Efforts To Improve Quality Of Statistics In Turkstat: Centralising Data Collection And Quality Check Operations Via CATI
I. Centralising Data Collection
A. Business Statistics

Survey Portal the so called “Harzemli” (self-completion of computer-assisted questionnaires via Web survey) and EDI Technologies (standard business reporting programs for reporting business data and electronic interchange).
Harzemli Survey Portal

Harzemli platform offers software for all processes such as

- need analysis,
- data entry application,
- analysis reports,
- error tracking,
- space management and
- data distribution
A single entry point platform for statistical Web-based data provision from respondent units,
supportive information for respondent units related to how to use the platform and
reminders can be automatically sent to the e-mails of respondent units.

Harzemli provides respondent units to fill in electronic questionnaires by themselves in a comfortable and a safe manner.
EDI Technologies

An electronic data transfer system which allows needed business data to be the compiled from Accounting Applications by transferring them to Turkstat servers via Web services. EDI application is aimed to provide:

- Lessened response burden (significantly reduced reporting burden)
- Reduced data entry time thus rapid data collection
- Minimized data input errors (by eliminating manually typing data)
- No need to print paper questionnaires
- Saving time and resources
- Transition from traditional methods to more innovative systems
- More technology-intensive systems
- More User friendly applications
B. Social Statistics

Turkstat is planning to redesign all its national social surveys in a way that data collection for them is achieved also via Web as well as effective use of CATI mode. Thanks to Harzemli, Turkstat has a platform in order to implement these two modes too.

Currently, CAPI is used as data collection mode for all social surveys conducted in Turkstat. CATI mode is currently used for only quality check purposes of surveys in Turkstat.
Main challenges for implementing CATI applications

How to handle the phone frame problem for those not panel surveys and

How to change over the process from CAPI to CATI (steps and what needs to be done in transition to CATI application) for the panel one?
II. Quality Check Operations
Via CATI
Quality Check Operations Via CATI

The data collected from field by field interviewer

The data collected via check operations on the phone by operator
Objectives of CATI Quality Check Operations

Monitor,

measure and

improve the quality level of the collected data.

These operations contribute to both supporting to produce higher quality data and presenting more reliable information to users.
Reasons of Choosing CATI as Data Collection Mode for Quality Checks

CATI is a system which allows collecting data by conducting surveys centrally via telephones with the help of computer-assisted questionnaires,

results of quality checks are obtained very fast and easily with a low cost,

relatively less workers are needed,

whole process can be controlled from one center and

it provides more standardized data.
## Surveys Carried out Quality Checks

<table>
<thead>
<tr>
<th>Survey Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Price Index – House Rent Prices</td>
</tr>
<tr>
<td>Consumer Price Index (other than House Rent Prices)</td>
</tr>
<tr>
<td>Labor Force Survey</td>
</tr>
<tr>
<td>Household Budged Survey</td>
</tr>
<tr>
<td>Survey of Income and Life Conditions</td>
</tr>
<tr>
<td>Household Domestic Tourism Survey</td>
</tr>
<tr>
<td>Survey of Use of Information and Communication Technology (ICT) in Households and Individuals</td>
</tr>
<tr>
<td>Life Satisfaction Survey</td>
</tr>
<tr>
<td>Time Use Survey</td>
</tr>
<tr>
<td>Health Survey</td>
</tr>
</tbody>
</table>
Quality Check Process Stages

- A preliminary analysis of the survey if it is appropriate for the selection,
- Quality check structure design and process planning,
- Detection of the questions to be checked,
- Determining types and weights (if exist) of inconsistencies,
- Preparation of operation flow,
- Development of application program, test, training and improvement activities,
- CATI operation,
- Internal control of the operation,
- Generating inconsistency statistics and
- Reporting and evaluating results
Type of the Characteristics to Be Questioned

Permanent questions

• general impression of the field interviewer and the survey itself
• identity and contact information of respondent are questioned

Survey questions

• content of survey having key importance
Measurement of Inconsistencies

After getting results of quality check interviews analyzes are performed. In these analyzes, resulting inconsistencies, as well as information on the cause of inconsistencies, can be reported at the level of the survey itself, regional offices and field interviewers.

The calculation method of inconsistency rate is simply the division of the frequency of detected inconsistencies after comparing two data sets to the total number of questions subject to this consistency measurement asked to respondent on the phone. This rate can be multiplied by hundred so it can be expressed in percentage when reporting.
From 2005 to 2010 each year, inconsistency rates have declined regularly and dramatically. After 2010, the inconsistency change rates have become more balanced and have begun to focus on a certain inconsistency rate. Due to the quality of check operations, variation of inconsistency rates of field surveys of Turkstat has been reduced.
Conclusions (Centralising Data Collection)

In business statistics, new methods of data collection such as Web surveys and EDI applications will be continuously promoted in Turkstat. As respondent units become familiar with these new modes it is expected to reduce application problems such as password reminders in the coming years.

In social statistics, CAPI is still predominant practice. But in the close future, it is planned to utilize other central data collection modes.

Turkstat aims to gather and process information more quickly, more accurately, and more effectively than before. Because of these reasons, Turkstat always needs for an accurate and up-to-date data in very short time. Accordingly, to support the right decision-making process, Turkstat maintains trying and utilizing these new data collection modes efficiently.
Conclusions (Quality Checks)

Monitoring, measuring and reporting of quality of field application part of statistical production.

It contributes to find and improve weaknesses (if any) of statistical production process with active participation of all units.

With quality checks via CATI, beyond detecting inconsistencies it is intended to find the sources of these and then to alert related units about them.
Thank You

bilal.kurban@tuik.gov.tr
mahmut.mol@tuik.gov.tr