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International Standard Classification of Occupations

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

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International Standard Classification of Occupations 2008 (ISCO-08)

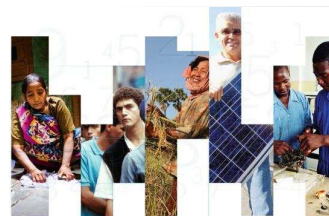


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- Adopted (exceptionally) by a tripartite Meeting of Experts in 2007
- Endorsed by the ILO Governing Body in 2008:
 - For this reason it is known as ISCO-08
 - Structure and group definitions available on ILO Website since 2009
 - Volume 1 Published 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

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Overview of ISCO-08



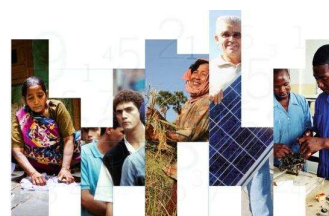
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- Hierarchically structured classification comprising:
 - 10 major groups
 - 43 sub-major groups
 - 130 minor groups
 - 436 unit groups
- Occupations are organized into groups according to **skill level** and **skill specialization**:
 - Skill level 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.

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The main purposes of ISCO



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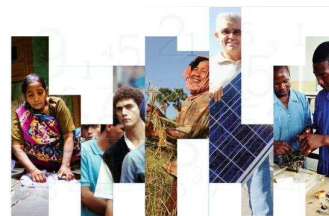
To provide:

- 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

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Uses of occupation classifications at national and regional levels



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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

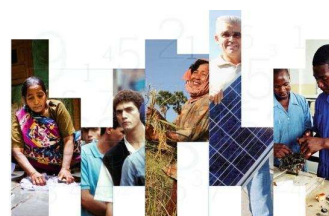
These activities may provide statistics classified by occupation on:

- Employment numbers, wages, hours worked etc
- Job seekers and job vacancies
- Numbers of places and enrolments in training programmes
- Migrant and expatriate labour

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Integrated occupational information systems



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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

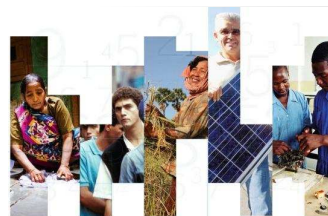


- Occupational component is based on ISCO-08

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Thematic views of ISCO-08



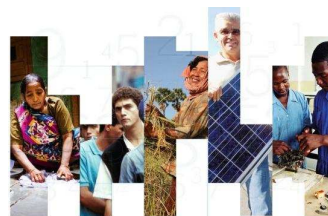
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- Have been proposed for the following groups
 - Agriculture
 - Construction
 - Education
 - ✓ Health
 - Information and communications technology
 - Strong demand but more work needs to be done
 - Tourism
 - Joint work ILO/UNWTO
 - Proposal from Canada (Room Document 12)
 - Culture
 - UNESCO Institute for Statistics (UIS) Expert Group on Cultural Employment Statistics

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Support for implementation 1 - Documentation



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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

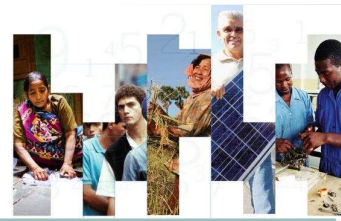
- Resources have not been available to undertake this work but a considerable amount of information can be found in the Introductory and Methodological Notes

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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

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



UN Expert Group on International Statistical Classifications

- *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*

Short paper circulated during 2013 to selected experts in occupation classification outlining known issues

- Comments and suggestions from experts are reflected in Room Document 1

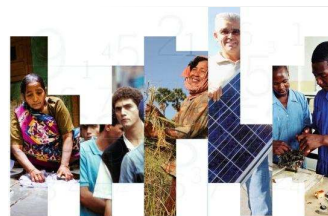
The Expert Group envisages two possible types of change to international classifications:

- the *revision*
- and the *update*

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Revision versus Update



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

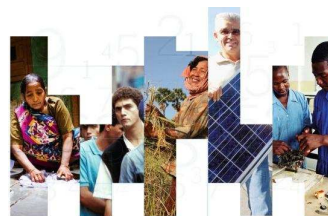
Update implies more limited changes:

- 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**

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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

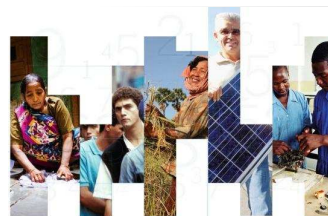
Usefulness of ISCO for the measurement of skills mismatch/skills underutilization

- 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

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Mapping of ISCO-08 major groups to skill levels



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

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Breadth of Skill Level 2



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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)

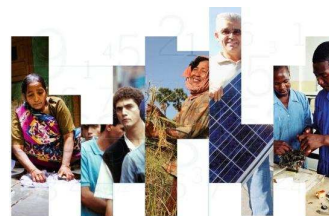
- may include a significant component of specialized vocational education and on-the-job training

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

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Breadth of Skill Level 2



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- 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.

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Boundary between Skill Levels 2 and 3



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- 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

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Options to address problems with skill level as a classification criterion



Move boundary between Skill levels 1 and 2 up

- Basic clerical support occupations, sales assistants, accessory installers and most plant and machine operators and drivers are classified at Skill Level 1
- Some of these occupations move to Major Group 9, Elementary Occupations.
- Major group 8 is associated with Skill Level 1 but the more skilled occupations move to Major group 7

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.

- Each unit group in Major Groups 4, 5, 6, 7 and 8 is associated with a single skill level
- These major groups each include occupations at two skill levels
- Current major and minor group structure can be retained

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

- More radical change to major group structure
- Mainly affects Major Groups 4 and 5

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.

- Some occupations that require extensive vocation-specific training after the completion of secondary education are classified at Skill Level 3.
- Some occupations move from Major Groups 7 and 4 to Major Group 3
- Could be combined with any of the above approaches

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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

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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

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

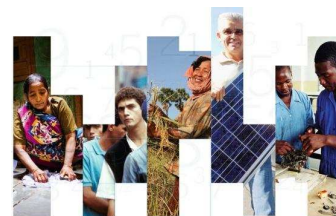
Some experts and stakeholders believe a short-term update should be a priority

- 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

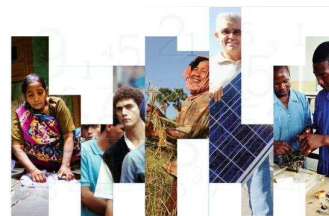
- Many countries are in the process of implementing ISCO-08 in national statistics
- Need for a more thorough evaluation of the classification before any changes are made
- Structural problems not addressed
- Implementation costs in national statistical and administrative systems
- Impact on international 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

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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 be 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