



Australian Government  
Department of Home Affairs

# Continuous Survey of Australia's Migrants

Methodology Paper 2013 to 2019

© Commonwealth of Australia 2018

All material presented in this publication is provided under a [Creative Commons Attribution 3.0 Australia licence](#).

For the avoidance of doubt, this means this licence only applies to material as set out in this document.



The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full [legal code](#) for the CC BY 3.0 AU licence.

### **Use of the Coat of Arms**

The terms under which the Coat of Arms can be used are detailed on the [It's an Honour website](#).

### **Contact us**

Enquiries regarding the licence and any use of this document are welcome at:

Communication and Engagement Branch  
Department of Home Affairs

PO Box 25  
BELCONNEN ACT 2616  
[comms@homeaffairs.gov.au](mailto:comms@homeaffairs.gov.au)

# Table of Contents

<b>Overview</b>	<b>2</b>
<b>Scope</b>	<b>2</b>
<b>Methodology</b>	<b>4</b>
About CSAM	4
The surveys	4
Survey response	5
Survey frame preparation	6
Editing the survey data	7
Outliers	7
Weighting	7
Classifications	8
<b>Appendix A: Glossary</b>	<b>10</b>
<b>Appendix B: Visa reporting used in CSAM</b>	<b>13</b>

## Overview

The Continuous Survey of Australia's Migrants (CSAM) is a series of longitudinal surveys first run in 2009, with migrants surveyed on two occasions to capture changes in their labour market status and measure how they have integrated into the Australian labour force.

CSAM produces timely information in the following areas:

- Labour market outcomes—including:
  - employment measures, such as unemployment rates, participation rates and hours worked
  - occupational outcomes, such as the type of occupation and industry people were working in and their earnings.
- Changes in employment outcomes—compares employment outcomes from the introductory and follow-up surveys.
- Demographic and language characteristics—including age, gender, languages spoken and spoken English proficiency.
- Migration characteristics—including year of arrival and type of migration unit.
- Other characteristics—including level and field of study for post-school qualifications<sup>1</sup> and current housing arrangements.

Each round of CSAM consists of two separate surveys—a short introductory survey and a more detailed follow-up survey.

The **introductory survey** covers migrants granted a permanent residence or provisional visa who:

- arrived in Australia around six months earlier (visa obtained while outside Australia), or
- were granted the visa about six months earlier after residing in Australia on a temporary visa, such as a student, temporary work or working holiday visa.

The **follow-up survey** covers migrants who participated in the previous introductory survey, 12 months earlier. It thus reports on outcomes at the 18-month stage of settlement.<sup>2</sup>

## Scope

CSAM collects information on the following groups of recent migrants<sup>3</sup> as depicted in Figure 1:

- **Skilled Migrants**—primary applicants granted a visa through the Skill stream of Australia's Migration Program, based on their skills and qualifications.
- **Migrating Unit Spouses**—secondary applicants, who are spouses / de facto partners of a Skilled Migrant, and came to Australia as part of the same migrating unit as the Skilled Migrant.
- **Partner Migrants**—primary applicants granted a Partner visa through the Family stream of Australia's Migration Program, enabling them to settle in Australia with their eligible Australian resident or citizen fiancé / spouse / de facto partner.

---

<sup>1</sup> Level of Education and Field of Education are coded against Australian Standard Classification of Education (ASCED). This provides a basis for comparable administrative and statistical data on educational activities and attainment classified by level and field.

<sup>2</sup> This paper describes the second iteration of CSAM, which commenced in 2013, whereas the first iteration of CSAM ran between 2009 and 2011. When comparing outcomes between the two iterations, it should be noted that the follow-up survey was conducted six months after the introductory survey in the first iteration, as opposed to 12 months after in the second iteration.

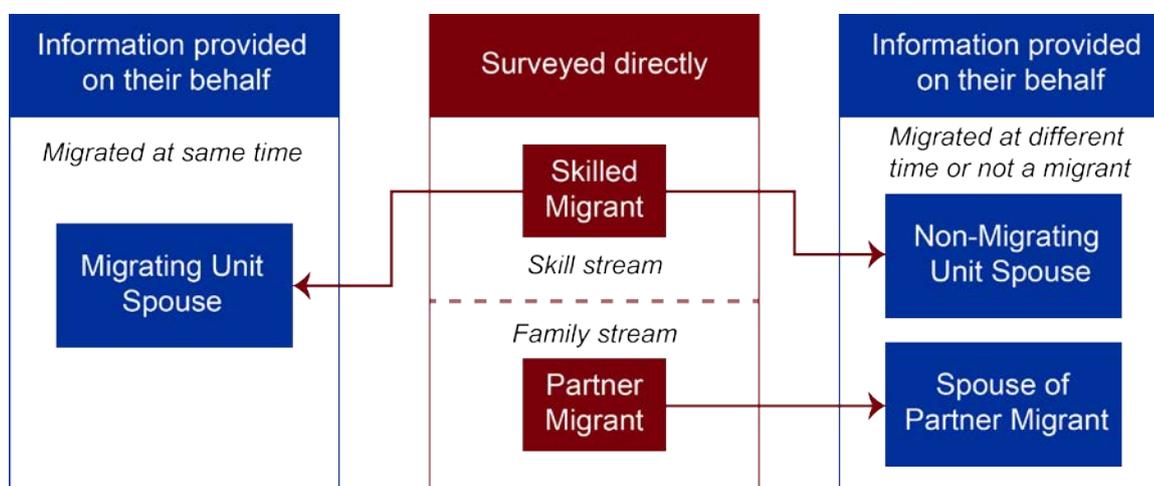
<sup>3</sup> For a full list of in-scope visa subclasses used in the CSAM, see Appendix B: Visa reporting used in CSAM.

The following groups also had information collected on them:

- **Non-Migrating Unit Spouses**—spouses / de facto partners of Skilled Migrants, who migrated to Australia at an earlier time or were born in Australia.
- **Spouses of Partner Migrants**—fiancés / spouses / de facto partners of Partner Migrants, who migrated to Australia at an earlier time or were born in Australia, and who sponsored the Partner Migrants' migration to Australia.

Humanitarian entrants are not included in the survey, as they require a more specialised survey to assess how well their settlement objectives are met. A longitudinal study of humanitarian migrants is available on the Department of Social Services website at [Building a New Life in Australia](#).

**Figure 1: Groups surveyed in CSAM**

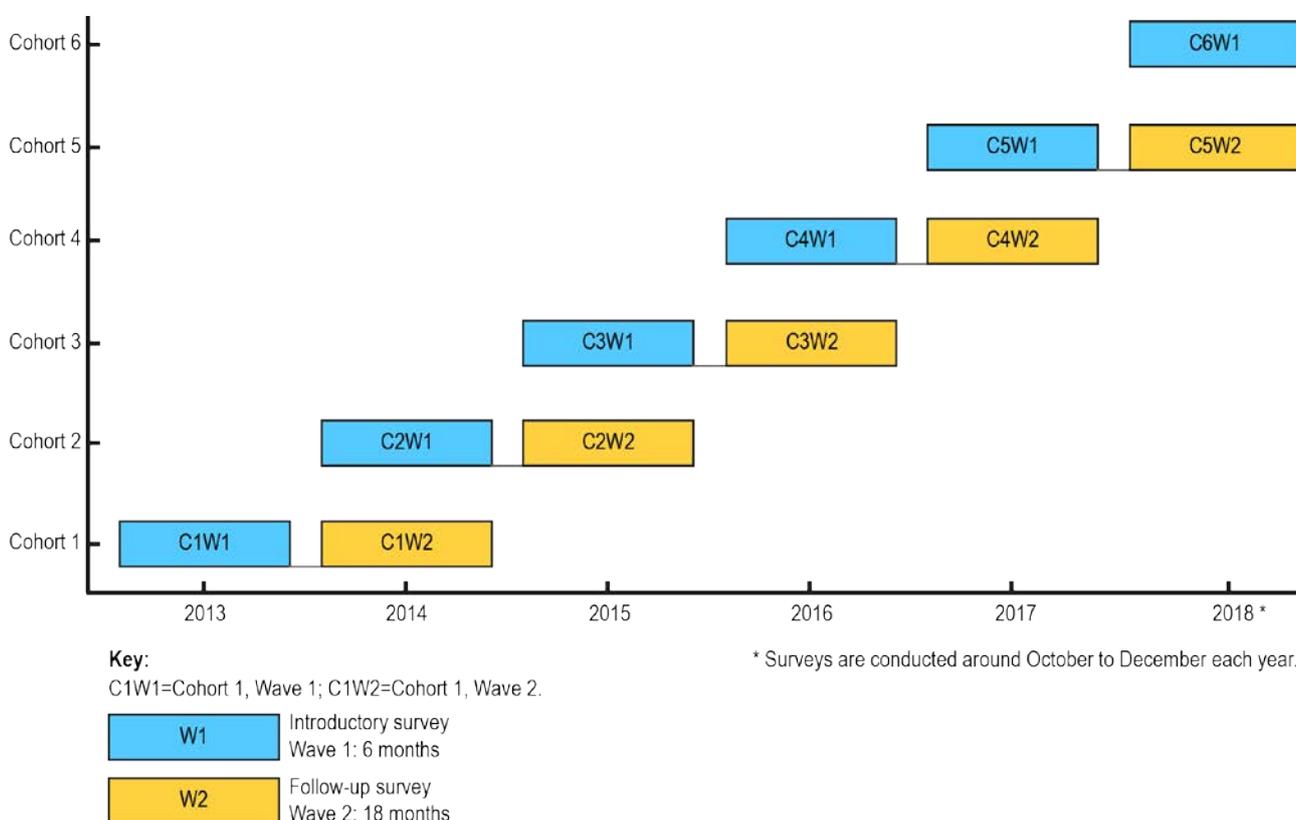


# Methodology

## About CSAM

A selected cohort of recent migrants participated in the introductory (mail-out) survey, conducted between October and December of 2014. This same cohort received an invitation to participate in the follow-up (telephone) survey. At the same time, a newly selected cohort of migrants participated in the introductory survey, conducted between October and December of 2015. By repeating this process, each cohort of migrants completes two surveys, 12 months apart (Figure 2).

**Figure 2: Diagram showing the timing of CSAM from 2013 to 2018**



## The surveys

The **introductory survey** is based around a short 'pen and paper' (hardcopy) questionnaire designed to be completed in around ten minutes. Respondents are also able to complete the introductory survey through an online survey platform, with an email invitation and two follow-up reminders sent to valid email addresses provided by the Department of Home Affairs. Core questions in the introductory survey include labour force status, occupation, education attainment, spoken English proficiency, earnings and information on unemployment.

The **follow-up survey** is a more comprehensive Computer Assisted Telephone Interview for a trained interviewer to conduct. The follow-up survey looks at how a migrant's situation has changed in the ensuing 12 months, building on the core questions asked in the introductory survey, and covering a range of other questions around labour market outcomes.

A sample of the introductory survey and analysis from previous CSAM studies is available at [Continuous Survey of Australia's Migrants](#).

## Survey response

Selected migrants participate in the introductory survey through the following workflow:

1. All sample records with a valid address receive a hardcopy questionnaire to complete and return.
2. If a valid email address is available, an email invitation and two follow-up reminders are sent to complete through the online survey.

Incentives are provided to encourage completion of the survey, which include a First Prize (1 x \$1,000 cash prize, cut off at 3rd week of fieldwork), Second Prize (2 x \$500 Coles-Myer vouchers, cut off at 6th week of fieldwork), and Third Prize (1 x \$500 Coles-Myer voucher, cut off at 8th week of fieldwork).

Migrants who complete the introductory survey are sent a 'thank you' letter or email three months before contact is made for the follow-up survey. The letter also provides them the opportunity to update their contact details for the follow-up survey. One week before fieldwork commences for the follow-up survey, an email version of the letter is also sent to participants with undeliverable mail addresses, and a further email is sent to those with no telephone contact details, requesting this information. Migrants are contacted through email and SMS during fieldwork if there is difficulty making contact through the phone.

The primary applicant completes the introductory and follow-up surveys directly. In addition, they are able to provide information on the outcomes and experiences on behalf of their current spouse or partner, including labour market outcomes and English proficiency. This can include the spouse or partner of Skilled Migrants (that is, Migrating Unit Spouses and Non-Migrating Unit Spouses) and of Family stream primary applicants (that is, Spouses of Partner Migrants). Spouse-related questions are only asked if they are in a relationship and currently living with the primary applicant at the time of the survey, and for the follow-up survey, they were also the same spouse as at the introductory survey.

To help respondents from non-English speaking backgrounds complete the introductory survey, the Translating and Interpreting Service (TIS National) is made available through CSAM 1800 hotline. Migrants are also able to complete the follow-up survey using the TIS National service, and with telephone interviewers able to conduct the interviews in a variety of languages.

## Survey frame preparation

### Preparing for the introductory survey

The introductory survey sample included the following three preparatory steps:

#### 1. Extraction of the population file

The 'population file' of migrants, is prepared from client records held by the Department, and given to the research provider (Social Research Centre, Melbourne) who deliver the survey on behalf of the Department. The population file consists of Skill stream primary applicants and Partner Migrants from the Family stream, who had been in Australia for around six months before the introductory survey. The eligible window is approximately three-months either side of this time point and is determined differently for migrants with visas granted offshore and onshore. For example, for each survey year the eligibility date is 1 January to 31 July, as determined by the following criteria:

- Date of arrival in Australia, for offshore visa grants.
- Date of visa grant, for onshore visa grants.

A 'population frame' is produced by:

- cleaning the data file to remove duplicate records, migrants aged less than 18 years
- matching to state/territory jurisdictional files (as described below)
- removal of records where adequate contact information was not available, for example name and address.

The size of the population file and population frame are thus dependent on the number of new migrants each year. For example in 2016, the population file was 71,821 and the population frame was 71,696.

#### 2. Jurisdictional file matching process

State/territory governments provide contact information for eligible samples, to:

- provide more up-to-date contact information
- include new contact information where no contact information was contained in the population file.

The updated contact details are matched to the population file using unique identifier information (for example, shared administrative fields, name, date of birth and visa category), and the 'best mailing address', 'best email address' and 'best telephone number' are prepared.

#### 3. Sample selection

The first step of sample selection commenced with a random selection of 600 records in each market except ACT – Family, for which the target quota was 300 records—a market being one of the six reporting categories within a state or territory, with therefore 48 markets in total. Sufficient sample will vary between cohorts to achieve target quotas for these markets, and where this falls short (that is, the target sample size was not available in these markets) they are enumerated.

The second step is to redistribute surplus sample records across the markets—where sample records are available and initial target quota met—with an emphasis on State/Territory Nominated markets. This redistribution continues until there is a selection of 20,000 sample records, with subsequent matching with jurisdictional data to provide updated contact details.

## Preparing for the follow-up survey

To prepare for the Computer Assisted Telephone Interview follow-up survey, a file containing the contact details of all people who responded to the introductory survey is created. These contact details—collected as part of the introductory survey—include up-to-date address information, contact telephone numbers and email addresses for the respondent.

## Editing the survey data

Editing of the introductory survey data ensures it follows the questionnaire logic, for example, where a respondent provides a contradictory response or multiple responses for a single-response question (in which case the first mentioned response is chosen). Merging of responses from the online and hardcopy versions of the introductory survey then creates a single consolidated data file.

For both the introductory and follow-up surveys, variables are created from the consolidated data file based on reporting requirements, such as visa subclass. This includes the creation of weights and identification of outliers in earnings (that is, responses for annual earnings that are well outside the expected range due to being an extreme response or an error in the data provided/recorded).

## Outliers

Outliers can distort the statistical interpretation of a population. Imputation of plausible values is undertaken to reduce the impact of outliers on survey estimates of annual earnings.<sup>4</sup> Flagging these outliers to telephone interviewers during the follow-up survey (and occurrences where there is a marked difference between the introductory and follow-up surveys) enables respondents to confirm or rectify their incomes.

Outliers are identified as those responses outside a constant factor of four from the median earnings for similar respondents (with these similar responses determined through cluster analysis of both demographic and survey data). No more than 5 per cent of responses are flagged. This method is used as it is more robust and can accommodate a greater variety of data types.

## Weighting

Weighting is a correction technique frequently used when conducting surveys, to adjust for differences between the population characteristics of:

- the population frame
- respondents who participated in a survey.

This allows for survey estimates of respondents who participated in each survey to be generalised to the population frame.

For the **introductory survey**, 'post-stratification' weights are calculated. These adjust for differences between the population characteristics of the population frame and respondents who participated in the introductory survey. A higher post-stratification weight is assigned to respondents less likely to participate in the introductory survey, and a lower post-stratification weight is assigned to respondents more likely to participate in the introductory survey.

---

<sup>4</sup> Values for outliers are imputed using an algorithm based on the expectation-maximisation method, reinforced by the bootstrap approach.

Post-stratification weights are calculated by:

- identifying population characteristics to apply for weighting (for CSAM, these are visa category, gender, birthplace, nominated occupation and age)
- establishing the number of migrants in the population frame by the identified population characteristics (known as benchmark targets)
- calculating weights using raking<sup>5</sup> that adjusts weights for each set of benchmark targets in turn, repeating as necessary so that all benchmark targets are met simultaneously when applying weights to survey estimates while minimising the occurrence of extreme weights.

For the **follow-up survey**, a two-step weighting process is used:

1. Calculating 'pre-weights', which adjust for non-response rates between the introductory and follow-up surveys, and which represent the inverse of the likelihood of respondents who participated in the introductory survey participating in the follow-up survey. A higher pre-weight is assigned to introductory survey respondents less likely to participate in the follow-up survey and a lower pre-weight is assigned to introductory survey respondents more likely to participate in the follow-up survey.
2. Re-calculating post-stratification weights by adjusting the pre-weights using the same process as for the introductory survey (weights are calculated that adjust for differences between the population characteristics of the population frame and respondents who participated in the follow-up survey).

This two-step process ensures that survey estimates are as representative as possible to the population frame while adjusting for non-response rates between the introductory and follow-up surveys.

Weighting for the follow-up survey is used when comparing survey estimates between the six-month and 18-month stages of settlement. This ensures survey estimates for the follow-up survey can be generalised to the population frame, and ensures survey estimates for the introductory survey are similar between:

- respondents who participated in both the introductory and follow-up surveys
- all respondents who participated in the introductory survey.

## Classifications

In order to make valid comparisons between CSAM and other data collections, responses to questions are classified against recognised classifications.

- **Industry**—1 digit Australian and New Zealand Standard Industrial Classification (ANZSIC).
- **Occupation**—4 digit (2009 to 2016) and 6 digit (from 2017) Australian and New Zealand Standard Classification of Occupations (ANZSCO).
- **Education**—2 digit Australian Standard Classification of Education (ASCED).<sup>6</sup>

---

<sup>5</sup> Also known as iterative proportional fitting.

<sup>6</sup> See Appendix A: Glossary for more detail on ANZSIC, ANZSCO and ASCED.

Central to CSAM is the establishment of a migrant's labour force status that is, whether they were employed, unemployed or not in the labour force. Two questions in CSAM obtain this information:

1. **Last week, did this person have a full-time or part-time job of any kind?** A paid job means any type of paid work including casual, temporary or part-time work that was for one hour or more in a week.
2. **Did this person actively look for work in the last four weeks?** Actively looking for work includes people who are applying for a job, advertising for work, registered as a jobseeker with Centrelink or registered with an employment agency to help them find work.

People answering 'Yes' to 'paid work' are given a labour force status of employed. Those answering 'No' to 'paid work' and 'Yes' to 'looked for work' are classed as unemployed, while the remainder are classified as not in the labour force.

Compared with the more detailed Labour Force Survey run by the Australian Bureau of Statistics (ABS), the derivation of labour force status does not include people's availability to start work—whether available to work in the reference week or waiting to start a new job within four weeks. The reason for omitting these questions is to keep the questionnaire as short as possible, and to free up space for other survey questions.

The other difference between CSAM and the ABS Labour Force Survey, is that CSAM is limited to primary applicants aged 18 years and over, whereas the ABS Labour Force Survey includes people aged 15 years and over.

Further information on the ABS labour force status definitions is available at [ABS 6202.0 - Labour Force - Glossary](#).

## Appendix A: Glossary

Term	Definition
ANZSCO	Australian and New Zealand Standard Classification of Occupations (ANZSCO) is intended to provide an integrated framework for storing, organising and reporting occupation-related information. For more information <a href="#">Australian Bureau of Statistics - ANZSCO - Australian and New Zealand Standard Classification of Occupations</a>
ANZSIC	Australian and New Zealand Standard Industrial Classification (ANZSIC) provides a standard framework under which business units carrying out similar productive activities can be grouped together, with each resultant group referred to as an industry. For more information <a href="#">Australian Bureau of Statistics - Australian and New Zealand Standard Industrial Classification (ANZSIC)</a>
ASCED	Australian Standard Classification of Education (ASCED) comprises two component classifications, Level of Education and Field of Education. It provides a basis for comparable administrative and statistical data on attainment and educational activities, classified by level and field. For more information <a href="#">Australian Bureau of Statistics - Australian Standard Classification of Education (ASCED)</a>
Cohorts	A group of migrants surveyed at the same time. Under the current design, Cohort 1 took part in the introductory survey October to December of 2013, and took part in the follow-up survey between October to December of 2014. Cohort 2 introductory survey was also conducted October to December of 2014, with their follow-up survey in October to December of 2015, as was Cohort 3 introductory survey. Cohort numbering of the surveys have continued sequentially since.
English Proficiency	In CSAM, spoken English Proficiency is self-assessed by the participants as one of the following levels: Very well, Well, Not well or Not at all.
Family stream	Those categories of the Migration Program where the core eligibility criteria is based on a close family relationship with a sponsor who is an Australian citizen, Australian permanent resident or eligible New Zealand citizen. The immediate accompanying families of principal applicants in the Family stream (for example, children of spouses) are not included in this survey.
General population	Australians aged 15 years and over.
Highly skilled job or employment	A migrant is classified as having highly skilled employment if they are working in an occupation defined in ANZSCO skill level 1 or 2—requires an Associate Degree, Advanced Diploma or Diploma level qualification or higher.
Labour force status	Used to identify whether a migrant is employed, unemployed or not in the labour force.
Low skilled job or employment	A migrant is classified as having low skilled employment if they are working in an occupation defined in ANZSCO skill level 5—requires Certificate I or II level qualification or lower.
Main English-speaking Countries	Comprises the United Kingdom, Ireland, Canada, South Africa, the United States, New Zealand and Australia. For more information <a href="#">Australian Bureau of Statistics - Educational Attainment: Migrants and education – Main English speaking countries (MESOC)</a>

Term	Definition
Migrating Unit Spouses	Secondary applicants, who are spouses / de facto partners of a Skilled Migrant, and came to Australia as part of the same migrating unit as the Skilled Migrant (couple only or couple with children). Answers to spouse-related questions, such as occupations and earnings, are usually provided by the primary applicant on behalf of their spouse, and are only asked if the spouse is living with the primary applicant at the time of the survey.
Non-Migrating Unit Spouses	Spouses / de facto partners of Skilled Migrants—who migrated to Australia at an earlier time or were born in Australia.
Nominated occupation	Migrants seeking to apply under Australia's Points Tested Skilled Migration are required to nominate an occupation from Australia's skilled occupation lists that is relevant to their qualifications and experience and to have a favourable skills assessment for this particular occupation.
Offshore visa	Visa granted to a person who applied for a visa outside of Australia.
Onshore visa	Visa granted to a person who applied for a visa in Australia.
Partner Migrants	Primary applicants granted a Partner visa through the Family stream of Australia's Migration Program, enabling them to settle in Australia with their eligible Australian resident or citizen fiancé / spouse / de facto partner.
Permanent visa	A permanent residence visa to remain in Australia indefinitely.
Primary applicant	The person who applied and was accepted to migrate to Australia (also termed 'primary visa holder').
Provisional visa	A provisional visa is a temporary visa that may lead to the grant of a permanent visa if the holder meets certain conditions.
Response rate	The number of completed introductory surveys returned as a percentage of the number of survey forms that are sent out.
Retention rate	The number of people participating in the follow-up telephone survey as a percentage of those completing the introductory survey.
Semi-skilled job or employment	A migrant is classified as having semi-skilled employment if they are working in an occupation defined in ANZSCO skill level 3 or 4—requires Certificate III or IV level qualification.
Settlement date	Date of migrant's: <ul style="list-style-type: none"> <li>• permanent residence or provisional visa grant, after residing in Australia on a temporary visa, such as a student, temporary work or working holiday visa, or</li> <li>• arrival in Australia on a permanent or provisional visa obtained while outside Australia.</li> </ul>
Settlement Database	The Settlement Database is a statistical dataset developed for government and community agencies involved in the planning and provision of migrant settlement services. It brings together data from various departmental systems used to process migration applications both in Australia and in overseas posts. For more information <a href="#">Department of Social Services – Settlement Services</a>

Term	Definition
Skill stream	Those categories of the Migration Program where the core eligibility criteria are based on the applicant's employability or capacity to invest and/or do business in Australia. The immediate accompanying families of Skilled Migrants are also counted as part of the Skill stream.
Skilled Migrant	Migrants granted a visa under the Skill stream—refers only to the primary applicant.
Spouse of Partner Migrant	Fiancés / spouses / de facto partners of Partner Migrants—who migrated to Australia at an earlier time or were born in Australia.
State/Territory Nominated	A permanent visa for people able to obtain nomination by a state or territory government. It has a lower pass mark than the Skilled Independent visa. For more information <a href="#">Department of Home Affairs – Working in Australia</a>
Temporary visa	A visa to remain in Australia during a specified period, until a specified event happens or while the holder has a specified status.
Visa category	To assist in policy evaluation, data is presented across separate categories, with each category being a grouping of related visa subclasses. For example, the Employer Sponsored category comprises subclasses for the Employer Nomination Scheme, the Regional Sponsored Migration Scheme and Labour Agreements. A full listing of the make-up of each reporting category is at Appendix B: Visa reporting used in CSAM.
Working at lower skill level than nominated field	If the skill level of the current occupation is lower than the skill level of the respondent's nominated occupation, when the current occupation and nominated occupation do not match (as determined at 4-digit ANZSCO occupation level).
Working at the same (or higher) skill level as nominated field	If the skill level of the current occupation matches or was higher than the skill level of the respondent's nominated occupation, but the current occupation does not match the nominated occupation (as determined at 4-digit ANZSCO occupation level).

## Appendix B: Visa reporting used in CSAM

Skill stream visa categories <sup>1</sup>
<b>Employer Sponsored</b>
Regional Sponsored Migration Scheme (subclass 119) Labour Agreement (subclass 120) Employer Nomination (subclass 121) Employer Nomination Scheme (subclass 186) Regional Sponsored Migration Scheme (subclass 187) Labour Agreement (subclass 855) Employer Nomination Scheme (subclass 856) Regional Sponsored Migration Scheme (subclass 857)
<b>State/Territory Nominated</b>
Skilled – Sponsored (subclass 176) (Sponsored by State/Territory government) Skilled – Nominated (subclass 190) Skilled – Regional Sponsored (subclass 475) (Sponsored by State/Territory government) Skilled – Regional Sponsored (subclass 487) (Sponsored by State/Territory government) Skilled – Regional (Provisional) (subclass 489) (Sponsored by State/Territory government) Skilled – Sponsored (subclass 886) (Sponsored by State/Territory government)
<b>Offshore Independent</b>
Skilled – Independent (subclass 175) Skilled Independent (subclass 189)
<b>Onshore Independent</b>
Skilled Independent (subclass 189) Skilled – Independent Overseas Student (subclass 880) Skilled – Independent (subclass 885)
<b>Other Skilled</b>
Distinguished Talent (Australian support) (subclass 124) Business Talent (subclass 132) Business Owner (Provisional) (subclass 160) State/Territory Sponsored Business Owner (Provisional) (subclass 163) State/Territory Sponsored Senior Executive (Provisional) (subclass 164) State/Territory Sponsored Investor (Provisional) (subclass 165) Skilled – Sponsored (subclass 176) (Sponsored by family member) Business Innovation and Investment (Provisional) (subclass 188) Skilled – Regional Sponsored (subclass 475) (Sponsored by family member) Skilled – Recognised Graduate (subclass 476) Skilled – Regional Sponsored (subclass 487) (Sponsored by family member) Skilled – Regional (Provisional) (subclass 489) (Sponsored by family member) Skilled – Designated Area Sponsored (Provisional) (subclass 496) Established Business in Australia (subclass 845) Distinguished Talent (subclass 858) Skilled – Sponsored (subclass 886) (Sponsored by family member) Skilled – Regional (subclass 887) Business Innovation and Investment (Permanent) (subclass 888) Business Owner (Residence) (subclass 890) Investor (Residence) (subclass 891) State/Territory Sponsored Business Owner (Residence) (subclass 892) State/Territory Sponsored Investor (Residence) (subclass 893)
Family stream visa categories <sup>1</sup>
Spouse (subclass 100) Prospective Marriage (subclass 300) Spouse (provisional) (subclass 309) Spouse (subclass 801) Spouse (Extended Eligibility) (subclass 820)

1. Note: Some visa subclasses included in this list are closed to new applications.