



International
Labour
Organization

Add-on module on occupational qualifications and skills mismatches

LFS Integration guide (v1)

for PAPI and CAPI

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Add-on module objectives

The main objective of the module is to collect data about the formal qualifications (i.e. level of education and field of study), work experience and skills needed to carry out the tasks and duties of the respondent's main job/business and the respondent's own skills, by using a self-assessment approach. The data collected are needed to produce estimates of the number of employed persons who are mismatched by level of education, field of study and type of skills.

The module was developed to respond to countries' needs for qualification and skills related statistics, that would provide a better understanding of the skills supply and demand, and which they would use for policy formulation, and to assess and monitor the changes in the level of matching between supply and demand of skills. In addition to asking respondents if they perceived themselves as over-skilled or not, the module asks a series of questions that examine type and level of skills needed to carry out the tasks and duties of their main job as well as their own skills. It is important to note that the module does not use any testing for assessing an individual's skill level. Instead, it captures details about the importance and the level of skills needed to carry out the tasks and duties of the respondent's main job/business and the respondent's own skills, based on self-assessment.

In addition to estimating various form of mismatches, module results allow to determine the combination of qualification, work experience and skills that are needed for carrying out the tasks and responsibilities for each occupation or occupational group. Module results therefore could be used for developing and updating national classifications of occupations.

When included in a labour force survey (LFS), the module allows for collecting skills related data in a cost efficient way.

Policy relevance

By collecting information about qualifications, work experience and skills needed to carry out the tasks and duties of respondent's main job/business and the extent to which they correspond to respondent's own qualifications, work experience and skills, it is possible to identify skills surpluses and skills deficits.

A misalignment between the skills possessed by the workers and those required by their jobs signifies poor utilization of human capital and, if persistent, can result in high economic and social costs for workers, employers and society.

Measuring the extent to which the skills possessed correspond to the skills requirements is important to gauge its potential consequences on labour productivity, but also job satisfaction. In this context, it is crucial to identify both skill surpluses and skills deficits. As these mismatches can appear and disappear as both jobs and people change, it is important to monitor them over time.

The information gathered through the module, and its parent LFS, could help in the design, implementation and evaluation of industrial and employment policies related to skills development including vocational education and training as well as policies that address skill shortages and skill gaps, especially in industries, geographic areas and/or population groups of interest. For this purpose, the information captured in the module should be analysed with reference to certain

respondent characteristics such as sex, age, occupation, economic activity, status in employment, type of place of residence, etc. Similarly information provided by this module, could be used to adapt educational and training programmes and courses to tackle the issues observed.

Finally, the information, where collected periodically, will contribute to monitoring the progress towards SDG1 Goal 4: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all , and its target:

- SDG 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
- SDG 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

Variables and indicators covered

- Level of education needed
- Field of study needed
- Minimum length of work experience needed
- Length of work experience possessed
- Self-perceived matching of overall skills possessed
- Types of skills needed
- Importance of skills needed
- Level of skills needed
- Level of skills possessed
- Adequacy of soft skills possessed

Reference international statistical standards

Guidelines concerning measurement of qualifications and skills mismatches of persons in employment, adopted by the 20th ICLS, 2018. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_648557.pdf

International Standard Classification of Education (ISCED 2011)

<http://uis.unesco.org/en/topic/international-standard-classification-education-isced>

International Standard Classification of Education: Fields of Education and Training 2013 (ISCED-F 2013) <http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

More details about concepts and definitions are provided in the variables document (Variable derivation guide for ILO add-on module: OCCUPATIONAL QUALIFICATIONS AND SKILLS MISMATCHES).

History of use

Following the adoption of Guidelines concerning measurement of qualifications and skills mismatches of persons in employment by the 20th ICLS, 2018, the module was developed to

¹ <https://unstats.un.org/sdgs/indicators/indicators-list/>

operationalise the concepts and definitions contained therein and facilitate their implementation by providing a statistical tool for producing qualification and skills related statistics.

The methodology used in the module for estimating various forms of mismatches is based on employed persons' assessment of the level of education, field of study and level of skills needed possessed to carry out the tasks and duties that are typical of the respondent's job/business.

The development of the module built on the experiences of other international and national household based surveys with relevant questions regarding skills. A sample of these surveys is available in the ILO paper "Measurement of qualifications and skills mismatches of persons in employment", available at: www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_636052.pdf

The draft of the module was consulted with a group of experts from interested groups and organisations, members of the electronic discussion forum², that provided comments and suggestions for improving it. The module, or parts of it, is being tested in a number of countries. The ILO school-to-work transition survey also includes parts of this module.

Target population

All employed, as identified in the parent LFS.

Sampling considerations

The module should be addressed to all employed persons in the sample to ensure sufficient sample size to support disaggregation by sex, age group, level of education, occupation, economic activity, etc.

Recommended data collection period

Because the module is intended to be inserted into an existing LFS, it is advisable that the data collection period, sampling, response strategy and interviewing guidelines/trainings of the parent survey are followed. At aggregate level, it is not expected for the mismatch to have seasonal variation. However, in case the parent LFS survey is spread across the year, the data collection for the module should follow the same schedule.

Recommended periodicity

The module should be included in LFS, at regular intervals, every few years (e.g. once every three-five years, at a minimum), to monitor the trends in the levels of matching.

In case LFS is conducted less frequently, it is recommended to include the module every time the survey is conducted.

Respondent type

To ensure data quality, it is recommended to collect data only through interviews with direct respondents. Proxy respondents may not be knowledgeable about skills required by the job of

² <https://ilostat.atlassian.net/wiki/spaces/EDGMM/overview>

another household member, therefore reliance on their responses may impact the overall quality of the data collected.

In order to achieve a higher rate of completed direct interviews, the possibility of using follow up visit or telephone interviews should be envisaged.

Where proxy respondents are allowed, it is important to capture the nature of participation (direct/proxy), so that if needed, the data can be analyzed only for the direct respondents. The extent of potential bias in the results, resulting from inaccurate information provided by proxy respondents, will depend on the percentage of proxy answers obtained.

Mode of attachment to LFS

Ideally, the module should be administered at the same time as the core LFS, through personal interview of the respondents. Where this is not feasible, because of the length of the parent survey, or where respondents are not available at the time of the first visit, the interviews could be done during the follow-up visit, or where feasible by telephone. LFS data collection should not be affected by this process.

Recommended placement in LFS survey/interview

As the module is designed to collect information about the qualifications, work experience and skills required by the respondent's main job/business, the module should be placed immediately after the section covering *characteristics of main job (ILO LFS module MJJ: Characteristics of Main Job)*.³

To manage reporting burden, it is not recommended to apply the module to second jobs, even when information about characteristics of second job is collected.

Dependencies with parent LFS

The module is to be administered only to household members of working age who were employed during the reference week. Therefore, it is required to determine in advance which household members are employed.

In case of multiple job holdings, it should be determined which job is the main one.

In order to estimate the mismatch by level of education and by field of study, information about the highest level of education completed and the main field of study of the respondent is needed.

Required LFS variables

To apply the module, the following variables from the parent survey should be established:

- age,
- labour force status

³ Another alternative would be to insert it at the end of the parent survey for administration during a follow-up visit, where the data collection strategy involves multiple visits/contacts to the household within a single round. In the later case, before asking the module questions, the respondent should be provided with a summary of answers to the LFS questions about his/her main job (e.g. occupation, economic activity, etc.)

Special considerations for field operations, field training or supervision

Quality of field operations, field training or supervision play a vital role in determining data quality. Good training of interviewers and strict supervision of fieldwork will ensure that good quality data is collected.

Given the complex skip patterns used in the SKL section, for PAPI applications, interviewers should be trained on how to properly apply this section in particular.

Additional training should be provided on the range and levels of skills covered by the module as well as illustrative examples for each type of skill. The type of examples provided should be representative of the skill profile of all employed, including those in agriculture, informal economy, etc.

Even though some of the questions may be considered as sensitive, every effort should be made in the survey for respondents to provide their best guess and choose one of the response categories.

Other considerations

In case proxy respondents are allowed, “DON’T KNOW” answers should also be used as a response category. Because the proxy respondent may not be knowledgeable about the requirements on their family members’, the number of “DON’T KNOW” answers might be significant, in this case. It is not recommended to treat these responses as missing values, or exclude them from the analysis. “DON’T KNOW” answers are a valid response as they denote the uncertainty of the respondent in formulating the requested response. Clear rules are needed for the treatment of “DON’T KNOW”, missing values and empty cells due to skip pattern, in analysis.

Minimum recommended tabulations

Persons in employment (headcounts and rates):

- Matched by level of education, over and undereducated
- Matched/Mismatched by field of study
- Matched/Overskilled/Underskilled –overall skills, self-perceived
- Matched/Overskilled/Underskilled – technical skills
- Matched/Overskilled/Underskilled – literacy skills
- Matched/Overskilled/Underskilled – numeracy skills
- Matched/Overskilled/Underskilled – computer skills
- Matched/Overskilled/Underskilled – foreign language skills

All indicators should be disaggregated by sex, as a minimum. Additional disaggregations may include by age, branch of economic activity, occupation, status in employment, level of education, field of study, migration status, level of earnings, job tenure, etc.

The tabulation plan suggested here is meant to serve as an illustrative example. The actual set of tables that a given country may use will very much depend upon the needs, potentialities and constraints of the parent survey. The degree of disaggregation in any tabulation plan should be confined to reasonable limits in order to minimize the chances of high sampling errors.

When finalizing the tabulation plan, it is also advisable to take into consideration the survey goals, the feedback from the users, and the inputs from the interactions with the data itself.

Current status

Experimental.