## LFS&TIME

# A database on working conditions, hours and arrangements

DURATION 1/12/2013 - 29/02/2016 BUDGET 207.238 €

### PROJECT DESCRIPTION

#### Context

The Labour Force Survey (LFS) is generally considered as a very rich and reliable data source to capture labour force characteristics and working times. However, when it comes to the length, timing and scheduling of working times, there is an internationally growing concern about the validity and reliability of working time estimates of the LFS. These concerns rise partially because of its methodology of stylised estimate questions which are prone to memory decay and overestimations of work time durations, and partially because of flexibility, sovereignty, and weekly patterning of working times, which are important characteristics of the current labour market and by no means captured by simple estimates of weekly work time durations as done in the LFS. When it



comes to measuring working times, the methodologies of time-diaries as used in Time-Use Surveys (TUS) and Work Grids (WG) can account for the weaknesses attributed to work time estimates of the LFS. Since respondents in TUS face a much shorter period of recall because of instantaneous registration of activities, report their activities in their natural temporal order, and need to confine to the maximum overall duration of 24 hours a day, memory decay and overestimations are largely ruled out. The strength of the WG is that respondents keep track of just one activity in a delineated grid for one whole week, compared to the two-day diaries of TUS.

### General objectives and underlying research questions

This project will merge both the TUS and the WG with the LFS and thus create a situation of interoperability. By this, we understand the ability of these three datasets to 'work' together in a sense that the combined individual strengths of the different datasets, once merged, will fade out their weaknesses. This will allow a calibration of the LFS dataset based on the TUS and the WG. This merge will also enable us to test the quality of the data of the LFS in terms of reliability (the ability of a method to generate the same results for different samples with the same characteristics time after time) and validity (how capable the registration method is in measuring the variable of interest).

#### Methodology

To guarantee the interoperability of all three datasets, the separate databases need to be cleaned first. The first part of the cleaning comprises missing value and outlier analyses as well as basic controls if questionnaires & diaries were completed as instructed. The second part of the cleaning is much more labour intensive because it involves controls on the coding procedure of activities in the TUS and the registration of paid work in the WG. After the primary cleaning procedures the three data sources are merged into one database in a multi-level perspective (i.e. the episode level, the individual level and the household level). These steps will enable us to perform reliability and validity checks on our data.



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### Nature of the interdisciplinarity

In January 2013, Statistics Belgium started a deliberately designed research, which included the registration of LFS 2013, TUS 2013 and WG 2013 among the same sample of households and respondents. The research group TOR was an advising partner during the preparation and execution of the fieldwork and has an experience of over 30 years in the collection and cleaning of TUS. A large part of the reliability of the data relies on defining the concepts to be measured. When it comes to labour, this defining has been ambiguous. To solve this problem, the ESPO faculty of the Université Catholique de Louvain (UCL) will be partner in this research. As to validity, the merging of all databases involves technical and statistical operations like weighting procedures, calibration methods and data-cleaning procedures.

This research project is a collaboration between the TOR research group of the Vrije Universiteit Brussel (VUB) and the IACCHOS institute (comprising the GIRSEF and CIRFASE research centres) of the Université Catholique de Louvain (UCL).

### Potential impact of the research on science, society and/or on decision-making

The major aim of this project is to combine all three databases to end up with one database that is publicly accessible in the form of an online tool, which is accessible for experts as well as layman. The merging of these databases will enable a focus on labour force characteristics and working times as predictors or explanatory elements in the temporal organisation of societies. Both the procedures of merging the LFS, the TUS and the WG as well as the (results of) calibrations made to the data of LFS are of national and international interest, given the important role EUROSTAT plays in harmonising and guaranteeing the quality of European economic and social statistics.

### Description of finished products of research (model, scenario, report, workshop, publication, etc...) at short and medium term.

This research project will provide a database LFS&TIME, accessible to the broad public by means of a web tool. The research consortium will provide detailed reports and guidelines and will disseminate its results internationally by workshops, a colloquium, presentations and will strive to enlarge the research network and apply for international research grants.



### CONTACT INFORMATION

### Coordinator

Ignace GLORIEUX Vrije Universiteit Brussel (VUB) Sociology Department ignace.glorieux@vub.ac.be

### Partners

Bernard FUSULIER Université Catholique de Louvain (UCL) Institute for the analysis of change in contemporary and historical societies (IACCHOS) bernard.fusulier@uclouvain.be

### <u>LINKS</u>

http://www.time-use.be http://epp.eurostat.ec.europa.eu/ https://www.h2.scb.se/tus/tus/ www.fgov.be



### BELGIAN SCIENCE POLICY OFFICE

Louizalaan 231 Avenue Louise • B-1050 Brussels Tel. +32 (0)2 238 34 11 http://www.belspo.be/brain-be/ • Email : BRAIN-be@belspo.be