

Integration of Administrative Data with the Türkiye Labour Force Survey

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Data Sources for Labour Statistics in Türkiye

- Statistics of work may be compiled by using a single or a variety of data sources. Using different data sources has its own advantages and disadvantages.
- The sources of statistics on the labour market may be grouped into following categories:
 - ✓ Household sample surveys/population censuses;
 - ✓ Administrative data; e.g. social security records, registered unemployment records, unemployment insurance)
- Household labour force surveys are at the forefront in measuring unemployment within international definitions and, in particular, revealing the informal structure of employment.
- In Türkiye, 26.5% of total employment is unregistered, and 16.9% of non-agriculture is unregistered.

TurkStat - Household Labour Force Survey

TurkStat conducts the Household Labour Force Survey (HLFS) to produce current information on:

- Employment
 - *Economic activity*
 - *Occupation*
 - *Status in employment*
 - *Hours worked etc.*
 - Unemployment
 - *Duration*
 - *Occupation sought etc.*
 - Persons not in labour force
 - *Not seeking a job, but available to start*
 - *Seeking a job, but not available to start*
 - *Discouraged workers*
 - *Household chores*
 - *In education or training*
 - *Retired persons*
 - *Disabled, old or ill*
 - *Other reasons*
- Potential Labour Force*

TurkStat - Household Labour Force Survey

LFS serves as the primary data source on the supply side of labour market in Türkiye in line with international norms and standards;

- ✓ Regular application since 1988
- ✓ Definition of employment and unemployment as defined by the International Labour Organization (ILO)
- ✓ Harmonized with Eurostat regulations
- ✓ International comparable indicators
- ✓ Compliant with the 19th ICLS Resolutions as of 2021



International
Labour
Organization



TurkStat - Household Labour Force Survey

Data Collection

All settlements and non-institutional population in Türkiye have been covered in sample selection

- **Sampling unit:** Address
- **Observation unit:** Household
- Survey is applied to all individuals living in the household and participation is compulsory.
- Mixed Data Collection Method (CAPI + CATI) – 4 interviews in 15 months.
- 26 Regional Offices responsible for the field application.



Questions regarding to labour force status are asked to individuals aged 15 and over.

TurkStat - Household Labour Force Survey

Section I

Demographic Information

Demographic characteristics of all household members

- Sex,
- Age,
- Education, etc.

Section II

Labour force status

Labour force status of individuals aged 15 +

- Employment status
- Income
- Unemployment and inactivity
- Previous work

Section III

Non-response reasons

Questions about why the survey did not apply

**760,000 individuals and
580,000 people aged 15+ interviewed
annually**

Administrative Data Integration with TurkStat-HLFS

Administrative data are used with the LFS in three phases:

Pre-Fieldwork



- Sampling Design (*ABPRS*)
- Basic Demographic Informations (*ABPRS*)
- Personal Mobile Phones (*Adm. Records*)
- Location Information (*Ministry of Interior*)

Fieldwork Process



- Related to Employment: *Social Security Institution (SSI)*
- Related to Unemployment: *Turkish Employment Agency (ISKUR)*

Post-Fieldwork



- Weighting
- Address-Based Population Registration System (ABPRS)*

Pre - Fieldwork

The Address-Based Population Registration System

- The Address-Based Population Registration System (ABPRS) is the primary source of population statistics in Türkiye.
 - ✓ Population size by localities/regions
 - ✓ Age and sex structure
 - ✓ Immigration and emigration etc.
- ABPRS is also base for:
 - ✓ Life tables
 - ✓ Population projections
- ABPRS also serves as the sampling frame for household surveys



ABPRS, matches individuals with their usual residence addresses using unique national ID numbers and address codes

Pre - Fieldwork

ABPRS as a Sampling Frame

- ABPRS is integrate with the National Address Database (NAD).
- NAD contains all addresses in the country with unique address codes.
- The sampling frame for HLFS is constituted by selecting households in which at least 1 person is registered according to "Address Based Register System".
- Sampling frame (from ABPRS) is updated biannually (February and August)-

Pre - Fieldwork

ABPRS as Base Information

Using as base information for the data entry programme:

- The basic demographic variables of the individuals registered as resident at the selected address are used as base information in the LFS by uploaded into the data entry programme before the fieldwork:

ADDRESS variables, NAME/SURNAME, SEX, DATE OF BIRTH, CITIZENSHIP

- The interviewer checks the list of individuals who resides at the selected address and finalize the list of individuals according to the survey implementation guides.

Availability of national ID numbers facilitates matching with other data sources and administrative records.

Pre - Fieldwork

Personal Mobile Phones

Phone information is essential for informing households by calling them before the first interviews and for other interviews using CATI (Computer-Assisted Telephone Interviewing):

- For first interviews or missing information, phone numbers are compiled from administrative records (Ministry of Interior, eGovernment/e-pulse, etc.)

Coordinate Information

From the Central Address System (CAS) study, "Address Location" information of the selected address has been added to

- Help interviewers locate addresses accurately.
- Reducing "Address not found" problems.

Fieldwork Process

The administrative records used in HLFS

Related to Employment: Social Security Institution (SSİ)

Administrative records of the persons

- Number of the persons that have registered to the SSİ for their job to the SSİ for the related period



Related to Unemployment: Turkish Employment Agency (ISKUR)

Administrative records of the persons who registered to seek job

- Number of the persons who have registered to the ISKUR to seek job (also registered people to participate a training course of ISKUR)

Fieldwork Process

- The administrative records of Social Security Institution (SSI) **NEVER** used instead of the questions related to participation of labour force.
- Status of labour force (employment/unemployment) is determined **ONLY** with self-declared LFS questions.
- The SSI records are used **only to compare** the employment status of the respondents which is collected self-declared ILO status by LFS questionnaire. After the survey is completed, if there is a difference with the administrative records, this difference is questioned.
- Other administrative records related to employment and unemployment are used in the field as baseline information, as well as in the analyses conducted during the fieldwork process.

Post - Fieldwork

ABPRS for Weighting

Information about the individuals surveyed is expanded with weight coefficients and to produce estimates representing the total population.

In the calculation of weight coefficients:

- Population estimates considering sex, age groups, province, NUTS Level 2, rural-urban, and household size distributions are taken into account
- Requirements of Eurostat's Implementation Regulation 2019/2240 are met.

Population projections based on ABPRS data, updated annually, are used for total population and population structure.

Reconciling Survey and Administrative Data

Differences Between SSI and TurkStat

	Employment from LFS	Insurance number from SSI
Sources	Sampling survey	Administrative records
Definition	Employment definition of the ILO	Number of the persons that have insurance registration and pay premium for their job to the SSI
Type of premium	Included in employment if it fits to the ILO employment definition (e.g. Intern/trainees are included if they receive wage)	There are included premium types that do not comply with ILO definitions (e.g. all interns/trainees are included)
Content	Number of employed people	Number of jobs which was paid premium (a person can work as an insured person in more than one workplace)
Population	Institutional population is excluded	Institutional population is included
Coverage	Resident Population in Türkiye	Turkish people not-resides in Türkiye are included
Reference period	52 weeks of the year	Relative month
Not at work at the reference period	Included in employment if they have job attachment according to the ILO definitions	Included with the information; the number of days worked and the wage is zero.
Doing economic/productive activity	If don't do any productive/economic activity in line with the ILO definition.	They are included if they pay premium

Reconciling Survey and Administrative Data

Differences Between ISKUR and TurkStat

	Unemployment from LFS	Job seekers from ISKUR
Sources	Sampling survey	Administrative records
Definition	Unemployment definition of the ILO	Active registers to seek a job to the ISKUR
Reference period for job seeking	Job seeking for the last 4 weeks	Registered to seek a job for the 12 months (active job seekers)
Content	• not working in the reference period Job seeker and job seeker who are able to start work if they find a job	• Registered to find a job or participate in training courses of ISKUR • Working informally and registered to ISKUR to find a job

Reconciling Survey and Administrative Data

Discrepancy Detection Module

- TurkStat has been investigating the differences between two data sources for a few year. Data sources are matched at the micro level.
- If the respondent's ILO employment status don't match with the SSI records, the reasons for this difference are asked at the end of the LFS questionnaire.

According to these analyses the reasons for the difference can be divided into three groups:



Declared registered in LFS, but there isn't any registration in SSI



Declared employed and not-registered in LFS, but there is registration in SSI



Declared not-employed in LFS, but there is registration in SSI

Reconciling Survey and Administrative Data

Group 1: Declared registered in LFS, but there isn't any registration in SSI

Possible Reasons:

- **Sectoral coverage:** The record for the public security and defence sector is not shared with TurkStat with the SSI data set for security reasons.
- **Delay:** Recruitment declarations can be registered with one month delay.
- **Lack of information on registration:** Sometimes, employees don't have sufficient information about their premium payment. (The payments made by the employers.)
- **Retired workers:** The people, who are retired and still working as self-employed, are exempt from the premium payment to the SSI. So they are not included in this SSI records

Reconciling Survey and Administrative Data

Group 2: Declared employed and not-registered in LFS, but there is registration in SSI

Possible Reasons:

- **Reference period don't overlap:** The records are for the related month. But the LFS questions are for the reference week not for the whole month.
- **Lack of information on registration:** Sometimes, employees don't have sufficient information about their premium payment. (Especially the trainees/apprentices)
- **Main/second job:** The registration is asked only for the main job. But those who work informally at their main job, but work as registered at their second job.

Reconciling Survey and Administrative Data

Group 3: Declared not-employed in LFS, but there is registration in SSI

Possible Reasons:

- **Reference period don't overlap:** The records are for the related month. But the LFS questions are for the reference week not for the whole month.
- **Fake registrations:** Some people don't work in actual, but make register themselves as a employee and make their own premium payment to the SSI to retire and have pension.
- **Trainee/apprentice:** According to the law, the trainee/apprentices are registered to the SSI and their employer have to make payment to them. But some employers don't make payment.
- **Incorrect answers:** Because of the survey is made by the government, sometimes the respondents may want to hide their job. By this way they may think that the government may give them a good job.

General Evaluation

Potential Benefits of Integration Administrative Data with the Survey



Reducing the costs



Improving the coverage



Ready availability



Nonresponse solution



Reduced respondent burden



Simplifying field operation



Granular information

General Evaluation

Limitations of Integration Administrative Data with the Survey

Methodological and Technical Challenges:

- Definition Inconsistencies
- Variable Quality Issues
- Data Preservation Problems



Statistical Production Concerns:

- Methodological Limitations
- Conceptual Differences
- Integration Complexity



General Evaluation

Future Plans

- Use more administrative records to improve survey quality wherever possible.
- Improving the quality of the framework to minimize sampling errors (e.g., when households selected for the sample as occupied are actually vacant, etc.)
- Detailed information to users about the differences between administrative data and survey data
- To start using some administrative records currently used for analysis for direct imputation within the scope of the survey.
 - ✓ For example; TurkStat plans to directly use education data from the National Education Database Statistics in the HLFS.

Thank you for your attention!

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