Samoa Agriculture Census 2019 CAPI Supervisor Manual of Instruction

Samoa Bureau of Statistics

and

Ministry of Agriculture and Fisheries



APIA

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SAMOA AGRICULTURE CENSUS 2019 CAPI SUPERVISOR: MANUAL OF INSTRUCTION

This manual provides a complete description of the responsibilities of the CAPI supervisors for the Samoa Agriculture Census 2019. The importance of this manual cannot be over-emphasised. As a CAPI supervisor, you must read and understand the manual and be thoroughly familiar with its contents and instructions.

You are also expected to be familiar with the contents of the *Enumerator Manual*. That manual is a comprehensive guide for census enumerators on how to collect data in the census and how to fill in the census questionnaire. You will be provided with a copy of the *Enumerator Manual* during your training.

As a CAPI supervisor, you will be given three weeks of training. The first week will cover aspects related to your job as a CAPI supervisor. In the second and third weeks, you will join the enumerators for their training.

The timetable for the census is:

- 24-28 February 2020: training of CAPI supervisors.
- 2-13 March 2020: training of CAPI supervisors and enumerators.
- 16 March-2 May 2020: data collection.

This manual is divided into two parts. Part I describes the role and responsibilities of the CAPI supervisors. Part II explains how to do your job using the computer software provided.

PART I. THE ROLE OF THE CAPI SUPERVISOR

1.1 HOW THE CENSUS IS BEING CONDUCTED

The Samoa Agriculture Census 2019 is a joint project of the Samoa Bureau of Statistics and the Ministry of Agriculture and Fisheries. An Agriculture Census Office has been established in the Samoa Bureau of Statistics to carry out the census. The head of the office is the *Census Administrator*, who has overall responsibility for the census. *Regional Managers* have been appointed to manage the census enumeration in each region. (Note that in the CAPI computer system, the Regional Manager is also referred to as *Headquarters* or *HQ*.) *CAPI supervisors* work in the Agricultural Census Office to ensure data quality in the census. As a CAPI supervisor, you work under the control of a Regional Manager.

The Samoa Agriculture Census 2019 involves the collection of agricultural data from all households in the country. Enumerators have been recruited to collect the census data by interview with each household. Enumerators work under the control of *field supervisors*. The role of the field supervisor is to manage the census data collection operation and oversee the work of the enumerators. Each field supervisor supervises 8-10 enumerators and reports to the Regional Manager.

To help in the census enumeration, districts have been divided into enumeration areas (EAs). An EA consists of a village or part of a village. The census enumeration is done EA by EA.

The data collection is being done by Computer Assisted Personal Interviewing (CAPI) using tablet computers. The Samoa Agriculture Census 2019 is the first major census in Samoa to utilise the CAPI technology to collect data, as opposed to the traditional paper questionnaire. The software being used is *Survey Solutions*. Each enumerator and field supervisor is provided with a tablet for use in the census enumeration. The census questionnaire has been uploaded to the tablets. The tablets show each census question to be asked. Responses are recorded directly into the tablets. Facilities are provided in the CAPI system to help enumerators verify responses. Once an interview is completed, the enumerator submits the questionnaire to the CAPI supervisor for further action.

Note that, under the CAPI system, completed questionnaires are transmitted entirely in electronic form. This includes the transmission of completed questionnaires back and forth between enumerators and CAPI supervisors, as well as between CAPI supervisors, Regional Managers and the Census Administrator.

1.2 CENSUS QUESTIONNAIRE

As a CAPI supervisor, you must have a thorough knowledge and understanding of the census questionnaire. As already noted, the questionnaire has been uploaded into the enumerators' tablets and the questions are arranged in such a way that it is easy to follow the sequence of questions.

"Skips" do not appear on the screen; instead, the tablet automatically takes the enumerator to the next relevant question.

Many validation checks are built into the CAPI questionnaire to help the enumerator in the data collection. The checks identify errors or possible errors in the data reported. There are two types of checks made. The first is an <u>error check</u> to find data that are wrong and must be corrected; for example, the number of cattle by type do not add to the total number of cattle. Here, the system displays an error message on the screen, and the enumerator must correct the data. The second is a <u>warning check</u> to identify data that are unusual in some way; for example, the number of cattle is 1,000, which seems to be too high. Here, the system displays a warning message on the screen, and the enumerator verifies with the respondent that the data are correct. Enumerators can provide comments in the questionnaire to help explain any unusual data.

1.3 THE CAPI SUPERVISOR'S DUTIES

As a CAPI supervisor, you will be provided with a desktop or laptop computer. The computer has the CAPI software loaded, and facilities are included to help you carry out your CAPI supervisor responsibilities.

Each CAPI supervisor is responsible for about six enumerators. Each enumerator will complete about eight household interviews per day, and therefore each CAPI supervisor will receive about 50 questionnaires per day for processing. It is vital to the success of the census that CAPI supervisors process questionnaires with at most a 24-hour turnaround. Thus, if a questionnaire is received at 9 am today, it must be processed by 9 am tomorrow. If this is not achieved, there will quickly become a backlog of questionnaires, which will be difficult to catch up. If you are experiencing any delays, contact your Regional Manager immediately.

The CAPI supervisor has three main responsibilities: (i) to review and accept/reject completed questionnaires submitted by the enumerators; (ii) to determine numeric codes to questions on occupation and industry; and (iii) to monitor progress with the census enumeration. These responsibilities are described in detail below.

(1) Reviewing questionnaires

On receiving a questionnaire uploaded from an enumerator, the CAPI supervisor must review it to ensure that the data in the questionnaire are complete, consistent and acceptable. Based on this, you either approve or reject the questionnaire.

To help do this review, the CAPI supervisor can examine the questionnaire on the screen. Any questions not asked are highlighted, as well as any errors identified by the validation system that have not been corrected. You can also see any comments provided by the enumerator to explain unusual data.

To review the questionnaire, you must first look for any missing data or validation system errors. If there are errors or missing data, the questionnaire must be rejected. You must also quickly scroll through the questionnaire to satisfy yourself that the data reported are correct. If you find unusual data, look for any comments provided by the enumerator to help confirm that the data are correct. For example, if the number of cattle is 1,000 you expect to see a comment confirming that this figure is correct; if there is no explanation for a figure such as this, the questionnaire must be rejected.

If you decide to reject a questionnaire, you must provide comments on the questionnaire to explain what is wrong with the questionnaire. Facilities are provided in the CAPI system to enable you to do this. Make sure you check all aspects of the questionnaire before rejecting it. Otherwise, the questionnaire might need to go back and forth to the enumerator several times.

Remember that you have about 50 questionnaires to process each day and therefore you cannot spend too much time going through each questionnaire. Once you have become familiar with the questionnaire, you should be able to quickly skim through the questionnaire to identify unusual data and verify that the questionnaire "makes sense". Guidelines will be given during the training. There will be a degree of judgement in how much time you spend reviewing each questionnaire. As the census proceeds, you will be able to identify the weaker enumerators and you can give more attention to checking their work. Remember that the more feedback you provide to enumerators, the better the enumerators will be in filling out questionnaires and the easier your job will be as a CAPI supervisor.

Once the CAPI supervisor has <u>rejected a questionnaire</u>, the questionnaire is sent back to the enumerator for verification, correction or completion. This might necessitate the enumerator returning to the household to gather additional information. Once the enumerator has done this, he/she sends the questionnaire back to the CAPI supervisor to review again. Hopefully, the data are now correct, and the questionnaire can be approved. However, if errors remain, you need to return the questionnaire again to the enumerator for correction.

If the CAPI supervisor <u>approves a questionnaire</u>, it is submitted to the Regional Manager. The Regional Manager further reviews the questionnaire. He/she may reject or approve the questionnaire. Questionnaires rejected by the Regional Manager are sent back to the CAPI supervisor for appropriate action. The CAPI supervisor may need to send the questionnaire back to the enumerator for correction.

(2) Coding

Most responses to census questions are either in numeric form (for example, number of pigs) or are "self-coded". Self-coded means that the data are recorded in the CAPI system in numeric form, ready for further computer processing; for example, sex of household member is recorded as the number "1" (male) or the number "2" (female). For several questions, the information is recorded on the questionnaire in descriptive terms, and it is the CAPI supervisor's job to convert the description into a numeric code. For example, if the response to the question on the person's main job (Q1.1.10) is "primary school teacher", the CAPI supervisor converts this to a numeric code (code 2341).

Coding is needed for four household member questions:

- Main occupation of household member (Q1.1.10)
- Main industry of work of household member (Q1.1.12)
- Other occupation of household member (Q1.1.16)
- Other industry of work of household member (Q1.1.18)

The coding should be done as you go through and review the questionnaire. Facilities are provided in the CAPI system to help you do the coding (see Section 2.3). If you are rejecting a questionnaire, make sure you do the coding before you send the questionnaire back to the enumerator; otherwise, you might need to return the questionnaire a second time if you find that insufficient information is provided on the questionnaire to enable the coding to be done.

Occupation coding for Q1.1.10 and Q1.1.16 is done using the International Standard Classification of Occupations (ISCO). This is a hierarchical classification with occupations first divided into <u>major groups</u>, and then into <u>sub-major groups</u>, <u>minor groups</u> and <u>unit groups</u>. For example, for "primary school teacher", the major group is "2" (professional), the sub-major group is "23" (teaching professional), the minor group is "234" (primary school and early childhood teacher), and the unit group is 2341 (primary school teacher).

Industry coding for Q1.1.12 and Q1.1.18 is done using the International Standard Industry Classification (ISIC). This is also a hierarchical classification with industries divided into <u>divisions</u>, <u>groups</u> and <u>classes</u>. Q1.1.12 and Q1.1.18 ask for who the person works for, and this must be converted into a code describing the industry of the employer. For example, if a person works for Frankie Supermarket, the ISIC division is "47" (retail trade, except motor vehicles and motorcycles), the group is "472" (retail sale of food, beverages and tobacco in specialized stores), and the class is "4721" (retail sale of food in specialised stores).

Note the difference between occupation and industry. Occupation refers to the specific tasks performed by a person in his/her job. Industry refers to the type of activity carried out by the person's employer.

Note that occupation and industry coding is only required if there is a response in the relevant question. There is no occupation or industry where the person is under the age of 15. For persons aged 15 years and over, industry/occupation does not apply where the person is a student, retired, or engaged in home duties. As you go through the questionnaire, watch out for whether there are responses to the questions concerned – if there is a response, code it; otherwise, no code is needed.

Full instructions on how to do the coding will be given in the training. The coding of agricultural occupations and industries is difficult, and this will be given special attention in the training. During the census enumeration, it will also be helpful to discuss coding issues with other CAPI supervisors. Any coding issues you face are also likely to be encountered by other CAPI supervisors, and it is good to get consistency in dealing with problem situations.

Sometimes, you might find that the enumerator did not provide enough information to enable the coding to be done. For example, the enumerator might report only "teacher" for occupation, which does not enable the full four-digit coding to be done. If you are unable to do the coding because insufficient information was reported, the questionnaire must be rejected. You must return the questionnaire to the enumerator to get more detailed information. This is important during the early days of enumeration to make enumerators aware of what is needed. If the problem is widespread, you should also let the field supervisor know.

(3) Monitoring progress of the census

The CAPI system provides facilities to enable the CAPI supervisor to monitor progress with the census enumeration and assess the performance of enumerators. These facilities are described in Section 2.4. Reports can be prepared showing:

- the number of questionnaires under your control that are at different stages of enumeration

 in particular, the number that have been completed by the enumerator, approved/rejected
 by the CAPI supervisor, and approved/rejected by the Regional Manager;
- the number of questionnaires at different stages of enumeration for each enumerator;
- the number of questionnaires that have not been processed on time;
- the number of questionnaires completed by each enumerator on a daily, weekly or monthly basis; and
- the average interview time for each enumerator.

These reports enable you to provide feedback to the field supervisor on the performance of enumerators. For example, they would show if an enumerator is falling behind in his/her work. The average interview time might help to identify enumerators taking too long to complete the interviews (the average should be about one hour). Alternatively, if the average interview time for an enumerator is too low (for example, less than 30 minutes), it might suggest a pattern in which questions are intentionally answered negatively to avoid answering succeeding questions. Work closely with the field supervisor on these matters.

The reporting facilities are also used to provide the basis for progress reports to the Regional Manager. At the end of each day, you must submit a report to the Regional Manager setting out:

- the number of questionnaires completed by the enumerators, approved/rejected by the CAPI supervisor, and approved/rejected by the Regional Manager during that day; and
- the total number of questionnaires completed by the enumerators, approved/rejected by the CAPI supervisor, and approved/rejected by the Regional Manager since the beginning of the census enumeration.

More detail on the requirements for this reporting will be provided during the training	3 .

The CAPI supervisors have a large workload and you must organise your time well to ensure that the census timetable is met. It is important not to become too bogged down in the checking of questionnaires. It is expected that enumerators will make many errors in the first few days of enumeration and this will make the job of the CAPI supervisor difficult early on. However, after enumerators have familiarised themselves with the census, the CAPI supervisor's job should become easier.

1.4 THE CAPI SUPERVISOR'S RELATIONSHIP WITH THE FIELD SUPERVISOR

Each enumerator has two levels of supervision: the field supervisor oversees the field aspects of the data collection, while the CAPI supervisor checks the completed questionnaires. Each CAPI supervisor is responsible for about six enumerators working under the control of one field supervisor. As a CAPI supervisor, you communicate directly with the enumerators under your control via the transmission of completed questionnaires in the CAPI system. However, you must stay in close contact with the field supervisor to provide feedback on the errors being made by the enumerators. This will enable the field supervisor to take action to correct any enumeration weaknesses. During the enumeration, your main contact with the field supervisor will done via telephone.

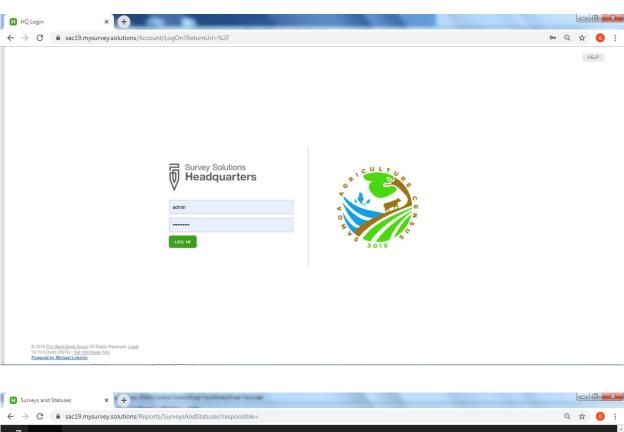
During your training, meet with your field supervisor so that you get to know him/her and exchange telephone contact information. At the beginning, you must talk to the field supervisor at least once a day. This is important to inform the field supervisor of the errors being made and to alert him/her of any enumerators experiencing problems. The field supervisor can then take action to fix the problems through retraining or supervised interviews. This will help you in your job as CAPI supervisor, as it will reduce error rates and speed up the processing of completed questionnaires.

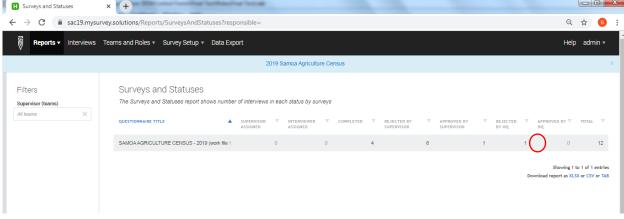
During the census enumeration, you should adopt a team approach to the census enumeration by working closely with the field supervisor and the enumerators to assist them in their work.

PART II. HOW TO USE THE CAPI COMPUTER SYSTEM

2.1 LOGGING INTO THE CAPI SYSTEM

Go to https://sac19.mysurvey.solutions using any web browser (Chrome is recommended). The login page is shown on the screen. Supply your login name and password; then click the Login button.



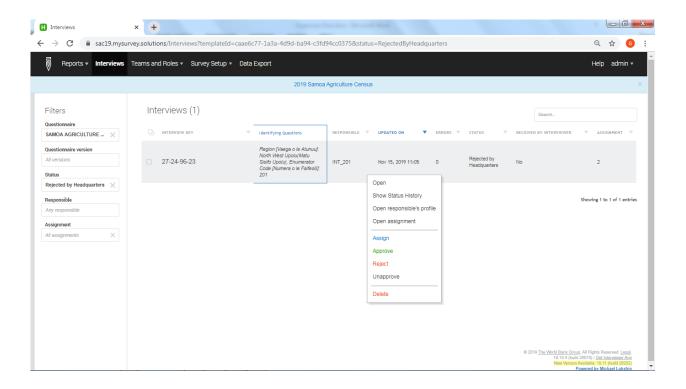


2.2 REVIEWING QUESTIONNAIRES

After successful login, the initial screen is shown (*Survey and Statuses Report*). Questionnaires to be reviewed are shown under two headings: (i) *REJECTED BY HQ* – that is, questionnaires that have been rejected by the Regional Manager; and (ii) *COMPLETED* – that is, interviews that have been uploaded by the enumerators. Note that you must act on those questionnaires rejected by the Regional Manager before reviewing questionnaires submitted by enumerators. This is to ensure that enumerators attend to those questionnaires with issues raised by the Regional Manager while they are still in the area of enumeration. You should review enumerator questionnaires only when there are no more *REJECTED BY HQ* interviews shown.

To activate the review process, first click the number of questionnaires rejected by the Regional Manager, if any. In the example page above, the number is "1" in the column *REJECTED BY HQ*. Once you have dealt with this, move onto the questionnaires submitted by enumerators, In the example page above, the number is "4" in the column *COMPLETED*.

To review questionnaires, click the number and a page showing questionnaires (cards) is shown on the Interview dashboard. Click the card (anywhere inside the interview rectangle box) to show the pop-up menu.



The options on the pop-up menu are:

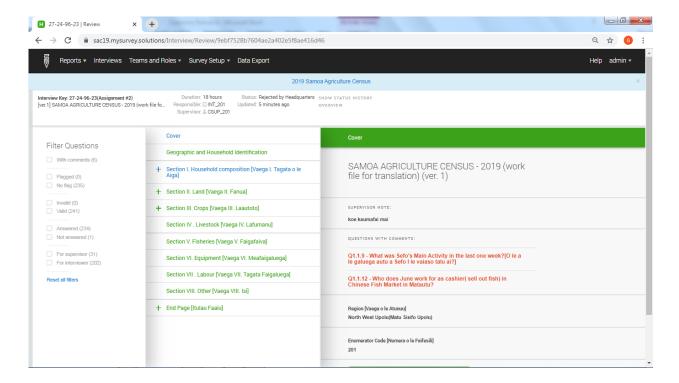
1) Open. This opens the interview screen which enables you to review the data, write comments or instructions to the enumerator on data items or the questionnaire comment box, tag a data item to easily go back to it when the rejected interview is returned to you by the enumerator, and reject or approve the interview.

- 2) **Show Status History**. This shows the interview status history and all the comments written on the interview comment box. You can also open the interview by clicking the *View Interview* hyperlink at the bottom of the pop-up history box.
- 3) *Open responsible profile*. This opens a page that shows the tablet's device information and details about transactions done by the device such as traffic usage, synchronization activity, and connection statistics. (This is an auxiliary option that can be used to troubleshoot problems that might occur during the field operation. You should not need to use this feature.)
- 4) **Open assignments**. This opens a page that shows details about the enumerators' assignments. Note that in the census, all enumerators are given one and only one assignment at a time; that is, one region at a time. You should not need to use this feature.
- 5) Assign. This enables you to reassign an interview to a different enumerator.
- 6) **Approve**. Select this option if the questionnaire is approved; that is, the questionnaire is to be passed on to the Regional Manager. You are prompted to enter a comment or message.
- 7) **Reject**. Select this option if the questionnaire is rejected and needs to be returned to the enumerator for resolution. You are prompted by the program to enter a comment or message to the enumerator.

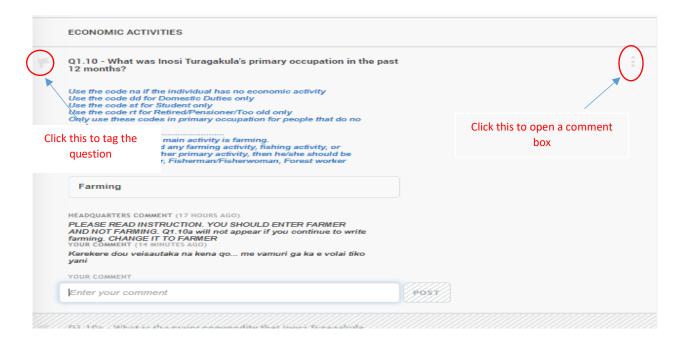
Further information on the most important functions are given below.

Open (Option 1)

When the option *Open* is selected, the page below appears. The page is divided into three segments: Filter Questions, Middle Section, and the Question (or Data) Segment.



Entries in the middle segment change depending on the selected options under Filter Questions, while the items in the Question Segment depends on the selected entry in the middle segment. If there is a need for clarifications from the enumerator or explanation for the Regional Manager, you may write a comment on the question by opening a comment box in the Question Segment. You may also tag a question in the Question Segment. Tagging a question is just like bookmarking a question to make it easy for you to go back to that question later. See sample screen below.



Show Status History (Option 2)

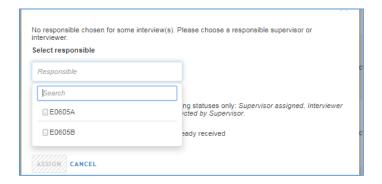
When the option *Show Status History* is clicked, a pop-up box appears showing the transactions that have happened for the interview.



The columns in this list are the details about each transaction state, based on the comments provided by the person who made the transaction, together with the date, person who initiated the transaction, enumerator, and the state or status. Click the "X" button or click anywhere outside the pop-up box to close the list. You may also click the *Cancel* button at the bottom of the list. Similarly, you can open the interview by clicking *View Interview*.

Assign (Option 5)

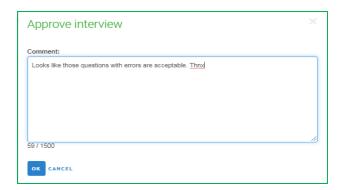
When the option *Assign* is clicked, a pop-up box appears.



You can reassign interviews only if the current status is "Rejected by Supervisor" and have not yet been received by enumerators. Note that this option must be used with extreme caution. This should be done only after proper coordination and communication with the field supervisor. The field supervisor must make a formal request before transferring an interview to a different enumerator.

Approve (Option 6)

When the option *Approve* is clicked, a pop-up box appears. If there are unusual data that you have accepted, type a brief but clear and complete explanation or justification. Otherwise, you may leave this blank.



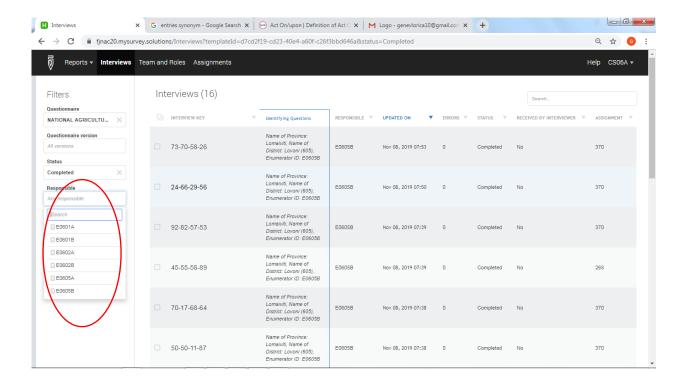
Reject (Option 7)

When the option *Reject* is clicked, a pop-up box appears.

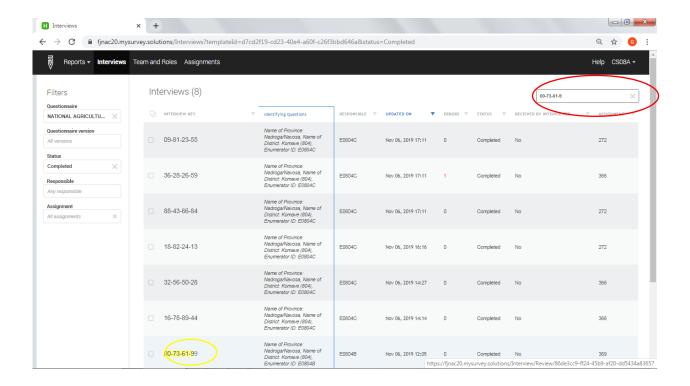


Type a brief but clear and complete message to the enumerator about the reason the interview was rejected. Leaving this blank will result in more effort on the part of the enumerator in resolving the error. Note again that, before you reject an interview, make sure that you have reviewed the whole questionnaire including the occupation and industry description.

When processing questionnaires submitted by enumerators, you may filter the list of interviews by filling out the filter boxes. Click on a filter box and then select the filter data that you want to be used. In the example screen below, you may filter the list by enumerator.



You may also use the search box to find a particular interview card. Just type the number or text in the box. As you type letters/numbers, the corresponding texts on the list are marked in yellow.



2.3 CODING

The CAPI system provides cascading combo boxes to help you do the coding. For example, for occupation coding, a combo box first shows a drop-down list of the ten ISCO major groups. You first select the major group that matches the description in the questionnaire. Then, another combo box appears showing the possible sub-major groups under that major group, and you select the appropriate sub-major group. The system then proceeds to ask for the minor group and the unit group.

Example. If the occupation is given as "primary school teacher", select major group "2. Professionals" from the first combo box. This then displays four types of professionals – select "23-Teaching professional". Five different types of teachers are then displayed, and you select "234-Primary school and early childhood teacher". Finally, a box appears showing two options, and you select "2341-Primary school teacher".

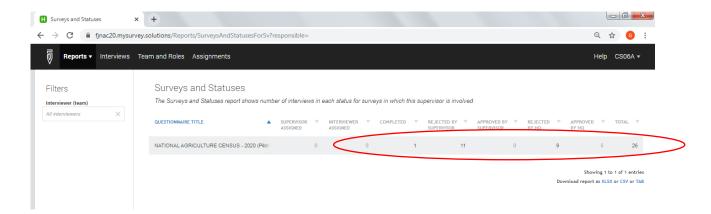
The industry coding works in a similar way with cascading combo boxes for ISIC division, group and class.

2.4 MONITORING PROGRESS OF THE CENSUS

Survey Solutions provides several reports that you can use for monitoring the progress of the field operation. To select these, click *Reports* on the initial login page.

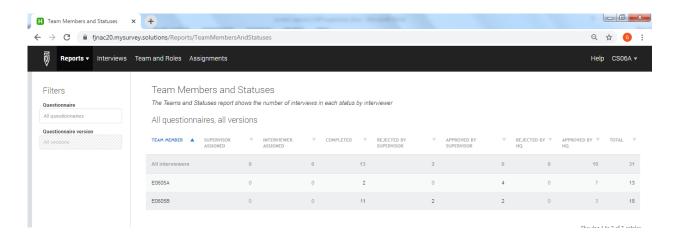
Surveys and Statuses

This is the initial report (page) shown when you log in. This shows the number of interviews by status. You can use this to open the Interview dashboard by status by clicking the number.



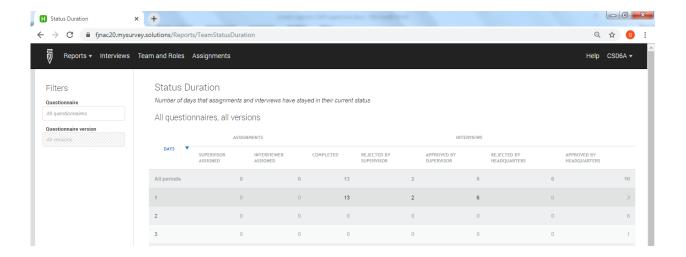
Team Members and Statuses

This is like the *Survey and Statuses* report with differences in the row items. The rows in this report are the login names of the enumerators under the group. This means that the report is about the number of interviews done by enumerators according to status. You can also click the number in a cell to open the Interview dashboard for a particular enumerator and status of the interview.



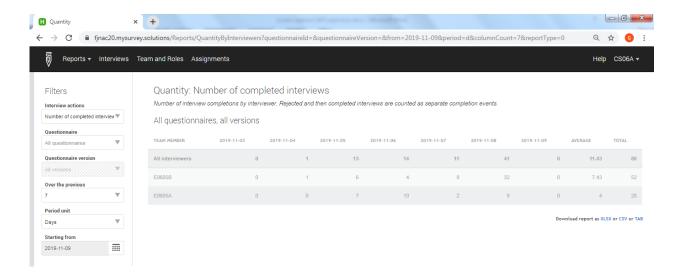
Status Duration

This report shows the number of days that assignments and interviews have stayed in their current status. You can use this report to see if there are interviews that have not yet been acted upon by enumerators or other personnel for some time. You can also use this to see if you have missed some interviews that are waiting for your action.



Quantity

This shows the number of interview completions by each enumerator on a daily, weekly or monthly basis. Note that rejected and then completed interviews are counted as separate completion events. This means that the total completed questionnaires here is higher than the actual interviews.

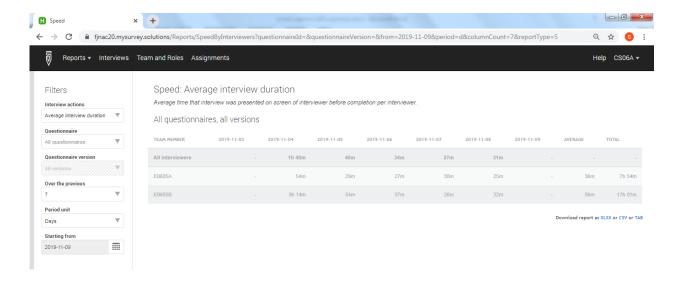


Speed

Two types of reports can be generated when you select this report option. The first is the average time from when the interview is first shown on the screen until the interview is completed (complete button is tapped) per enumerator. This shows the average time an enumerator takes to complete an interview. The average may not be accurate because some interviews may be postponed and completed after several hours or days and therefore have a long duration. However, most of the time the average shown will be accurate.

You can also prepare a report showing the average time from when an interview is assigned to an interviewer to when the *Complete* button is pressed on a tablet.

Reports can be on a daily, weekly or monthly basis.



Map Report, Survey Statistics

These two features are not used by the CAPI supervisor.