



# Options and possibilities for the future revision of the International Standard Classification of Occupations, 2008 (ISCO-08)

Meeting of the UN Expert Group on Statistical Classifications

New York, 6 – 8 September 2017

David Hunter, International Labour Office



# 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 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



# 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 were reported to ICLS and were summarised in the report to the EG in 2015

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

- the *revision*
- and the *update*



# 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**



# 19<sup>th</sup> ICLS Conclusions on revision of ISCO

- No consensus on the need for a short-term update
- Concern about the timing of a deeper revision in relation to the 2020 round of censuses.
  - Starting the preparatory work for a revision of ISCO-08 only after the 20th ICLS might mean that few countries would be able to implement the new classification until the 2030 round.
- It was suggested that a useful approach might be for the ILO to establish a technical group and/or a knowledge-sharing platform to reflect the lessons learned in the implementation of ISCO-08 in order to identify common issues and document the improvements needed.
- A more thoroughly considered set of options for revision could then be developed in advance of the 20th ICLS.



# 2015 Meeting of the Expert Group

- Issues around skill level were becoming problematic
- Several countries would be undertaking revision work on their national classifications in the coming few years
- Recommended that a technical working group be established to assist the ILO to determine an approach for the revision of ISCO and support the ILO with the work.
- Asked to be informed on progress at its next meeting
- ❖ ILO has not been in a position to establish a technical group or knowledge-sharing platform due to resource limitations



# 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 skill mismatch

- Internationally harmonized method for the measurement of skills mismatch is a high priority
- indicator of labour underutilization
- analysis of problems of supply and demand of skilled labour
- skills shortages
- 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

ISCO major groups	Skill level
1 Managers	3 + 4
2 Professionals	4
3 Technicians and Associate Professionals	3
4 Clerical Support Workers	2
5 Services and Sales Workers	
6 Skilled Agricultural, Forestry and Fishery Workers	
7 Craft and Related Trades Workers	
8 Plant and Machine Operators, and Assemblers	1
9 Elementary Occupations	
0 Armed Forces Occupations	1 + 2 + 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
  - Boundary between skill levels 1 and 2 may be too low
- Occupations that vary significantly in skill level but are similar in skill specialization, are frequently grouped together
- 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

- 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

- Some clerical occupations, sales assistants, accessory installers and most plant and machine operators and drivers move to Skill Level 1
- Major group 8 at Skill Level 1: more skilled occupations to Major group 7

5 skill levels at unit group level - splitting Skill level 2

- 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

5 skill levels mainly at major group level

- 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

- More highly skilled occupations within the current Skill Level 2 are classified at the new 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



## Moving the boundary between skill levels 1 and 2 (Option 1)

ISCO major groups	Skill level
1 Managers	3 + 4
2 Professionals	4
3 Technicians and Associate Professionals	3
4 Clerical Support Workers	2
5 Services and Sales Workers	
6 Skilled Agricultural, Forestry and Fishery Workers	
7 Craft and Related Trades Workers	
8 Plant and Machine Operators, and Assemblers	1
9 Elementary Occupations	1 + 2 + 4
0 Armed Forces Occupations	



# Potential ISCO-08 major groups and skill levels with application of five skill levels primarily at major group level (Option 3)

Revised ISCO major groups	Skill level
1 Managers	4 + 5
2 Professionals	5
3 Technicians and Associate Professionals	4
4 Craft and Related Trades Workers	
5 Skilled Agricultural, Forestry and Fishery Workers	3
6 Skilled Clerical, Services and Sales Workers	
7 Clerical, Services, and Sales Support Workers	
8 Plant and Machine Operators, and Assemblers	2
9 Elementary Occupations	1
0 Armed Forces Occupations	?



# Recent developments

- Further ILO work on the statistical measurement of mismatches between occupations and qualifications,
- Policy-driven initiatives concerning skills mismatch.
- Invitation to UNESCO, in the 2012 Shanghai Consensus on technical and vocational education and training (TVET), “to identify a set of world reference levels, to facilitate the international comparison and recognition of TVET qualifications”.
- Additional issues of detail have been identified as requiring resolution or further investigation



# Health occupations

- Further breakdown medical practitioners
- Oral and maxillofacial surgeons
- Medical technologists including radiographers
- Occupational therapists
- Prosthetists and orthotists
- Biomedical engineers
- Nurses and midwives
- Paramedical practitioners



# Possible revised Minor Group 221 – Medical Practitioners

2211 General Medical Practitioners

2212 Family Medical Practitioners

2213 General paediatricians

2214 Obstetricians and gynaecologists

2215 Psychiatrists

2216 Medical specialists

2217 Surgical specialists

2219 Other specialists not elsewhere classified





# Possible separate minor groups for medical technologists and therapists

## 226 Medical Technologists

2261 Radiographers and Radiotherapists

2262 Medical and Pathology Laboratory Technologists

2264 Optometrists and Ophthalmic Opticians

2266 Prosthetists and Orthotists

2269 Other Medical Technologists

## 227 Other Health Therapy Professionals

2271 Dentists

2272 Pharmacists

2273 Environmental and Occupational Health and Hygiene Professionals

2274 Physiotherapists

2275 Dieticians and Nutritionists

2276 Audiologists and Speech Therapists

2277 Occupational Therapists

2279 Other Health Therapy Professionals Not Elsewhere Classified



# Ongoing impact of ICT

- ICT specialists and technicians
  - Likely need to reorganize two sub-major groups
- Social media and on-line content
- E-commerce



## Other known Issues that could be addressed in a minor update

- Conservator-restorers
- Hospitality and retail managers
- Operators of small hospitality establishments
- Company secretaries and corporate governance specialists
- Financial and trade dealers and brokers
- More supervisory occupations
- Subsistence Farmers, Fishers, Hunters and Gatherers
  - Potential removal of a sub-major group!
- Home improvements installers
- Vehicle accessory fitters
- Trades Assistants
- Operators of small boats
- Armed Forces

Thank you