EU Twinning Project
IS12/ENP-APFI/08

Support to the Israeli Central Bureau of Statistics in the development of National Accounts, Education Statistics, Survey Methodology, ICBS Website and Coordination of Israel National Statistical System

Component D
Survey Methodology

Activity D.1
Management and monitoring of field interviewers

Implemented by:

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List of Abbreviations

BC   Beneficiary Country (Israel)
CAPI   Computer Assisted Personal Interview
CATI   Computer Assisted Telephone Interview
CAWI   Computer Assisted Web Interview
CBS/ ICBS   Central Bureau of Statistics (Israel)
MS   Member State
NIS   New Israeli Shekel
OECD   Organisation for Economic Co-operation and Development
RTA   Resident Twinning Adviser

1. General comments

The MS Experts' mission D.1 was the first activity within the Survey Methodology component of the EU-Israel Twinning Project on Statistics (Twinning Component D).

To implement the 18 months Twinning project, the Israeli Central Bureau of Statistics has partnered with Statistics Denmark with the support of Statistics Netherlands. Supports of the Dutch Central Bureau of Statistics (Statistics Netherlands) is expressed mainly in implementation of Component D, where Statistics Netherlands is known to enjoy unique expertise. Thus, mission D.1 was the first experts' mission to involve all three central statistical offices together.

The next component mission D.2 is scheduled for November 2013, to be carried out by experts from Statistics Denmark.

The Netherlands MS Experts would like to thank the staff of the Central Bureau of Statistics of Israel for their hospitality, fruitful discussions and all the information provided during the mission. Additional thanks go to the staff of Statistics Denmark for their continuous RTA and back office support to the mission.

2. Assessment and results

The CAPI interviewing unit of CBS is part of the general Data Collection division. The interviewing throughout Israel is organized from the headquarters in Jerusalem and two major branches in Tel Aviv (called "South" with approximately 200 interviewers) and Haifa (called "North" with approximately 100 interviewers).

Due to additional requirements following Israel's accession to the OECD the amount of interviewing has, more or less, trebled in Israel. Some new surveys plus expansion of existing surveys, most notably the Labour Force Survey, thus has exposed interviewing organization of CBS to new workloads and challenges, the increase in the number of interviewers being one of them.

There is a high degree of commitment to quality and efficiency in ICBS, and the response rates are remarkably high. Except for the commitment, one of the reasons for this is the Israeli statistical law, the so-called Statistical Ordinance, which makes answering to CBS's questionnaires compulsory.

Below specific characteristics of the interviewing data collection situation is provided. Generally, the current organization can to a large extent be described as a stove-pipe solution, and only to a lesser extent process-oriented. I.e. activities tend to be organized with the same staff performing all task with respect to specific surveys, and not with the use of more different and specialized staff with specific kinds of expertise.

2.1 Organization
Interviewers and supervisors generally work on only one survey. There is, approximately, 1 supervisor per 8-12 interviewers. The current job description of the supervisor is very wide, including pure organizational issues and coaching plus allocation of interviews, but also controlling and training of interviewers.

Sampling is done by the Methodology Department of CBS. Hereafter the drawn samples are used for data collection, and no current adjustments of the samples are made in case of, for example, capacity problems.

2.2 Hiring and training

Hiring and training of interviewers is a costly and labor-intensive process in CBS. There is a high level of turn-over – approximately 30 % has left after three months.

Hiring is normally done for only one specific survey, i.e. the overall hiring of interviewers is generally not coordinated. The hiring procedures are initiated on an acute need basis, and are not according to a long-term plan.

Training sessions are run according and planned according to the specific survey, and normally last for five days with use of supervisors as trainers.

2.3 Questionnaires and technology

The questionnaires vary in design and layout. Together with varying meanings of codes and varying definitions this indicates that the surveys are generally planned and implemented separately and in an uncoordinated way. Different technologies, concepts and definitions are used for different questionnaires, although constant efforts are systematically made to reach consistency

All in all, around ten surveys are based on personal interviews, CAPI. Except for the Household Expenditure survey which is based on the household filling in tables on paper, all data collection through interviewing is computerized. Two kinds of software are used: Blaise and an internally CBS developed software. Data are transmitted with SIM card installed in the interviewer's computer and the data goes directly to the main database at CBS Headquarters. On a daily basis, interviewers report by phone or by e-mail to their supervisor, who may monitor the daily progress of the enumeration through his computer.

2.4 Indicators for monitoring

ICBS use various indicators, and two of these were discussed during the D1 mission. One has to do with time used for interviews, and the other includes time used "at home", as defined by ICBS – administration, travel time etc.

These indicators are used for the head-quarter's budgeting and planning.

3. Conclusions and recommendations

3.1 Recommendations directly related to (or derived from) the Twinning Project

As an overall recommendation, a more process oriented organization of the data collection is recommended along with more flexibility in the working processes and in organization:

> a. In particular it is recommended that the interviewers and the supervisors will not be specialized in only one survey. Rather, interviewers and supervisors should be generally trained to work on several surveys for reasons of both efficiency and data quality.
> b. Consider the possibility of allowing interviewers more freedom to do their job, respecting the prescribed approach strategy. For instance, flexible working hours, instead of working between four and nine o'clock.
> c. Examine the possibility of lesser number of supervisors to reduce supervisor variance, and therefore the interviewer variance.
> d. It is highly recommended that the control calls are performed by the central call center, rather than by the supervisors.

The discussion of these organizational issues should involve the top management of CBS.

3.1.1 Quality control methods and tools for monitoring

Interviewers highly appreciate to get feedback on their work. It should be considered to develop feedback procedures, based on established quality indicators.

Independently of what specific indicators are used, what is most important is that the indicators chosen are used in a systematic way.

"Systematic" is here meaning a choice of a fixed template that is used for all indicators. The Dutch system, that was discussed, is a template with the following 9 dimensions: name, definition, variables, standard, action, purpose, presentation, source, period under review. The example in Annex D1.x illustrates and explains the system and the meaning of each of the dimensions.

ICBS should choose the indicators they want to use. Those indicators could be the ones currently used by ICBS or some other indicators.

What is important is that the indicators are:
- Measurable – i.e. can be measured with the tools available
- Can be evaluated – i.e. against, for example, an average or a benchmark
- Interpretable – i.e. they are meaningful for the users.

During the D.1 mission examples of quality indicators used by Statistics Netherlands were presented. These are presented in the annexes D1.x and D1.x.

3.1.2 Manual for interviewers

A generic manual for the interviewers should be developed within the Twinning project time frame. Some work has already been initiated by ICBS, regarding the actual status, and the future work could utilize these analyses of the existing manuals.

The following generic manual structure is suggested, but should be developed according to CBS's own needs:

1. **General manual (e.g. 50-60 pages)**
   a. About CBS and confidentiality
   b. Sample concept (representative frame, sample frame and registers, how to handle the address units etc.)
   c. How to handle a questionnaire
      i. Interview technique
      ii. Interview rules (how to read etc.)
      iii. Other things
   d. Approach strategy – handling addresses, people who have moved, getting co-operation, administrative part of the interviewing etc.
   e. Technical issues (software and lap-top, data transmission etc.)

2. **Survey specific guide (varying number of pages)**
   a. About the survey
   b. This sample
   c. This questionnaire
   d. Special approach issues related to this survey
   e. Technical issues related to this survey

Thus, it is strongly recommended that the specific guides will correspond to the general guide:

General	Survey specific
About CBS and confidentiality	About this survey
Sample concept	This sample
Questionnaires	This questionnaire
Approach strategy	This approach strategy
Technical issues	Specific technical issues, this survey

Furthermore, it is recommended that for the survey specific guide, the same structure should be used even in the case where there may be only very little case-specific information or guidelines.

3.2 Other recommendations

3.2.1 Questionnaire
It is highly recommended to harmonize the concepts, definitions and meaning of codes in questionnaires of different surveys in order to achieve data of higher quality. The use of different software for different questionnaires is not necessarily a problem, under the condition that the user (interviewer) works with virtually identical questionnaire – interface: with same rules, colours, structure, etc. etc.

3.2.2 Training
It is recommended, in a longer term, to consider the overall quality effect and cost-effectiveness of the current training system versus a model based on a longer training period, e-Learning, and with professional trainers working exclusively with training.

The Dutch experience is that a 3 months training program, including an introduction day, e-Learning done at home as preparation for 1-2 days of traditional training sessions followed up by "home-work", and – later in the process – with both accompanied and un-accompanied test interviewing has proven successful.

The process allows for early screening of the candidates by Statistics Netherlands, and also the candidates will more easily find out whether the job is interesting for them, in the long run. As a result, the dropout after the three months of training is approximately 10-15 percent, and the later dropout is very little.

It should be noted that in the Netherlands it is, by law, not possible to employ a candidate for more than three times for a temporary period. By contrast, the Israeli system seemingly allows for an even more flexible and cost-effective implementation.

As a general recommendation, also regarding training, methods should be developed to encourage the interviewers to revisit the interview manuals to be reminded and thus keep their knowledge at an adequate level.

3.2.3 Sampling and administrative registers
Regarding sampling, it is recommended to strengthen the cooperation between the Data Collection and the Methodological Departments. It is the experience from Statistics Netherlands that Data Collection staff members with, at the same time, mathematical background and good knowledge of interview based surveys can contribute to an efficient

implementation of surveys. For example to fit the available interview capacity and the sample size by "thinning samples", that is drawing subsamples.

Administrative data files and registers can be used to optimize sampling frames, especially if the quality and coverage of the registers and files are satisfactory.

The administrative files can also be used to validate collected data as part of the quality control. This can be done through correlated variables or as mere control questions where the information from the questionnaire is compared to an identical variable from the administrative files.

In other cases certain questions need not be asked if the information exists in the administrative files.

It should be considered by ICBS to included staff from the Methodological Department in the study visit to Statistics Netherlands that will be implemented in May or June 2013, as part of the Twinning project.

3.2.4 Web-based interviewing

It is recommended for ICBS to consider web-based data collection (CAWI) as part of the interview based data collection because of the considerably budget savings that could be obtained. This could be as part of an integrated strategy where CAWI plays a smaller or bigger part in the data collection – for example CAWI could be the first wave, followed up by telephone interviewing (CATI) and/or later personal interviewing (CAPI).

The CAWI response rates, based on the Dutch experience, are 25-45% with regular letters being sent out in advance followed by two reminders every two weeks.

4. Road map: work program and time plan

The following road map and time plan for implementation by ICBS of the project relevant recommendations were agreed upon by the end of the D.1 mission:

Before November 2013
- Define the index / structure for the manuals
- Put the two existing indices on the suggested format of the Quality Indicator System

November 2013
- MS Expert mission to ICBS (D.2 on CATI)

Before June 2014 (D.5 study visit)
- Coordinate the CAPI work with the CATI part of the project
  - there are some differences between CAPI and CATI
  - some surveys (LFS) use both CAPI and CATI
- Fill in the general part of the manual
- Fill in the specific part for two different (in nature) surveys

Other MS Expert missions, i.e. D.3 and D.4 between November 2013 and June 2014 will provide opportunities to discuss the progress and, if needed, to adjust the planning and direction of the work.

Annex D1.1. Terms of Reference

Component D: **Survey Methodology**

Mandatory result of the component

Mandatory Result D.1   Establishment of quality control methods and tools for monitoring field interviewers

Mandatory Result D.2   Establishment of quality control methods and tools for monitoring telephone interviewers

Mandatory Result D.3   Establishment of a manual of guidelines for interviewers

Mandatory Result D.4   Detailed design of at least one web questionnaire

Mandatory Result D.5   Guidelines in cognitive aspects of questionnaire and interview design

Mandatory Result D.6   Guidelines on how to measure and reduce response burden on enterprises

Activity D.1:   Management and monitoring of field interviewers

Terms of Reference

Subject / purpose of the D.1 activity

Review of current methods used in management and monitoring of field interviewers; presentation and discussions on quality control methods for monitoring field interviewers; input to a manual for interviewers

Expected output of the D.1 activity

Mission report on methods for managing and monitoring field interviewers and input to a manual for interviewers

Activity participants (planned) :

Surveys Department:

Mr Nitzan HaCohen, ICBS HQ, component leader

Ms. Rachel Gur, ICBS HQ

Mr. Eyal Avital, ICBS HQ

Ms Limor Tzernotzky, ICBS HQ

Ms. Tzofit Bar-Tov, ICBS HQ

Mr Yoel Domb, ICBS Tel Aviv

Mr Ido Halevy, ICBS Jerusalem

Ms. Tzipora Radian, ICBS HQ

Mr. Kees van Berkel, Statistics Netherlands

Ms. Mariëtte Vosmer, Statistics Netherlands

Annex D1.2 Programme, 21-24July 2013

Date	Place	Time	Event
Sun 21/7	CBS	09:00	Welcoming programme of the week, remarks and acquaintance
		09:15	BC: Introduction to Survey Department
		09:30	BC: Introduction to D1 component
		10:00	BC: Quality Control – Coverage control
		10:30	Coffee break
		11:00	MS: Quality control methods and practice
		12:00	Lunch break
		13:15	Continuation of MS presentation and discussion on quality methods and indicators
		14:30	Coffee break
		15:00	Preliminary recommendations for quality control
Mon 22/7	CBS	09:00	BC: introduction to managing interviewers
		09:15	BC: Span of control and interviewers' office visit + principals
		09:30	MS: Remarks and discussion
		10:30	Coffee break
		11:00	BC: Efficiency parameter and measurement
		11:30	MS: Introduction to efficiency measurement
		12:00	Lunch break
		13:15	Discussion on efficiency: preliminary recommendations
		14:30	Coffee break
		15:00	Preparations for study visit (around: June 2014)
Tue 23/7	CBS	09:00	BC: Introduction to households surveys' manuals – Emphasis on generic chapters
		09:30	BC: Introduction to enterprise surveys' manuals - Emphasis on generic chapters
		10:30	Coffee break
		11:00	MS: An overview on structure and content of interviewers' manuals - both technologic manuals and methodological manual
		12:00	Lunch break
		13:15	Continuation of MS presentation and discussion
		14:45	Coffee break
		15:00	Preliminary recommendations for writing manual guideline
		15:45	Conclusions
Wed 24/7	CBS	09:00	Report writing, including drafting a preliminary work plan
		11:00	Discussion: Follow-up on Sun, Mon and Tue seminar – overview of the obtained results, and a preliminary work plan based on the recommendations
		12:00	Lunch break
		13:15	Ad-hoc meetings and report writing
		14:45	Coffee break
		15:00	Preliminary recommendations for development of quality framework for fieldwork and monitoring field interviewers in CBS

All activities took place in Survey Department conference room, 3th level, main ICBS building.

Annex D1.3 Persons met (de-facto)

Date	Name and Titele
Mon 21/7	Mrs Rachel Gur – Senior Director of Surveys Department
	Mr Nitzan Hacohen – Deputy Senior Director of Surveys Department
	Mr Eyal Avital - Director of census field work Sector
	Mrs Limor Tzarnotky - Director of household Sector
	Mrs Tzofit Bar-Tov – Labour force survey Supervisor
	Mr Yoel Domb - Director of field operation Department
	Mr Ido Halevy – Deputy Director of Call Center Department
	Ms Tzipora Radian - Director of family's Sector
	Mr. Adiel Elbaz,
Tue 22/7	Mr Nitzan Hacohen – Deputy Senior Director of Surveys Department
	Mr Eyal Avital - Director of census field work Sector
	Mrs Limor Tzarnotky - Director of household Sector
	Mrs Tzofit Bar-Tov – Labour force survey Supervisor
	Mr Yoel Domb - Director of field operation Department
	Mr Ido Halevy – Deputy Director of Call Center Department
	Ms Tzipora Radian - Director of family's Sector
Wed 23/7	Mr Nitzan Hacohen – Deputy Senior Director of Surveys Department
	Mrs Tamar Luria – Households Survey supervisor and Training team
	Mrs Riki Meler – Person Survey supervisor and Training team
	Mrs Maya Noah Asher– Census supervisor and Training team
	Mrs Odelia Madar– enterprises Survey supervisor and Training team
	Ms Tzipora Radian - Director of family's Sector
Thu 24/7	Mr Nitzan Hacohen – Deputy Senior Director of Surveys Department
	Ms. Rachel Gur - Senior Director of Survey Department
	Mrs Limor Tzarnotky - Director of household Sector
	Mr Eyal Avital - Director of census field work Sector
	Mrs Tzofit Bar-Tov – Labour force survey Supervisor
	Mr Yoel Domb - Director of field operation Department
	Mr Ido Halevy – Deputy Director of Call Center Department
	Ms Tzipora Radian - Director of family's Sector
	Ms Olivia Blum (BC Project Leader)
	Ms Batia Attali (RTA Counterpart)
	Statistical Methodology Department Representatives:
	Ms. Luisa Burk – Senior Director of Department
	Mr. Tzahi Makovky - Deputy Senior Director of Department
	Dr. Eitan Greenstein – Senior Director of Sector
	Dr. Arye Reiter - Director of sampling in socio-economic surveys Sector
	Ms. Julia Veider – Senior Coordinator
	Ms. Efrat Friedrich – Senior Coordinator
	Ms. Liat Nokrian - Director of estimation in socio-economic surveys Division
	Mr. Uri Hadar – Senior Coordinator