2022 Employer Satisfaction Survey

Methodological Report

April 2023



Report prepared for:

Australian Government Department of Education

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# Introduction

## About this report

This methodological report describes the sample preparation, data collection, data processing and reporting aspects of the 2022 Employer Satisfaction Survey (ESS, ‘the survey’), conducted on behalf of the Australian Government Department of Education (‘the department’) by the Social Research Centre. This report is organised into the following sections:

* Section 1 introduces the survey background, objectives and provides a general overview.
* Section 2 describes the target population and sample build.
* Section 3 documents the survey design and procedures for conducting the study.
* Section 4 outlines the questionnaire development phase and provides an overview of changes from the previous iteration including institution specific items.
* Section 5 describes the data processing procedures and deliverables.
* Section 6 documents the final dispositions and response rates.
* Section 7 presents an analysis of response.
* Section 8 notes considerations for future iterations of the ESS.

## Background

The ESS is a component of the Quality Indicators for Learning and Teaching (QILT) suite of surveys, commissioned by the department. Conducted annually since 2016, the ESS is the only national survey that measures the extent to which higher education institutions in Australia are preparing graduates to meet employer needs. For a more detailed history of the ESS, refer to the *2016 ESS Methodological Report*.

## Objectives

The broad aim of the ESS is to collect insights and perceptions from employers about the attributes of recent graduates from Australian higher education institutions including universities and non-university higher education institutions (NUHEIs). Employer views of the technical skills, generic skills and work readiness of recent graduates provide assurance about the quality of Australia’s higher education sector. The development, collection and reporting of these measures assists the department to monitor service delivery and improve higher education over time.

Specific research objectives of the ESS are to measure, monitor and better understand:

* the specific skills and attributes employers need in their business,
* how well higher education is equipping graduates for the workforce, and
* the varied employment pathways graduates are taking after completing their study.

## Overview

The ESS is administered in parallel with the GOS and the first collection round for the 2022 ESS took place in November 2021, the second in February 2022 and the third in May 2022. The sample was drawn from graduates who responded to the 2022 GOS, were in paid employment the week prior to completing the GOS and consented to provide contact details for their work supervisor.

The survey was conducted in English only. The survey was fielded primarily via online collection, with interviewing via Computer Assisted Telephone Interviewing (CATI) as a secondary mode. Supervisors were invited to participate via email or phone (using CATI) depending on the contact information provided by the graduate. Unlike the GOS and the Student Experience Survey (SES), completed ESS CATI surveys are included in the nationally reported data.

A total of 3,452 surveys were completed by 3,200 supervisors of graduates from 42 Australian universities and 252 supervisors of graduates from 60 NUHEIs. Refer to Table 1 for a summary of the key project statistics.

Table 1 Key project statistics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Nov 2021** | **Feb 2022** | **May 2022** | **Total** |
| **Total supervisors approached (n)** | 2,861 | 849 | 4,879 | 8,589 |
| **Out of scope supervisors1 (n)** | 148 | 50 | 162 | 360 |
| **In-scope supervisors (n)** | 2,713 | 799 | 4,717 | 8,229 |
| **Completed surveys (n)** | 1,206 | 365 | 1,881 | 3,452 |
| **Overall response rate2 (%)** | 44.5 | 45.7 | 39.9 | 41.9 |

1 Includes opt-outs and out-of-scope surveys.

2 For the purpose of the ESS, response rate is defined as completed surveys as a proportion of ‘in-scope supervisors’, where in-scope supervisors excludes unusable sample (e.g., no contact details), out-of-scope and opted-out. This definition of response rate differs from industry standards by treating certain non-contacts and refusals as being ineligible for the response rate calculation. See American Association for Public Opinion Research (2016) for standard definitions.

## Project milestones

Table 2 provides a summary of the key project milestones for each round in the 2022 ESS.

Table 2 Key project milestones

|  |  |  |  |
| --- | --- | --- | --- |
| Task | November  2021 | February  2022 | May  2022 |
| **Establishment:** Questionnaire development | 27-Sep-21 to  14-Oct-21 | 13-Dec-21 to  16-Dec-21 | 4-Apr-22 to  21-Apr-22 |
| **Sample:** Ongoing collection of contact details | 26-Oct-21 to  5-Jul-22 | 1-Feb-22 to  15-Jun-22 | 26-Apr-22 to  17-Jul-22 |
| **Fieldwork:** Start online fieldwork | 28-Oct-21 | 27-Jan-22 | 28-Apr-22 |
| **Fieldwork:** Fieldwork closes1 | - | - | 14-Aug-22 |
| **Reporting:** Draft data and documentation to the department | - | - | 14-Oct-22 |
| **Reporting:** Draft National Report to the department | - | - | 7-Nov-22 |
| **Reporting:** Final data and documentation to the department | - | - | 7-Nov-22 |
| **Reporting:** Institutional data files delivered | - | - | 7-Nov-22 |
| **Reporting:** Final National Report to the department | - | - | 23-Nov-22 |
| **Reporting:** Methodological Report to the department | - | - | 23-Nov-22 |

1 For employed graduates who completed the GOS in the November or February rounds, the supervisor could be enumerated up until 14 August 2022.

# Sample build

## Target population

The in-scope population for the 2022 ESS comprised supervisors of employed graduates who completed the 2022 GOS. Refer to the *2022 GOS Methodological Report* for a complete description of the GOS target population.

## Institutional participation

In 2021, department funding of QILT participation was extended to non-Higher Education Support Act (HESA) institutions for the first time. Non-HESA institutions continued to be able to participate free of charge in the 2022 ESS collection cycle.

Intent to participate in the 2022 ESS was assumed for all institutions that chose to participate in the 2022 GOS. In total, graduates of 127 higher education institutions, including 42 universities and 85 NUHEIs, were in-scope to provide contact details for supervisors to participate in the 2022 ESS. Of these institutions, supervisors of graduates from 42 universities and 72 NUHEIs were included in the 2022 ESS sample. In all, supervisors responded with data for 42 universities and 60 NUHEIs. As such, the number of participating institutions in the 2022 ESS was lower than those reported as participating the 2022 GOS. In 2022, through the extended scope of QILT participation, supervisors of graduates from 6 non-HESA approved providers participated in the ESS, these institutions are included in reporting as NUHEIs.

Refer to Appendix 1 for a list of institutions that had graduates provide valid contact details and supervisors complete the ESS.

## Sample preparation overview

The initial method for building the survey sample took place at the end of the GOS, where employed graduates were presented with the ESS bridging module. Refer to Section 2.3.1 for further information on the function and outcomes of the ESS bridging module.

Due to low levels of agreement at the ESS bridging module, a range of additional sample workflows were implemented to maximise sample for the ESS. The process and scope of each additional sample workflow used to build the ESS sample are detailed in Section 2.4. A summary of contact details collected from each sample workflow is provided below in Table 3.

Near a third (66.5 per cent) of all contact details were collected via the refusal conversion workflow. This was followed by the ESS bridging module (20.4 per cent) and GOS partial completers (8.7 per cent). These were supplemented by the survey invitation pack (2.3 per cent) and CATI follow up (2.1 per cent) workflows. Sample workflows other than the ESS bridging module accounted for nearly four-fifths (79.6 per cent) of contact details collected, reinforcing the necessity of the additional sample build workflows. Overcoming the difficulties in collecting supervisor contact details from graduates at the end of the GOS remains an issue of note for future collections, and the efficiency of resource allocation between additional workflows should be reviewed (see Section 8).

Table 3 Contact details collected by sampling workflow

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample build workflow** | **Nov 2021**  **n** | **Nov 2021**  **%** | **Feb 2022**  **n** | **Feb 2022**  **%** | **May 2022**  **n** | **May 2022**  **%** | **Total**  **n** | **Total**  **%** |
| **Total contact details collected** | **2,861** | **100.0** | **849** | **100.0** | **4,879** | **100.0** | **8,589** | **100.0** |
| ESS bridging module | 607 | 21.2 | 162 | 19.1 | 985 | 20.2 | 1,754 | 20.4 |
| Survey invitation pack | 60 | 2.1 | 14 | 1.6 | 120 | 2.5 | 194 | 2.3 |
| CATI follow up | 63 | 2.2 | 12 | 1.4 | 109 | 2.2 | 184 | 2.1 |
| Refusal conversion | 1,808 | 63.2 | 586 | 69.0 | 3,320 | 68.0 | 5,714 | 66.5 |
| GOS partial completers | 323 | 11.3 | 75 | 8.8 | 345 | 7.1 | 743 | 8.7 |

### ESS bridging module

The ESS bridging module was presented to employed graduates at the end of the online GOS. This module described the purpose, importance and relevance of the survey and asked graduates if they would be willing to provide their supervisor’s contact details (name, business name, email address and/or phone number). In the ESS bridging module, graduates could choose to:

* Provide contact details.
* Speak with their supervisor before responding.
* Request further information about the ESS. This option presented the graduate with a set of frequently asked questions and answers. Graduates could request a call from an interviewer if they had a query, entering the graduate into the CATI follow up workflow.
* Request a survey invitation pack be sent by email. The survey invitation pack included the *ESS Brochure* and an ESS approach email for the graduate to forward to their supervisor. The approach email linked to an online form that allowed the supervisor to self-register for the ESS.
* Refuse to provide contact details.

In a continued effort to try overcome recent years’ response issues at the ESS bridging module, the ESS bridging module script was customised and targeted based on employment characteristics of graduates reported in the GOS. Customisations varied by round, with an emphasis on averting common concerns of graduates who had newly entered an organisation. Further customisation was included at the ESS bridging module to appeal to graduates who were in-scope for industry specific stakeholder items. A copy of the ESS bridging module and CATI follow up scripts are provided in Appendix 2.

A summary of graduate response to the request for contact details within the ESS bridging module is shown in Table 4. As can be seen, only a small number of graduates indicated they would provide contact details (3.1 per cent). Results varied somewhat between rounds, with February having the highest level of agreement (4.2 per cent) and May the lowest (2.8 per cent). The level of graduate agreement was consistent with the low level achieved in 2021 (3.0 per cent) and improving the level of agreement at the ESS bridging module remains a key consideration for the future of the ESS (see Section 8).

Table 4 Graduate response to the ESS bridging module

| Response to the ESS bridging module | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total graduates shown ESS bridging module** | **26,526** | **n/a** | **6,183** | **n/a** | **52,570** | **n/a** | **85,279** | **n/a** |
| No response | 1,588 | n/a | 394 | n/a | 2,317 | n/a | 4,299 | n/a |
| **Total responses** | **24,938** | **100.0** | **5,789** | **100.0** | **50,253** | **100.0** | **80,980** | **100.0** |
| I will provide their details | 851 | 3.4 | 241 | 4.2 | 1,410 | 2.8 | 2,502 | 3.1 |
| I want to speak with my supervisor before providing their details | 2,002 | 8.0 | 478 | 8.3 | 3,940 | 7.8 | 6,420 | 7.9 |
| I want more information about the Employer Satisfaction Survey | 247 | 1.0 | 45 | 0.8 | 428 | 0.9 | 720 | 0.9 |
| I do not wish to provide my supervisor’s details | 21,838 | 87.6 | 5,025 | 86.8 | 44,475 | 88.5 | 71,338 | 88.1 |

All graduates who responded ‘I do not wish to provide my supervisor’s details’ were asked the main reason for their refusal. As shown in Table 5, the three most common reasons for refusal were concern that the supervisor was too busy (28.9 per cent), followed by the graduate’s job not being related to the study they did (14.7 per cent) and graduates having privacy concerns (14.2 per cent). While referred to as a reason for refusal, graduates who responded as 'I do not have a direct supervisor' (9.7 per cent) were effectively out-of-scope for the ESS.

Table 5 Graduate reasons for refusal in the ESS bridging module

| **Graduate reason for refusal** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total refused** | **21,838** | **n/a** | **5,025** | **n/a** | **44,475** | **n/a** | **71,338** | **n/a** |
| No response | 781 | n/a | 178 | n/a | 1,739 | n/a | 2,698 | n/a |
| **Total responses** | **21,057** | **100.0** | **4,847** | **100.0** | **42,736** | **100.0** | **68,640** | **100.0** |
| My supervisor is busy and does not have enough time | 5,914 | 28.1 | 1,486 | 30.7 | 12,461 | 29.2 | 19,861 | 28.9 |
| My job is not related to the study I did | 3,415 | 16.2 | 733 | 15.1 | 5,933 | 13.9 | 10,081 | 14.7 |
| I have privacy concerns | 3,075 | 14.6 | 729 | 15.0 | 5,974 | 14.0 | 9,778 | 14.2 |
| I have not been in my job long enough | 2,424 | 11.5 | 646 | 13.3 | 6,022 | 14.1 | 9,092 | 13.2 |
| My job is temporary only/casual only | 2,352 | 11.2 | 361 | 7.4 | 4,028 | 9.4 | 6,741 | 9.8 |
| I do not have a direct supervisor | 1,847 | 8.8 | 421 | 8.7 | 4,398 | 10.3 | 6,666 | 9.7 |
| I do not know the contact details of my supervisor | 416 | 2.0 | 86 | 1.8 | 1,061 | 2.5 | 1,563 | 2.3 |
| Other reasons | 1,614 | 7.7 | 385 | 7.9 | 2,859 | 6.7 | 4,858 | 7.1 |

### Sample build quality assurance

The data quality of each sample record was checked as it was collected and prior to the record being entered into the appropriate contact workflow (see Section 3.3).

To minimise data quality errors, the following validation processes were applied at the time of detail collection:

* Validation of supervisor email addresses.
* Checks on supervisor phone number, name, and email address fields to ensure they did not match the graduate’s sample information.
* Checks on domestic phone numbers to ensure they were 10 digits and international phone numbers to ensure they were formatted with a country code.

### Sample cleaning

Before being built as the ESS sample, all contact details were passed through a manual review process to ensure a high data quality. Records could be accepted or rejected, with accepted records forming the ESS sample. The majority (98.9 per cent) of records were accepted, with a minority (1.1 per cent) rejected.

Light cleaning was undertaken throughout the manual review process to ensure optimal presentation of sample information throughout the survey.

The main components of sample record cleaning and manipulation were as follows:

* Email cleaning, e.g., correct domain formats.
* Phone cleaning, e.g., leading zeros.
* Name cleaning, e.g., correct capitalisation and salutations.
* Business name cleaning, e.g., correct capitalisation.

### Sample quality issues

Quality issues identified during the sample build inform the ongoing development of future quality assurance processes. Sample quality issues from the telephone follow up workflows were monitored throughout fieldwork. Feedback was provided to call centre operators and training modules were updated each round as necessary to address common issues.

The most common data quality issues observed during the 2022 ESS sample build were as follows:

* Incomplete contact information (e.g., missing supervisor name, business name, email or phone).
* Graduate contact information being provided in place of supervisor contact information.
* Academic supervisor contact details being provided instead of the requested work supervisor contact details.
* Poor quality contact information (e.g., business name provided in place of the supervisor’s name).
* Invalid email addresses due to erroneous domain names.

Phone numbers with missing or invalid international dialling codes had been noted as an issue in previous years. This quality issue was resolved in the 2022 ESS by design improvements to the CATI and online detail collection forms.

### Type of contact details

Table 6 provides a summary of the type of valid contact details provided by graduates for the 2022 ESS.

The collection of both an email and a phone number allowed supervisors to be approached through both online and CATI workflows (see Section 3.3) and was an important component of maximising response to the ESS. The collection of both an email and phone number were a continued focus of call centre operator training for the CATI follow. Collection of both a valid email and phone number in 2022 increased (to 62.9 per cent) from 2021 (48.4 per cent).

Table 6 Type of contact details collected

| **Type of contact details collected** | **Nov 2021**  **n** | **Nov 2021**  **%** | **Feb 2022**  **n** | **Feb 2022**  **%** | **May 2022**  **n** | **May 2022**  **%** | **Total**  **n** | **Total**  **%** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total valid contact details** | **2,861** | **100.0** | **849** | **100.0** | **4,879** | **100.0** | **8,589** | **100.0** |
| Email only | 893 | 31.2 | 228 | 26.9 | 1,584 | 32.5 | 2,705 | 31.5 |
| Phone number only | 164 | 5.7 | 36 | 4.2 | 282 | 5.8 | 482 | 5.6 |
| Email and phone number | 1,804 | 63.1 | 585 | 68.9 | 3,013 | 61.8 | 5,402 | 62.9 |

## Additional sample workflows

To further build the ESS sample base and maximise response, several additional sample workflows were used to supplement the 2022 ESS sample build. Graduates were eligible for additional sample workflows in the following circumstances:

* Requested an email containing the survey invitation pack and had not provided contact details (see Section 2.4.1).
* Did not provide a response at the ESS bridging module (see Section 2.4.2).
* Provided a refusal reason at the ESS bridging module that was suitable for a refusal conversion attempt (see Section 2.4.3).
* Were an employed graduate who had only partially completed the GOS and had not been approached for the ESS (see Section 2.4.4).
* Provided contact details that were unusable, or a repeat non-contact when approached through the ESS online workflow (‘ESS boost’, see Section 2.4.5).

Prior to the 2022 ESS fieldwork, the operational efficiency of each additional workflow was reviewed, and a decision was made to remove the additional workflow 'Requested CATI follow up' as an option for the 2022 ESS. This decision was made based on the small number of requests by graduates to be called in 2021, and the low conversion rate of those requests into the collection of contact details (refer to the *2021 ESS Methodological Report*).

### Survey invitation pack

The ESS bridging module included an option for graduates to request an email containing a survey invitation pack. The survey invitation pack contained a link to the *ESS Brochure* and an ESS approach email that the graduate could forward onto their supervisor. The approach email contained a unique link to an online form where the supervisor could self-register for the ESS by providing their own contact details.

This workflow provided an alternative method of collecting contact details for graduates that preferred to give the option of registering for the ESS directly to their supervisor. The survey invitation pack was offered to graduates through a variety of pathways within the ESS bridging module. CATI follow up with graduates who requested the survey invitation pack, but whose supervisor had not registered, was conducted as part of the refusal conversion workflow (see Section 2.4.3).

Example copies of the *ESS Brochure* and survey invitation pack email are provided in Appendix 4. The script for the online registration form and refusal aversion scripting is included in Appendix 5.

Outcomes of requests for the survey invitation pack are shown in Table 7. In 2022 the proportion of supervisors that self-registered contact details after graduates were sent the survey invitation pack (3.4 per cent) increased from 2021 (2.6 per cent). This improvement may have been driven by increased priority for CATI follow up with graduates who had been sent the survey invitation pack, but whose supervisor had not yet registered for the ESS. Despite improvement, the self-registration yield remains low. This low yield may be due to graduates not forwarding the invitation pack to supervisors. To improve the self-registration yield, additional follow up with graduates who request the survey invitation pack could be considered in future collections (see Section 8).

Table 7 Survey invitation pack outcomes

| **Category** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Requested survey invitation pack** | **1,829** | **100.0** | **446** | **100.0** | **3,349** | **100.0** | **5,624** | **100.0** |
| Supervisor self-registered valid contact details | 60 | 3.3 | 14 | 3.1 | 120 | 3.6 | 194 | 3.4 |

### ESS bridging module non-response follow up

The ESS bridging module non-response follow up workflow was conducted with graduates who reached the ESS bridging module but stopped the survey without completing.

The non-response follow up was conducted via both email and CATI. Graduates were sent up to two reminder emails prompting completion of the ESS bridging module. The initial reminder email was sent one day after the survey was stopped and the second email was sent following a further three-day delay.

If the graduate did not provide details after being sent reminder emails, and had a phone number available, they were subsequently followed up via CATI. Graduates who refused to provide contact details during CATI follow up were read a short, tailored script to try and avert the refusal. A short call cycle of up to four calls was used for the CATI follow up.

Outcomes of the ESS bridging module non-response follow up are shown in Table 8. In total, more than one-in-five (21.4 per cent) graduates contacted via this workflow provided contact details. The yields of contact details provided in 2022 were comparable in each round, indicating the low yield achieved in the 2021 ESS May round (9.1 per cent) was an outlier, possibly caused by COVID-19 disruption. The efficiency of the CATI follow up component of this workflow should be reviewed against the other CATI follow up workflows, such as refusal conversion, ahead of the 2022 ESS (see Section 8).

Table 8 ESS bridging module non-response follow up outcomes

| **Category** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total graduates approached** | **294** | **100.0** | **86** | **100.0** | **578** | **100.0** | **958** | **100.0** |
| Graduate provided valid contact details | 66 | 22.4 | 16 | 18.6 | 123 | 21.3 | 205 | 21.4 |

### Refusal conversion

To try and further increase the ESS sample base, a refusal conversion workflow was conducted using CATI. Only graduates with a phone number in the GOS sample were eligible for selection. Refusal reasons from the ESS bridging module were chosen for conversion based on their level of suitability, with some reasons deemed not suitable (e.g., ‘I don’t have a direct supervisor’). Sample was selected from the following four refusal reasons:

* My job is temporary only / casual only.
* My supervisor is busy and does not have enough time.
* My job is not related to the study I did.
* I have not been in my job long enough.

In a change from prior years, graduates who cited privacy concerns as their reason for refusal were not contacted. This change was informed by a review of the operational efficiency of each refusal reason in the 2021 ESS. To reduce any potential burden placed on graduates, only graduates who consented to recontact after refusing were selected for the refusal conversion workflow. To optimise operational productivity, refusal conversion follow up was prioritised towards the refusal reasons that were easiest to convert (e.g., ‘I have not been in my job long enough’).

The delay between refusal and CATI follow up was dependent on operational needs, the nature of the refusal and strategies to maximise response. The refusal conversion script was customised to address common concerns associated with each refusal reason (see Appendix 5). Interviewer training for refusal conversion emphasised identifying and responding to the graduate’s personal concerns, rather than strict adherence to a predefined script. A short call cycle of up to four calls was used for the refusal conversion CATI follow up.

The goal of this workflow was for interviewers to collect contact details directly from the graduate. However, interviewers also had the option of sending a survey invitation pack to the graduate’s email, allowing supervisor self-registration. The survey invitation pack was offered only as a final refusal aversion technique. Non-response follow up to requests for the survey invitation pack was also conducted as part of the refusal conversion workflow.

Refusal conversion was the largest of the additional sample workflows undertaken as part of the 2022 ESS. Outcomes from refusal conversion are listed in Table 9. The proportion of graduates that provided valid contact details was higher in February (24.7 per cent) than in November (16.5 per cent) and May (15.3 per cent). This may be due to seasonal operational challenges faced by the workflow in November, end of year holiday period, and in May, end of financial year and a shorter fieldwork period. As May is the largest sample period, and refusal conversion the most significant sample build workflow, the ESS sample build could be improved if the fieldwork period for the May round was extended (see Section 8).

Table 9 Refusal conversion outcomes

| Category | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total graduates approached** | **10,943** | **100.0** | **2,375** | **100.0** | **21,688** | **100.0** | **35,006** | **100.0** |
| Valid contact details collected from refusal conversion1 | 1,808 | 16.5 | 586 | 24.7 | 3,320 | 15.3 | 5,714 | 16.3 |

1 Includes contact details provided by graduates via refusal conversion telephone follow up, and supervisor self-registration as a result of a survey invitation pack sent from the refusal conversion workflow.

### GOS partial completers

To further increase the ESS sample base, CATI follow up was conducted with a select group of graduates who only partially completed the GOS (‘GOS partial completers’). Employed graduates were selected for this workflow if they had completed enough of the GOS to be eligible for national reporting but did not complete enough of the GOS to reach the ESS bridging module. Graduates were also required to have a phone number in the GOS sample to be selected.

The GOS partial completers workflow was conducted after the end of fieldwork for each round of the GOS, and CATI follow up aligned with processes described in Section 2.4.2. The introduction of the CATI follow up script was customised for GOS partial completers and is included in Appendix 2.

Table 10 shows the proportion of valid contact details provided by graduates when contacted via the GOS partial completers workflow (8.1 per cent in total). This is a decrease from the yield achieved in 2021 (9.9 per cent) and was driven by a decrease in operational performance when contacting GOS partial completers. The operational efficiency of this workflow should be reviewed ahead of the 2022 ESS fieldwork (see Section 8).

Table 10 GOS partial completers outcomes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| **Total graduates approached** | **3,812** | **100.0** | **993** | **100.0** | **4,413** | **100.0** | **9,218** | **100.0** |
| Graduate provided valid contact details | 322 | 8.4 | 75 | 7.6 | 346 | 7.8 | 743 | 8.1 |

### ESS boost

A CATI follow up workflow referred to as the ESS boost was implemented to recover ESS sample that had an unusable outcome (disconnected phone number or permanent failure to deliver email) or sample that was a repeat non-contact through the ESS online workflow. Records with contact details collected directly from supervisors (see Section 2.4.1) were not eligible for the ESS boost workflow and only records where the graduate had a phone number in the GOS sample were selected.

A short call cycle of up to three phone calls was employed for the ESS boost. Graduates were asked by interviewers to confirm if the original contact details provided were correct. Existing contact details could be confirmed or removed, and new details provided. In circumstances where new or updated information was provided, the contact protocol for the ESS record was reset and the record was entered anew into the appropriate online or CATI workflow (refer to Section 3.3). If no new contact information for a record was obtained, no adjustment was made to the ESS contact protocol.

Table 11 displays the outcomes of the ESS boost workflow. In total more graduates provided new contact details (29.3 per cent) than confirmed the original contact details (17.5 per cent), reinforcing the need for the ESS boost workflow. As in prior years, a lower proportion of graduates provided new contact details in the May round (16.4 per cent). This is likely due to the shorter fieldwork period in May (see Section 1.5) and could be taken into consideration when reviewing the fieldwork period for future years of the ESS (see Section 8).

Table 11 ESS boost outcomes

| **Category** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total graduates approached** | **356** | **100.0** | **80** | **100.0** | **451** | **100.0** | **887** | **100.0** |
| Confirmed original contact details | 70 | 19.7 | 17 | 21.3 | 95 | 21.1 | 155 | 17.5 |
| Provided new contact details | 127 | 35.7 | 32 | 40.0 | 74 | 16.4 | 260 | 29.3 |

# Survey design and procedures

## Institutional engagement

To build institutional engagement with the ESS, the Social Research Centre employed a strategy based on the principles of stakeholder need, transparency, knowledge sharing, and responsiveness. The Social Research Centre’s institutional engagement strategy for the 2022 ESS is described in this section and included:

* planning resources such as the QILT key dates calendar and the GOS Collection and Sample Guide,
* webinars and newsletters, and
* an ongoing dialog with survey managers to build rapport.

### Planning resources

The Social Research Centre provided planning resources to participating institutions to support the ease of institution participation, allow forward planning of institution resources and ensure project milestones were delivered to schedule.

The *QILT Key Dates Calendar*, accessible via the QILT provider portal, contained an overview of the ESS project milestones (refer to Section 1.5), along with timelines for the entire QILT suite of surveys. The calendar was kept up to date year-round with any project schedule adjustments.

While an ESS collection guide was not provided, the GOS *Collection and Sample Guide* provided institutions with a brief overview of the ESS. The guide introduced the ESS by describing how graduate participation in the GOS leads to the ESS sample build, and it outlined a plan for institutions to raise awareness of the ESS with their graduates.

### Webinars and newsletters

As part of the institutional engagement strategy, a series of webinars and newsletters was provided to institutions throughout the 2022 ESS collection cycle. Newsletters were sent each month covering information related to key QILT survey milestones, acting as a regular point of contact with institution contacts who subscribed. Webinars were presented for institutions on a near monthly basis. Webinar topics were designed to guide institutions through key stages of the survey administration process and to share technical and methodological insights. To ensure continued engagement with the webinar series, institutions were consulted to inform topics of interest for future sessions. Webinars relating directly to the ESS during the 2022 collection covered topics such as fieldwork milestones, challenges related to the ESS methodology, how institutions can support the ESS, and discussion of the *2021 ESS National Report* results.

### Ongoing dialogue with institutions

An open dialogue with survey managers was maintained throughout the 2022 ESS collection cycle to build rapport, offer support, discuss fieldwork performance and better understand key issues that could impact the ESS.

## Graduate and supervisor engagement

An *ESS Brochure* was made available to graduates and supervisors as part of engagement materials and upon request. The *ESS Brochure* was presented in a question and answer format and covered topics relevant to supervisor participation. These topics included the benefits of participation, what is required of supervisors to participate and the privacy provisions of the research.

The GOS *Marketing Pack* was available to participating institutions on the QILT website provider portal. While the primary purpose of this pack was to help institutions increase graduate engagement and support the institutional administration of the GOS, the included approach letter and email templates encouraged graduates to nominate their supervisor for the ESS. All correspondence provided the ESS or QILT email address and phone number for the purpose of contacting the Social Research Centre if there were any queries.

An [ESS website](http://www.qilt.edu.au/ess) (http://www.qilt.edu.au/ess) was also made available as resource for engaging with both graduates and supervisors. The website included a link to the *ESS Brochure*, provided access to the prior ESS results and reports, detailed participant privacy information and answers to a set of frequently asked questions relating to participation. Further development of the website could help facilitate improved engagement with graduates, supervisors and industry in future years (see Section 8).

## Contact protocol

Dual methodologies were utilised in the 2022 ESS with online and CATI workflows established to support supervisor participation. Supervisors with a valid email address were entered into the online workflow consisting of an invitation email followed by up to five reminders. This was the primary workflow on the basis that supervisors would prefer to receive information about the ESS in writing and have the opportunity to self-complete. Records with only a valid phone number (i.e., no email address), were entered into the CATI workflow. Records with both a valid email address and phone number were initially entered into the online workflow.

There was an online contact protocol used for the 2022 ESS. The contact protocol included a delay before beginning each workflow or sending a communication. The initial delay between contact details being provided and the supervisor being approached allowed graduates time to make their supervisors aware of the ESS before an invitation was received. A series of increasing delays was employed for each subsequent email, utilising the long fieldwork period to maximise response. For the first time in 2022, the Reminder 4 and Reminder 5 emails were a standard part of the protocol for all survey rounds. To accommodate the shorter fieldwork period in the May round (see Section 1.5), an accelerated contact protocol was applied in the final months of fieldwork.

Records in the online workflow were transferred to the CATI workflow if they had a valid phone number and the supervisor did not respond to the survey within thirteen days of the invitation email being sent.

Except for when the email address hard bounced, supervisors continued to receive email reminders when transferred from the online to CATI workflow. Supervisors in the CATI workflow had the option of completing the survey via CATI or online. If a supervisor requested to complete the survey online at the time of the call, their preferred email address was collected and an email with a link to complete the survey was sent immediately following the call. Supervisors choosing this option remained in the CATI workflow and if the supervisor had not responded to the survey within seven days, further CATI follow up was conducted.

It is important to note that all contact was ceased to supervisors who had completed the survey, been disqualified from participating (i.e., screened out because they were not eligible) or otherwise opted-out (e.g., unsubscribed). The contact protocol was adjusted as required to meet operational needs. For example, the email schedule was paused during the end of year holiday period.

### Email invitation and reminders

The email invitation was sent to all supervisors with valid email addresses to advise of their selection in the ESS, present the survey objectives, outline privacy provisions, and communicate the value of participation. All emails included a unique link that took supervisors directly into their survey and referred to the Social Research Centre and QILT webpages for further information. An unsubscribe link was included in the footer of each email if supervisors no longer wanted to receive correspondence.

The general objective of the email plan was to appeal to a diverse audience and so the theme, length and tone of each email varied. All emails featured text customised to the supervisor and the content differed throughout the reminder program. For example, a sense of urgency was created by appealing to survey closure in Reminder 5. To minimise the risk of complaints due to engagement fatigue, emphasis was placed on the unsubscribe mechanism from Reminder 3 onward.

The message intent of each email communication is listed in Table 12.

Table 12 ESS message intent

| **Activity** | Message intent |
| --- | --- |
| Invitation | Build ESS awareness and invitation to participate. |
| Reminder 1 | Express importance and value of participation, incentivise via sharing of research findings. |
| Reminder 2 | Appeal to help the Australian Government improve Australian higher education. |
| Reminder 3 | Reminder that the Department of Education still needs your feedback. |
| Reminder 4 | Acknowledgement that you may be busy. Importance of sharing your perspective as a supervisor. |
| Reminder 5 | Final chance to complete, inform that this is the final email. |

A customisation to the invitation email was made for sample that qualified for one set of stakeholder items (see Section 4.4.2). The customisation was written to appeal to, and add legitimacy for, supervisors working within a specific industry.

Figure 1 and Figure 2 illustrate the appearance of the invitation on screen for supervisors on desktop and mobile devices.

Figure 1 Example ESS survey invitation - desktop

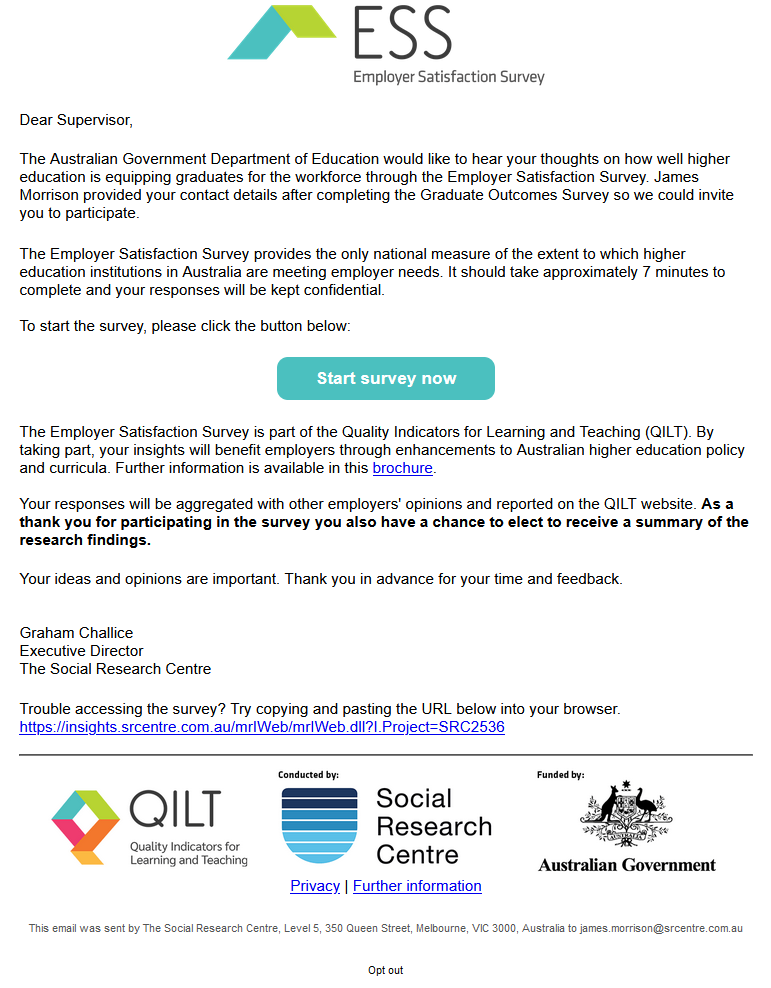
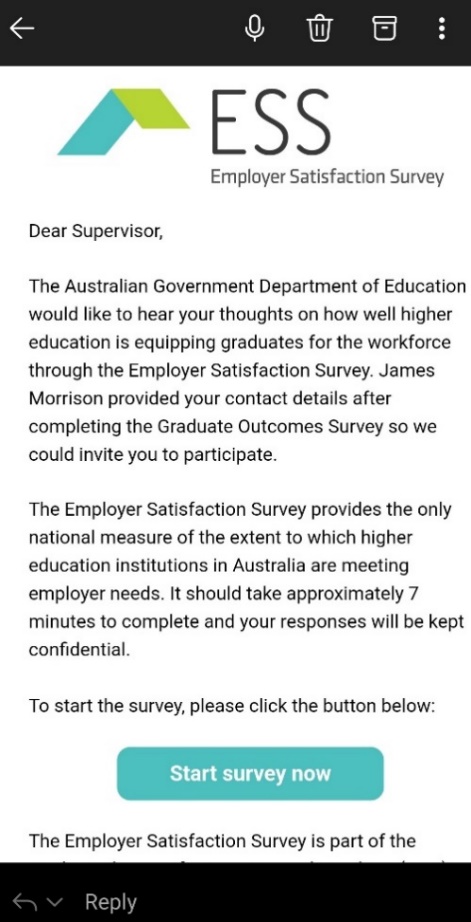


Figure 2 Example ESS survey invitation - mobile



### Email send outcomes

Table 13 provides a breakdown of email send outcomes by standard contact activity for each round in the 2022 ESS collection cycle.

The invitation email had the highest open rate in November (45.2 per cent), followed by February (42.2 per cent) then May (38.6 per cent). Similarly, supervisor engagement ('Clicked on link') was highest in November (22.4 per cent) in comparison to February (17.4 per cent) and May (15.6 per cent). Email open rates were generally lower in the May round, most likely due to the shorter fieldwork period. It should be noted that the sample size for February is quite small relative to the November and May rounds and this should be considered when interpreting email send results.

The Reminder 1 email had the highest supervisor engagement after the invitation, however during the May round Reminder 1 had the lowest open rate (17.0 per cent). This open rate is substantially lower than was reported for other emails throughout the year, indicating a possible issue with the deliverability of this message. Opt-outs did not exceed one per cent at each email except for Reminder 4 in February (1.6 per cent), suggesting the nature of the survey and the timing of sends were not a concern for supervisors. The consistent level of supervisor engagement with reminders later in the schedule, and the overall low opt-out rates, indicate that there could be scope for additional engagement activity in the contact protocol (see Section 8).

The proportion of hard bounced emails was low for all emails except the invitation, and consistent across all rounds. Hard bounce for the invitation email was highest in November (9.8 per cent). While hard bounce rates improved slightly from 2021, the high initial bounce rate confirms the continued need for the ESS boost workflow (see Section 2.4.5) and monitoring of the email verification process.

Table 13 Email send outcomes by round of activity

| **Category** | **Invite** | **R1** | **R2** | **R3** | **R4** | **R4** |
| --- | --- | --- | --- | --- | --- | --- |
| **November 2021:** Total sent (n) | 2,689 | 2,245 | 2,074 | 1,684 | 1,535 | 1,291 |
| Opened (%) | 45.2 | 43.8 | 33.9 | 37.2 | 35.3 | 32.1 |
| Clicked on link (%) | 22.4 | 19.4 | 8.1 | 10.6 | 9.4 | 8.4 |
| Opt-out from link (%) | 0.6 | 0.3 | 0.8 | 0.6 | 0.9 | 0.6 |
| Opened email (%) | 22.3 | 24.1 | 25.0 | 26.0 | 25.0 | 23.0 |
| Unopened (%) | 43.8 | 54.7 | 64.3 | 60.9 | 62.7 | 64.4 |
| Soft bounce (%) | 1.2 | 1.4 | 1.5 | 1.9 | 1.9 | 2.2 |
| Hard bounce (%) | 9.8 | 0.1 | 0.2 | 0.1 | 0.1 | 1.2 |
| **February 2022:** Total sent (n) | 812 | 643 | 581 | 495 | 445 | 395 |
| Opened (%) | 42.2 | 37.6 | 42.2 | 46.1 | 32.8 | 29.4 |
| Clicked on link (%) | 17.4 | 12.0 | 8.8 | 6.7 | 9.2 | 7.8 |
| Opt-out from link (%) | 0.9 | 0.6 | 0.3 | 1.0 | 1.6 | 0.5 |
| Opened email (%) | 24.0 | 25.0 | 33.0 | 38.4 | 22.0 | 21.0 |
| Unopened (%) | 47.8 | 61.9 | 57.3 | 53.3 | 66.7 | 69.6 |
| Soft bounce (%) | 0.2 | 0.3 | 0.5 | 0.4 | 0.4 | 0.5 |
| Hard bounce (%) | 9.7 | 0.2 | 0.0 | 0.2 | 0.0 | 0.5 |
| **May 2022:** Total sent (n) | 4,577 | 8,078 | 3,624 | 3,195 | 1,384 | 2,410 |
| Opened (%) | 38.6 | 17.0 | 31.6 | 31.2 | 32.7 | 30.5 |
| Clicked on link (%) | 15.6 | 6.0 | 8.1 | 4.9 | 7.6 | 8.3 |
| Opt-out from link (%) | 0.4 | 0.2 | 0.5 | 0.4 | 0.8 | 0.5 |
| Opened email (%) | 22.6 | 10.8 | 23.0 | 25.9 | 24.3 | 21.7 |
| Unopened (%) | 50.6 | 82.3 | 67.0 | 67.5 | 65.3 | 67.2 |
| Soft bounce (%) | 1.1 | 0.6 | 1.3 | 1.3 | 1.7 | 2.1 |
| Hard bounce (%) | 9.7 | 0.1 | 0.1 | 0.0 | 0.3 | 0.2 |

### CATI workflow protocols

Call procedures for supervisors entering the CATI workflow directly (that is, where no email address was provided by the graduate) or after being transferred from the online workflow were as follows:

* Call attempts placed over different days of the working week and times of day. Up to eight call attempts were made in cases where contact had been made, with a maximum of six when contact was not made. Additional calls beyond these limits were allowed only by appointment request.
* Placing a second call attempt to ‘fax / modem’ and ‘number disconnected’ outcomes (given that there are occasionally issues with internet connections and problems at the exchange).
* The option of sending supervisors an email with their unique survey link if supervisors preferred to complete online, rather than complete a phone interview.

More than half of the surveys completed in the CATI workflow (57.9 per cent) occurred within the first two call attempts. Historically an important component of the CATI workflow protocol, the effectiveness of a long tailed call cycle dramatically declined in 2022. Only one-in-ten (10.9 per cent) of CATI workflow surveys required five or more call attempts, compared to near one-in-five surveys in 2021 (19.6 per cent). The prevalence of work from home among employers greatly lowered the operational efficiency of calling landlines, and therefore lowered the efficiency of the CATI workflow protocol overall. To improve survey yield and operational efficiency, adjustments must be made to the CATI workflow for the 2023 ESS (see Section 8).

### Fieldwork briefing

Call centre operators selected to work on the 2022 ESS attended a briefing session delivered by the Social Research Centre project management team. Briefings were conducted each round prior to the commencement of sample build workflows and ESS interviewing. Additional briefings were conducted throughout fieldwork as required to meet operational needs. The briefings covered an overview of the ESS and QILT, privacy and confidentiality policies, survey procedures for each workflow, and fieldwork timelines.

Each briefing session was followed by a run through of the survey script and a training module delivered by the operations team. The training module focused on building skills for respondent liaison and respondent engagement. It made use of interactive learning, utilising call recordings and role-play exercises to tailor response maximisation skills to the ESS. The briefing slides are provided at Appendix 3.

### Quality control

In field quality monitoring techniques applied to the sample building and CATI workflow components of this project included:

* Listening-in validations conducted in accordance with existing ISO 20252 procedures.
* Monitoring (listening in) by the Social Research Centre project manager and supervisory staff.
* Field team de-briefing after the first shift, and thereafter, whenever there was important information to impart to the field team in relation to data quality, consistency of reminder call administration, or project performance.
* Maintenance of an ‘field team handout’ document detailing project performance metrics, graduate liaison techniques and data quality requirements.
* Maintenance of a wiki with answers to common graduate and supervisor queries.

Quality assurance and applicable standards are discussed further at Section 3.4.5.

### Email deliverability testing

Email deliverability testing processes were employed prior to each round of the survey to help ensure that all emails avoided delivery to a spam or junk folder. Further, testing was conducted to optimise emails for deliverability to primary inboxes (e.g., ‘primary’ tab in Gmail, ‘focused’ inbox in Outlook). Due to the incremental nature of the ESS contact protocol and long fieldwork period, issues with deliverability can develop mid-fieldwork (as noted for Reminder 1 in Section 3.3.2). Consideration should be given to improving detection of changes in deliverability during fieldwork (see Section 8).

Actions taken and products used to optimise email deliverability included:

* A dedicated Internet Protocol (IP) address range used only by the Social Research Centre for bulk email delivery. The reputation of this range was maintained year-round to keep the IP addresses ‘warm’. The dedicated range eliminated risks associated with bulk mailing from a shared IP pool.
* During sample cleaning email addresses were validated to reduce bounce rates, thereby minimising the degradation of IP reputation.
* Ongoing maintenance of technical services and policies to meet sender best practice.
* Optimisation of all images, hyperlinks and HTML code used in emails to meet deliverability best practices.
* Pre-field testing of emails across a broad range of mail clients, devices, and providers to confirm and optimise compatibility, display and delivery.
* In field tracking of email deliverability using analytics tools.

## Data collection

### Data collection workflows

The ESS utilised a dual mode methodology, with data collected through both online and CATI workflows to maximise response. A reporting module was developed for live monitoring of response (refer to Section 3.4.6).

Table 14 shows the proportion of supervisors allocated to the online and CATI workflows. As can be seen, the majority (94.3 per cent) of supervisor records were initially assigned to the online workflow, with a minority (5.7 per cent) initially assigned to the CATI workflow due to only providing a phone number. A lower proportion of records changed workflow in May (30.7 per cent) due to the shorter May fieldwork period (see Section 1.5).

Table 14 Workflow allocation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Workflow** | **Nov 2021**  **n** | **Nov 2021**  **%** | **Feb 2022**  **n** | **Feb 2022**  **%** | **May 2022**  **n** | **May 2022 %** | **Total**  **n** | **Total**  **%** |
| **Total supervisors approached** | **2,861** | **100.0** | **849** | **100.0** | **4,879** | **100.0** | **8,589** | **100.0** |
| **Total assigned to online workflow** | **2,692** | **94.1** | **812** | **95.6** | **4,592** | **94.1** | **8,096** | **94.3** |
| Email only provided | 1,201 | 42.0 | 340 | 40.0 | 2,314 | 47.4 | 3,855 | 44.9 |
| Email and phone provided | 1,491 | 52.1 | 472 | 55.6 | 2,278 | 46.7 | 4,241 | 49.4 |
| **Total assigned to CATI workflow** | **1,659** | **58.0** | **509** | **60.0** | **2,561** | **52.5** | **4,729** | **55.1** |
| Phone only provided | 169 | 5.9 | 37 | 4.4 | 287 | 5.9 | 493 | 5.7 |
| Changed from online workflow | 1,124 | 39.3 | 350 | 41.2 | 1,496 | 30.7 | 2,970 | 34.6 |

Table 15 shows the number and proportion of supervisor records changing workflow because of a ‘hard bounce’ outcome, or non-response to the online survey invitation and reminders. In the 2022 ESS, a majority (70.0 per cent) of supervisors assigned to the online workflow changed to CATI workflow, a decrease from 2021 (79.7 per cent). This decrease was caused by the increased reliance on the refusal conversion workflow to build sample (see Section 2.3). For example, not all records built via the refusal conversion workflow in May had adequate time remaining in the fieldwork period to change workflow.

Table 15 Changed workflow

| **Changed workflow** | **Nov 2021**  **n** | **Nov 2021**  **%** | **Feb 2022**  **n** | **Feb 2022**  **%** | **May 2022**  **n** | **May 2022 %** | **Total**  **n** | **Total**  **%** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Eligible for workflow change1** | 1,491 | 100.0 | 472 | 100.0 | 2,278 | 100.0 | 4,241 | 100.0 |
| **Total changed workflow2** | 1,124 | 75.4 | 350 | 74.2 | 1,496 | 65.7 | 2,970 | 70.0 |
| Hard bounce | 189 | 12.7 | 65 | 13.8 | 294 | 12.9 | 548 | 12.9 |
| Online non-response | 935 | 62.7 | 285 | 60.4 | 1,202 | 52.8 | 2,422 | 57.1 |
| **Total unchanged workflow**3 | 367 | 24.6 | 122 | 25.8 | 782 | 34.3 | 1,271 | 30.0 |

1 Only records with an email and phone provided were eligible for workflow change.

2 Hard bounce and Online non-response added to CATI workflow.

3 Total unchanged workflow are those who had completed, screened out or unsubscribed prior to trigger for changing workflow.

### Online survey

The online survey could be accessed by clicking on the link in the email invitation or email reminders. Clicking from the email invitation or email reminder would go directly to the beginning of the survey. Unlike the SES and GOS, due to the limited ESS sample frame, there was no option to start the survey via the QILT website.

Online survey presentation was informed by accessibility guidelines and other relevant resources, with standard features including:

* Optimisation for small screen devices (see Appendix 7).
* Consistent presentation and placement of “Next” and “Previous” buttons.
* Input controls and internal logic / validation checks.
* Tailoring error messages as appropriate.
* Splitting long statement batteries over several screens to reduce the number of items that require vertical scrolling on a desktop.
* Sizing the panels for free text responses commensurate with the level of detail required in the response.
* Automatically ‘saving’ with progression to the next screen.
* The capacity to save and return to finish off at another time, resuming at the last question viewed.

The survey look and feel was customised to be consistent with QILT branding guidelines, including the use of the ESS logo and colour scheme. This ensured consistency with the look of the email invitation, reminders, and *ESS Brochure*. Refer to Figure 3 and Figure 4 for examples of the online survey look and feel on desktop and mobile.

Figure 3 Presentation of the ESS online survey on a desktop device

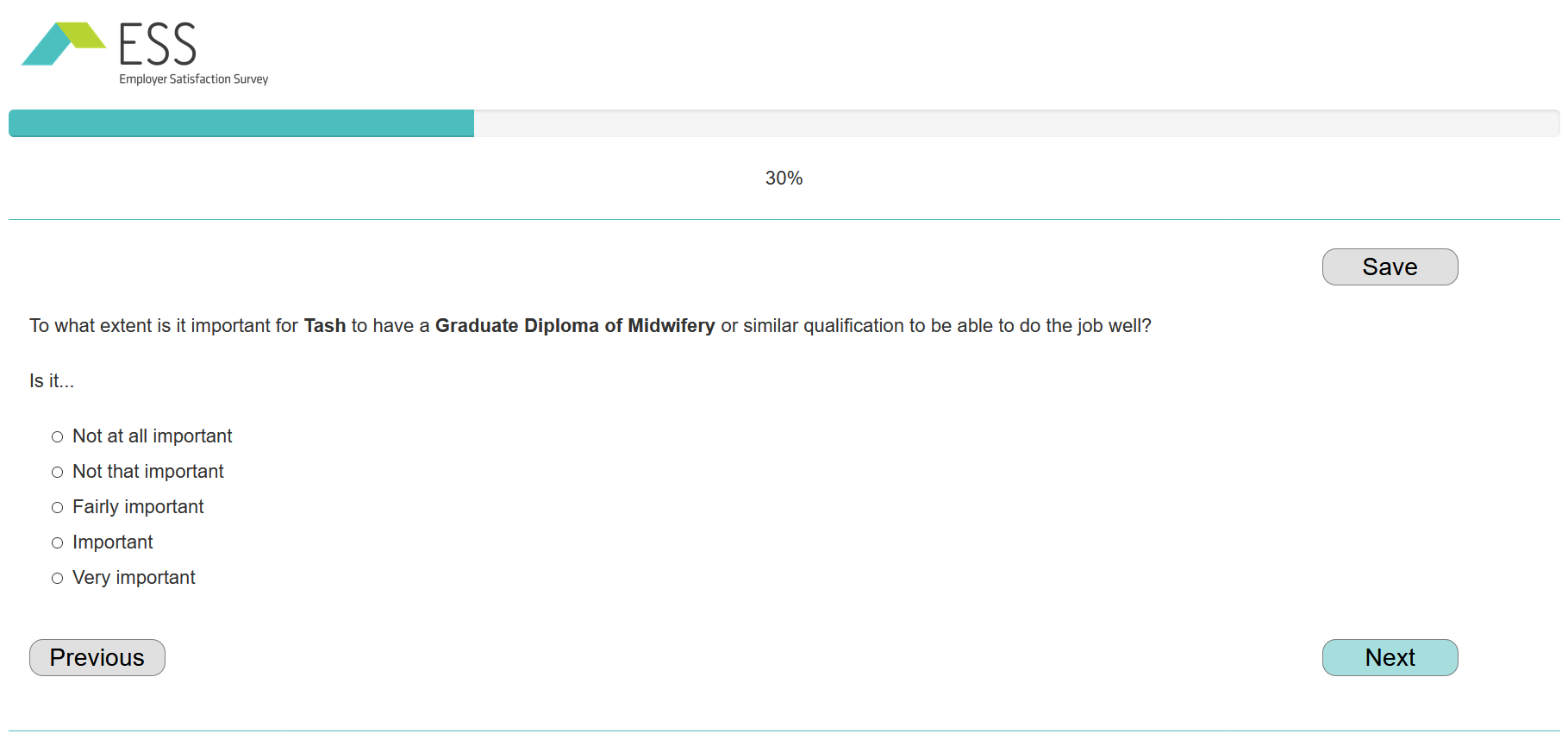
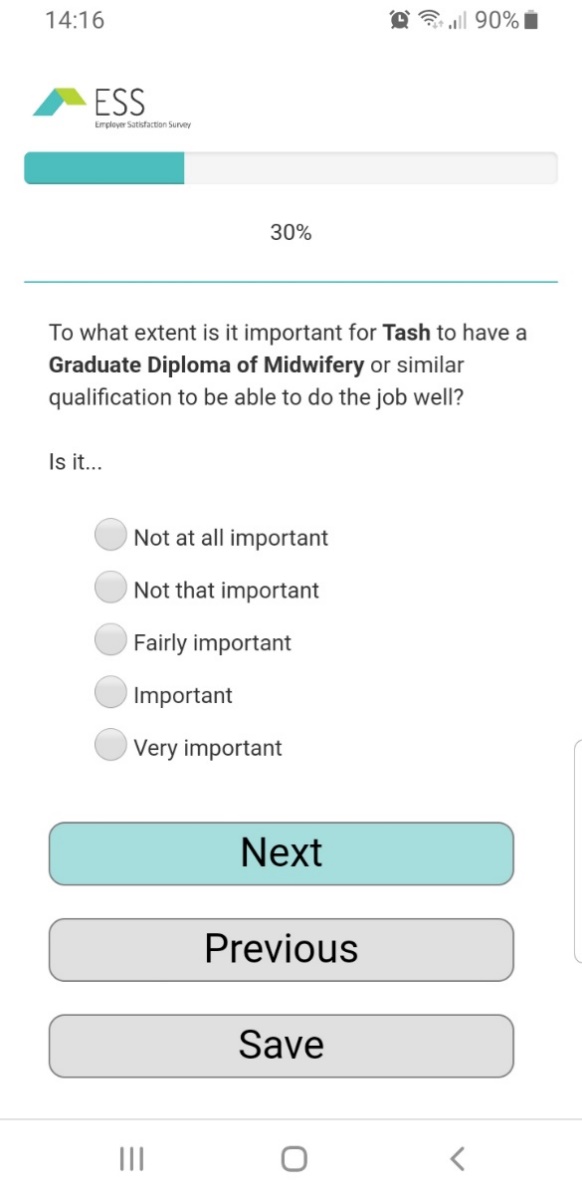


Figure 4 Presentation of the ESS online survey on a small screen device



### CATI survey

The CATI survey was administered in an identical format to the online ESS noting some modifications to facilitate CATI data capture. Interviewers had an interfacing script at the start and finish of the online survey which allowed categorisation of call outcomes. Once agreement to complete the survey by phone was established, the interviewers conducted the survey and recorded responses using web browser based CATI software. Consistent with the online survey, the non-mandatory nature of the ESS questionnaire items allowed for responses to items to be skipped by the interviewer if requested by the supervisor.

### Survey testing

Standard operational checks of the online survey were conducted pre-fieldwork to ensure implementation aligned with the intended questionnaire design. In addition to these standard checks, institutions and stakeholders with new or revised additional questionnaire items (refer to Section 4.4) were sent a test links to review.

The survey was launched with a small component of the total population and surveys completed on the day of launch were checked for correct base sizes to ensure sequencing was functioning as intended. No issues were identified, and the survey fieldwork proceeded. Data was again reviewed to ensure the integrity of small base items once a larger number of surveys had been completed.

### Quality assurance and applicable standards

All aspects of the ESS were undertaken in accordance with the Privacy Act (1988) and the Australian Privacy Principles contained therein, the Privacy (Market and Social Research) Code 2021, the Research Society’s Code of Professional Behaviour, and ISO 20252 standards. All senior QILT staff are full members of the Research Society or maintain professional membership relevant to their role and the Social Research Centre is also a member of the Australian Data and Insights Association (ADIA, formerly Association of Market and Social Research Organisations). All sensitive or personally identifiable information such as sample and data were transferred using the QILT Secure File Exchange (SFX).

### Progress reporting and live online reporting module

The department was provided with email updates covering survey launches, fieldwork milestones and response rate progress. The department was also provided with access to a bespoke ‘live’ online reporting module which provided an overview of supervisor detail collection rates for each institution and the total participation rates for all institutions. Results were provided in real time and included the number of in-scope graduates who agreed to provide contact details, the total contact details collected and participation rates of supervisors (including partial completes, out-of-scopes and opt-outs).

## Supervisor and graduate support

The Social Research Centre maintained an ESS helpdesk to provide supervisors and graduates an avenue to establish contact with the ESS team. The helpdesk featured a 1800 number and an ESS inbox. The 1800 number was also available internationally (with an international dialling code) and remained operational for the duration of the overall fieldwork period. The helpdesk was staffed seven days a week during call centre operational hours and all calls outside these hours were routed to a voicemail service. Queries to the helpdesk were responded to within one business day. A QILT inbox was also maintained year-round, managed by the QILT administration team and staffed during business hours.

The ESS helpdesk team was briefed on the ESS background, procedures and questionnaire to enabling them to answer a wide range of queries. To further support the helpdesk, a database was made available to the team to enable them to look up graduate and supervisor information and survey links, as well as providing a method for logging all contacts. All opt-outs and out-of-scopes received via the helpdesk were removed from the in-scope sample to cease further contact.

A summary of enquires to the ESS helpdesk is provided at Table 16. Survey queries were the most common type of query (59.3 per cent), these included queries about the survey content and technical support for the online survey. The next most common queries included requests to opt-out of the research and requests for general information (e.g., queries for information about QILT or the Social Research Centre). There was an increase in contact to the ESS helpdesk in 2022 in comparison to 2021, this was driven by the increased scale of the refusal conversion telephone follow up with graduates. As such, graduate queries related to the sample build were typically received via the 1800 number, while supervisor queries responding to the survey email engagement were received via the ESS inbox.

Table 16 Enquiries to the ESS helpdesk overall

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Type of enquiry** | 1800 number n | 1800 number % | ESS Inbox n | ESS Inbox % | Total n | Total % |
| **Total** | **1,429** | **100.0** | **124** | **100.0** | **1,553** | **100.0** |
| Survey query | 871 | 61.0 | 50 | 40.3 | 921 | 59.3 |
| Opt-out | 264 | 13.0 | 28 | 14.5 | 292 | 13.5 |
| General query | 183 | 2.5 | 10 | 12.4 | 193 | 5.6 |
| Change of contact details | 46 | 2.0 | 0 | 10.8 | 46 | 4.8 |
| Out-of-scope | 24 | 1.3 | 16 | 4.3 | 40 | 2.2 |
| Other query | 30 | 0.3 | <5 | 4.3 | 32 | 1.5 |
| Deletion or removal request | 11 | 0.3 | 12 | 1.1 | 23 | 0.5 |
| Follow up call | 0 | 0.0 | 6 | 1.1 | 6 | 0.3 |

# Questionnaire

## Development

The 2022 Employer Satisfaction Questionnaire (ESQ) was based on the 2021 instrument, with standard operational updates made to align the questionnaire with current reference periods. Only minor changes were made to the ESQ for the 2022 ESS, refer to Section 4.3 for a summary.

In addition to the core questionnaire changes, institutions were able to add, modify or remove their additional items for each round. Institutions were also given the option of including stakeholder items for the full ESS year (refer to Section 4.4).

## Overview

Table 17 outlines the thematic areas of the five main modules in the questionnaire. The design of the ESS instrument was modular, with items essential to response analysis (Module B) positioned early in the questionnaire and core item modules positioned before additional items (Module E). Items related to future contact (i.e., for notification of survey results publication) were delivered in the closing module.

Table 17 ESS module themes

| **Module** | Themes |
| --- | --- |
| **Module A** | Introduction and screening |
| **Module B** | Overall graduate preparation |
| **Module C** | GAS-E |
| **Module E** | Additional items (institution and stakeholder specific) |
| **Module F** | Close |

Note: The GAS-E measures the extent to which supervisors agreed the graduate was prepared for employment across each of the GAS-E domains.

## Changes from 2021

The main changes to the core questionnaire from the 2022 ESS for the November round are outlined below:

* Updated year references throughout the questionnaire.
* Added a new item, *C6.* This item was developed in consultation with institutions. It asked supervisors for consent to pass their contact information onto institutions for purposes such as further research, industry engagement, accreditation processes and other internal purposes like careers services, placements, or student presentations.
* Minor text revisions to CATI introduction and closing scripts.

The department name was changed during the May round, and the questionnaire was updated during fieldwork to reflect this change. No further changes were made to the core questionnaire for the 2022 ESS.

## Additional items

### Institution items

In keeping with QILT survey processes, institutions were able to add institution specific items to the ESS. Institution specific items do not fall under any data sharing arrangements and are therefore would only be included in the respective institution data file. No institutions opted to include institution specific items in the 2022 ESS.

### Stakeholder items

The Optometry Council of Australia and New Zealand (OCANZ) included items in the 2022 ESS. Graduates from five institutions were in-scope to be asked OCANZ items related to the work preparedness of optometry graduates.

# Data processing

## Definition of the analytic unit

The analytic unit for the ESS is the course or major. The ESS data file contains one record for each of the graduate’s courses or majors to a maximum of two. Supervisors appear twice in the file if the graduate they supervised either completed a single degree with two majors, or a double degree. If a graduate had completed a single degree with two majors, the second major is included in the ESS data file but not included in the *National Report*.

In the ESS data set, a record was considered complete if the supervisor had provided a response at any of the following items:

* *EQUALIMP* (importance of qualification to be able to do their job well).
* *ECRSPREP* (qualification prepared graduate for the job).
* *EHIRE* (likelihood the employer would hire another graduate with the same qualification) questions.

## Data cleaning and preparation

Data preparation occurred on the raw data file exported from the data collection platform with derivations, re-coding and cleaning routines applied, including:

* Derivation of outcome variables based on Australian Bureau of Statistics (ABS) standards (derivations are documented in the *2022 ESS Data Dictionary*,made available to institutions on the QILT provider portal),
* Re-coding value labels where required,
* Re-coding of ‘no answers’ to the missing values conventions, and
* Cleaning of supervisor name.

## Coding and processing of open text responses

Spell checking and light cleaning of ‘other’ specify responses were applied to remove identifiers and expletives. Table 18 summarises the items where industry standard frames were applied for the coding of free text responses. For items with free text responses not associated with an industry standard frame, code frames and back-coding rules were developed in conjunction with, and approved by the department, and were largely unchanged from previous iterations of the ESS.

Table 18 Items coded and source for coding decisions

| Item coded | Source |
| --- | --- |
| Occupation | Occupation was coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO, Version 1.3, 2013, ABS catalogue number 1220.0) |
| Industry | Industry was coded using the Australia and New Zealand Standard Industrial Classification (ANZSIC, 2006 Revision 2.0, ABS catalogue number 1292.0) |
| Country employer /business is based | For graduates working overseas, country of employment was coded using the Standard Australian Classification of Countries (SACC, 2016, Second edition, ABS catalogue number 1269.0) |

## Data deliverables

The Social Research Centre provided institutions and the department the following data deliverables at the completion of the 2022 ESS collection cycle:

* Institution data files in CSV and SPSS format as a standard, and in SAS format for institutions specifically requesting this format,
* Department national data file in SAS format,
* Data dictionary and data map,
* Institution report tables,
* Files in Tableau packaged workbook format at the national (department), institution, Universities Australia and Independent Higher Education Australia level, and
* *National Report Tables*, available on the QILT website.

# Final dispositions and response rates

Table 19 summarises outcomes for sample records in the ESS online and CATI workflows for all supervisors approached.

A total of 8,597 supervisors were approached for the 2022 ESS. More than one-quarter (30.2 per cent) of supervisors approached completed the survey via the online workflow, an increase on the online completion rate in 2021 (26.2 per cent). A further one-in-ten (10.0 per cent) supervisors approached completed via the CATI workflow, which was a decrease from the rate achieved in 2021 (15.9 per cent). A small proportion (4.2 per cent) of supervisors approached were out-of-scope (i.e., refused the survey or had not supervised the graduate). After the online and CATI workflow contact protocols were completed, fewer than one-in-six supervisors approached were an online workflow non-response (14.6 per cent) and more than one quarter were CATI workflow non-contacts (29.9 per cent). Finally, about one-in-ten (11.2 per cent) supervisors approached were recorded as an online or CATI workflow other outcome or a CATI workflow other contact.

The average CATI interview duration for the 2022 ESS, inclusive of time to identify and screen the supervisor, averaged 12 minutes.

Table 19 Final survey outcomes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| **Total supervisors approached** | **2,861** | **100.0** | **849** | **100.0** | **4,879** | **100.0** | **8,589** | **100.0** |
| Out-of-scope supervisors1 | 148 | 5.2 | 50 | 5.9 | 162 | 3.3 | 360 | 4.2 |
| **In-scope supervisors** | **2,713** | **94.8** | **799** | **94.1** | **4,717** | **96.7** | **8,229** | **95.8** |
| Online workflow complete | 840 | 29.4 | 256 | 30.2 | 1,495 | 30.6 | 2,591 | 30.2 |
| Online workflow non-response | 339 | 11.8 | 109 | 12.8 | 803 | 16.5 | 1,251 | 14.6 |
| Online workflow other outcome2 | 221 | 7.7 | 40 | 4.7 | 272 | 5.6 | 533 | 6.2 |
| CATI workflow complete | 366 | 12.8 | 109 | 12.8 | 386 | 7.9 | 861 | 10.0 |
| CATI workflow non-contact | 779 | 27.2 | 254 | 29.9 | 1,534 | 31.4 | 2,567 | 29.9 |
| CATI workflow other contact3 | 106 | 3.7 | 13 | 1.5 | 135 | 2.8 | 254 | 3.0 |
| CATI workflow other outcome2 | 62 | 2.2 | 18 | 2.1 | 92 | 1.9 | 172 | 2.0 |
| Average CATI workflow interview duration (minutes) | 13 | - | 12 | - | 12 | - | 12 | - |

1 Includes opt-outs and out-of-scope surveys.

2 Includes outcomes such as email bounces, unusable sample and partial surveys.

3 Includes outcomes such as language difficulties, away for duration of survey, claims to have completed survey, residual appointments.

# Response analysis

## Mode of completion

As can be seen at Table 20, three-quarters (75.1 per cent) of the surveys were completed online. Fewer than one-in-five (19.3 per cent) completions were attributed to online completion after follow up with supervisors in the CATI workflow.

Just under one-quarter (24.9 per cent) of ESS surveys were completed via CATI. While a dual mode design is still essential to maintain response rates comparable to historical results, this was a large decline in comparison to the proportion of CATI workflow completions in 2021 (37.7 per cent). Adjusting to this change in CATI operational performance, driven by the prevalence of supervisors working from home, is a critical challenge for future years of the ESS (see Section 8).

Table 20 Mode of completion

| Category | Nov  2021  n | Nov  2021  % | Feb  2022  n | Feb  2022  % | May  2022  n | May 2022  % | Total  n | Total  % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total completed** | **1,206** | **100.0** | **365** | **100.0** | **1,881** | **100.0** | **3,452** | **100.0** |
| Total completed online | 840 | 69.7 | 256 | 70.1 | 1,495 | 79.5 | 2,591 | 75.1 |
| Completed online without  CATI workflow follow up | 593 | 49.2 | 169 | 46.3 | 1,162 | 61.8 | 1,924 | 55.7 |
| Completed online after  CATI workflow follow up | 247 | 20.5 | 87 | 23.8 | 333 | 17.7 | 667 | 19.3 |
| Total completed by CATI | 366 | 30.3 | 109 | 29.9 | 386 | 20.5 | 861 | 24.9 |

Table 21 compares sample yield and mode of completion within the workflow to which the supervisor was originally assigned. Overall sample yield was much higher for the online workflow (43.1 per cent) than the CATI workflow (23.9 per cent). One-in-ten supervisors in the online workflow (9.8 per cent) completed by phone, in comparison to a low rate of online completion (2.3 per cent) by supervisors assigned to the CATI workflow.

Table 21 Sample yield and mode of completion by initial workflow

| **Category** | **Online**  **n** | **Online**  **%** | **CATI**  **n** | **CATI**  **%** | **Total**  **n** | **Total**  **%** |
| --- | --- | --- | --- | --- | --- | --- |
| In-scope supervisors1 | 7,753 | 100.0 | 476 | 100.0 | 8,229 | 100.0 |
| Total completed | 3,338 | 43.1 | 114 | 23.9 | 3,452 | 41.9 |
| Completed online | 2,580 | 33.3 | 11 | 2.3 | 2,591 | 31.5 |
| Completed by phone | 758 | 9.8 | 103 | 21.6 | 861 | 10.5 |

1 In-scope supervisors excludes unusable sample (e.g., no contact details), out-of-scope and opted-out

## Workflow attribution

As noted in Section 2.3.1, low levels of consent to provide contact details at the ESS bridging module meant additional workflows were required to supplement the collection of contact details.

Table 22 provides an overview of ESS completes by sample workflow (i.e., source of contact details collection). The refusal conversion (62.7 per cent) and ESS bridging module (23.5 per cent) workflows were the most common sources of contact details for ESS completions. Other workflows individually contributed less than ten per cent of total response.

The reliance on refusal conversion to build a sample base, highlights the willingness of graduates to provide supervisor contact details when approached with the right methodology. Alternatives to the current primary sample build methodology, that is the ESS bridging module, could be considered (see Section 8).

Table 22 Source of contact details for ESS completes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample workflow** | Nov 2021  n | Nov 2021  % | Feb 2022  n | Feb 2022  % | May 2022  n | May 2022  % | Total  n | Total  % |
| **Total completed** | **1,206** | **100.0** | **365** | **100.0** | **1,881** | **100.0** | **3,452** | **100.0** |
| Refusal conversion | 736 | 61.0 | 235 | 64.4 | 1,193 | 63.4 | 2,164 | 62.7 |
| ESS bridging module | 289 | 24.0 | 77 | 21.1 | 445 | 23.7 | 811 | 23.5 |
| GOS partial completers | 114 | 9.5 | 36 | 9.9 | 95 | 5.1 | 245 | 7.1 |
| Survey invitation pack | 43 | 3.6 | 10 | 2.7 | 100 | 5.3 | 153 | 4.4 |
| CATI follow up | 24 | 2.0 | 7 | 1.9 | 48 | 2.6 | 79 | 2.3 |

## Response bias analysis

The tables that follow compare the course, demographic, and labour market characteristics of employed graduate respondents to the GOS, with the characteristics of graduates whose supervisors responded to the ESS, to detect possible bias in the ESS. That is, these tables identify the extent to which the ESS departs from being a representative survey of employers of recent graduates. Employed graduate respondents to the GOS were asked to provide contact details of their supervisors and as such represent the population frame for the ESS. Please refer to the *2022 ESS National Report* for data related to the measures of satisfaction referenced within this analysis.

Comparison of employed graduates with supervisor responses by field of education shows that Education graduates are overrepresented by 4.7 percentage points whilst Health, Management and commerce, Information technology, Creative arts and Society and culture are underrepresented, as shown by Table 23.

Table 23 Respondents by broad field of education[[1]](#footnote-2)

| **Category** | Employed graduates  n | Employed graduates % | Supervisors  n | Supervisors  % |
| --- | --- | --- | --- | --- |
| Natural and physical sciences | 8,528 | 8.2 | 314 | 9.2 |
| Information technology | 7,848 | 7.5 | 215 | 6.3 |
| Engineering and related technologies | 6,262 | 6.0 | 269 | 7.8 |
| Architecture and building | 2,451 | 2.3 | 86 | 2.5 |
| Agriculture and environmental studies | 2,013 | 1.9 | 76 | 2.2 |
| Health | 22,325 | 21.4 | 631 | 18.4 |
| Education | 9,882 | 9.5 | 488 | 14.2 |
| Management and commerce | 19,215 | 18.4 | 559 | 16.3 |
| Society and culture | 20,969 | 20.1 | 662 | 19.3 |
| Creative arts | 4,962 | 4.7 | 131 | 3.8 |

Note: the analysis in this table is based on valid responses to the 2022 GOS and 2022 ESS by characteristic.

Supervisors of university graduates are slightly overrepresented in the 2022 ESS by 1.1 percentage points, and there is a higher level of response from supervisors of external graduates by 3.5 percentage points, as seen in Table 24. Supervisors of external graduates report lower overall satisfaction, so overrepresentation of the supervisors of external graduates could lead to a downward bias in reported overall satisfaction in the 2022 ESS.

Supervisors of postgraduate coursework and postgraduate research graduates are somewhat over-represented by 4.2 percentage points and 3.5 percentage points respectively, while undergraduate supervisors are underrepresented by 7.4 percentage points.

Table 24 Respondents by type of institution and course characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Employed graduates  n | Employed graduates  % | Supervisors  n | Supervisors  % |
| **Type of institution:** University | 95,743 | 91.6 | 3,200 | 92.7 |
| **Type of institution:** NUHEI | 8,730 | 8.4 | 252 | 7.3 |
| **Mode:** Internal | 75,595 | 72.4 | 2,389 | 69.2 |
| **Mode:** External | 26,608 | 25.5 | 1,000 | 29.0 |
| **Course level:** Undergraduate | 53,420 | 51.1 | 1,508 | 43.7 |
| **Course level:** Postgraduate coursework | 45,280 | 43.3 | 1,639 | 47.5 |
| **Course level:** Postgraduate research | 5,079 | 4.9 | 289 | 8.4 |

Note: The analysis in this table is based on valid responses to the 2022 GOS and 2022 ESS by characteristic.

Supervisors of male graduates are overrepresented in the ESS by 4.2 percentage points as seen in Table 25. However, supervisors of graduates of both genders report similar levels of overall satisfaction, so the overrepresentation of employers of male graduates is unlikely to materially impact on reported overall satisfaction.

Supervisors of graduates aged 30 years and over are overrepresented in the ESS by 9.2 percentage points. This is consistent with the overrepresentation of supervisors of postgraduate coursework and postgraduate research graduates as shown in Table 24. Employers of older graduates reported lower overall satisfaction, so the overrepresentation of older graduates is likely to lead to a small downward bias in reported overall satisfaction.

Table 25 Respondents by demographic characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Employed graduates  n | Employed graduates  % | Supervisors  n | Supervisors  % |
| **Gender:** Male | 38,757 | 37.1 | 1,425 | 41.3 |
| **Gender:** Female | 65,571 | 62.8 | 2,025 | 58.7 |
| **Age:** 30 years or under | 67,997 | 65.1 | 1,931 | 55.9 |
| **Age:** Over 30 years | 36,476 | 34.9 | 1,521 | 44.1 |
| **Indigenous status:** Indigenous | 1,213 | 1.2 | 39 | 1.1 |
| **Indigenous status:** Not Indigenous | 103,260 | 98.8 | 3,413 | 98.9 |
| **Home language:** English | 86,788 | 83.1 | 2,939 | 85.1 |
| **Home language:** other than English | 17,685 | 16.9 | 513 | 14.9 |
| **Disability status:** Reported disability | 6,142 | 5.9 | 250 | 7.2 |
| **Disability status:** No disability | 98,331 | 94.1 | 3,202 | 92.8 |

Note: the analysis in this table is based on valid responses to the 2022 GOS and 2022 ESS by characteristic.

Supervisors of graduates working in Professional occupations were overrepresented by 8.5 percentage points. Supervisors of graduates working in Professional occupations reported higher overall satisfaction than the national average. All other things equal, this would lead to an upward bias in the reported overall satisfaction in the 2022 ESS.

Supervisors of graduates employed full-time are slightly overrepresented in the ESS by 1.0 percentage points. Supervisors of graduates who have worked in their current job for between three months and one year were over-represented by 7.9 percentage points. Overall satisfaction for this group was higher than overall satisfaction for graduates employed for less than three months, but lower than overall satisfaction for graduates employed for one year or more.

Table 26 Respondents by labour market characteristics

| Category | Employed graduates  n | Employed graduates  % | Supervisors  n | Supervisors  % |
| --- | --- | --- | --- | --- |
| **Occupation**: Managers | 7,990 | 7.9 | 291 | 8.5 |
| **Occupation**: Professionals | 58,193 | 57.6 | 2,257 | 66.1 |
| **Occupation**: Technicians and trades workers | 4,309 | 4.3 | 136 | 4.0 |
| **Occupation**: Community and personal service workers | 9,976 | 9.9 | 228 | 6.7 |
| **Occupation**: Clerical and administrative workers | 10,231 | 10.1 | 345 | 10.1 |
| **Occupation**: Other workers | 10,276 | 10.2 | 158 | 4.6 |
| **Work status**: Full-time | 3,255 | 74.4 | 2,602 | 75.4 |
| **Work status**: Part-time | 1,120 | 25.6 | 850 | 24.6 |
| **Duration of job with current employer**: Less than 3 months | 13,522 | 14.1 | 370 | 10.7 |
| **Duration of job with current employer**: 3 months to < 1 year | 38,313 | 40.0 | 1,648 | 47.9 |
| **Duration of job with current employer**: 1 year or more | 43,886 | 45.8 | 1,424 | 41.4 |

Note: the analysis in this table is based on valid responses to the 2022 GOS and 2022 ESS by characteristic.

In summary, over-representation of responses from employers of graduates in Education courses, graduates working in Professional occupations, and graduates employed between three months and one year, is likely to lead to an upward bias in reported employer satisfaction. On the other hand, over-representation of the supervisors of postgraduate coursework graduates, graduates aged over 30 years, and external graduates is likely to lead to a downward bias in reported employer satisfaction.

# Considerations for future surveys

## Graduate response to the ESS bridging module

In the 2022 ESS the collection of contact details through the ESS bridging module remained a major challenge with the level of agreement remaining low (see Section 2.3.1). This low level of response has continued year on year despite numerous experimental design trials attempting to improve response.

Again in 2022, additional sample workflows increased in importance, accounting for an increased majority (79.6 per cent, refer to Section 2.3) of contact details collected. The ongoing reliance on additional workflows to collect contact details has increased the complexity, cost and risk associated with the ESS sample build. While learnings from prior years have been applied to the sample build, leading to increased performance of the refusal conversion and survey invitation pack workflows, further innovation is required if previous levels of response to the ESS are to be achieved. Alternative methodologies could be piloted to evaluate the continued placement of the ESS bridging module at the end of the GOS. New designs that present significant methodological change should be informed by quantitative evidence and qualitative research conducted with in-scope graduates.

## Sample and data collection workflow strategies

Revisions to the efficient allocation of resources across the additional sample building workflows was conducted for the 2022 ESS. This resulted in an increased focus on the most efficient refusal conversion reasons, and a scaling back of CATI follow up to the ESS bridging module. These sample build efficiency gains were a critical factor in maintaining the total level of response to the survey despite a decline in CATI survey yield (refer to Section 7.1).

The operational efficiency and potential for innovation of each additional sample building workflow should be reviewed ahead of 2023. Possible new efficiencies in the sample build include:

* A shorter delay and increased level of follow up with graduates who request the survey invitation pack.
* Scaling back of the less efficient CATI follow up workflows (i.e., ESS bridging module non-response follow up, GOS partials).
* Greater allocation of resources to the highly productive refusal conversion workflow. Though it should be noted that with further expansion of this workflow, limitations in sample availability and the call cycle could be reached.
* Consider options for SMS follow up with graduates as part of the sample build (e.g., to follow up with graduates who were sent the survey invitation pack).

## Review May round fieldwork period

The project timeline structure allows a shorter fieldwork period in May than other rounds (see Section 1.5). Prior to the decline of response at the ESS bridging module, the ESS methodology allowed a two and a half month period from mid-May to end-of-July to conduct the contact protocol with May round supervisors.

As the majority of ESS sample is now built via the refusal conversion workflow, the effective window to deploy the contact protocol with May supervisors has narrowed. Most refusal conversion activity is conducted from mid-June to mid-July (to allow a grace period before recontacting graduates). While the end-of-field date has been extended slightly in recent years to compensate, the current timeline leaves a less than two month period to deploy the contact protocol with many May supervisors. The May round also does not benefit from any of the long fieldwork design benefits allowed to November and February, such as Reminder 5 which acts to offset seasonal response factors for the earlier rounds.

The results of this shift on the May round can be seen throughout this report, examples include: modifications to the contact protocol (Section 3.3), limitations to the deployment of the dual-mode design (Sections 3.4.1), and a lower survey yield in May (Section 7.1). Analysis could be conducted to assess the potential response and representativeness improvements that a longer fieldwork period for May would allow. Noting however that such a change would need to be balanced against other project needs, such as the timeline for deliverables.

## Email engagement with supervisors

The 2022 ESS saw an increased survey yield from emails through the full implementation of design changes tested in the 2020 and 2021 ESS. These changes include the standardisation of Reminder 4 and Reminder 5 (refer to Section 3.3), and development of comprehensive email deliverability testing protocols (see Section 3.4.6).

Consistent response in the later stages of the email contact protocol suggest there may still be room to expand on the current level of email engagement (see Section 3.3.2). To avoid engagement fatigue any further expansion should be carefully considered before implementation.

As noted in the 2022 GOS Methodological Report, new email security measures have clouded email open rate measurements. To facilitate meaningful analysis of supervisor interactions with emails a change in tracking technology is required. The 2023 ESS should incorporate a unique survey link that allows completions to be definitively attributed to each individual email message and expanded mapping of email domains to email service providers.

The design of the emails, both the thematic and visual design, could be reviewed looking to replace the lowest performing email(s) (see Section 3.3.2). As the current designs have yielded reliable results, any major changes to the existing designs should implemented at first on a trial basis.

Lastly, it was also noted that due to the incremental fieldwork approach, the ESS faces additional challenges in maintaining deliverability of each message across the full fieldwork period. A review of the current email deliverability monitoring process and tools should be conducted with the goal of improving the responsiveness to delivery issue detection and resolution.

## CATI engagement with supervisors

Since the COVID-19 pandemic employers have adopted an increased level of work from home arrangements. An effect of this change was evident in the CATI survey this year, with a large decrease in landline telephone contact rates and therefore CATI survey yield (see Section 3.4.3, Section 7.1). This change should be monitored closely as contact rate patterns may change further along with workplace culture in the coming years.

Debrief feedback noted increased difficulty reaching supervisors via landline telephone lines, particularly general business lines. Time was often spent unproductively on hold, and staff such as receptionists were frequently unable to connect ESS call operators to supervisors by phone. Mobile numbers make up around half of the supervisor phone numbers provided by graduates and did not experience the same issues as landlines.

As the dual-mode approach remains important in maximising survey yield (refer to Section 7.1) the call cycle for CATI surveys should be revised ahead of 2023 (e.g., to conduct a shorter cycle with landlines, and a longer cycle with mobiles). The contact details collection methods could also be updated to encourage provision of mobile numbers rather than general business numbers. To offset the lost yield via CATI, an SMS reminder to supervisors could also be trialled, expanding the existing contact protocol.

## Employer and industry engagement

Engagement with employers and industry peak bodies could build ESS brand awareness and lead to improved graduate and supervisor engagement. Consideration could be given to targeting a limited number of employers, by study area or industry, for each major round of the ESS (November and May).

Graduates commonly perceive providing contact details for the ESS as a risk to their employment. By engaging with the human resource departments of major employers, it may be possible to overcome this misconception. Employers could communicate internally to graduates that the business is a ‘safe’ environment for the ESS, encouraging the provision of contact details and supervisor participation. Industry peak bodies could be contacted with offers of industry specific reports, or other industry tailored promotions and products, to broadly build awareness and encourage participation.

Acknowledging employers that have participated in the ESS on the ESS website (e.g., by displaying logos of major employers that have participated) may also help build the survey profile and communicate the legitimacy of the ESS brand to graduates and supervisors.

## List of abbreviations and terms

**ABS** Australian Bureau of Statistics

**ADIA** Australian Data and Insights Association

**ANZSCO** Australian and New Zealand Standard Classification of Occupations

**ANZSIC** Australia and New Zealand Standard Industrial Classification

**CATI** Computer Assisted Telephone Interviewing

**ESS** Employer Satisfaction Survey

**ESQ** Employer Satisfaction Questionnaire

**GAS-E** Graduate Attributes Scale – Employer

**GAS-G** Graduate Attributes Scale – Graduate

**GOS** Graduate Outcomes Survey

**ISO** International Standards Organisation

**NUHEI** Non-University Higher Education Institution

**QILT** Quality Indicators for Learning and Teaching

**SACC** Standard Australian Classification of Countries

**SES** Student Experience Survey

1. This table excludes a small number of responses in Food, Hospitality and Personal Services. [↑](#footnote-ref-2)