GENERAL EXPLANATION ABOUT
HOUSEHOLD LABOUR FORCE SURVEY

BACKGROUND

With the transition to the planned development period in Turkey, information about structure of economically active population has started to be gathered from General Population Censuses conducted in every five years and Labour Force Surveys (LFS) being conducted since 1966. However, data obtained from these sources especially the data obtained from Labour Force Survey which is the main data source for monitoring the labour market were not comparable within a time series because of the differences on geographical areas covered, definitions, concepts, variables and classifications until 1988.,

It was targeted to redesign the labor force survey to take labor market pulse on time and more correctly in the context of the project on Labour Market Information System coordinated by United Nations Development Programme (UNDP) and then in the context of World Bank Employment and Training Project with the technical assistance of International Labour Organization (ILO).

1988-1999

In this context, the survey was redesigned in accordance with the latest international standards (ILO, Thirteenth International Conference of Labour Statisticians, 1982) concerning statistics on the economically active population, employment, unemployment and underemployment to better measure the labor market situation and also and to provide comparability with the international statistics in 1988.

The main goal of the labour force surveys was to set a questionnaire that makes it possible for users to analyze labour market from different aspects and put to an end to the concept confusion on labour market. Also it was aimed to constitute appropriate definitions for international comparisons.

The surveys in which the latest international standards (ILO, Thirteenth International Conference of Labour Statisticians, 1982) are being used, have been applied since October 1988. Within 1988-1999 period, surveys were applied within 15 days following the last week of October and April starting on Monday and ending with Sunday in each year. The results were published for Turkey, urban and rural areas.

From April 1988 to 1994, 11 160 households were surveyed overall Turkey in each implementation of LFS using substitution method. The sample design was changed in October 1994 LFS implementation and sample size was increased to 15 000 households by giving up substitution principle and passing through non-response implementation.

2000-2003

In year 2000, some important changes were made on the application frequency, sample size, estimation dimension and questionnaire of the survey. These changes were made by taking into account the need of comparisons with the existent series. It was also aimed to increase the sensibility of estimation with the new design. Quarterly sample size was increased to 23 000 and this design was firstly used in October 1999 HLFS.

The field application of the survey has been implemented monthly and estimations have been given quarterly for Turkey, urban and rural areas since 2000. Yearly results were given for seven geographical regions and nine province centers (Adana, Ankara, Antalya, Bursa, Erzurum, Gaziantep, İstanbul, İzmir, Samsun) besides the estimates of Turkey, urban and rural areas.

The selected households have been followed during four periods with the new sampling design applied since 2000. The main purpose of this design was to minimize fluctuations coming from the sample.

Some questions were added to the Labour Force Survey questionnaire to enrich the collected data regarding the labour market. Some of these questions were related to informal sector employment.

The results of the survey which were given for the population of 12 years old and over up to year 2000, have started to be given for the 15 years old and over since year 2000.

Revisions made in 2004

Household labour force survey, where international standards have been followed in terms of definitions and concepts from the beginning of its first application, was reviewed in line with harmonization with European Union in 2002. As a result of studies in this direction, questionnaire covering all variables requested by the European Union Statistics Office (Eurostat) was prepared and the criteria were defined more clearly whether people who were

not at work during the reference week is accepted in employment or not by taking into account the norms and standards of Eurostat.

According to the criteria defined, self-employed and employers who have a job but not at work in the reference week for various reasons are considered as employed. However regular employees with a job who did not work during the reference period for various reasons are considered as employed only if they have an assurance of return to work within a period of 3 months or if they receive at least 50% of their wage or salary from their employer during their absence. In the surveys applied until 2004, persons working as regular employee and engaged in their activity were regarded as employed regardless of the criteria of gaining income and duration of duration of absence period. . Unpaid family workers and casual workers, who did not work in the reference week even for 1 hour, are not considered as employed same as the previous applications. Eurostat criterion differs from ILO definitions about whether the "unpaid family workers who did not work in the reference week" are accepted as employed. While ILO does not cover unpaid family workers in employment if they did not work in the reference week, Eurostat accepts those as employed if total duration of absence is less than 3 months. TURKSTAT has been followed ILO criteria and unpaid family workers who did not work during the reference week even for 1 hour are not considered as employed regarding the duration of absence from work.

The quarterly sample size of the survey was increased to approximately 37 000 for quarterly (three months) in order to produce regional estimations on Statistical Regions of Europe (SRE) Level 1 and 2 on yearly basis starting from January 2004. From 2004 onwards periodic results of the survey are provided for Turkey, urban and rural level as in previous applications and annual results are supplied for urban and rural on SRE level 1 and for total on SRE-level 2.

The semi-panel sampling design which being applied since 2000 based on visiting selected households four times was continued to be used. On the other hand, the new address frame constructed according to the results of 2000 General Population Census was started to be used instead of the previous one which was based on 1995 Dwelling Enumeration Study.

The questions related to labour force has been started to be asked to the persons who are 15 years old and over.

Revisions made in 2005

The Labour Force Survey questionnaire was revised at the beginning of the year 2005, as including the new variables offered to be derived from 2005 by Eurostat and the number of questions were increased.

Starting with January 2005, Household Labour Force Survey results are announced in every month based on the moving averages of three months. The results are called with the name of the middle month in order to simplify expression.

In this new series, the Press Releases of February, May, August and November refer to the results of I II. III. and IV. Quarter respectively which have been published since 2000. The data announced in the other months has no equivalent belonging to previous of 2005.

Press Releases of labour force survey results have been published in a certain date since 2005. At the current situation, the results of the survey are announced in the 45 th day (on fifteenth day of each month or on the following first work day if fifteenth day of the month befits the weekend) after the related three month period.

Revisions made in 2009

The Labour Force Survey questionnaire was re-examined by working together with an expert from ILO. In this study, some questions which were found unsuitable for country situation were dropped, some of them were revised and improvements were made in the wording of some questions in order to draw attention for the reference period expressions.

The most important revision in 2009 is transition to the "time-related underemployment" and "inadequate employment" definition instead of the underemployment concept that had been used until 2009. In the Sixteenth International Conference of Labour Statisticians, organized by ILO, the existing definition of underemployment was changed mainly considering the measuring problems and new concepts called as "time-related underemployment" and "inadequate employment" were introduced in order to measure underemployment more accurately. Together with the new underemployment definitions, related questions and options were revised in the questionnaire accordingly.

Sampling addresses have gradually been started to be selected from national address data base since 2009 and, national address data base has been used entirely at sampling since 2011.

In year 2009, economic activities in labour force survey were double coded by International Classification of Economic Activities in the European Union (NACE) both by Rev 1 and by Rev 2. From 2010 onwards NACE Rev 2 has started to be used. In 2009 micro data set economic activity codes are given by both classifications.

Since 2009, economic activity and occupation codes have been given as 2 dijit in micro data CD different from previous years.

PURPOSE

The main objective of the labour force survey is to obtain information on the structure of the labour force in the country. This includes information on economic activity, occupation, status in employment and hours worked for employed persons; and information on the duration of unemployment and occupation sought by the unemployed.

COVERAGE

Geographical area covered: All settlements in Turkey have been covered in sample selection.

Urban areas: Settlements with a population of 20 001 and over are defined as URBAN.

Rural areas: Settlements with a population of 20 000 or less are defined as RURAL.

Statistical unit: Household (address) is the statistical unit used in labour force surveys.

METHOD

Sampling method

2009 Household Labor Force Survey is designed to produce estimations on annually, quarterly (3 months) and monthy basis over 3 months moving average by carrying out the survey at each month in the country.

Sample Size

Sample size of the survey is calculated in order to have annual estimations on Nuts1 x urban-rural and Nuts2 level.

For the determination of the sample size, two studies were carried out:

In the first study, the initial selection probabilities, f0, were calculated in parallel with the year of 2004. The number of households were allocated to the Nuts2xurban-rural groups (52) proportionally. Then, in order to achieve the sufficient sample size in each group, the number of households in the urban groups were weighted by 1.5*f0 and in the rural groups by f0. By this weighting, some groups had still under or over sample sizes. These groups were reweighted by f0 or 2*f0. Hence the final sample sizes from the first study were obtained.

In the second study, the requirement of Eurostat 577/98 regulation was taken into account. The instructions in this regulation were applied on the 2007 data set and the sample sizes in each strata were calculated independently. Following the regulation, firstly, %5 of the working age population was calculated and the corresponding groups belonging to these %5 of the working age population were determined. The groups were chosen from from age, gender and education level groups. Then the sample sizes for each strata (52) were calculated depending on both the %8 coefficient of variation criteria and the values of unemployment rate, design effect, overlapping factors between quarters and correlation coefficient values in each of the selected age, gender and education level groups.

The achieved sample sizes from the two study were examined and the maximum ones in each stratum were chosen as the final sample size of the survey. Annual sample size of 2009 LFS was determined as approximately 168000 households. Accordingly, the quartely sample size consists of approximately 42000 households.

Annual sample design of LFS allows;

- Producing quarterly estimations
- Measuring variation between consecutive quarters
- Cumulating quarterly estimations for annual estimatins
- Measuring variation between same quaters of the consecutive years
- Monthly estimations over 3 month moving average approach.

The rotation pattern is applied by the use of 8 subsamples in each quarter. Each subsample constitutes 350 clusters. The addresses to be surveyed from each selected cluster are divided into two sets namely A and B. In each quarter, only one of these sets is included in the survey. Hence the %50 overlapping ratio between consecutive quarets and same quarters between consecutive years are guaranteed. Number of addresses in each cluster is 15. This value was determined by taken into account the rate of homogenity value.

Household Labour Force Survey Rotation Pattern

According to the scheme above, in the first quarter of 2009, 1 of the 8 subsamples comes from the new design (2009), while the others are from the previous design. In this way, the transition from the old design to the new one is spread over time. In the year 2010, all subsamples come from the new design

The address frame of 2009 survey is National Address Data Base (UAVT) which is updated regularly and linked with Address Based Population Register System (ADNKS). Each new subsample to be included in the survey is selected from the updated UAVT. Therefore listing study in the field is not needed which was the case of the survey before.

Sampling Methodology : Two stage stratified cluster sampling.

First stage sampling unit : Blocks, which constitutes approximately 100 household addresses. While forming the sampling frame of the bocks, updated UAVT is used. Each of villages that don't have municipalites are defined as one block. The blocks are selected by proportional to size.
Second stage sampling unit : Addresses. Number of 30 addresses are selected at once. The selection is done systematically then the selected addresses are divided into two sets (A and B). In each quarter, only one of these sets from the same block is included in the survey.

Stratification : Nuts2, urban-rural

Sampling Error Estimation : Sampling errors related to proportion and total estimates of the survey are calculated based on Taylor Series approximation using SAS module.

Weighting

Results of the household labour force survey have been weighted and published by the most recent population projections. Until year 2009 aforesaid population projections was calculated based on the general population censuses. In 2007 Address Based Population Registration System (ABPRS) was established and there exists some differences in the distribution of population by age, sex and regions in ABPRS compared to the censuses. In this direction, the new population projections were produced using the most recent population data obtained from this new system. In this direction, national and regional population projections were renewed by the results of 2008 ABPRS and also using the results of Turkey Population and Health Survey realized by the Hacettepe University Institute of Population Studies.

New population projections have started to be used in household labour force survey results starting from January 2009 onwards and in order to obtain comparability, monthly results for 2005-2008 terms and 2004 annual results were also revised by the new population projections.

2011 results given in this CD were also weighted by the revised population projections. Moreover, micro data sets for 2004-2008 terms were revised by the renewed population projections and disseminated as combined in a CD.

Reference and application period

The first week of each month starting with Monday and ending with Sunday has been used as the reference period.

The field application starts after the reference week and is completed within 15 days.

The method of collecting data

All the information has been collected by interviewers using Computer Assisted Personal Interviewing (CAPI) Method.

CONCEPTS AND DEFINITIONS

Household: One person or group of person with or without a family relationship who live in the same house or in the same part of the house, who meet basic requirements together and take part in the facilities and management of the household.

Non-institutional population: Comprises all the population excluding the residents of dormitories of universities, orphanage, rest homes for elderly persons, special hospitals, prisons and military barracks etc.

Non-institutional working age population: Indicates the population 15 years of age and over within the non-institutional population.

Labour force: Comprises all employed persons and all unemployed.

Labour force participation rate: Indicates the ratio of the labour force to non-institutional working age population.

Employment: Non-instutional working age population included in the group of persons at work and persons not at work specified below are the employed population.

> **Persons at work:** Persons engaged in any activity during the reference period for at least one hour as a regular employee, casual employee, employer, self employed or unpaid family worker.

> **Persons not at work:** All self-employed and employers who had a job but not at work in the reference week for various reasons are considered as employed.

> Regular employees with a job but did not work during the reference period for various reasons are considered as employed only if they have an assurance of return to work within a period of 3 months or if they receive at least 50% of their wage or salary from their employer during their absence.

> The members of producer cooperatives and apprentices or stajyers who are working to gain any kind of benefit (income in cash or in kind, social security, traveling cost, pocket money etc.) are considered to be employed.

Employment rate: Employment rate is the ratio of employed persons to the non-institutional working age population.

Underemployment: In the Sixteenth International Conference of Labour Statisticians, organized by ILO, the existing definition of underemployment was revised considering the measuring problems and new concepts called as "time-related underemployment" and "inadequate employment" were introduced in order to measure underemployment more accurately. Therefore, essential arrangements have been made in household labour force survey questionnaire in 2009. Data on "time-related underemployment" and "inadequate employment" are published starting from February 2009 period.

> **Time-related Underemployment:** Persons employed in the reference week who actually worked less than 40 hours as total (in main job and additional job/s) were willing to work additional hours and were available to do so.

> **Inadequate Employment:** In case persons are not covered in the "time-related underemployment" concept; persons employed in the reference week but were also looking for a job to replace present job or as an additional job within last 4 weeks and were available to start if could find.

Persons unemployed: The unemployed comprises all persons 15 years of age and over who were not employed during the reference period had used at least one channel for seeking a job during the last three months and were available to start work within two weeks.

Persons who have already found a job and will start to work within 3 months, or established his/her own job but were waiting to complete necessary documents to start work were also considered to be unemployed.

Unemployment rate: Is the ratio of unemployed persons to the labour force.

Persons not in labour force: Includes persons 15 years of age and over who are neither unemployed nor employed. The persons not in labour force consist of the following sub-groups;

1. **Not seeking a job, but available to start:** These are the persons who did not look for a job with different reasons, but were available for work within 2 weeks. This group consists of 2 sub-groups;

   - **Discouraged workers:** These are the persons who were available to start a job but were not seeking because had looked for before,

but were not able to find or those believe that could not find a job with his/her qualifications.

- **Other:** These were the persons who were not seeking a job for reasons such as being seasonal workers, busy with household chores, student, property income earner, retired, or disabled, but available to start a job.

2. **Seasonal workers:** Persons were not seeking a job and were not available for work because of being seasonal workers.

3. **Household chores:** Persons not seeking a job and were not available for work because of doing household chores.

4. **In education or training:** Persons not seeking a job and were not available for work because of attending regular school or training.

5. **Retired persons:** Persons not seeking a job were not available for work because of being retired.

6. **Disabled, old or ill:** Persons not seeking a job and were not available for work because of being disabled, ill or elderly.

7. **Other:** Persons not seeking a job and were not available for work because of family or personal reasons or other reasons.

GUIDE FOR MICRO DATA

It is possible to produce cross tables, make various statistical analysis and run econometric models by means of using micro data given in this CD. To get information about the types, lengths, options and explanations of the variables and transfer the ASCII data set (.txt) to the software that will be used "data set structure" given under the title of "Variables" should be used. Data set was also given by SAS, STATA, SPSS and FOXPRO formats.

Weighting coefficient used to calculate annual results, is a separate variable in micro data set. Each individual (each record) has its own weight. Especially, if someone needs to create cross tables related to the labour force variables (employment, unemployment) weights should be used in order to

reach total figures. Tables given in the "summary tables" section can be used to check whether the weighting process is made successfully.

Annual results of the household labour force survey, could be given by Statistical Regions of Europe (SRE) Level 1 in urban and rural detail and for total by SRE Level 2 besides the estimations given for Turkey and in urban rural distinction. Since SRE level 1 and Level 2 codes are given in the CD, studies could also be done in by regional breakdown. However, it should be noted that; according to the estimation level of household labour force survey, it is not reliable to produce estimations by urban/rural breakdown in SRE Level 2.

Since 2011, "Completed Age" variable has been added to data set in addition to the variable "Completed Age Group ".As the weighting process is based on the age groups in data set, it is not reliable to produce estimations by absolute age variable. This absolute age variable was added to the data set to be use in the possible modeling studies.

Turkey Statistical Institute is not responsible for the results which will be produced regardless of these warnings.