossing. To classify a border crossing as a migrant movement, we need to observe up to 16 months of travel history.

From November 2018, departure card was removed. This affected a number of variables (see Variables Table above)

With this new approach it takes 17 months before final migration estimates are available. To produce timely results, we use a statistical model to produce provisional migration estimates. Statistics produced using these provisional estimates have uncertainty for 16 months; after this time we can finalise the classification of all border crossings (according to the 12/16-month rule).

As new data becomes available, the provisional migration model has more information about the border crossings it is trying to estimate. So, with an extra month of data available, this causes shifts in the estimated number of migrant arrivals and migrant departures, and thus changes in the net migration estimates.

For example, the extra data will indicate travellers who have now departed New Zealand, or travellers who were away that have since returned to New Zealand.

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Outcomes-based and intentions-based measures compared

The previous migration measure (permanent and long-term (PLT) migration) was estimated from travellers' statements on arrival or departure cards – based on how long they intended to stay in New Zealand (or be away). This intentions-based measure was timely; however, traveller behaviour was not always consistent with the stated intentions at their border crossing. This may be due to: circumstances changing, misunderstanding the questions on the traveller cards and incorrectly reporting their intentions, or deciding to extend their visa or stay/absence.

The outcomes-based measure is estimated from the actual travel histories of people travelling in and out of New Zealand. This provides a more accurate measure of migration – a traveller is classified as a migrant based on their actual movements.

The outcomes arrival and departure estimates are consistently higher than intentions PLT estimates.

The outcomes net migration estimates are sometimes higher, and sometimes lower, than intentions PLT estimates. In recent years, net migration using outcomes was lower than intentions.

Main users of the data

International travel statistics are of interest to tourism-related businesses, travel agents, and regional and national tourism organisations.

Statistics on all arriving and departing passengers are of interest to airlines, airports, and airport businesses (such as duty free stores).

International travel and migration statistics are also used as inputs into a number of other statistics, such as the International Visitor Survey, New Zealand's population estimates, balance of payments, and gross domestic product.

Frequency

• Monthly

Variables

Concepts

International Travel

Name	Description
International travel	**International travel** The short-term movement of people to and from New Zealand. International travel covers the number and characteristics of overseas visitors and New Zealand resident travellers (short-term movements) entering or leaving New Zealand.
Passenger type	**Passenger type** There are three passenger types i) New Zealand-resident traveller; ii) overseas visitor iii) migrant. Passenger type is independent of the legal permanent residence in a country or the visa type a person holds. It is based on the time spent in and out of New Zealand. New Zealand-resident travellers and overseas visitors are short-term travellers determined from responses on the arrival cards to questions about how long the person is in or away from New Zealand, where they are living for 12 months or more, and their travel history. A migrant is an overseas resident who arrives in New Zealand and cumulatively spends 12 out of the next 16 months in New Zealand, or a New Zealand resident who departs New Zealand and cumulatively spends 12 out of the next 16 months out of New Zealand.
Permanent and long-term (PLT) migration - arrivals	**Permanent and long-term (PLT) migration - arrivals** People from overseas arriving to live in New Zealand for 12 months or more. Before November 2018, this was estimated from travellers' statements on arrival cards – based on how long they intended to stay in New Zealand. This intentions-based measure was timely; however, traveller behaviour was not always consistent with the stated intentions at their border crossing. After November 2018, this intention-based measure was replaced with the outcomes-based measure (see Migrant arrival).
Permanent and long-term (PLT) migration - departures	**Permanent and long-term (PLT) migration - departures** New Zealanders departing for an absence of 12 months or more, and migrants leaving after a stay of 12 months or more in New Zealand. This measure was estimated from travellers' statements on departure cards – based on how long they intended to be away from New Zealand. This intentions-based measure was timely; however, traveller behaviour was not always consistent with the stated intentions at their border crossing. After November 2018, this intention-based measure was replaced with the outcomes-based measure (see Migrant departure).

Net migration

Net migration
Net migration is the difference between the number of migrant arrivals and departures. When there are more arrivals than departures there is a net gain in migration, and when there are more departures than arrivals there is a net loss in migration.

New Zealand-resident travellers

New Zealand-resident travellers
People who live in New Zealand and are travelling overseas for less than 12 months or arriving back after an absence of less than 12 months.

Overseas visitors

Overseas visitors
People who live overseas and are visiting New Zealand for less than 12 months.

Citizenship

Citizenship
Determined from the country that issued the passport the person uses when arriving or departing. A person may hold passports from more than one country.

Country of main destination

Country of main destination
The country where a New Zealand-resident traveller will spend the most time while overseas. Before November 2018, the country of main destination of New Zealand resident-travellers was based on departure cards. From November 2018, they are based on arrival card responses.

Country of residence

Country of residence
The country where the person last lived or will next live for 12 months or more.

Median

Median
The point where half the population is above and half below the stated amount.

New Zealand region

New Zealand region
The area in New Zealand containing the residential or contact address stated on a passenger's arrival card. Regional council areas are approximated by grouping territorial authority (city and district council) areas. Where a territorial authority area is split across regional council areas, it is fully included in the region that most of its population lives in.

Travel purpose

Travel purpose
The main purpose for the visit to New Zealand or trip overseas. Categories are holiday and vacation, visiting friends and relatives, business, education, conferences and conventions, and other.

Visa type

Visa type
The type of immigration visa held or granted on arrival in New Zealand. People may change their visa type later while still in New Zealand.

Migrant arrival

Migrant arrival
A migrant arrival is an overseas resident who arrives in New Zealand and cumulatively spends 12 out of the next 16 months in New Zealand. This is determined by an outcomes-based measure estimated from the actual travel histories of people travelling in and out of New Zealand. This provides a more accurate measure of migration – a traveller is classified as a migrant based on their actual movements.

The new outcomes-based measure was first published in January 2019 and replaces the intentions-based measure.

Migrant departure

Migrant departure
A migrant departure is a New Zealand resident who departs New Zealand and cumulatively spends 12 out of the next 16 months out of New Zealand. This is determined by an outcomes-based measure estimated from the actual travel histories of people travelling in and out of New Zealand. This provides a more accurate measure of migration – a traveller is classified as a migrant based on their actual movements.

The new outcomes-based measure was first published in January 2019 and replaces the intentions-based measure.

Outcomes-based measure

Outcomes-based measure
A measure that is estimated from the actual travel histories of people travelling in and out of New Zealand. This provides a more accurate measure of migration - where a traveller is classified as a migrant based on their actual movements. From January 2019, the outcomes-based measure became the official measure of migration.

The 12/16 month rule

The 12/16 month rule
The 12/16-month rule is a way of classifying border crossings as short-term or long-term on the basis of whether travellers spend 12 months (or more) of the following 16 months in New Zealand. The 12/16 month rule gives a transparent and objective method of classifying travellers, rather than relying on the stated intentions of travellers on passenger cards.

International migration

International migration
International migration is the long-term movement of people to and from New Zealand. International migration statistics give the latest outcomes-based measure of migration, which includes estimates of migrants entering or leaving New Zealand.