International Standard Classification of Occupations

1. Status of Implementation
2. The case for revision or update
   - See Room Document 1

International Standard Classification of Occupations 2008 (ISCO-08)

- Adopted (exceptionally) by a tripartite Meeting of Experts in 2007
- Endorsed by the ILO Governing Body in 2008:
  - For this reason it is known as ISCO-08
  - Structure and group definitions available on ILO Website since 2009
  - Volume 1 Published in English in 2012
- Many countries have updated or are currently updating their national occupation classifications to align with ISCO-08
  - Used in European Union collections from 2010 onwards
  - Structure available in all EU languages on request
Overview of ISCO-08

- Hierarchically structured classification comprising:
  - 10 major groups
  - 43 sub-major groups
  - 130 minor groups
  - 436 unit groups
- Occupations are organized into groups according to **skill level** and **skill specialization**:
  - Skill level is applied mainly at the top (major group) level of the classification.
  - Within each major group occupations are arranged into unit groups, minor groups and sub-major groups, primarily on the basis of aspects of skill specialization.

The main purposes of ISCO

To provide:
- A basis for the international reporting, comparison and exchange of statistical and administrative information about occupations
- A model for the development of national and regional classifications of occupations
- A system that can be used directly in countries that have not developed their own national classifications
Uses of occupation classifications at national and regional levels

**Occupation Classifications are used for:**
- Capturing and tabulating data from censuses, household surveys, employer surveys and other sources
  - Detailed observations about jobs are organized into meaningful and useful groups for analysis
- Administrative and policy-related activities such as:
  - Matching job seekers with job vacancies
  - Educational planning
  - Management of employment related international migration

**These activities may provide statistics classified by occupation on:**
- Employment numbers, wages, hours worked etc
- Job seekers and job vacancies
- Numbers of places and enrolments in training programmes
- Migrant and expatriate labour

Integrated occupational information systems

- Framework for provision of careers information
- Identification of skill shortages or oversupply
- A harmonised classification system is used for all purposes and in all data sources
- Provision of integrated information about pay, job prospects, working hours, nature of work performed, for use by policy makers, researchers, service providers, members of the public
  - US O*NET: http://online.onetcenter.org/
  - Australian Job Outlook: http://joboutlook.gov.au
  - (ESCO) Classification of European Skills/Competencies and Occupations
  - Occupational component is based on ISCO-08

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Thematic views of ISCO-08

• Have been proposed for the following groups
  • Agriculture
  • Construction
  • Education
  ✓ Health
  ➢ Information and communications technology
    ▪ Strong demand but more work needs to be done
  ➢ Tourism
    ▪ Joint work ILO/UNWTO
    ▪ Proposal from Canada (Room Document 12)
  ➢ Culture

Support for implementation
1 - Documentation

Publication and dissemination in book form and on web:

• Volume 1: Structure, group definitions, and correspondence tables
• Part 1: Introductory and Methodological notes
• Part 2: Classification structure
• Part 3: Group Definitions
• Part 4: Correspondence tables with ISCO-88
  ▪ English is published,
  ▪ French, Spanish, Russian are available but subject to editing
  ▪ Arabic version is being developed
• Volume 2: Index of occupational titles
• Map between real world terms used to describe jobs and ISCO-08 unit groups
• To be published in alphabetical and numerical order
• English and French versions are available for comment

Planned manual on adapting ISCO for national and regional use

• Resources have not been available to undertake this work but a considerable amount of information can be found in the Introductory and Methodological Notes
Support for implementation  
2 - Training and technical support

- Provision of training on a regional or sub-regional basis
- Provision of technical assistance and advice directly to countries
  - short visits to countries (ILO staff or consultants)
  - review of material and provision of advice
  - assistance in finding consultants or setting up collaboration with other countries
- Assistance with and review of correspondences between national classifications and ISCO-08
- Discussion forum hosted by Eurostat but open to all countries (registration required)
- ECLAC Working Group on International Classifications (GTCI) discussion forum

Need to consider the case for a revision or update of ISCO-08

- Governing authority should consider at least every five years, a review outlining the case for a revision, an update or no change to international reference classifications
- Comments and suggestions from experts are reflected in Room Document 1
- The Expert Group envisages two possible types of change to international classifications:
  - the revision
  - and the update

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Revision implies major changes that entail one or more of:

- Renumbering all or a substantial portion of the classification structure
- Restructuring and regrouping a substantial portion of the classification;
- New concepts for defining groups at one or more levels of the classification hierarchy

Update implies more limited changes:

- Addition or removal of a category at the most detailed level of the classification within the existing structure
- Realignment of the content of categories
  - an occupation moves from one unit group to another
- Multiple categories added or removed from the most detailed level
  - basic structure remains substantially unchanged

Issues that could only be addressed in a full review

Problems with the application of skill level as a classification criterion
- Breadth of Skill level 2
- Boundary between Skill Levels 2 and 3

Usefulness of ISCO for the measurement of skills mismatch/skills underutilization

- An internationally harmonized method for the measurement of skills mismatch remains a high priority
  - indicator of labour underutilization
  - analysis of problems of supply and demand of skilled labour
  - skills shortages
  - An Inherently difficult task
  - Any work to review or update ISCO-08, would need to consider these issues
Mapping of ISCO-08 major groups to skill levels

<table>
<thead>
<tr>
<th>ISCO-08 major groups</th>
<th>Skill Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Managers</td>
<td>3 + 4</td>
</tr>
<tr>
<td>2 - Professionals</td>
<td>4</td>
</tr>
<tr>
<td>3 - Technicians and associate professionals</td>
<td>3</td>
</tr>
<tr>
<td>4 - Clerical support workers</td>
<td></td>
</tr>
<tr>
<td>5 - Service and sales workers</td>
<td>2</td>
</tr>
<tr>
<td>6 - Skilled agricultural and fishery workers</td>
<td></td>
</tr>
<tr>
<td>7 - Craft and related trades workers</td>
<td></td>
</tr>
<tr>
<td>8 - Plant and machine operators, and assemblers</td>
<td></td>
</tr>
<tr>
<td>9 - Elementary occupations</td>
<td>1</td>
</tr>
<tr>
<td>0 - Armed forces occupations</td>
<td>1, 2 + 4</td>
</tr>
</tbody>
</table>

Breadth of Skill Level 2

The knowledge and skills required for competent performance in occupations at Skill Level 2 are generally obtained through:
- completion of the first stage of secondary education (ISCED-97 Level 2)

BUT

Some occupations require the completion of the second stage of secondary education (ISCED-97 Level 3)
- may include a significant component of specialized vocational education and on-the-job training

Some occupations require completion of vocation-specific education undertaken after completion of secondary education (ISCED-97 Level 4).
Breadth of Skill Level 2

- Distinction between occupations that require completion of extensive vocational education and training, and those that require a short period of training plus basic literacy and numeracy is not made systematically.

- Occupations that vary significantly in skill level but are similar in skill specialization, are frequently grouped together, sometimes at the most detailed level of the classification.

- Limits the usefulness of the classification for analysis and measurement of:
  - skill level requirements
  - skill mismatch
  - income as a return to education
  - educational planning
  - socio-economic status.

Boundary between Skill Levels 2 and 3

- Experts report problems with the boundary in skill level between:
  - more skilled technical occupations classified at Skill Level 2,
  - and occupations at Skill Level 3 included in Major Group 3, Technicians and Associate Professionals.

- Technological changes are leading to higher knowledge and skill requirements some of the more technical occupations in Major Group 7, Craft and Related Trades Workers:
  - vehicle and aircraft maintenance
  - electrical, electronics and telecommunications installation and maintenance

- Distinction between a technician and a repairer or mechanic is no longer clear cut.
Options to address problems with skill level as a classification criterion

- Move boundary between Skill levels 1 and 2 up
- Five (instead of four) skill levels at unit group level. This could be achieved by splitting the current Skill level 2 without changing the boundaries with other skill levels.
- Create five skill levels as described above but apply distinction primarily at major group level, so that data on skill level can be compiled from aggregate statistics.
- Move boundary between Skill Levels 2 and 3 so that the more highly skilled occupations within the current Skill Level 2 are classified at the new Skill Level 3.

Issues that could potentially be addressed in a minor update: health occupations

- Further breakdown for specialist medical practitioners, for example
  - General paediatricians
  - Obstetricians and gynaecologists
  - Psychiatrists
  - Medical group of specialists
  - Surgical group of specialists
  - Other specialists not elsewhere classified
- Oral and maxillofacial surgeons
- Medical technologists
Issues that could potentially be addressed in a minor update: other occupations

- Hospitality and retail managers
- Operators of small hospitality establishments
- Company secretaries and corporate governance specialists
- Information and communications technology specialists
- Additional unit groups for supervisory occupations especially in the services sector
- Subsistence Farmers, Fishers, Hunters and Gatherers
  - Removal of a sub-major group!
- Home improvements installers
- Vehicle accessory fitters
- Trades Assistants
- Armed Forces

Arguments for and against a short term update to address cases where there is a need to provide more detailed categories

Some experts and stakeholders believe a short-term update should be a priority

- Keeps ISCO up-to-date and relevant in a rapidly changing world of work
- More useful and acceptable in client-oriented applications
- Classification is more easily accepted and likely to be used by professional associations that are dissatisfied with current categories
- Small incremental changes may soften breaks in time-series introduced by a major revision

Others believe that an update would be premature at this stage

- Many countries are in the process of implementing ISCO-08 in national statistics
- Need for a more thorough evaluation of the classification before any changes are made
- Structural problems not addressed
- Implementation costs in national statistical and administrative systems
- Impact on international comparability of data for the same reference period, since all countries would not implement the updated version at the same time
- Opportunity cost for ILO
Options for future work

A minor update to completed in a period of 1 to 2 years

- Limit changes to the addition or deletion of categories at the unit group level, or movement of occupations from one unit group to another
- Would allow some but not all of the issues identified to be addressed
- Would require mandate from the 19th ICLS for the updated classification (effectively ISCO-08 version 2) to be adopted by a tripartite meeting of experts in 2015
- Consideration of a full review could deferred until the 20th ICLS

A wider review to be completed after the 20th ICLS

- More significant structural changes could be considered
- Application of skill level criterion could be addressed
- Work to evaluate ISCO-08 and further develop proposals for revision could continue in preparation for the 20th ICLS with a view to presenting one or more options for conclusion of the work

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