Guidelines concerning measuring qualifications and skills mismatches
adopted by 20th ICLS, 2018

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Outline

- Background
- ICLS Guidelines
- Current activities
- LFS skills module
Background

Rapid changes in labour markets, globalization, climate change, labour migration, technological change and demographic change

Skill development and skill utilisation issue of particular policy concern

Importance and implications for economic and social development emphasized in SDGs on education and employment

ILO Global Commission on THE FUTURE OF WORK

19th ICLS resolution (2013)
Insufficient labour absorption

INSUFFICIENT labour absorption
- Unemployed
- Time-related underemployed
- Potential labour force

Labour underutilization
(unmet need for employment or insufficient labour absorption)
Insufficient labour absorption and 
Inadequate labour absorption

**Labour underutilization**
(unmet need for employment or insufficient labour absorption)

**Working age population**
- Labour force
  - Employed
  - Unemployed
    - Time-related underemployed
  - Potential labour force
    - seeking, not available
    - available, not seeking
    - want, not seeking, available

**Outside the labour force**
- Others outside labour force, do not want employment
- Others outside labour force, do not want employment

**INSUFIJCIENT labour absorption**
- Unemployed
- Time-related underemployed
- Potential labour force

**INADEQUATE labour absorption**
- Skill mismatched
- Qualification mismatched
- Empl. with low earnings
- Empl. with excessive hours
- ...
Reasons for measuring qualification and skill mismatches?

Qualification and skills have a large impact on individuals’ labour market outcomes

• Signifies poor utilization of human capital

• If persistent - Negative consequences and potential cost:
  ❖ For workers (for overeducated/overskilled) - lower wages, lower job satisfaction, loss of motivation, higher on-the-job search, unrealized expectations, lower returns on investment in education, higher the risk of being out of employment (for undereducated/underskilled),
  ❖ For employers - lost productivity, increased absenteeism, higher turnover, lower growth, less innovation
  ❖ For society - wasted education costs, higher unemployment benefits, lost income tax revenues

• Total cost depends on (i) the number of mismatched individuals (ii) the type and severity of mismatches (not all types of mismatches are costly nor undesirable)
Guidelines, adopted by 20th ICLS, 2018*

- Builds on existing standards (employment, education)
- Incorporates good practice (national and international)
- Recommends that different types of mismatches are measured for different purposes
- Facilitates adaptation to national priorities (level of education, field of study, skills)
- Promotes international comparability

Guidelines, adopted by 20th ICLS, 2018

- Objective and uses of statistics
- Definitions of qualifications and skills
- Concepts of mismatch
- Methods for measuring the qualifications and skills mismatches
- Analytical indicators
- Dissemination
Objectives of statistics on mismatches

a) to assess the extent to which the qualifications and skills of persons in employment correspond to the requirements by their jobs;
b) to identify qualification and skill deficits resulting from ongoing technical, structural and demographic changes in the economy;
c) to identify qualification and skill surpluses and workers whose skills and qualifications exceed those required by the job; and
d) to identify the causes and consequences of both qualification and skills mismatches (over- and under-)
Qualifications and Skills

**Qualifications**
- Formal Education
  - Level of education
  - Field of study
- Non-formal education, Informal learning

**Skills**
- Job-specific/technical skills
- Basic skills
- Transferable skills
Mismatch of persons in employment*

*Based on requirements of the main job (where relevant, on the basis of requirements of other jobs)
Qualification mismatch - Measurement

(a) Mismatch by level of education (based on level of education, occupation, relevance of different levels of education to each occupation or occupational group).

- **Normative approach** - educational requirements set for specific occupations or occupational groups
- **Statistical approach** - modal level of education of all persons in employment in an occupation or occupational group (or years of schooling)
- **Subjective approach** - based on person’s self-perceived match between his/her level of education and the level required by the job
  - *Intensity (severity) of mismatch may be estimated*

(b) Mismatch by field of study (based on field of study, occupation, relevance of different fields of study to each occupation or occupational group).

- **Normative approach**
- **Statistical approach**
- **Subjective approach**
Skill mismatch – Measurement

**Worker measures:** person’s self-perceived match between his/her level and/or type of skills and the skills required by the job.

*Is the job fit for the worker’s skills?*

**Employer measures:** employer’s assessment of skills possessed (and used on the job) against the skills required.

*Is the worker’s skills fit for the job?*

**Direct measures (assessment):** Level of proficiency of selected types of skills is assessed (e.g. literacy, numeracy and ICT tests)
Skill mismatch – Measurement

Mismatch of overall skills

Mismatch of specific types of skills
(a) Mismatch of job-specific/technical skills
(b) Mismatch of basic skills
(c) Mismatch of transferable skills
Headcounts and rates

- Overeducated/undereducated
- Mismatched by field of study
- Overskilled/underskilled by type of skills

Relationship between qualification and skills mismatches

- Overeducated/undereducated but matched/mismatched by type of skills
- Mismatched by field of study but matched/mismatched by type of skills
Impact of mismatch on unemployment, jobs satisfaction and earnings

Mismatched persons in employment who
• carried out activities to seek “better-matched job” (want to change their job)
• not satisfied with their job/match
• earning less/more than the average wage of their occupational, skills or qualifications peers
Persons in employment of special interest

• formal/informal sector
• employees
• public/private sector
• occupational groups that require higher levels of education or in which the matching is low or supply is short
• specific age cohorts (e.g. age 15-29, elderly, those entering employment in the preceding 5 years)
For effective qualification and skills policy interventions, statistics on qualification/skill mismatches should be collected and disseminated at regular intervals, wherever possible on an annual basis.

**Considerations for need for confidentiality and statistical significance**

**Indicators for those not in employment:**

- **Unemployed**: Unemployment rate by level of education; Duration of unemployment by level of education; Coefficient of variation between the distribution of unemployed and employed by level of education, Rate of unfilled vacancies by occupational group/level of education,

- **Outside the labour force**: Coefficient of variation between the distribution of OLF and employed by level of education
Current development

• Electronic Discussion Forum on mismatch measurement
• LFS module on mismatches
• Implementation guidelines and guidance for the analysis and presentation of data collected using the module
• Integrate the module in the ILO Model LFS questionnaires (https://ilo.org/LFSresources)
LFS module on mismatches

Purpose: collect information about qualifications, work experience and skills needed and the extent to which they correspond to respondent’s own qualifications, work experience and skills.

Age coverage: All household members of working age that are employed (main job/business)

Structure

❖ Formal qualifications (optional)
  • Level of education needed
  • Specific field of study needed

❖ Work experience/on-the-job-training (optional)
  ❖ Minimum length of work experience/on-the-job training needed
  • Length of work experience/on-the-job training possessed

❖ SKILLS
  • Skills possessed to carry out tasks and duties
  • Skills needed
  • Importance of various skills needed
  • Level of various skills needed
  • Level of various skills possessed
  • Adequacy of various skills possessed (transferable skills)
Matched by level of education, *2018 or latest year after 2006*

**Normative approach:**
- Thresholds - ISCO educational requirements by 1-digit ISCO code

Matched: 52%
Overeducated: 16%
Undereducated: 30%

**Statistical approach:**
- Thresholds - Modal level of education by 2-digit ISCO code

Matched: 50%
Overeducated: 28%
Undereducated: 22%
Thank you!