The labour market situation of migrants and their immediate descendants

Evaluation of the 2014 labour force survey ad hoc module

Draft version December 2015
Preface

This report evaluates the 2014 EU Labour Force Survey (EU-LFS) ad hoc module, which covers the topic of the labour market situation of migrants and their immediate descendants. The main objective of this report is to assess the quality of the dataset, but also to provide recommendations on how to improve the module for future repetitions. This report presents some main results, especially on the topic of migrants and the labour market. However, it is only intended to describe the dataset; no information about confidence intervals or extrapolation to the total population is provided. Readers should referred to the Eurobase tables(1) for the reliability checks.

The EU-LFS is a large-sample survey of private households, which provides detailed quarterly and annual data on employment, unemployment and economic inactivity. The EU-LFS was established by Council Regulation (EC) No 577/98 of 9 March 1998(2) on the organisation of a labour force sample survey in the European Union. This Regulation and its amendments set out provisions for the design, characteristics and decision-making process of the survey. The ad hoc modules of the EU-LFS are, as the name implies, separate from the core survey, and they provide additional information on selected topics, varying from year to year. The topic 'the labour market situation of migrants and their immediate descendants' has now been covered two times in the EU-LFS ad hoc modules, in 2008 and in 2014. It is planned for repetition in 2021.

The involvement of a large number of labour market specialists from national statistical offices, Eurostat and other Commission Directorate-Generals played an important role in the planning of the 2014 module.

The first chapter of this document gives some general information on the 2014 module. Subsequent chapters provide detailed description of each variable, together with information on data collection and on the comparability both across countries and between 2008 and 2014. The annexes to this document include the SAS code for the Eurobase tables and the list of tables proposed for the first release of online publications. Further tables for household level analysis is planned.

This document is based on data sent to Eurostat before 21 August 2015. Although minor revisions of the data set may have happened after this date, the data was at this point in time considered stable enough for analysis and presentation3. The quality reports provided by participating countries were particularly useful in helping Eurostat to interpret certain values, and have also contributed to ideas for repetition of the module. Colleagues from many national statistical offices provided Eurostat with insight into the national circumstances, explaining specific results that did not fit patterns seen in other countries. Eurostat would like to thank all contributors.

Links to all published information from Eurostat on the ad hoc modules are available at http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey_-_ad_hoc_modules

The report takes into account all comments received from the participating countries during the December 2015 Labour Market Statistics Working Group meeting.

This report was prepared by Håvard Lien and Iveta Toleikyte of Eurostat’s unit for labour market statistics (F3). Tables for publication in Eurobase were prepared in cooperation with Frank Bauer (F3), and Mihaela Agafitei, Aurelia Georgiana Ivan, and Piotr Juchno of Eurostat’s unit for population statistics (F2).

Luxembourg, December 2015

(1) http://ec.europa.eu/eurostat/data/database database by theme - population and social conditions – labour market – employment and unemployment – LFS ad-hoc modules
(3) Data from Croatia and France has been revised after this date
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Chapter 1: General information on the module

Executive summary for researchers

This document assesses the data quality of the European labour force survey (EU-LFS) ad hoc module 2014, and provides some main findings of the survey.

The EU-LFS is the largest European household sample survey, providing quarterly and annual results on persons aged 15 and over, both on persons inside the labour market, as well as on those outside it. The sample size is about 1.8 million persons per quarter, and surveys are carried out every quarter. Only private households are included in the published data. The data collection is done as individual interviews. Interview methods vary across countries, but in a majority of cases they are conducted as face-to-face interviews, at least for the first wave. Subsequent follow-up interviews can be conducted by phone. In most countries proxy interviews (with another person in the household) are allowed. Participation in the survey is compulsory in nine of the participating EU countries which provided micro data to Eurostat, and in one of the participating European Free Trade Association countries. The variables which are collected at least once per year are called ‘core variables’.

In addition to the core variables, the EU-LFS also has so-called ad hoc modules (AHMs). These are a supplementary set of up to 11 variables, added to the core, on a clearly defined labour market relevant topic. Topics are chosen in cooperation between the national statistics institutes, various policy directorates generals of the European Commission, and Eurostat, on the basis of policy and analysis needs. This document presents, assesses and analyses the EU-LFS AHM 2014 ‘The labour market situation of migrants and their immediate descendants’.

A European Statistical System (ESS) Agreement defined the target population and the variables of this module. It was signed by 26 national statistics institutes. Among the countries which normally provide EU-LFS data, Denmark, Germany, Ireland, the Netherlands, Iceland and Turkey chose to not sign the agreement. In addition to the technical definitions provided by the ESS Agreement, a dedicated task force consisting of experts from a selection of national statistics institutes, as well as representatives from the European Commission directorate general for employment, social affairs and inclusion, and from Eurostat, developed a model questionnaire for this survey.

The first chapter of this report explains the main goal of the survey, provides recommendations for future repetitions and presents the main findings, analysis of the target population, sample sizes, non-response sizes, links to the core AHM, and links to the previous survey on this topic (the AHM 2008). The second chapter presents the details for each variable, where the definitions and code lists of the variables are available in the subchapters. Please note that the names of variables are always given in capital letters. The AHM 2014 database does not include a ‘non-applicable’ field (which applies to those not in the AHM target population) for all countries for which data was collected, as Eurostat does not insist on transmission of ‘non-applicable’ (NA) data. Effects of entry filters are therefore estimated by crossing the AHM data to the core LFS data.

Non-response rates higher than 15% are considered to make the remaining data for that question and population unreliable.

The dataset allows for household level analysis, and further online tables are planned for this.

With the exception of the table on sample size all data are weighted.

(1) A more detailed description of methodology and the legal basis of the survey is available at http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey-%E2%80%93_main_features_and_legal_basis

(2) The ad hoc modules are presented more in-depth at http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey--ad_hoc_modules
Chapter 1: General information on the module

Description of the module

Aim of the module

The ad hoc module aims to find migrants and their immediate descendants and to provide comparable data on their labour market situation, to analyse the factors affecting the integration in and adaptation to the labour market.

The policy background for the AHM 2014 is the following EU documents:

- The Zaragoza Declaration, adopted in April 2010 by EU Ministers responsible for immigrant integration issues, and approved at the Justice and Home Affairs Council on 3-4 June 2010. It calls upon the Commission (Eurostat and DG HOME) to do a pilot study in order to study common integration indicators, from harmonised data sources.
- The ‘EUROPE 2020: A strategy for smart, sustainable and inclusive growth’, outlining three mutually reinforcing objectives of smart, sustainable, and inclusive growth. It has a strong focus on employment, stressing the need for increasing labour market participation, with more and better jobs as essential elements of Europe’s socioeconomic model.
- The Commission Communication of 20 July 2011 on the ‘European Agenda for the Integration of Third Country Nationals’, which focuses on enhancing the economic, social and cultural benefits of migration in Europe and on achieving migrants’ full participation in all aspects of collective life.
- The Commission Communication of 18 November 2011 on ‘The Global Approach to Migration and Mobility’, which sets out the Commission’s adapted policy framework on migration as part of a renewed Global Approach to Migration and Mobility (GAMM).

Main findings

- The relative size of the immigrant population is very stable over the period 2008-14.
- The unemployment rate for immigrants is always higher than for nationals, and it is everywhere at least 50% higher. First generation immigrants are worse off than second generation immigrants in nine countries. Second generation immigrants are worse off than first generation immigrants in fifteen countries.
- Labour market mobility in the sense of long-term settlement is very low. Far less than 10% have worked abroad in the last 10 years (excluding short term stays and cross border commuters).
- Migration happens mostly for family reasons, then for employment reasons.
- First and second generation immigrants are more often overqualified for their jobs than nationals.
- The largest obstacle for immigrants to find a suitable job is the lack of language skills.
- Talking to relatives and friends is considered to be the most efficient way to find a job.
## List of participating countries

<table>
<thead>
<tr>
<th>Code</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>Belgium</td>
</tr>
<tr>
<td>BG</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>CZ</td>
<td>Czech Republic</td>
</tr>
<tr>
<td>DE</td>
<td>Germany (no micro data available)</td>
</tr>
<tr>
<td>EE</td>
<td>Estonia</td>
</tr>
<tr>
<td>EL</td>
<td>Greece</td>
</tr>
<tr>
<td>ES</td>
<td>Spain</td>
</tr>
<tr>
<td>FR</td>
<td>France</td>
</tr>
<tr>
<td>HR</td>
<td>Croatia</td>
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<td>IT</td>
<td>Italy</td>
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<td>CY</td>
<td>Cyprus</td>
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<td>LV</td>
<td>Latvia</td>
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<td>LT</td>
<td>Lithuania</td>
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<td>LU</td>
<td>Luxembourg</td>
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<tr>
<td>HU</td>
<td>Hungary</td>
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<td>MT</td>
<td>Malta</td>
</tr>
<tr>
<td>AT</td>
<td>Austria</td>
</tr>
<tr>
<td>PL</td>
<td>Poland</td>
</tr>
<tr>
<td>PT</td>
<td>Portugal</td>
</tr>
<tr>
<td>RO</td>
<td>Romania</td>
</tr>
<tr>
<td>SI</td>
<td>Slovenia</td>
</tr>
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<td>SK</td>
<td>Slovakia</td>
</tr>
<tr>
<td>FI</td>
<td>Finland</td>
</tr>
<tr>
<td>SE</td>
<td>Sweden</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>NO</td>
<td>Norway</td>
</tr>
<tr>
<td>CH</td>
<td>Switzerland</td>
</tr>
</tbody>
</table>
## Survey implementation analysis

### Main characteristics of the national 2014 LFS-AHM questionnaires

The table 1.1 presents the main characteristics of the national 2014 LFS-AHM collections. It gives summarized information on various aspects of national questionnaires that can be expected to influence the quality and comparability of the results.

**Table 1.1**: Main characteristics of the national 2014 LFS-AHM surveys for countries which delivered micro data to Eurostat

<table>
<thead>
<tr>
<th>Reference period</th>
<th>AHM questions after core LFS</th>
<th>Interview mode for the LFS AHM (CATI, CAPI, mixed)</th>
<th>Average interview duration per person (in minutes) for LFS AHM</th>
<th>Participation type</th>
<th>Proxy answering</th>
<th>Pilot survey / Testing type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE Q2</td>
<td>Yes</td>
<td>CAPI</td>
<td>3</td>
<td>Compulsory</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>BG Q1-Q4</td>
<td>Yes, Except 2 variables within the core LFS</td>
<td>PAPI</td>
<td>7.7</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes (321 respondents)</td>
</tr>
<tr>
<td>CZ Q1-Q4</td>
<td>No, within the core LFS</td>
<td>CAPI</td>
<td>10</td>
<td>Voluntary</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>EE Q2, Q4</td>
<td>No</td>
<td>Mixed (32 % CATI, 68 % CAPI)</td>
<td>NA</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes, field testing (189 respondents)</td>
</tr>
<tr>
<td>EL Q2</td>
<td>Yes</td>
<td>Mixed (PAPI, CATI)</td>
<td>6</td>
<td>Compulsory</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>ES Q1-Q4</td>
<td>Yes</td>
<td>Mixed (94.17% CATI, 5.83 % CAPI)</td>
<td>1.13</td>
<td>Compulsory</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>FR Q1-Q4</td>
<td>Yes</td>
<td>Mixed (87 % CATI, 13 % telephone interviews)</td>
<td>6.83</td>
<td>Compulsory</td>
<td>No (except when the person was unable to answer)</td>
<td>Yes, field testing (428 respondents), office testing</td>
</tr>
<tr>
<td>HR Q2</td>
<td>Yes</td>
<td>PAPI</td>
<td>5</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes, cognitive testing (30 respondents)</td>
</tr>
<tr>
<td>IT Q2</td>
<td>No</td>
<td>Mixed (55.8% CATI, 44.2 % CAPI)</td>
<td>2</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes, field testing (1716 respondents)</td>
</tr>
<tr>
<td>CY Q2</td>
<td>No, 5 variables within the core LFS</td>
<td>Mixed (83.3% CATI, 16.7% CAPI)</td>
<td>3 to 7</td>
<td>Compulsory</td>
<td>Yes</td>
<td>Yes, field testing (150 households)</td>
</tr>
<tr>
<td>LV Q2</td>
<td>Yes</td>
<td>Mixed (9 % CATI, 91 % CAPI)</td>
<td>2</td>
<td>Voluntary</td>
<td>Yes</td>
<td>Yes, testing with experts (11 experts)</td>
</tr>
<tr>
<td>Country</td>
<td>Module</td>
<td>Yes/No</td>
<td>Methodology</td>
<td>Sample Size</td>
<td>Voluntary</td>
<td>Compulsory</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>LT</td>
<td>Q2</td>
<td>Yes</td>
<td>Mixed (47.3% CATI, 23.3% CAPI, 29.4% PAPI)</td>
<td>7</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>LU</td>
<td>Q1-Q4</td>
<td>Yes</td>
<td>CATI</td>
<td>5</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>HU</td>
<td>Q2</td>
<td>Yes</td>
<td>CAPI</td>
<td>4.2</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>MT</td>
<td>Q1-Q2</td>
<td>No</td>
<td>Mixed (CATI, PAPI)</td>
<td>10</td>
<td>Compulsory</td>
<td>Yes</td>
</tr>
<tr>
<td>AT</td>
<td>Q1-Q4</td>
<td>Yes</td>
<td>CAPI</td>
<td>1.33 (3.12 if migrant /1.12 if not migrant)</td>
<td>Compulsory</td>
<td>Yes</td>
</tr>
<tr>
<td>PL</td>
<td>Q2</td>
<td>Yes</td>
<td>Mixed (64.5% CAPI, 35.5% PAPI)</td>
<td>7</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>PT</td>
<td>Q2</td>
<td>Yes</td>
<td>Mixed (CATI, CAPI)</td>
<td>3</td>
<td>Compulsory</td>
<td>Yes</td>
</tr>
<tr>
<td>RO</td>
<td>Q2</td>
<td>Yes</td>
<td>PAPI</td>
<td>8</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>SI</td>
<td>Q2</td>
<td>Yes</td>
<td>Mixed (65% CATI, 35% CAPI)</td>
<td>1 to 2</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>SK</td>
<td>Q2</td>
<td>Yes</td>
<td>Mixed (44.1% PAPI, 39.7% CAPI, 16.1% CATI, 1.1% MIX)</td>
<td>3.73</td>
<td>Compulsory</td>
<td>Yes</td>
</tr>
<tr>
<td>FI</td>
<td>Q1-Q4</td>
<td>Yes</td>
<td>CATI</td>
<td>NA</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>SE</td>
<td>Q1-Q4</td>
<td>Yes</td>
<td>CATI</td>
<td>NA</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>UK</td>
<td>Q1-Q4</td>
<td>No</td>
<td>CAPI</td>
<td>NA</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
<tr>
<td>NO</td>
<td>Q1-Q4</td>
<td>Yes</td>
<td>CATI</td>
<td>3</td>
<td>Compulsory</td>
<td>No</td>
</tr>
<tr>
<td>CH</td>
<td>Q1-Q4</td>
<td>Yes</td>
<td>CATI</td>
<td>1.8</td>
<td>Voluntary</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Chapter 1: General information on the module

The majority of the countries added the ad-hoc module questionnaire at the end of the core LFS. The exceptions were the Czech Republic, Estonia, Italy, Cyprus, Malta and United Kingdom. These countries mainly integrated AHM questions within the core LFS by topic.

The average interview duration per person for the AHM 2014 varied from 1 minute for Slovenia to around 10 minutes in the Czech Republic and Malta. This is a rather clear sign that the number of questions varied from country to country. It should be noted that the average interview durations provided in table 1.1 are the ones reported by the countries in the national quality reports.

This table also presents the reference period of the ad-hoc module and if it allowed proxy answering. Proxy answering was allowed in the majority of the countries except for Belgium and France, unless the person was unable to respond without assistance for health reasons.

The reference periods differs from one selected quarter (usually second quarter – Q2), several (Q1-Q2) or to all quarters during year (Q1- Q4). Additionally, the table shows which countries had pilot survey, the type of testing, and the number of respondents participating in testing before the full implementation.

Target population

The general survey entry filter is the age group 15 - 64. Please note that the coding of the target group outside the age bracket differs among the participating countries: some code them as not applicable, others remove them completely from the data set.

In addition to the general entry filter, some of the variables have additional filters. Please see the following overview for how this was implemented. The size of the target population per variable, as a proportion to the full LFS core population, is analysed and commented in the respective chapters.

The target population is different from the LFS AHM 2008 Labour market situation of migrants and their descendants, where it was asked to the 15-74 age group. The filter was changed because there was quite a lot of missing information for the older respondents.

Please note that in some cases the entry filter of the ESS Agreement and the entry filter in the model questionnaire did not match.

Entry filters and comparability of data

In the table 1.2, the entry and age filters for each variable of the module are presented with their implementation in the LFS participating countries. The modalities 'all' and 'none' refer to which NSIs implemented which entry filters.

In spite of not being explicitly stated for each variable, the age filter 15 – 64; which is the general survey entry filter, applies to all variables, in addition to the extra filters most variables have.
## Table 1.2: Entry filters and their implementation

<table>
<thead>
<tr>
<th>AHM VARIABLE</th>
<th>ESS agreement, entry filter rules for variables</th>
<th>Model questionnaire, entry filter rules for questions</th>
<th>Implementation ESS filter</th>
<th>Implementation questionnaire filter</th>
<th>Implementation age filter 15-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>COBFATH</td>
<td>AGE in 15-64</td>
<td>Father does not live in the household of the respondent</td>
<td>All</td>
<td>None</td>
<td>Same as the ESS filter</td>
</tr>
<tr>
<td>COBMOTH</td>
<td>AGE in 15-64</td>
<td>Mother does not live in the household of the respondent</td>
<td>All</td>
<td>None</td>
<td>Same as the ESS filter</td>
</tr>
<tr>
<td>PARHAT</td>
<td>AGE in 15-64</td>
<td>Father does not live in the household of the respondent</td>
<td>All</td>
<td>None</td>
<td>Same as the ESS filter</td>
</tr>
<tr>
<td>WORKKOTHC</td>
<td>AGE in 15-64</td>
<td>EXISTPR not 0</td>
<td>All</td>
<td>CZ, HR, IT, LT, SK</td>
<td>Same as the ESS filter</td>
</tr>
<tr>
<td>MIGREAS</td>
<td>YEARESID not equal 00</td>
<td>(YEARESID not equal 00) AND (REFYEAR-YEARBIR-YEARESID=&gt;15)</td>
<td>All</td>
<td>None</td>
<td>All (note that some is coded NA, and some is completely missing from the data set)</td>
</tr>
<tr>
<td>OVERQUAL</td>
<td>WSTATOR in 1-2</td>
<td>WSTATOR in 1-2</td>
<td>All</td>
<td>Same as the ESS filter</td>
<td>All</td>
</tr>
<tr>
<td>JOBOBST1</td>
<td>(YEARESID not equal 00 OR COBFATH not equal COUNTRY OR COBMOTH not equal COUNTRY) AND (OVERQUAL=1 OR WSTATOR in 3,4,5)</td>
<td>(YEARESID not equal 00 OR COBFATH not equal COUNTRY OR COBMOTH not equal COUNTRY) AND (OVERQUAL=1 OR WSTATOR in 3,4,5)</td>
<td>All</td>
<td>Same as the ESS filter</td>
<td>All</td>
</tr>
<tr>
<td>JOBOBST2</td>
<td>JOBOBST1 in 1-5</td>
<td>JOBOBST1 in 1-5</td>
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<td>Same as the ESS filter</td>
<td>All</td>
</tr>
<tr>
<td>LANGHOST</td>
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<td>YEARESID not equal 00</td>
<td>All</td>
<td>Same as the ESS filter</td>
<td>All</td>
</tr>
<tr>
<td>LANGCOUR</td>
<td>YEARESID not equal 00</td>
<td>YEARESID not equal 00 AND LANGHOST not equal 1</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>FINDMETH</td>
<td>STAPRO=3 AND (REFYEAR-YSTARTWK&lt;=5)</td>
<td>STAPRO=3 AND (REFYEAR-YSTARTWK&lt;=5)</td>
<td>All</td>
<td>Same as the ESS filter</td>
<td>All</td>
</tr>
</tbody>
</table>
Chapter 1: General information on the module

Description of the variables

The module contains 11 variables:

COBFATH: country of birth of father; showing good results
COBMOTH: country of birth of mother; showing good results
PARHAT: the highest level of educational successfully completed by father or mother; showing good results
WORKOTHC: last country of residence (other than the current one), where person has worked and lived for a period of 6 months or longer in the last 10 years; limited value due to very low variability
MIGREAS: main reason for migration into the host country; showing good results
OVERQUAL: qualifications and skills of the person would allow more demanding job; showing good results
JOBOBST1: main obstacle preventing person to have a more suitable job or to have a job at all; limited value due to a small target population
JOBOBST2: second obstacle preventing person to have a more suitable job or to have a job at all; very limited value due to an extremely small target population
LANGHOST: degree of command of speaking the main host country language; showing good results but could nevertheless be slightly problematic in countries/regions where several languages are spoken
LANGCOUR: participation in language courses of host country language since arrival in host country; mostly showing good results, but requires careful interpretation due to problems with defining ‘host country language’ in multi-language countries
FINDMETH: method of finding current job in case of a job found in the last 5 years; showing good results

Links with the AHM 2008

A somewhat similar module was conducted in 2008, but the main entry filter was then the age 15-74, while in 2014 it was 15-64.

The variables COBFATH, COBMOTH, and MIGREAS were run in both years. However, as the target population was changed they are not immediately comparable over time. In addition, some of the answer options for MIGREAS were adjusted in 2014.

Links with the core LFS

The main goal of the ad hoc modules is to complement the core LFS, on a specific topic. All background variables come from the core, as do the labour market variables. To be able to look at the labour market situation of migrants, it is therefore necessary to analyse the ad hoc module and the core together.
General issues relating to data collection

Sample size

Table 1.3: Unweighted number of interviews as a proportion of the total population in the age bracket 15-64

<table>
<thead>
<tr>
<th>Country</th>
<th>Population size (15-64)</th>
<th>Number of interviews</th>
<th>Sample size of the LFS ad hoc module 2014 (%)</th>
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</table>
Chapter 1: General information on the module

Non-response rates

The table 1.4 shows non-response rates. A person is considered to be a non-respondent when the question was not answered, leaving an empty space (=Blank) or when the answer category "Cannot say" was chosen.

If the non-response rate is higher than 15 %, the data for that country for that variable was considered to be of very limited use for further analysis. Such cases are flagged in the table. The rates are the results after imputation in the countries.

The non-response rate given in this table is on the data set after imputation, and will therefore in some cases deviate from the non-response rate in the national quality reports from the NSIs.

Table 1.4: Non-response rates by variable and country (final data set, after imputation)

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</table>

Note: Highlighted cells are those where the non-response rate is above 15 %.

The overall non-response of the ad-hoc module is satisfactory. The majority of the countries have acceptable response rates for all variables (higher than 85 %), except 6 of them: Greece, France, Croatia, Luxembourg, Poland and Norway. For these countries the non-response problems only affect maximum 3 variables.
Chapter 1: General information on the module

The two variables with highest non-response rates - JOBOBST1 and LANGCOUR - should be used with caution in the countries marked in Table 1.4. Please note that the non-response for each ad hoc variable is computed over the effective LFS sample and not over the target population. It is meant as a tool to reveal problematic variables rather than to indicate the bias. For a basic analysis of possible bias we refer the reader to the chi-square tables (1.7 and 1.8) instead.

**Imputation rates**

**Table 1.5: Imputation rates by variable and country**

<table>
<thead>
<tr>
<th>Country</th>
<th>COBATH</th>
<th>COBOTH</th>
<th>PARHAT</th>
<th>WORKOTHIC</th>
<th>MGRESA</th>
<th>OVERQUAL</th>
<th>JOBOBST1</th>
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</table>

Most of the variables have no imputation at all, and those countries that use imputation show a moderate use of it.

Table 1.4 and 1.5 should be read and analysed together, as they show different aspects of the quality of the data set, and different approaches across the countries on how to handle non-response. As an example, comparing Estonia and Greece, we see higher non-response in Greece, but a much higher use of imputation in Estonia.

**Impact of the proxy utilisation in the 2014 LFS AHM**

Table 1.6 shows if countries were allowing participation in the LFS AHM through another member of the household. The proxy responses were allowed in most countries, except in Belgium, Norway and France.
(special conditions of using proxy answers apply to persons who are not able to answer by themselves for health reasons).

### Table 1.6: List of the countries which allowed proxy use in the 2014 LFS AHM

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<tr>
<th>Proxy allowed for the 2014 LFS AHM</th>
<th>Number of countries</th>
<th>List of countries</th>
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<tbody>
<tr>
<td>Yes</td>
<td>23</td>
<td>BG, CZ, EE, GR, ES, HR, IT, CY, LV, LT, LU, HU, MT, AT, PL, PT, RO, SI, SK, FI, SE, UK, CH</td>
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<tr>
<td>No</td>
<td>2</td>
<td>BE, NO</td>
</tr>
<tr>
<td>No, except when the person is unable for health reasons to answer without assistance</td>
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### Figure 1.1: Percentage of persons surveyed via another member of the household (proxy rate)

Please note that some countries have different guidelines for the use of proxy answers in the core LFS and in the ad hoc module (effectively allowing proxy answers for the core but not for the ad hoc module, as for instance in Belgium). However, as there is only one variable in the data set which says something about proxy answering we have nevertheless chosen to use it for this analysis.

The figure shows that the use of proxy answers differ extensively between the countries. It is reasonable to assume that lower proxy rates lead to more correct answers, as it often can be difficult for other household members to know what the real answer would be.

In order to test if there is a measurable difference between direct and proxy answers, we have applied a chi-square test on the relation between the type of participation and the labour market status of the respondent. Table 1.7 shows that the differences between proxy and direct survey participants in terms of
working status are not significant in Spain nor in Cyprus. For all other countries the chi-square test shows a systematic relation between the type of participation (proxy or direct interview) and the labour market status of the respondent at a significance level of 0.01, except Luxembourg where the significance level is 0.05.

Table 1.8 shows that in Bulgaria, Cyprus, Lithuania, Luxembourg, Hungary, Malta, Austria, Romania, and Slovakia there are no relationship between the type of participation (proxy or direct interview) and the immigration status. In all other countries we find a relation between these two variables. This most likely has implications for the data quality and the validity of the results.
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Note: The signs *, **, *** represent the significance of chi-square test at a level of 0.1, 0.05, 0.01 respectively.
### Table 1.8: Chi-square test for correlation between proxy answers and SECONDGEN

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Note: The signs *, **, *** represent the significance of chi-square test at a level of 0.1, 0.05, 0.01 respectively.
Chapter 2: Quality analysis by variable

This chapter assesses AHM 2014 in more detail, with analysis of each variable. The eleven variables included in the module are presented in the same order as in the ESS Agreement. This is the order of columns in the database, but it does not imply that the variables were collected in this order in all countries. The questionnaires used in each country to collect the AHM 2014 data are available, often in several languages.

For each variable we will present in this chapter the technical information on coding and entry filters, the size of the target population, relative to the core LFS population, the response rate, an univariate distribution of the answer options for the variable under review, the time series data if it is possible and the comments on national implementation variants if it is has implications for the data quality. Recommendations for data use and for future repetition of the module are also presented for each variable.
1. COBFATH: Country of birth of father (column number 211-212)

Technical characteristics

Definition of the variable

The country where the father of the respondent was born.

In the case of adoption or step-parents, the question asks for the country of birth of the social parent rather than the biological one. In the case of border changes, break-up or unification of the state since the time of the birth, the question asks about the current equivalent.

Target population

This question was asked to all respondents in the module, i.e. respondents aged 15-64:

15 <= AGE <= 64

Purpose of the variable

The variable was collected in order to find the second generation immigrant population, i.e. respondents who are born in the country of interview, but having at least one parent who was born abroad. For the purpose of classifying the target population of this module, it must be analysed together with COBMOTH (LFS AHM 2014 variable) and COUNTRYB (core LFS variable). The variable is used in the derived, composite variables SECONDGEN and COBPARENT.

In addition to defining one of the target population groups, this variable was also used for routing purposes for JOBOBST1 and JOBOBST2 (LFS AHM 2014 variables).

Link to the 2008 ad hoc module

In the ad hoc module 2008 this variable was also collected, with the same coding, but since the overall entry filter to the survey was different (age 15-74 in 2008 and age 15-64 in 2014) the results are not immediately comparable.

Link to the core LFS

COBFATH is closely related to the core variable COUNTRYB (country of birth), both in purpose and coding. It is shortlisted for inclusion in the future core LFS (scheduled for implementation from 2020).

Data set codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>Country unknown, but father born abroad</td>
</tr>
<tr>
<td>99</td>
<td>Not applicable (not included in the filter)</td>
</tr>
<tr>
<td>Blank</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

But with the notable exceptions, following the EU LFS country code list: Greece is coded as EL, not GR, and the United Kingdom is coded as UK, not as GB.

Chapter 2: Quality analysis by variable

Model questionnaire

The question below should only be asked in case the father is not living in the household.

BG_Q1 In which country was your father born?
   2 digit ISO country code
   Cannot say
   → BG_Q2

Quality assessment

Target population size and effect of entry filters

Figure 2.1.1 shows that between 14% (Luxembourg) and 25% (Italy) of the core LFS population is outside the target population of the ad hoc module. This is a direct consequence of the age structure of the national populations.

Figure 2.1.1: Proportion of the total core LFS population not being in the target population of the ad-hoc module. Effect of the entry filter for the variables COBFATH, COBMOTH, PARHAT, and WORKOTH.

As a general point relating to all variables in the data set, please note that, as Eurostat has not imposed mandatory transmission of 'not applicable' cases in the dataset related to the ad hoc module, such cases are handled in different ways: some countries included the 'not applicable' cases, in the ad hoc dataset (coded as NA), while other countries removed them completely from the ad hoc dataset. The type of handling is not necessarily consistent inside each country either: for some variables the 'not applicable' cases are deleted, and for other variables the 'not applicable' cases are retained, but coded as NA. We therefore advise caution when analysing the 'not applicable' cases and NA codes.

The most reliable way, and in cases of countries which do not transmit the NA code the only way, to check for possible effects of the entry filter of the ad hoc module is to compare the size of the population in the ad hoc module to the size of the population in the core LFS.
This effect of the entry filter is identical for the four variables COBFATH, COBMOTH, PARHAT, and WORKOTHIC, as they all have the same entry filter. This table will therefore not be copied into each of the four sections (corresponding to the four variables), as that would be redundant.

**Distribution of values other than country codes (04-15, 98)**

In addition to the ISO country codes and blank cells, the variable also allowed for some numerical codes. This prevalence of these codes influences the possible usefulness of the variable. The following table gives the situation for each country. The ‘98’ code means that ‘the father of the respondent is born abroad, but it is not known in which country’. It is less useful than a real country code, but a lot better than a blank cell, as it at least allows for coding as nationally or not nationally born. However, it gives no further possibility for distributions by country or country groups.

The other numerical codes refer to country groups\(^7\), and could be re-coded to 98 (country unknown but father born abroad) for consistent analysis on a detailed level. It is however only relevant for very few cases. Table 2.1.1 shows the use of numerical country codes in the data set.

**Table 2.1.1: Numerical codes used in COBFATH (% of target population)**

<table>
<thead>
<tr>
<th>Country</th>
<th>COBFATH, code 98 (country unknown, but abroad) (%)</th>
<th>COBFATH, sum of codes 05 to 14 (country groups) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>BG</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>CZ</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>EE</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
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<td>0.1</td>
</tr>
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<td>ES</td>
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<td>0.1</td>
</tr>
<tr>
<td>FR</td>
<td>0.1</td>
<td>0.0</td>
</tr>
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<td>HR</td>
<td>0.5</td>
<td>0.0</td>
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<td>IT</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
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<tr>
<td>LV</td>
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<td>0.0</td>
</tr>
<tr>
<td>LT</td>
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<td>0.0</td>
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<tr>
<td>LU</td>
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<td>0.0</td>
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<tr>
<td>HU</td>
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</tr>
<tr>
<td>MT</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>AT</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PL</td>
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<td>0.0</td>
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<tr>
<td>PT</td>
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<td>0.0</td>
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<tr>
<td>RO</td>
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<td>0.0</td>
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<tr>
<td>SI</td>
<td>0.2</td>
<td>0.0</td>
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<tr>
<td>SK</td>
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<td>FI</td>
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<td>UK</td>
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<td>0.2</td>
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<tr>
<td>NO</td>
<td>14.6</td>
<td>0.0</td>
</tr>
<tr>
<td>CH</td>
<td>0.4</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Response rate**

COBFATH was measured without any serious problem. The response level is fine in all countries, but we could have wished for less use of the '98' code in Norway. The highest non-response rate was in Greece (7%) which is unlikely to have any notable negative effect on the quality of the data set.

**National implementations of the questionnaire**

Some countries have the questions on the country of birth of father included in the core LFS questionnaire instead of in the ad hoc module. However, we have no documented reason to believe this had any impact on the results.

The quality assessment of the variable in 2008 was that country of birth of the father and the mother was measured without major problems in most countries. The only places where there were substantial problems were in Sweden, Denmark and Finland, which had high shares of unknown country of birth of the parents. This was result of gathering information from the population registers instead of directly asking the respondents. As these registers did not cover all cases satisfactorily, the data quality suffered. Please note that this has an effect on the measured increase of the number of second generation immigrants in these countries. Some part of the effect is only due to improved data quality in 2014, as even though Sweden mainly used registers also in 2014, the survey included a question for COBFATH to cover cases where no information on country of birth for the parents was available in the total population register. The effect of this change is that the response rate is much better in 2014 than it was in 2008. The 2008 AHM underestimates the share of non-nationals in COBFATH and COBMOTH, and while it is reasonable to expect the share of non-national fathers and mothers to have increased somewhat between 2008 and 2014 due to the large increase in the number of foreign born persons in Sweden, it is clear that COBMOTH and COBFATH are not at all comparable between 2008 and 2014 due to these differences in the questionnaire. We therefore advise a high amount of caution when analysing the time series data for Sweden.

**Analysis of the results**

**Univariate distribution by country**

The univariate distribution of the variable COBFATH by country of birth of the father is presented in figure 2.1.2. The bars that do not sum up to 100% in this figure mean that there is missing data or don’t know answers.

Three groups of countries are quite apparent: Luxembourg and Switzerland with very high levels of foreign born fathers, the range from Estonia to Italy with medium levels, and from Portugal and downwards with practically nothing. Given the structure of the labour market in Luxembourg and in Switzerland, with a substantial number of international organisations located there, it does not come as a big surprise that these two countries have a large number of immigrants, which again means that a substantial amount of the respondents will have fathers who were born abroad.

We clearly see that the countries with the absolutely lowest shares are among the central and eastern EU Member States. These numbers say more about the immigration history of the country than the current situation, as the respondents are between 15 and 64 years old, and the question asks about the country of birth of their father.
**Figure 2.1.2**: Univariate distribution of COBFATH by broad group of country of birth of the father

(% of target population)

*Multivariate analysis – time series*

Comparing the same dataset over time is a useful way of evaluating its quality. As the target populations in 2008 and 2014 were different (respectively 15-74 and 15-64), this figure uses the most restrictive filter (15-64) for both years, to make sure that the years are as comparable to each other as possible. This means that the results showed here for 2008 are not from the complete dataset, and therefore differs from previously published results.

Figure 2.1.3 shows that the levels are very comparable inside each country from 2008 to 2014, which strengthens the claim that this variable is of acceptable quality.
**Figure 2.1.3:** COBFATH in 2008 and 2014, proportion of fathers born in the reporting country (respondents aged 15-64 in both years) (% of target population)

**Comments from countries on problems with implementation**

BE: did not follow the instructions for filtering on household composition, since the interviewer did not have that information at the time of asking the question.
CY: Difficult for proxy respondents to answer.
SK: Too complex filters.

**Conclusions and recommendations**

There were no major difficulties reported from the countries. The variable shows comparable results through the available time series. It is safe to conclude that the quality of the variable is good and that it provides interesting information for labour market analysis.

As the case of Sweden clearly shows, countries which use population registers must nevertheless include a question on country of birth of father, since this information is often lacking in the register data.

The variable could easily be repeated in future surveys.
2. COBMOTH: Country of birth of mother

**Technical characteristics**

*Definition of the variable*

The country where the mother of the respondent was born.

In the case of adoption or step-parents, the question asks for the social parent, not the biological one. In the case of border changes, break-up or unification of the state since the time of the birth, the question asks about the current equivalent.

*Target population*

This question was asked to all respondents in the module, i.e. respondents aged 15-64.

\[ 15 \leq \text{AGE} \leq 64 \]

*Purpose of the variable*

The variable was collected in order to find the second generation immigrant population, i.e. respondents who are born in the country of interview, but having at least one parent who was born abroad. For the purpose of classifying the target population of this module, it must be analysed together with COBFATH (LFS AHM 2014 variable) and COUNTRYB (core LFS variable). The variable is used in the derived, composite variables SECONDGEN and COBPARENT.

In addition to defining one of the target population groups, this variable was also used for routing purposes for JOBOBST1 and JOBOBST2 in the ad hoc module.

*Link to the 2008 ad hoc module*

In the ad hoc module 2008 this variable was also collected, with the same coding, but since the overall entry filter to the survey was different (age 15-74 in 2008 and age 15-64 in 2014) the results are not immediately comparable.

*Link to the core LFS*

COBMOTH is closely related to the core variable COUNTRYB (Country of birth), both in purpose and coding.

It is shortlisted for inclusion in the future core LFS.

*Data set codes*

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>Country unknown, but mother born abroad</td>
</tr>
<tr>
<td>99</td>
<td>Not applicable (not included in the filter)</td>
</tr>
<tr>
<td>Blank</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Model questionnaire

The question below should only be asked in case the mother is not living in the household.

**BG_Q2** In which country was your mother born?

- 2 digit ISO country code
- Cannot say

→ BG_Q3

Quality assessment

**Target population size and effect of entry filters**

Please see the chapter on COBFATH, as the entry filters are identical.

**Distribution of values other than country codes (04-15, 98)**

In addition to ISO country codes and blank cells, the variable also allowed for some numerical codes. The prevalence of these codes influences the possible usefulness of the variable. The following table gives the situation for each country. The ‘98’ code means that ‘the father of the respondent is born abroad, but it is not known in which country’. It is less useful than a real country code, but a lot better than a blank cell, as it at least allows for coding as nationally or not nationally born. However, it gives no further possibility for distributions by country or country groups.

The other numerical codes refer to country groups\(^8\), and could be re-coded to 98 (country unknown but father born abroad) for consistent analysis on a detailed level. It is however only relevant for very few cases. The table 2.2.1 shows the use of numerical country codes in the data set.

---

Table 2.2.1: Numerical codes used in COBMOTH (% of target population)

<table>
<thead>
<tr>
<th></th>
<th>COBMOTH, code 98 (country unknown, but abroad) (%)</th>
<th>COBMOTH, sum of codes 05 to 14 (country groups) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>0.1</td>
<td>0.1</td>
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<td>LV</td>
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<td>SE</td>
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<td>UK</td>
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<td>0.1</td>
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<tr>
<td>NO</td>
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<td>0.0</td>
</tr>
<tr>
<td>CH</td>
<td>0.5</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Response rate**

COBMOTH was measured in most countries without any problems. The highest non-response rate was in Greece (7 %).

**National implementations of the questionnaire**

Please see the chapter on COBFATH, as the situation is identical
Analysis of the results

Univariate distribution by country

When analysing COBMOTH we see an obvious link to COBFATH. The lowest shares of mother born abroad are clearly found in the central and eastern EU Member States. Respondents with the largest shares of foreign mothers, as for the variable COBFATH, are observed in Luxembourg (58%), Switzerland (43%), Estonia (27%) and Sweden (27%). The sequence of the countries is somewhat different when comparing COBFATH and COBMOTH, but there is a clear pattern of countries with highest number of foreign father or mother corresponding to each other.

As for the variable COBFATH, bars not summing up to 100% indicate missing data.

Multivariate analysis – time series

We see a clear parallel to the corresponding figure of COBFATH, with stable time series data, and the same geographical pattern.
Chapter 2: Quality analysis by variable

Figure 2.2.3 COBMOTH in 2008 and 2014, proportion of mothers born in the reporting country (respondents aged 15-64 in both years)

(\% of target population)

Comments from countries on problems with implementation

BE: did not follow the instructions on filtering on household composition, since the interviewer did not have that information at the time of asking the question

Conclusions and recommendations

There were no major difficulties reported from the countries. The variable shows comparable results through the available time series. It is safe to conclude that the quality of the variable is good and that it provides interesting information for labour market analysis.

The variable could easily be repeated in future surveys.
2b. Derived variable SECONDGEN: Immigration status (COUNTRYB + COBFATH + COBMOTH)

As we have shown that COBFATH and COBMOTH are of good quality and shows believable results, we can go one step further and combine them into a derived variable which shows if the respondent is a first generation immigrant, a second generation immigrant, or if both the respondent and his/her parents were born in the country of interview. We have named this new variable SECONDGEN. This will allow for labour market status by SECONDGEN, one of the main goals of this survey.

Figure 2.2b.1: Univariate distribution of SECONDGEN
(% of target population)

- Please note that not all of the bars sum up to 100%. The missing parts indicate the number of respondents who either did not answer or where the country code is invalid (typically states that do not exist any longer, or where just the continent, and not the country was given).
- If we put the cut-off values for grouping of countries at 90, 80, and 65 per cent we see that there are practically no immigrants of neither 1st nor 2nd generation in Romania, Bulgaria, Poland, Slovakia, Hungary, Finland, the Czech Republic or Lithuania, all of which are central or eastern and relatively new EU members. Finland is the only one that sticks out from the group, which, although it undoubtedly is located in the east, normally is classified as a northern country.
- In the next group, of what one could call middle-high, we find Malta, Portugal, Italy, Greece, and Spain, all clearly Mediterranean EU Member States.
- The middle-low group is more mixed, consisting of countries from all over Europe.
- As clear outliers on the right hand side of the chart we find Switzerland and Luxembourg, where nationals are at most half of the population.
In thirteen of the countries we find a 5 percentage point or less difference in the size of the 1\textsuperscript{st} and the 2\textsuperscript{nd} generation population. Fourteen of the 26 participating countries have a first generation immigrant population that is larger than the second generation immigrant population, and in the cases of Luxembourg, Cyprus, and Switzerland the positive difference is more than 15 percentage points. Only two countries show a markedly opposite situation, those being Latvia and Estonia.

**Labour market status by SECONDGEN by country**

We clearly see from figure 2.2b.3 that the unemployment rate for immigrants is always higher than for nationals, and it is everywhere at least 50% higher.

First generation immigrants are worse off than second generation immigrants in nine countries. Second generation immigrants are worse off than first generation immigrants in fifteen countries.

For two countries the immigrant population is so small that no distinction is possible (calculation of rates for 2\textsuperscript{nd} generation immigrants in Bulgaria and 1\textsuperscript{st} generation immigrants in Romania is not possible within the publishing standards of Eurostat).

One could initially assume that the situation on the labour market for the non-nationals would improve over time, so that the children of immigrants would do better than first generation immigrants, but this seems to not be the case in the majority of the countries.
If we control for age, the differences are somewhat lower, but the main pattern clearly remains.

**Figure 2.2b.3:** Unemployment rate for 1st and 2nd immigrants as a proportion of the unemployment rate for persons born in the country of interview whose both parents were also born in the country of interview (nationals)

**Figure 2.2b.4:** Unemployment rate for 1st and 2nd immigrants as a proportion of the unemployment rate for persons born in the country of interview whose both parents were also born in the country of interview (nationals), persons aged 25-34
Conclusions and recommendations

This composite variable works well, provides very interesting analysis possibilities, and could be considered for the core LFS as well when the COBFATH and COBMOTH variables will be included there.
2c. Derived variable COBPARENT: Human development index rank of combined country of birth of parents (COBFATH + COBMOTH)

Another possible combination of the COBFATH and COBMOTH variables is to combine them on EU/non-EU, and to further split the non-EU on the Human Development Index\(^9\) ranking. This is what we have done with the COBPARENT composite variable, and it shows the level of intra-EU and extra-EU migration, and further the general structure of the extra-EU migration.

The highest ranking country always applies in the composite variable, so, as an example, if the father is from an EU-country and the mother is from a medium ranked HDI non-EU country, the COBPARENT value will be 'EU'.

**Figure 2.2c.1: Univariate distribution of COBPARENT**

(\% of target population)

Some of the bars do not add up to 100\%. This is due to either missing data, countries which are not ranked on the HDI, or invalid country codes.

What we see is that in ten countries, 95\% or more of the respondents have at least one parent who was born in the EU-28. The lowest proportion inside the EU is 80\%, in Estonia. The largest non-EU groups are from the high HDI countries. The United Kingdom, Sweden, Luxembourg and Switzerland are the only countries who have at least 1\% of the population coming from each of the five groups.

This was also done in 2008, but then on the 2008 Human Development Index ranking of the country. The 2014 version is updated to reflect the newest ranking of the countries.

---

3. PARHAT: Level of education attainment of parents

Technical characteristics

Definition of the variable

*Highest level of education successfully completed by the father or the mother of the respondent.*

In the case of adoption or step-parents, the question asks for the social parent, not the biological one. The variable only registers the highest level of education between the parents, so a respondent with a father with low education and a mother with high education will be coded as ‘high’. ‘Successfully completed’ means validated with a recognised qualification, or if this does not exist in the country, it requires full attendance in the programme.

Target population

This question was asked to all respondents in the module, i.e. respondents aged 15-64.

15 <= AGE <= 64

Purpose of the variable

The variable was collected to allow analysis of the socio-economic background of the respondent. This can reasonably be used as a proxy for motivational support for own education, and as a background variable for analysing the respondent’s situation on the labour market.

Link to the 2008 ad hoc module

None, not collected in 2008. It was however collected in the ad hoc module 2009 on the topic of the entry of young persons on the labour market, although this was for another target population (15-34 years of age).

Link to the core LFS

This is a simplified and adjusted version of the core variable HATLEVEL, in that both of them are based on the International Standard Classification of Education 2011, but with HATLEVEL asking about the respondent’s education, and PARHAT asking about the education of the respondent’s parents. HATLEVEL has 12 answer categories, whereas PARHAT is grouped into 3 answer categories.

Education level is grouped on three answer categories, based on the International Standard Classification of Education (ISCDE). Low covers levels 0-2 (early childhood educational development, pre-primary education, and primary education), medium covers levels 3-4 (upper secondary education and post-secondary non tertiary education), and high covers levels 5-8 (short-cycle tertiary education, bachelor or equivalent, master or equivalent and doctoral or equivalent).
Chapter 2: Quality analysis by variable

Data set codes

1  Low (ISCED 2011 0-2)
2  Medium (ISCED 2011 3-4)
3  High (ISCED 2011 5-8)
9  Not applicable (not included in the filter)
Blank  Unknown

Model questionnaire

Quality assessment

Target population size and effect of entry filters

Please see the chapter on COBFATH, as the entry filters are identical.

Response rate

Non-response ranges from 0 to 11 %, and is as such generally within acceptable values. Some effects on the data set could be possible for Greece, Luxembourg and the United Kingdom, but not to any extent that requires any special caution when interpreting the findings. The low response rate in the United Kingdom is explained by that some respondents did not know the educational attainment of their parents.

National implementations of the questionnaire

No particular issues.

Analysis of the results

Univariate distribution by country

Figure 2.3.1 shows a very varied picture, with 39 % of respondents in Sweden having at least one parent with a high level of education while in Romania the corresponding number is 5 %.

As in the previous figures, bars shorter than 100% mean missing data.
Chapter 2: Quality analysis by variable

**Figure 2.3.1: Univariate distribution of PARHAT**

(% of target population)

*Multivariate analysis*

This variable was not included in the former AHM on migrants, but it was used in the 2009 survey, which was on the entry of young persons into the labour market. This had another target population in terms of age (limited to 15-34), but if we limit the 2014 data to this age group, the results are relatively comparable.

As opposed to the previous variables presented so far, this variable can't be presented in a binary form. For this reason, results will be presented in three different graphs, each one corresponding to a level of education.

The first thing one notice is that this scatter plot does not match with the univariate distribution of PARHAT. This is because here it is limited to the age group of 15-34, to make it comparable to the data from 2009.

For the high level of education (see figure 2.3.2) some development over this five year period would be expected, but Sweden and Finland show differences that are not obviously explainable. Some of the difference for Sweden could be attributed to a much higher non-response rate in 2009.

The quality report from Finland notes that "Many of the interviewers commented, that the respondents do not know the level of education of their parents. Especially if the parents are already dead and the education was received very long time ago within a different educational system. For proxy respondents the question is even more difficult. The missing data was replaced by data from administrative sources."

The Swedish quality report states that about 60% of the answers in PARHAT were derived from administrative registers in 2014.

Otherwise, the time series data supports the claim that the large majority of the data set has believable results for high level.
Figure 2.3.2 PARHAT in 2009 and 2014, proportion of parents with high level education (respondents aged 15-34 in both years) (% of target population)

Figure 2.3.3 PARHAT in 2009 and 2014, proportion of parents with medium level education (respondents aged 15-34 in both years) (% of target population)
For the medium level of education we see that the results for Hungary, Poland, and the Czech Republic differ dramatically over the years 2009 to 2014. Some change over time is to be expected, but a change from 30% to 60% over five years is not plausible. For the other countries the results show more consistency over time.

Low level is the mirror image of medium level for Hungary, Poland, and the Czech Republic in terms of change over time. We also see that Sweden has results that are not immediately explainable here. Otherwise the levels look reasonable.

Comments from countries on problems with implementation

BE: did not follow the instructions on filtering on household composition, since the interviewer did not have that information at the time of asking the question
BG: respondents often do not know their parents’ educational level
CY: Not fit for proxy interviews
EE: respondents often do not know their parents’ educational level
FI: respondents often do not know their parents’ educational level
UK: respondents often do not know their parents’ educational level
SK: Not possible to transpose the national education system to only three levels

Conclusions and recommendations

In generally we find an acceptable response rate and consistent time series results. However, some of the countries underline that this was a difficult question to answer for a number of the respondents. Adding
information from administrative registers, if they are available, to fill in cases of don’t know or blank, should be done.

Data from Hungary, Poland, and the Czech Republic on the split medium level / low level should be used with caution, and some caution is advised for Sweden on the split high level / low level.
4. WORKOTHC: Last country of work abroad

Technical characteristics

Definition of the variable

Last country, excluding the current country of residence, where the respondent has worked and lived for a minimum of 6 months in the last 10 years.

The criteria of both working and living mean that the variable excludes cross-border commuters. Any type of work is included, as long as it fulfils the 6 month duration. In the case of several periods of work abroad only the most recent one is recorded.

Target population

Following the ESS Agreement, the target population of the variable was all respondents in the module, i.e. respondents aged 15-64.

15 <= AGE <= 64

Figure 2.4.1 Effect of the entry filter in the ESS Agreement for the variable WORKOTHC. Per cent of the total core LFS population not in the target population of these variables

However, the explanatory notes of the model questionnaire states that the target population consists of persons who work or have worked, and that persons outside this target population should be hard coded as 00, 'Has not worked abroad in the last 10 years'.

EXISTPR not 0
Logically it makes sense to not ask about work experience abroad in the last 10 years if the respondent previously has stated that s/he has no work experience of any kind. The data set, however, does show some cases of this. To separate the soft coded '00' from the hard coded (or at least supposedly hard coded) '00' cases, that is, those who have worked, but not abroad, from those who never have worked, both in order to analyse the target population, but also to find the intended group of real (soft coded) '00' cases, WORKOTH must be crossed with EXISTPR. We therefore recommend, and in this chapter implement, using the filter from the explanatory notes when analysing the results of this variable.

The following figure gives the target population of WORKOTH according to the explanatory notes filter.

**Figure 2.4.2** Effect of the entry filter in the explanatory notes for the variable WORKOTHC. Per cent of the total core LFS population not in the target population

![Figure 2.4.2](image)

We see that the order of the countries is to some extent the same as in figure 2.4.1, but the levels are markedly different.

The ESS Agreement entry filter was followed by all participating NSIs, and the explanatory notes entry filter was followed by none of the participating NSIs.

*Purpose of the variable*

For nationals this variable will analyse international job mobility, and its impact on their careers and status on the labour market. For immigrants it will say something about their work situation before arriving the current country of residence (at least if the move was in the last 10 years).
Chapter 2: Quality analysis by variable

Link to the 2008 ad hoc module
Not collected in 2008.

Link to the core LFS
AGE and EXISTPR as entry filters. ISO country codes as in COUNTRYB
Wording of the question could be varied based on YEARESID (see model questionnaire)

Data set codes

2-letter ISO country classification

00 Has not worked abroad in the last 10 years
98 Country unknown, but has worked abroad in the last 10 years
99 Not applicable (not included in the filter)
Blank Unknown

Model questionnaire

BG_Q5 In the last 10 years, have you worked (and lived)\(^1\) in another country than [country name]? 
1. Yes → BG_Q6
2. No → BG_Q8
Cannot say → BG_Q8

IF (BG_Q5 = yes)
BG_Q6 Did you work in that country for a period of 6 months or more? 
1. Yes → BG_Q7
2. No → BG_Q8
Cannot say → BG_Q8

IF (BG_Q6 = yes)
BG_Q7 In which country was this? 
In case of more than one country please state the last one.
Coding system leading to 2 digit ISO country code → BG_Q8

\(^1\) The ‘and lived’ part could be omitted in a computer assisted questionnaire in cases where YEARESID<10 because this element is obvious in those cases

Quality assessment

Response rate
Very good response rate, with the 9% non-response as the highest (in Greece).

National implementations of the questionnaire
No special issues
Analysis of the results

Figure 2.4.3 provides the analysis of the variable WORKOTHC aggregating the answers of respondents to those who have worked and lived abroad in last ten years and those who have not worked abroad during the same period.

Nearly one in five respondents in Luxembourg have lived and worked abroad in last 10 years for a period of 6 months or longer. Further we find Switzerland (13%), Cyprus (11%), and with Austria, Norway, the UK, and Sweden all at 8%.

Bars shorter than 100% in total mean missing data.

Figure 2.4.3: Univariate distribution of WORKOTHC, using the entry filter from the explanatory notes

As seen in the section on immigrant status SECONDGEN, Luxembourg and Switzerland are countries with substantial immigrant populations. For the other countries the proportion of persons who have worked abroad is negligible. The WORKOTHC country variable is therefore likely to rather reflect the number of immigrants to a country (for whom the question on if they have worked abroad would in fact mean if they worked in their home country before they moved), rather than if the native population has worked abroad and then returned to their country of origin. In short, most of the effect measured in this variable is likely to be inflow of foreigners rather than outflow and then return of nationals. In any case, we can safely conclude that the international labour mobility in the EU over the last 10 years (except for Luxembourg), excluding cross border commuters who are not captured by this variable, is ranging from
tiny (Cyprus, Austria, UK, Sweden) to microscopic (the rest of the EU countries). Two of the five highest mobility results are for the two participating non-member states (Norway and Switzerland).

**Multivariate analysis**

As this variable has not been collected before it is not possible to use time series analysis as a tool for checking its quality.

No multivariate analysis is recommended. Almost all respondents answer the same (*no*), so a further distribution of the data, split on other variables, is not recommended for other countries than Luxembourg, Switzerland and Cyprus.

**Comments from countries on problems with implementation**

BG: some non-nationals were confused about what to interpret as ‘abroad’

CY: Not fit for proxy interviews

**Conclusions and recommendations**

Unclear rules for how to code persons who never have worked at all, and on if they should be in the target population or not, means that the variable requires extra care when it is analysed. If it is decided to implement this variable in a future survey this issue must be addressed.

The low proportion of yes answers means that this variable gives almost no interesting information, and should therefore not be repeated.
5. MIGREAS: Main reason for migrating

Technical characteristics

Definition of the variable

The respondent’s main reason for migrating to the current country of residence

Since it can be difficult to directly answer what the main reason was, the question was asked in two steps (see model questionnaire). Practice showed that there is often a combination of reasons playing a role in migration, that’s why it was crucial for this survey to introduce two step questions. Any type of work or studies is included, when choosing answer category for employment or study reasons.

Target population

Following the model questionnaire and the ESS agreement, this question was asked to respondents who were born outside the host country (YEARESID NOT 00) and who were at least 15 years of age when arriving in the country in which the interview took place (REFYEAR-YEARBIR-YEARESID>=15).

However, the hard coding of those under the age of 15 at the time of arrival was not implemented in all countries, so we advise to add this to all data extractions in case of further analysis, in order to ensure cross country comparability.

Figure 2.5.1: Effect of the entry filter of MIGREAS. Per cent of the total core LFS population not in the target population

![Bar chart showing the effect of the entry filter of MIGREAS. Per cent of the total core LFS population not in the target population across different countries.](image)
In eleven of the countries less than five per cent of the LFS population was asked this question, and only six countries show a level of over 10 per cent. It is therefore obvious that the number of simultaneous dimensions this variable can be analysed on is rather limited.

**Purpose of the variable**

The variable MIGREAS aims to capture the main reason for migration. It is very important background information to study migration in general and the labour market situation of migrants.

**Link to the 2008 ad hoc module**

This variable was also collected in 2008, but it had a more restrictive entry filter, and some differences in answer items. However, some comparison over time can be made.

**Link to the core LFS**

YERARESID, REFYEAR and YEARBIR used as entry filter

**Data set codes**

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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>2</td>
<td>Employment, no job found before migrating</td>
</tr>
<tr>
<td>3</td>
<td>Family reasons</td>
</tr>
<tr>
<td>4</td>
<td>Study</td>
</tr>
<tr>
<td>5</td>
<td>International protection or asylum</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
</tr>
<tr>
<td>9</td>
<td>Not applicable (not included in the filter)</td>
</tr>
<tr>
<td>Blank</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Model questionnaire

\[
\text{IF (YEARRESID=00) and (REFYEAR-YEARBIR-YEARRESID=15)}
\]

\[
\text{BG_Q8 \ What were the reasons for coming to [country name]?} \\
\text{More than one answer allowed}
\]

1. Employment
2. Family reasons including partnership formation
3. Study
4. Came as refugee or seeking international protection
5. Other

\[
\text{Cannot say} ightarrow \text{BG_Q9}
\]

\[
\text{IF more than one answer for BG_Q8}
\]

\[
\text{BG_Q9 \ What was the main reason?}
\]

1. Employment
2. Family reasons including partnership formation
3. Study
4. Came as refugee or seeking international protection
5. Other

\[
\text{Cannot say} ightarrow \text{BG_Q10}
\]

\[
\text{IF (BG_Q8=employment)}^2
\]

\[
\text{BG_Q10 \ Did you already had a job or a job offer in [country name] before coming to [country name]?
}\]

1. Yes
2. No

\[
\text{Cannot say}
\]

\footnote{This filter is broader than absolute necessary. It is however simple and could provide extra interesting information. The filter may however be limited to ((BG_Q9=employment) or (BG_Q9=empty,cs and BG_Q8=employment)).}

Quality assessment

Response rate

Except for Greece (22% non-response) and Norway (11% non-response), the response rate is good.

National implementations of the questionnaire

No special issues

Analysis of the results

Univariate distribution by country

Countries where the target population of the variable is less than five per cent of the LFS population, is marked with a * in the following figures. It is interesting to see the full univariate distribution for all countries, but for the marked ones results are bound to be unreliable and should therefore be interpreted
As the variable MIGREAS has seven answer categories, we split the univariate charts in order to make them more readable.

First we have the results per country sorted on the total for migration for employment reasons (see figure 2.5.2). More than half of the first generation immigrants to Cyprus, Italy, Spain, Greece, Luxembourg, and Slovenia moved there because of employment. The picture is however varied on if the migrant found work before moving or not. For Italy, Spain, and Greece, a substantial majority of those who immigrated due to employment reasons did not find a job before they moved. For Cyprus, Luxembourg, and Slovenia the situation was the opposite.

Family reasons are predominant as reasons for migrating in Slovakia and the Baltic countries, which are likely to be an effect of changing borders over the last generation (see figure 2.5.3). Please however note again the star marking. When it comes to the proportion of the immigrant population who migrated due to international protection or asylum, we find that these proportions are highest in Sweden (28%), Croatia (23%), Norway (13%), Austria, and Belgium (both at 12%).

Figure 2.5.2: Univariate distribution of MIGREAS for answer options relating to employment

(\% of target population)
Figure 2.5.3: Univariate distribution of MIGREAS for answer options relating to family or international protection or asylum (% of target population)

Figure 2.5.4: Univariate distribution of MIGREAS for answer options relating to studies, also covering other reasons and non-response (% of target population)
'Other reasons' and 'non-response' are not very informative categories, but they need to be included to achieve the totals for each country. On the other hand, 'studies' shows some surprising results; normally one thinks of France and the United Kingdom as the major student destinations, and in number of persons this is true, but in proportions of the immigrants they receive we see that Romania, Bulgaria, and Poland have more students.

Please note that these tables do not say anything about the number of immigrants in each country, only something about the proportions of the reasons for which they arrived. The full picture only becomes clear when this is seen together with the effect of the entry filter to the MIGREAS variable, which already is shown earlier in this chapter.

It is also reasonable to say that one proportion is at least partially an effect of other proportions. That for instance Bulgaria has relatively many students among its immigrants is at least partially an effect of not having many asylum seekers, as the total of the proportion for each country obviously sums up to 100%.

The high non-response rate (22%) in Greece is due to a mistake in the filter. We therefore recommend caution when using this part of the data set.

**Multivariate analysis**

These following scatter plots show the results of both 2008 and 2014 for groups of answer options. These groupings are made to avoid as much as possible effects coming from changes in the variable over time, since some of the options have changed between the surveys.

For the persons who moved for employment reasons the situation is relatively stable over the two years we have data for. Norway sticks out with a very marked change, but otherwise the development is within what one could expect. This supports having trust in the data set.

**Figure 2.5.5** MIGREAS in 2008 and 2014, proportion of respondents who migrated due to employment reasons and who found work before moving

(% of target population)
Figure 2.5.6 MIGREAS in 2008 and 2014, proportion of respondents who migrated due to employment reasons and had not found work before moving (% of target population)

Figure 2.5.7 MIGREAS in 2008 and 2014, proportion of respondents who migrated due to education reasons (% of target population)
Figure 2.5.8 MIGREAS in 2008 and 2014, proportion of respondents who migrated due to international protection or asylum

(\% of target population)

Figure 2.5.9 MIGREAS in 2008 and 2014, proportion of respondents who migrated due to family reasons

(\% of target population)
Chapter 2: Quality analysis by variable

We also see a reasonably stable pattern for the respondents who did not find a job before they moved, only with Portugal showing some movement which is worth mentioning. If this is a real development, or an effect of changes in the survey or data collection method is very difficult to say, but it should be kept in mind in case of further data analysis.

The results for migration due to studying show stable results over time.

The answers for international protection or asylum also match acceptably from year to year, supporting the trust in the data set.

Finally we also note that migration for family reasons is relatively stable, although there are marked differences for Spain, Lithuania, and Norway. Please note that the 2014 survey had instructions on hard coding persons who were under the age of 15 on arrival as 'family reasons'. This could influence the results.

Possible further labour market analysis of MIGREAS could be to look at the employment and unemployment rates by the answer options of MIGREAS, compared to the native population, possibly also as time series of 2008 and 2014. Another analysis option could be to control for the age at the time of the migration. This is however outside the scope of the assessment of data quality.

Comments from countries on problems with implementation

BE: the core variable YEARESID was not available to the interviewer when asking these questions.

Conclusions and recommendations

No severe measurement issues were identified with this variable. It is a logical variable and not a burdensome question to ask to migrants.

It is however desirable to decrease the number of migrants that answer 'other', as almost one third of the participating countries had values of at least 10% for this answer option. If this is because the survey did not offer sufficiently detailed answer options, or for some other reason, is not clear.

The predominant answer categories are family reasons and employment with no job found before migrating. The variable was measured quite similarly by countries. This should allow for fairly comparable results. The variable could be repeated in a future survey, and it should aim to have possibilities for time series analysis for at least the most important answer options.
6. OVERQUAL: Over-qualified for job

Technical characteristics

Definition of the variable

The respondent’s self-perceived over-qualification for the current main job, based on a comparison of his/her qualifications and skills with the tasks of the job.

Target population

This question was asked to all respondents who had a job, regardless if they were absent from it or not in the reference week.

WSTATOR in (1,2)

Figure 2.6.1 shows that the target population varies substantially in size across the countries.

Figure 2.6.1: Effect of the entry filter of OVERQUAL. Per cent of the total core LFS population not in the target population

Purpose of the variable

The variable OVERQUAL has several purposes: it is used to identify migrants that are overqualified for their job in order to find out about the obstacles preventing them to get an appropriate job. It also allows comparing migrants and natives on to what extent over-qualification is an issue for them. For that reason, the target group consists of all employed persons. In addition, it can be used to find out if the conventional method to determine over-qualification, comparing ISCO with ISCED, corresponds to the respondent's self-perception of their own situation.
It is also part of the routing to JOBOBST1.

**Link to the 2008 ad hoc module**
Not collected in 2008

**Link to the core LFS**
WSTATOR used for the entry filter

**Data set codes**

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<th>Code</th>
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<td>2</td>
<td>No</td>
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<td>Not applicable (not included in the filter)</td>
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</table>

**Model questionnaire**

```plaintext
IF (WSTATOR=1,2)

OB.Q1 Considering your educational level, experience and skills, do you feel over-qualified for your current main job? With over-qualified is meant that the qualifications and skills of the person would allow more demanding tasks than the current job.

1. Yes
2. No
3. Cannot say
```

**Quality assessment**

**Response rate**
Luxembourg has the highest non-response rate (37 %), as it was not asked in case of proxy interview. Otherwise, the response is acceptable.

**National implementations of the questionnaire**
No particular issues

**Analysis of the results**

**Univariate distribution by country**
The figure 2.6.2 provides the distribution of the variable OVERQUAL. The majority of respondents do not feel that their qualifications and skills would allow more demanding tasks than their current job. Across countries, the share of yes varied from 8 % in Hungary and to 48 % in Spain. There is no obvious geographical pattern.
As in previous similar figures, bars not summing up to 100% mean that there is missing data.

**Figure 2.6.2: Univariate distribution of OVERQUAL**

(% of target population)

![Univariate distribution of OVERQUAL](image)

**Multivariate analysis**

Earlier Eurostat approaches to measuring over-qualification\(^{10}\) have been based the percentage of those persons in employment with a high educational level (having completed tertiary education, ISCED 5 or 6) who are in low or medium skilled jobs (ISCO occupation levels 4 to 9) as a proportion of those having high education. Persons working in the armed forces (ISCO code 000) will be excluded from the calculation, as they are not included in the definition of skill levels.

This means that the target populations of OVERQUAL and that of the calculated over-qualification are different from each other. We will nevertheless compare these variables from the core LFS to OVERQUAL, as a quality check of the data, as it is the only reasonable comparison we can find in the data set (see figures 2.6.3). Although there is an obvious cluster in the lower left corner of the plot, we do not find a very good match. The most extreme values (LU, ES) are however relatively consistent. The main trend is that most countries show a lower level on the self-reported over-qualification than on the calculated one. If this is a consequence of differing target populations, measurement errors, or simply that persons feel more content with their jobs than what the relation between their education and their job tasks are thought to imply, is an open question.

Further time series analysis of the calculated over-qualification rate is possible, but we only have one point in time for OVERQUAL. Therefore, further consistency checks are not possible for it.

One possible analytical approach for labour market analysis is to cross OVERQUAL with SECONDGEN. The results of this are shown in the figures 2.6.4 and 2.6.5.

---

Figure 2.6.3: Calculated over-qualification rate from the core LFS compared to over-qualification rate according to OVERQUAL (% of target population)

Figure 2.6.4: Percentage point difference between nationals and 2\textsuperscript{nd} generation immigrants on saying one is over-qualified for one’s job, according to OVERQUAL
In most countries the 2nd generation immigrants feel more over-qualified for their job than the nationals. However, and perhaps surprising, five countries show the opposite situation, with 2nd generation immigrants being more content with their jobs than the nationals. Do however note that the immigrant populations in these five countries are very small (see figure 2.2b.1).

In eighteen of the 26 participating countries the difference in perceived over-qualification between these two groups is less than 5 percentage points, indicating that in a majority of the EU your situation on the labour market situation, controlled for your level of education, is not very much affected by having parents born outside the country you live in. Croatia shows no difference between the groups at all. The general trend is that the Mediterranean region shows more inequality than other countries, but with clear exceptions as Estonia being quite high and Italy being very low.

Comparing first generation immigrants to natives, we find that the differences are larger, and the country grouping is different. Whereas the former figure had no results above 10 percentage points, we find that ten countries have at least that here. The obvious conclusion is that many more first generation immigrants than second generation immigrants feel misplaced in their jobs, which most likely is rooted in an actual misplacement. The placement of the countries in the figure does not bear much resemblance to the previous one, with Romania, Sweden and Italy at the top here, and with no obvious geographical pattern, or any apparent grouping from the relative sizes of the migrant populations.

Comments from countries on problems with implementation

BG: In cases where the respondent works in a different field than his or her education is on, the question was difficult to answer

CY: Not fit for proxy interviews
Conclusions and recommendations

The comparison between the calculated and the direct answer versions of over-qualification does not allow any definitive statements about its quality, but the distribution of overqualified for the different population groups is more or less as expected. Response rates are overall good, and no countries report any difficulties outside the normal issues of filtering and proxy answers in collecting this variable, so it can be considered as a candidate for being used again in a future survey, with the caveat that caution is advised when using the data from Luxembourg, due to the high non-response.

One additional point which could be taken into consideration for this variable is that it is possible that over-qualification is under-reported, because respondents do not want to admit that they were not able to find a suitable job. Although we do not have any data to back this claim up, it could be considered to reformulate the question to a more neutral formulation in case of a repetition of the module.
7. JOBOBST1: Main obstacle to obtaining a suitable job

**Technical characteristics**

*Definition of the variable*

Main obstacle to getting a job corresponding to the person’s qualifications or to getting a job at all.

The respondent’s self-perceived main obstacle to either obtaining a job which corresponds to his/her qualifications and experience (for those who said in OVERQUAL that they were over qualified for their job), or for obtaining a job at all (for those who did not have a job or business at the time of the survey).

*Target population*

This question was asked to respondents who were either first or second generation immigrants and in addition either said they were over-qualified for their current job, or did not have a job or business during the reference week

(YEARESID not 00 OR mother born abroad OR father born abroad) AND (OVERQUAL=1 OR WSTATOR in (3,4,5))

*Figure 2.7.1: Effect of the entry filter of JOBOBST1*

(% of the total core LFS population not in the target population)

In fourteen participating countries the target population of this variable was less than 10% of the LFS population, and in eight countries less than five per cent. Only two countries, Switzerland and Luxembourg, cover more than 15% of the population with these questions. Consequently, it is not
realistic to further sub-divide this variable on any other variable for cross tabulation purposes for the majority of the countries.

**Purpose of the variable**

The goal of the variable is to map what obstacles to finding suitable work, or work at all, migrants have. It complements the core variables, by adding migrant specific reasons.

**Link to the 2008 ad hoc module**

Not collected in 2008

**Link to the core LFS**

Entry filter partially based on YEARESID and WSTATOR

Complements information from SEEKWORK, SEEKREAS, SEEKTYPE, SEEKDUR, WANTWORK, AVAILABLE, LOOOKOJ, LOOKREAS, EXISTPR, YEARPR

**Data set codes**

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<td>2</td>
<td>Lack of recognition of qualifications obtained abroad</td>
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<td>3</td>
<td>Restricted rights to work because of citizenship or residence permission</td>
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<td>4</td>
<td>Origin, religion or social background</td>
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<td>5</td>
<td>Other obstacle</td>
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<td>6</td>
<td>No particular obstacle</td>
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<tr>
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</tbody>
</table>

**Model questionnaire**

```
IF (YEARESID ≠ 00) or (father or mother is foreign born)
    IF (WSTATOR=1,2) and (OB_Q1= yes)
        OB_Q2a What do you consider to be the main obstacle preventing you to have a job corresponding with your skills?
    IF (WSTATOR=3-5)
        OB_Q2b What do you consider to be the main obstacle preventing you to have a job?
        1. Lack of language skills in host country language(s) -> OB_Q3
        2. Lack of recognition of qualifications obtained abroad -> OB_Q3
        3. Restricted rights to work because of citizenship or residence permission -> OB_Q3
        4. Origin, religion or social background -> OB_Q3
        5. Other obstacle -> OB_Q3
        6. No particular obstacle -> OB_Q4
        Cannot say -> OB_Q4
```
Quality assessment

Response rate

Non-response rates reached critical values in Poland (73 %), Luxembourg (54 %), Greece (21 %), and Norway (26 %). Data for these countries should be used and interpreted with care.

The low response rate in Poland was mainly caused by filter problem, omitting those persons who were not working. This also influences JOBOBST2, as its filter is based on JOBOBST1. For Greece the non-response was mainly a result of respondents finding it difficult to choose one main reason.

National implementations of the questionnaire

No special issues

Analysis of the results

Univariate distribution by country

The very limited target population, and in some cases the low response rate, makes the results for several countries less useful. Target populations less than 5 % of the LFS core are marked with a star.

Figure 2.7.2: Univariate distribution JOBOBST1

The majority of the respondents in twelve countries said that they did not have any particular obstacle to finding a suitable job. Switzerland, Norway, Luxembourg, and Poland stand quite clearly out on the other
side, with a very small minority of the respondents saying that they had no particular obstacle. Among those having a clearly stated main obstacle captured by the module, the lack of language skills is the main problem in most of the countries. Another clear result is that other obstacle is very prevalent, which means that the answer options, which were offered to respondents, were probably not detailed enough.

**Multivariate analysis**

As the variable has never been collected before, and parts of the basis of the target population definition is not included in the core LFS (COBMOTH and COBFATH) there are no obvious opportunities to do a multivariate analysis with the aim of checking the data quality.

**Comments from countries on problems with implementation**

- CY: Not fit for proxy interviews
- AT: Too strict entry filter, and many respondents answered no particular obstacle
- EL: A multiple choice question would have been better than two separate variables
- EE: there should be clearer answer options for respondents who do not want to work
- LU: Problematic for proxy interviews
- MT: Too complicated entry filter
- SK: Too strict entry filter

**Conclusions and recommendations**

The results show interesting findings for the countries where the target population is large enough to draw any conclusions, but for a majority of the participating countries the result is of limited value.

In case of a repetition one should look closely at ways to expand the target population. A possible solution could be to ask all first and second generation immigrants.
8. JOBOBST2: Second obstacle to obtaining a suitable job

**Technical characteristics**

**Definition of the variable**

*Second main obstacle to getting a job corresponding to the person's qualifications, or to getting a job at all.*

The respondent’s self-perceived second obstacle to either obtaining a job which corresponds to his/her qualifications and experience.

**Target population**

This question was asked to respondents who said they had a main obstacle to getting a suitable job (JOBOBST1 in (1,2,3,4,5))

**Figure 2.8.1:** Effect of the entry filter of JOBOBST2. Per cent of the total core LFS population not in the target population

In eighteen countries 5% or less of the total LFS population was in the target population of this variable. In an additional six countries, less than 10% were asked. Only Switzerland and Luxembourg have a data mass that reasonably can be used for any further analysis.

**Purpose of the variable**

The goal of the variable is to map what obstacles to finding suitable work, or work at all, migrants have. It complements the core variables (list), by adding migrant specific reasons.
Chapter 2: Quality analysis by variable

**Link to the 2008 ad hoc module**

Not collected in 2008

**Link to the core LFS**

Complements information from SEEKWORK, SEEKREAS, SEEKTYPE, SEEKDUR, WANTWORK, AVAILABLE, LOOKOJ, LOOKREAS, EXISTPR, YEARPR

**Data set codes**

1. Lack of language skills in host country language(s)
2. Lack of recognition of qualifications obtained abroad
3. Restricted rights to work because of citizenship or residence permission
4. Origin, religion or social background
5. Other obstacle
6. No second obstacle
9. Not applicable (not included in the filter)

Blank: Unknown

**Model questionnaire**

\[
\text{IF} \quad (\text{OB}_Q2 = 1-5) \\
\text{OB}_Q3 \quad \begin{array}{l}
\text{What do you consider to be the second most important obstacle?}
\end{array}
\]

1. Lack of language skills in host country language(s)
2. Lack of recognition of qualifications obtained abroad
3. Restricted rights to work because of citizenship or residence permission
4. Origin, religion or social background
5. Other obstacle
6. No other obstacle
Cannot say

\text{OB}_Q4

**Quality assessment**

**Response rate**

The response rate is good in all countries

**National implementations of the questionnaire**

No special issues

**Analysis of the results**

This variable is not fit for further analysis.
Comments from countries on problems with implementation

CY: Not fit for proxy interviews
AT: Too strict entry filter
SK: Too strict entry filter

Conclusions and recommendations

Do not use, do not repeat.
9. LANGHOST: Skills in host country language

**Technical characteristics**

*Definition of the variable*

The respondent’s self-perceived degree of command of speaking the main host country language

In cases of several official languages in a country, the variable refers to the language the respondent has the best command of.

*Target population*

This question was asked to respondents who were born outside the country where the interview took place, i.e. all first generation immigrants.

YEARESID not 00

Figure 2.9.1 shows that in five countries the variable is relevant for 2 per cent or less of the LFS population. In only eleven countries were these questions asked to at least 10 % of them.

**Figure 2.9.1:** Effect of the entry filter of LANGHOST

(\% of the total core LFS population not in the target population)

*Purpose of the variable*

The variable measures the skills of migrants in speaking the main official language in the country they have moved to. The level of these skills will influence opportunities on the labour market. The reference for measuring skill levels is the European Framework of Reference for Languages.
Chapter 2: Quality analysis by variable

Link to the 2008 ad hoc module
Not collected in this form in 2008. IMPLANG is to some extent comparable, but will have to be analysed with care.

Link to the core LFS
Entry filter YEARESID

Data set codes
1 Language is mother tongue
2 Advanced
3 Intermediate
4 Beginner or less
9 Not applicable (not included in the filter)
Blank Unknown

Model questionnaire

\[
\text{IF (YEARESID=00)} \quad \text{OB_Q4 How do you consider your language skills in speaking in [country language]?
In case of more official languages consider the main official language.}
1. Mother tongue \rightarrow \text{OB_Q6}
2. Advanced \rightarrow \text{OB_Q5}
3. Intermediate \rightarrow \text{OB_Q5}
4. Beginner or less skills
Cannot say \rightarrow \text{OB_Q3}
\]

Quality assessment

Response rate
The response rate is overall good, with the exception of Luxembourg, which had 21 % non-response.

National implementations of the questionnaire
For countries with more than one official language (BE, ES, LU, FI, CH), the interpretation of the variable is 'how do you consider your language skills in speaking the official language you speak best'.

Analysis of the results

Univariate distribution by country
In most countries, the majority of the immigrants master well the language(s) of the host country (see figure 2.9.2).
The other main pattern is that countries where the official language benefits from a substantial number of
users outside its borders correspond to a higher percentage of immigrants mastering the language, than countries where the official language is not frequently used outside its borders.

As for previous variables, countries where the target population of the variable is less than 5% of the core LFS population are marked with a star in the figure, as these results should be used very carefully. Also, bars not reaching 100% indicate missing data or ‘don’t know’ answers.

**Figure 2.9.2: Univariate distribution LANGHOST**

(% of target population)

---

**Multivariate analysis**

It is to some extent possible to compare LANGHOST with one of the variables from the 2008 ad hoc module, which also asked about language skills.

Note that not all countries took part in both ad hoc modules, so it is not possible to check this for all countries.

The target populations were a bit different, and the formulation of the questions, and the answer options were also different. The 2008 variable, *Need to improve host country language skills to get an appropriate job* (IMPLANG), just gave yes/no options for answering.

We find it useful to compare the *no* option of the 2008 variable to the sum of the *mother tongue* and *advanced* options for 2014, as percentages of the target population, as at least some form of time series based quality control of this variable.

Given that the two variables under consideration were not really designed for being compared to each other, the results show quite good consistency over the years, perhaps with the exception of Cyprus (see figure 2.9.3). This shows that the results are plausible.
Figure 2.9.3: IMPLANG 2008 (persons who did not need to improve their language skills to get an appropriate job) compared to LANGHOST 2014 (persons who master the language well) (% of target population)

Figure 2.9.4: Unemployment rate by language skill level (LANGHOST)
One analysis option for this variable is to look at the unemployment rate for each of the groups of language skills. We show this in figure 2.9.4 for the countries with the quality and amount of that which allows for calculating this for all four skill groups. In a large majority of countries there is a clear correlation between language skills and unemployment rate; the higher the skill, the lower the unemployment rate. There are, however, some exceptions. Surprisingly, in Cyprus, we find the opposite situation, as the unemployment rate is markedly higher for immigrants with a good command of the host country language.

Comments from countries on problems with implementation

CY: Not fit for proxy interviews
CH: Not possible to define one main national language
EE: Confusing for respondents whose daily language is Estonian to be asked about their skills in using Estonian
ES: Time consuming to have to ask about all five official languages
SE: In cases where respondents do not speak Swedish very well it is problematic to take answers as intermediate or advanced at face value

Hungary points out that for immigrants who do not have Hungarian as their mother tongue, the relatively small target population and the high refusal rate makes it doubtful if the data set reflects the real situation

Conclusions and recommendations

The variable had overall very good response rates. None of the national quality reports point at major deviations or problems that have impact on comparability. However, it is a subjective question, because respondents assess their own level, and for this reason comparability between the countries cannot be fully guaranteed.

Please note the situation already commented on for countries with more than one official language. Better guidance and explanatory notes for them should be included in case of a repetition of the variable.
10. LANGCOUR: Participation in language course

Technical characteristics

Definition of the variable
Respondent’s attendance to a language course of (at least one) host country language since his/her arrival in the host country

Target population
This question was asked to respondents who were born outside the country
YEARESID not 00
Same target population as LANGHOST, please see figure 2.9.1 for target population analysis

Purpose of the variable
LANGCOUR aims to measure if persons took training to improve their host language skills after their arrival. Since language skills are crucial for performance of workers, countries create training opportunities. It is important to see which (types of) migrants are reached with these policies.

Link to the 2008 ad hoc module
Not collected in 2008, but can reasonably be compared to SERVINT in (03, 05, 06, 07) and to IMPLANG=2

Link to the core LFS
Entry filter from YEARESID

Data set codes
1   Yes
2   No, was not necessary
3   No, for other reason
9   Not applicable (not included in the filter)
Blank   Unknown
Chapter 2: Quality analysis by variable

Model questionnaire

\[
\text{IF (YEARRESID<00) and (OB_Q4=mother tongue)} \]

\[
\text{OB_Q5} \quad \text{Since your arrival in [country name], have you participated in a language course in [country language]?
In case of more official languages the main official language should be considered.}
\]

1. Yes
2. No, was not necessary
3. No, for other reasons
4. Cannot say

Quality assessment

Response rate

Due to high non-response the data from France, Greece and Norway must be used with care.

France states that this was because of an incorrect target group for the variable LANGCOUR. A new question about school attendance in France was introduced in the national questionnaire. Respondents who had been going to school in France were not asked about participation in language courses. Respondents who had been attending language courses outside school were not covered, causing a large non-response rate.

For Greece a possible explanation is that some respondents were not sure if they should report some special “reception classes” (special hours of education inside primary school design for children that do not know Greek language) or not, and therefore preferred not to answer the question.

National implementations of the questionnaire

This variable did not come with any specific instructions for countries which have more than one official language (BE, ES, LU, FI, CH). As a consequence, the questions were asked in different ways, which means that for some respondents we do not know which one of the official languages they referred to. This also makes it difficult to tell what codes 2 and 3 mean. We underline that all countries followed the ESS agreement to the letter, and that the unfortunate situation is due to insufficient guidance from Eurostat in the model questionnaire. The issue was brought to Eurostat's attention from Statistics Finland. Following a discussion with the affected countries, Eurostat proposed a preferred transcoding scheme for these countries, which was possible to follow for Spain, Luxembourg, and Finland (using Finland as the example).

This means that any occurrence of code 1 among the possible language courses means that the final code for the variable will be coded as 1. The same applies for code 3. Consequently, the only possibility for the variable to be coded as 2 is if all questions were answered as 2.

In Belgium and Switzerland the question asked only about one language, and consequently this transcoding was not possible to implement. In Switzerland it was automatically referred to the same language as LANGHOST. In Belgium the data set cannot tell which of the three national languages the variable refers to. In neither of these two cases is it possible to apply the transcoding scheme which was used for the other countries with more than one official language, so we don’t know if there is an unfilled demand for language courses there.
Table 2.10.1 Transcoding schemes for bi- or multilingual countries for LANGCOUR

<table>
<thead>
<tr>
<th>Finnish language course</th>
<th>Swedish language course</th>
<th>AHM code</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>any code</td>
<td>1</td>
<td>FI was taken</td>
</tr>
<tr>
<td>any code</td>
<td>1</td>
<td>1</td>
<td>SE was taken</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td>FI was not necessary; SE might have been, but not taken</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>SE was not necessary; FI might have been, but not taken</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>Neither was taken, but could have been necessary</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>None was necessary</td>
</tr>
</tbody>
</table>

Analysis of the results

Univariate distribution by country

Figure 2.10.1 shows that there is likely an unfulfilled need for language courses in Malta, Cyprus, Luxembourg, Greece, and Spain, affecting at least one third of the immigrants in those countries. On the other hand we see that more than 50% of immigrants have been attending language courses in Sweden, Norway, Luxembourg and Finland, while the same percentage is fewer than 7% in Portugal, Hungary, Slovakia and Croatia.

The height of the 'yes' bars probably give some information on the structure of the immigration; if language classes were not needed, it is plausible that the immigrants in large part came from countries which speak the same or similar languages as in the host country.

Bars not summing up to 100% indicate missing data.
Figure 2.10.1 Univariate distribution of LANGCOUR

(\% of target population)

Multivariate analysis

This variable was not collected in 2008. However, it is possible to compare it, with care, to *Use of services for labour market integration in the two years following the last arrival* (SERVINT), which had answer options on the use of host country language tuition. The following figure shows the results of the two years for respondents aged 15-64, in order to improve the comparability.

The general trend over the time period is relatively stable, but with obvious and large changes for Luxembourg, Switzerland, Belgium and Lithuania, which indicates that data should not necessarily be taken immediately at face value, at least not for multi-language countries.
**Figure 2.10.2:** SERVINT 2008 (persons who took a language course) compared to LANGCOUR 2014 (persons who took a language course) (% of target population)

**Comments from countries on problems with implementation**

- **CY:** Not fit for proxy interviews
- **CH:** Not possible to define one main official language
- **ES:** Had to ask about all five official languages
- **FR:** Respondents who went to school in France were not asked about having participated in French language courses, meaning that 41% of the intended target population was not asked. Most of these persons who were not asked had their upper secondary education (baccalauréat) from France. The answer 2 “no, it was not necessary” has been imputed in these cases, as it is reasonable to assume that their command of French language is high.

**Conclusions and recommendations**

Implementation for countries with several official languages was problematic. In case of a future repetition of the variable this must be improved. We also see that the response rate was unsatisfactory in two countries. Other than that, the variable works fine and provides useful results.
11. FINDMETH: Method finding current job

Technical characteristics

Definition of the variable
The most efficient method used in order to find the current job

Target population
This question was asked to respondents who were employees and who started working for the current employer not more than five years ago.

STAPRO=3 AND (REFYEAR – YSTARTWK <= 5)

Figure 2.11.1: Effect of the entry filter of FINDMETH
(% of the total core LFS population not in the target population)

We see that these questions were asked to between one tenth and one third of the LFS population, which is a result of the proportion of employees to self-employed and family workers, and the turnover rate for employees. It is no surprise to find countries with low employment rates on the left hand side and countries with high employment rates on the right hand side of this figure.

Purpose of the variable
This variable identifies the most effective methods to find work. The question is not general about methods used to find work, but it is specific to the most effective method used for the current job. There is some evidence that there are strong differences between migrants and natives in the way they find work.
Chapter 2: Quality analysis by variable

*Link to the 2008 ad hoc module*

Not collected in 2008, but reasonable to compare it to HELPFINDE for some answer items.

*Link to the core LFS*

Resembles METHODA to METHODF in content, but not in target population.

*Data set codes*

1. Advertisements, via any channel
2. Relatives, friends or acquaintances
3. Public employment office
4. Private employment agency
5. Education or training institution
6. Contacted employer directly
7. Employer contacted person directly
8. Other method
9. Not applicable (not included in the filter)
Blank: Unknown

*Model questionnaire*

```plaintext
IF (STAPRO=3) and (REFYEAR-YSTARTWK <=5)
OB_Q6 How did you find your current job?
   1. responding to advertisements in the media, the Internet or another channel
   2. through relatives, friends or acquaintances
   3. via the public employment office
   4. via a private employment agency
   5. through an education or training institution
   6. by direct application to the employer
   7. Employer contacted you directly
   8. Some other method
   Cannot say
```

*Quality assessment*

*Response rate*

For all but one country, Norway, the response rate is within acceptable limits.

*National implementations of the questionnaire*

No special issues.
Analysis of the results

Univariate distribution by country

Figures 2.11.2 indicates that the most efficient method for finding a job is thought to be to ask relatives, friends or acquaintances. Twenty countries have this as the most prevalent answer option. The second place is more contested, with 15 countries ranking contacted employer directly over ads, and 11 countries ranking ads over contacted employer directly. These first three options, taken together, cover between 60% and 86% of the total answers in the countries with acceptable response rates. The remaining four answer options (Employer contacted person directly, Public employment office, Private employment agency, Education or training institution) are, taken together, smaller than the second highest ranking option, and therefore of less interest.

As for several previous graphs, bars not reaching 100% indicate the combined levels of other and missing data.

Multivariate analysis

As in previous sections, we attempt time series analysis of the variable in order to assess its quality. This variable was not collected in this form in 2008, but there was another variable with partially the same content, HELPFIND (Main help received in the host country in finding the current job or setting up own business). There are however limits to the value of comparing them, as several answer options differ, and the target population differ from FINDMETH.

The data extraction for 2008 is limited to employees aged 15-64, to improve the comparability over the two years. We see that the answers are somewhat clustered, but with notable major changes over time. If these are consequences of measurement and data collection methods, or if they are real world changes is difficult to say.
Comparison to the core LFS variables of METHODA to METHODM is not possible, since the target populations are inverse of each other (unemployed and inactive vs employees) and the reference periods are not comparable in any meaningful way (reference week vs the last five years).

Comments from countries on problems with implementation

CY: Not fit for proxy interviews
SK: Too strict entry filter

Conclusions and recommendations

We find that there is a smallish target population, but otherwise no pronounced problems. This variable could be repeated in a future module, but one could consider removing the filter condition of found the current job in the last five years.
Annexes

Annex 1: SAS code for Eurobase tables

/*
  AHM2014_SECONDDGEN
  AHM2014_COBPARENT
  AHM2014_JOBOBST1
  AHM2014_PARHAT
  AHM2014_MIGREAS
  AHM2014_LANGHOST
  AHM2014_FINDMETH
  AGE
  SEX
  COUNTRYB
  NATIONAL
  DEGURBA
  YEARESID
  HATLEV1D
  ILOSTAT
  FTPT
  TEMP
  ISCO1D
  STAPRO
  ATYPICAL
*/

proc format library=work;

value AGE (multilabel notsorted)
  /* AGE.dic :: 901 */
  15-24 = 'Y15-24'
  25-54 = 'Y25-54'
  55-64 = 'Y55-64'
  20-64 = 'Y20-64'
  15-64 = 'Y15-64'

84
-1E-10 = 'NRP'
other = 'OTH'

value $SEX (multilabel notsorted)
/* SEX.dic :: 910 */
'1' = 'M' /* 1.Males */
'2' = 'F' /* 2.Females */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $COUNTRYB (multilabel notsorted)
/* C_BIRTH.dic :: 10 */
'NOANSWER', '.' = 'NRP' /* No answer */
'REPORTCY','RPCYEX28' = 'NAT' /* 1a.Born in the reporting country. RPCYEX28 to be used for non-EU28 countries */
'NOTAPPLI' = 'NAP' /* Not applicable */
'BE','BG','CZ','DK','DE','EE','EL','GR','ES','FR',
'HR','IT','CY','LV','LT','LU','HU','MT','NL','AT','PL','PT','RO',
'SI','SK','FI','SE','UK','REPORTCY'
= 'EU28' /* 1.Born in a EU28 country */
'BE','BG','CZ','DK','DE','EE','EL','GR','ES','FR',
'HR','IT','CY','LV','LT','LU','HU','MT','NL','AT','PL','PT','RO',
'SI','SK','FI','SE','UK'
= 'EU28_FOR' /* 1b.Born in a EU28 country,excepting reporting country */
'NO','AU','CH','US','NZ','CA','SG','IS','HK','KR','JP',
'LI','IL','BN','QA','SA','AD','AE','CL','BH','CU','KW','AR',
/* = 'NEU_HDI_VH' */ /* 2a.Born in a non-EU28 country,very high HDI */
'UY','BS','ME','BY','LY','OM','RU','BB','PW','AG','MY','MU','TT','LB','PA',
'VE','CR','TR','KZ','MX','SC','KN','LK','IR','AZ','JO','RS','BR','GE','GD',
'PE','UA','BZ','MK','BA','AM','FJ','TH','TN','CN','VC','DZ','DM','AL',
'JM','LC','CO','EC','SR','TO','DO','JM','CS'
= 'NEU_HDI_H' /* 2b.Born in a non-EU28 country,high HDI */
'MV','MN','TM','WS','PS','ID','BW','EG','PY','GA','MD','UZ','PH',
'ZA','SY','IQ','VN','CV','FM','GT','KG','NA','TL','HN','MA','VU','NI','KI','TJ','IN',
'BT','KH','GH','LA','CG','BD','ST','GQ','BO','SV','ZM','GY'
= 'NEU_HDI_M' /* 2c.Born in a non-EU28 country,medium HDI */
= 'NEU_HDI_L' /* 2d. Born in a non-EU28 country, low HDI */
'KP','MH','MC','NR','SM','SO','SS','TV','AI','AN','FK','FO','GG','GI','IM','JE','MS','NC','PF','PR','SH','SU','TF','TW','VA','VG','XK','YT','YU','GL','WF','BM','AW','KY'
= 'NEU_NHDI' /* 2e. Born in a non-EU28 country, no rank HDI */
'NO','AU','CH','US','NZ','CA','SG','IS','HK','KR','JP','LI','IL','BN','QA','SA','AD','AE','CL','BH','CU','KW','AR','UY','BS','ME','BY','LY','OM','RU','BB','PW','AG','MY','MU','TT','LB','PA','VE','CR','TR','KZ','MX','SC','KN','LK','IR','AZ','JO','RS','BR','GE','GD','PE','UA','BZ','MK','BA','AM','FJ','TH','TN','CN','VC','DZ','DM','AL','JM','LC','CO','EC','SR','TO','DO','JM','CS','MV','MN','TM','WS','PS','ID','BW','EG','PY','GA','MD','UZ','PH','ZA','SY','IQ','VN','CV','FM','GT','KG','NA','TL','HN','MA','VU','NI','KI','TF','IN','BT','KH','GH','LA','CG','BD','ST','GQ','BO','SV','ZM','GY','NP','PK','KE','SZ','AO','MM','CM','NG','YE','MG','ZW','PG','SB','KM','TZ','MR','LS','SN','UG','BJ','SD','TG','HT','AF','DJ','CI','GM','MW','LR','ML','GW','MZ','GN','BI','ER','SL','TD','CF','CD','NE','ET','RW','BF','KP','MH','MC','NR','SM','SO','SS','TV','AI','AN','FK','FO','GG','GI','IM','JE','MS','NC','PF','PR','SH','SU','TF','TW','VA','VG','XK','YT','YU','GL','WF','BM','AW','KY'
= 'EXT_EU28' /* 2. Born in a non-EU28 country */
'BE','BG','CZ','DK','DE','EE','IE','EL','GR','ES','FR','HR','IT','CY','LV','LT','LU','HU','MT','NL','AT','PL','PT','RO','SI','SK','FI','SE','UK','NO','AU','CH','US','NZ','CA','SG','IS','HK','KR','JP','LI','IL','BN','QA','SA','AD','AE','CL','BH','CU','KW','AR','UY','BS','ME','BY','LY','OM','RU','BB','PW','AG','MY','MU','TT','LB','PA','VE','CR','TR','KZ','MX','SC','KN','LK','IR','AZ','JO','RS','BR','GE','GD','PE','UA','BZ','MK','BA','AM','FJ','TH','TN','CN','VC','DZ','DM','AL','JM','LC','CO','EC','SR','TO','DO','JM','CS','MV','MN','TM','WS','PS','ID','BW','EG','PY','GA','MD','UZ','PH','ZA','SY','IQ','VN','CV','FM','GT','KG','NA','TL','HN','MA','VU','NI','KI','TF','IN','BT','KH','GH','LA','CG','BD','ST','GQ','BO','SV','ZM','GY','NP','PK','KE','SZ','AO','MM','CM','NG','YE','MG','ZW','PG','SB','KM','TZ','MR','LS','SN','UG','BJ','SD','TG','HT','AF','DJ','CI','GM','MW','LR','ML','GW','MZ','GN','BI','ER','SL','TD','CF','CD','NE','ET','RW','BF
'05', '06', '07', '08', '09', '10', '11', '12', '13', '14', '98' = 'UNK' /* 3.Born in an unknown country */
other = 'OTH' /* invalid */

value $NATIONAL (multilabel notsorted)
/* CITIZEN_dic : 1013 */
'NOANSWER', '.' = 'NRP' /* No answer */
'REPORTCY', 'RPCYEX28' = 'NAT' /* 1a.National of the reporting country. RPCYEX28 to be used for non-EU28 countries */
'NOTAPPLI' = 'NAP' /* Not applicable */
= 'EU28' /* 1.National of a EU28 country */
= 'EU28_FOR' /* 1b.National of a EU28 country,excepting reporting country */
Annexes

= 'NEU_HDI_L' /* 2d.National of a non-EU28 country, low HDI */
 'KP','MH','MC','NR','SM','SO','SS','TV','AI','AN','FK','FO','GG','GI',
 'IM','JE','MS','NC','PF','PR','SH','SU','TF','TW','VA','VG','XK',
 'YT','YU','GL','WF','BM','AW','KY'

= 'NEU_NHDI' /* 2e.National of a non-EU28 country, no rank HDI */
 'NO','AU','CH','US','NZ','CA','SG','IS','HK','KR','JP',
 'LI','IL','BN','QA','SA','AD','AE','CL','BH','CU','KW','AR','NN',
 'UY','BS','ME','BY','LY','OM','RU','BB','PW','AG','MY','MU','TT','LB','PA',
 'VE','CR','TR','KZ','MX','SC','KN','LK','IR','AZ','JO','RS','BR','GE','GD',
 'PE','UA','BZ','MK','BA','AM','FJ','TH','TN','CN','VC','DZ','DM','AL',
 'JM','LC','CO','EC','SR','TO','DO','JM','CS',
 'MV','MN','TM','WS','PS','ID','BW','EG','PY','GA','MD','UZ','PH',
 'ZA','SY','IQ','VN','CV','FM','GT','KG','NA','TL','HN','MA','VA','NI','KI','TJ','IN',
 'BT','KH','GH','LA','CG','BD','ST','GQ','BO','SV','ZM','GY',
 'NP','PK','KE','SZ','AO','MM','CM','NG','YE','MG','ZW','PG','SB','KM','TZ',
 'MR','LS','SN','UG','BJ','SD','TG','HT','AF','DJ','CI','CM','MW','LR','ML',
 'GW','MZ','GN','BI','ER','SL','TD','CF','CD','NE','ET','RW','BF',
 'KP','MH','MC','NR','SM','SO','SS','TV','AI','AN','FK','FO','GG','GI',
 'IM','JE','MS','NC','PF','PR','SH','SU','TF','TW','VA','VG','XK',
 'YT','YU','GL','WF','BM','AW','KY'

= 'EXT_EU28' /* 2.National of a non-EU28 country */
 'BE','BG','CZ','DK','DE','EE','IE','EL','GR','ES','FR',
 'HR','IT','CY','LV','LT','LU','HU','MT','NL','AT','PL','PT','RO',
 'SI','SK','FI','SE','UK',
 'NO','AU','CH','US','NZ','CA','SG','IS','HK','KR','JP',
 'LI','IL','BN','QA','SA','AD','AE','CL','BH','CU','KW','AR',
 'UY','BS','ME','BY','LY','OM','RU','BB','PW','AG','MY','MU','TT','LB','PA',
 'VE','CR','TR','KZ','MX','SC','KN','LK','IR','AZ','JO','RS','BR','GE','GD',
 'PE','UA','BZ','MK','BA','AM','FJ','TH','TN','CN','VC','DZ','DM','AL',
 'JM','LC','CO','EC','SR','TO','DO','JM','CS',
 'MV','MN','TM','WS','PS','ID','BW','EG','PY','GA','MD','UZ','PH',
 'ZA','SY','IQ','VN','CV','FM','GT','KG','NA','TL','HN','MA','VA','NI','KI','TJ','IN',
 'BT','KH','GH','LA','CG','BD','ST','GQ','BO','SV','ZM','GY',
 'NP','PK','KE','SZ','AO','MM','CM','NG','YE','MG','ZW','PG','SB','KM','TZ',
 'MR','LS','SN','UG','BJ','SD','TG','HT','AF','DJ','CI','CM','MW','LR','ML',
 'GW','MZ','GN','BI','ER','SL','TD','CF','CD','NE','ET','RW','BF',
 'KP','MH','MC','NR','SM','SO','SS','TV','AI','AN','FK','FO','GG','GI',
 'IM','JE','MS','NC','PF','PR','SH','SU','TF','TW','VA','VG','XK',

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'YT','YU','GL','WF','BM'
= 'FOR' /* 4. National of a foreign country */
'05','06','07','08','09','10','11','12','13','14','98'
= 'UNK' /* 3. National of un unknown country */
other = 'OTH' /* invalid */

value $DEGURBA (multilabel notsorted)
/* DEG_URB.dic :: 918 */
'1' = 'DEG1' /* 1. Densely populated */
'2' = 'DEG2' /* 2. Intermediate area */
'3' = 'DEG3' /* 3. Thinly populated */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $YEARESID (multilabel notsorted)
/* DURATION.dic :: 156 */
'00' = 'Y_LT1' /* Born in this country */
'01'-'05' = 'Y1-5' /* 1-5 years */
'06'-'09' = 'Y6-9' /* 6-9 years */
'01'-'09' = 'Y1-9' /* 1-9 years */
'10'-'99' = 'Y_GE10' /* 10 years or more */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $HATLEV1D (multilabel notsorted)
/* ISCED11.dic :: 929 */
'L' = 'ED0-2' /* 1. Low */
'M' = 'ED3_4' /* 2. Medium */
'H' = 'ED5-8' /* 3. High */
'.' = 'NRP' /* No answer */
'9' = 'NAP' /* Not applicable */
other = 'OTH' /* invalid */

value $SILOSTAT (multilabel notsorted)
/* WSTATUS.dic :: 966 */
'1' = 'EMP' /* 1.Employed */
'2' = 'UNE' /* 2.Unemployed */
'3' = 'INAC' /* 3.Inactive */
'4' = 'ARM' /* 4.Conscript */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */
;

value $FTPT (multilabel notsorted)
/* WORKTIME.dic :: 926 */
'1' = 'FT' /* 1.Full-time job */
'2' = 'PT' /* 2.Part-time job */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* No answer */
;

value $TEMP (multilabel notsorted)
/* TYPE_CON.dic :: 1079 */
'1' = 'PERM' /* 1.Permanent job */
'2' = 'TEMP' /* 2.Temporary job */
'.' = 'NRP' /* No answer */
'9' = 'NAP' /* Not applicable */
other = 'OTH' /* invalid */
;

value $ISCO1D (multilabel notsorted)
/* ISCO08.dic :: 971.1 */
'000' = 'OC0' /* Armed forces */
'100' = 'OC1' /* Legislators senior officials and managers */
'200' = 'OC2' /* Professionals */
'300' = 'OC3' /* Technicians and associate professionals */
'400' = 'OC4' /* Clerks */
'500' = 'OC5' /* Service workers and shop and market sales workers */
'600' = 'OC6' /* Skilled agricultural and fishery workers */
'700' = 'OC7' /* Craft and related trades workers */
'800' = 'OC8' /* Plant and machine operators and assemblers */
'900' = 'OC9' /* Elementary occupations */
'999' = 'NAP' /* Not applicable */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $STAPRO (multilabel notsorted)
/* WSTATUS.dic :: 1038 */
'1','2' = 'SELF' /* 1. Self-employed */
'3' = 'SAL' /* 2. Employee */
'4' = 'CFAM' /* 3. Family worker */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $ATYPICAL (multilabel notsorted)
/* WORKTIME.dic :: 926 */
'1' = 'ATYP' /* 1. Atypical work schedule (e.g. shift, evening, night, weekend) */
'2' = 'NORM' /* 2. Normal work schedule */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $AHM2014_COBPARENT (multilabel notsorted)
/* C_BTHPAR.dic :: 3272 */
'0' = 'EU28' /* 1. EU28 */
'1', '2' = 'NEU_HDI_VH' /* 2a. non-EU28 very high HDI */
'1', '2' = 'NEU_HDI_H' /* 2b. non-EU28 high HDI */
'3' = 'NEU_HDI_M' /* 2c. non-EU28 medium HDI */
'4' = 'NEU_HDI_L' /* 2d. non-EU28 low HDI */
'5' = 'NEU_NHD' /* 2e. non-EU28 not ranked HDI */
'1','5' = 'EXT_EU28' /* 2. non-EU28 */
'6' = 'UNK' /* 3. Both parents with unknown country codes */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */
value $AHM2014_SECONDDGEN (multilabel notsorted)
/* MGSTATUS.dic :: 3271 */
'0' = 'NBO_NAT' /* 1a.Native-born with native background */
'1' = 'NBO_MIX' /* 1b.Native-born with mix background */
'2' = 'NBO_FOR' /* 1c.Native-born with foreign background */
'3' = 'FBO' /* 2.Foreign born (1st generation) */
'4' = 'UNK' /* Unknown country of birth */
'0','1','2' = 'NBO' /* 1.Native born */
'1','2' = 'NBO_MIX_FOR' /* 3.Second generation of immigrants */
'1','2','3' = 'NBO_XNAT_FBO' /* 4.First and second generations of immigrants */
'.' = 'NRP' /* No answer */
other = 'NRP' /* No answer */
;

value $AHM2014_PARHAT (multilabel notsorted)
/* ISCED11F.dic :: 3262 */
'1' = 'ED0-2' /* 1.Low */
'2' = 'ED3_4' /* 2.Medium */
'3' = 'ED5-8' /* 3.High */
'.' = 'NRP' /* Unknown */
'9' = 'NAP' /* Not applicable */
other = 'OTH' /* invalid */
;

value $AHM2014_MIGREAS (multilabel notsorted)
/* REASON.dic :: 3264 */
'1' = 'WRK_JOB' /* 1.Employment and found job before migrating */
'2' = 'WRK_NJOB' /* 2.Employment but no job found before migrating */
'3' = 'FAM' /* 3.Family reasons */
'4' = 'EDUC' /* 4.Study */
'5' = 'IPRO_ASY' /* 5.International protection or asylum */
'6' = 'OTH' /* 6.Other */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* Unknown */
other = 'UNK' /* invalid */
;
value $AHM2014_LANGHOST (multilabel notsorted)
/* LEV_KNOW.dic :: 3268 */
'1' = 'MOT' /* 1.Language is mother tongue */
'2' = 'PROF' /* 2.Advanced */
'3' = 'MOD' /* 3.Intermediate */
'4' = 'BASIC' /* 4.Beginner or less skills */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* Unknown */
other = 'UNK' /* invalid */
;

value $AHM2014_FINDMETH (multilabel notsorted)
/* SWMETHOD.dic :: 3270 */
'1' = 'STUDYADV' /* Advertisements via any channel */
'2' = 'REFRAC' /* Relatives friends or acquaintances */
'3' = 'PUBOFFICE' /* Public employment office */
'4' = 'PRIVOFFICE' /* Private employment agency */
'5' = 'EDUC' /* Education or training institution */
'6' = 'PERSEMPR' /* Contacted employer directly */
'7' = 'EMPRPERS' /* Employer contacted person directly */
'8' = 'OTHER' /* Other method */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* Unknown */
other = 'UNK' /* invalid */
;

value $AHM2014_JOBOBST1_ (multilabel notsorted)
/* BARRIER.dic :: 3266 */
'1' = 'LANG' /* 1.Lack of language skills in host country language(s) */
'2' = 'QUAL' /* 2.Lack of recognition of qualifications obtained abroad */
'3' = 'PERM' /* 3.Restricted right to work because of citizenship or residence permission */
'4' = 'ORELSOC' /* 4.Origin religion or social background */
'5' = 'OTHER' /* 5.Other obstacle */
'6' = 'NO' /* 6.No particular obstacle */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* Unknown */
other = 'UNK' /* invalid */
;
value $origin5f /* EU27+EU28 2006+ */
/* USED INTERNALLY ONLY - NO EUROBASE DICTIONARY REQUIRED */
  ' ' = 'NOANSWER'
  '00' = 'REPORTCY'
  '01' = 'RPCYEX28'
  '99' = 'NOTAPPLI'

value $origin4f /* EU15 1995-2005 */
/* USED INTERNALLY ONLY - NO EUROBASE DICTIONARY REQUIRED */
  ' ' = 'NOANSWER'
  '00' = 'REPORTCY'
  '01' = 'RPCYEX28'
  '99' = 'NOTAPPLI'

value $GEO_INDIV (multilabel notsorted)
/* USED BY H1.3 + H1.4 */
'NOANSWER','.' = 'NRP'
'REPORTCY','RPCYEX28' = 'NAT'
'NOTAPPLI' = 'NAP'
'05','06','08','09','10','11','12','13','14','98' = 'UNK'

value $DURUNE (multilabel notsorted)
/* DURATION.dic :: 919 */
'0'-'4' = 'Y_LT1' /* 1.less then 12 months */
'5'-'8' = 'Y_GE1' /* 2.one year or more */
'9' = 'NAP' /* Not applicable */
'.' = 'NRP' /* No answer */
other = 'OTH' /* invalid */

value $AHM2014_OVERQUAL (multilabel notsorted)
/* YES_NO.dic :: 3265 */
'1' = 'YES_OQ' /* Yes */
'2' = 'NO_OQ' /* No */
'9' = 'NAP' /* Not applicable */
Annexes

.' = 'NRP' /* Unknown */
;

run;

Annex 2: Tables proposed for Eurobase

Immigrants and their descendants (lfso_14pop)
- Population by sex, age, migration status and citizenship (lfso_14pciti)
- Population by sex, age, migration status and country of birth (lfso_14pcob)
- Population by sex, age, migration status, country of birth and country of birth of parents (lfso_14pcobp)
- Population by sex, age, migration status and degree of urbanisation (lfso_14purb)
- Ranking of country of birth of first generation of immigrants by sex and age (lfso_14pcobrk)
- Ranking of citizenship by sex, age and migration status (lfso_14pcitirk)

Background of immigrants and their descendants (lfso_14bck)
- Educational attainment level (ISCED11) distribution by sex, age, migration status and educational attainment level of parents (ISCED11F) (lfso_14beduc)
- First generation of immigrants by sex, citizenship, duration and reason for migration (lfso_14b1dr)
- Skills in host country language by migration status and citizenship (lfso_14blang)

Labour market situation of immigrants (lfso_14lmk)
- Labour status distribution of the population by sex, age, migration status and educational attainment level (lfso_14lel)
- Activity rate by sex, age, migration status, citizenship and educational attainment level (lfso_14lactr)
- Employment rate by sex, age, migration status, citizenship and educational attainment level (lfso_14lempr)
- Employment rate of first generation of immigrants by sex, age, duration and reason for migration (lfso_14l1empr)
- Unemployment rate by sex, age, migration status, citizenship and educational attainment level (lfso_14luner)
- Employment by migration status, professional status, type of contract and full/part time (lfso_14lemp)
- Methods to find current job by migration status, educational attainment level and type of contract (lfso_14leecm)
Employees by migration status, educational attainment level, occupation and working time (lfso_14leeow)

Self-declared over-qualified employees as percentage of the total employees by sex, age, migration status and educational attainment level (lfso_14loq)

Immigrants and their main obstacles in participating in labour market (lfso_14obs)

Obstacles getting suitable job by migration status, labour status and citizenship (%) (lfso_14ociti)

Obstacles getting suitable job by migration status, labour status and educational attainment level (%) (lfso_14oeduc)