

International Standard Classification of Occupations, 2008 (ISCO-08)

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20th International Conference of Labour Statisticians
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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
 - Versions in French, Spanish and other languages are available
- 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
 - Used as the organizing framework for the occupations pillar of ESCO



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19th 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.
- 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.



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UN Expert Group on International Statistical Classifications - 2017

- Issues around skill level were a major concern
- Convergence of occupations in Major group 3 and Major Groups 2 and 7
- More general changes driven by technological change
- Recommended that the 20th ICLS endorse a full revision of ISCO
 - ✓ To enable implementation in time for 2030 round of censuses.
 - Expert group of specialists in occupation and classification would be essential
- Room document 19 provides comprehensive information on:
 - ❖ Issues that need to be addressed
 - ❖ Conceptual approaches that could be taken



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Problems with skill level

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



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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



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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

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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 leading to higher knowledge and skill requirements in some 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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Specific issues with definition and application of skill level in ISCO-08

- Convergence between occupations in Major Group 3, Technicians and Associate Professionals and Major Group 7, Craft and Related Trades Workers
- Convergence between occupations in Major Group 3, and Major Group 2 Professionals
- High internal skill level heterogeneity for many unit groups at Skill Level 2 and for some at Skill Level 3
- Inadequate recognition of skill obtained through experience, especially in relation to supervisory occupations and the operation of small businesses
- Experience is not identified as a possible requirement in itself,
 - potentially an additional requirement that could justify a higher skill level.
 - impact on the skill level placement of occupations fed through internal job ladders,
 - Supervisors may require years of experience in the jobs of those they supervise.
- General changes in skill levels across the major groups due mainly to technological change
 - Significant numbers of occupations may now be at the wrong skill level



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Options to address problems with skill level as a classification criterion presented to 19th ICLS

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



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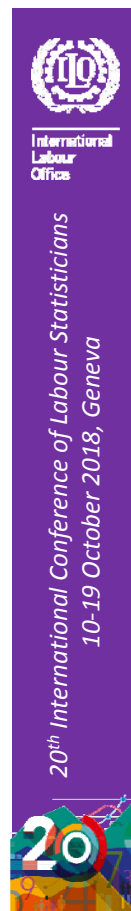
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Conclusions on skill level issues

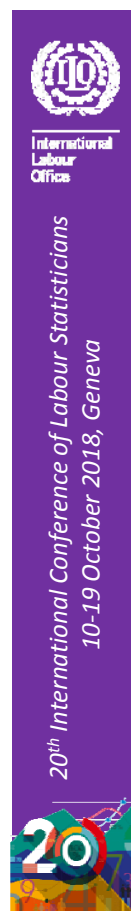
Need for comprehensive consideration of the concept of skill level and its use for the design of the classification

- Elements of the four options discussed at the 19th ICLS would need to be taken into consideration
- **none of the options proposed in 2013 would allow the full range of issues to be addressed**
- 5 skill levels is not recommended
- Boundary between skill levels 2 and 3 should be moved
- Better recognition of experience, on-the-job training, and extended periods of vocational education and training



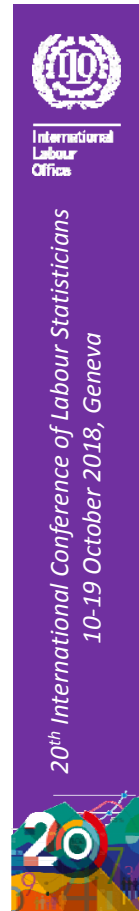
More general occupational change

- Driven by technological developments :
 - need for more detailed categories;
 - the treatment in ISCO-08 of a significant number of occupational groups is inadequate due to technological change
 - specific occupations are classified at an inappropriate skill level;
 - Convergence of some occupations
 - emergence of new occupations;
 - occupation descriptions need to be updated.



Specific occupational groups that need to be addressed

- Management, supervision and the operation of small businesses
- Supervisory occupations
- Subsistence farmers, fishers, hunters and gatherers
- Occupations in health services
- ICT specialists
- Home improvements installers
- Vehicle accessory fitters
- Trades assistants
- Armed forces



Health occupations: Issues that need to be considered

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

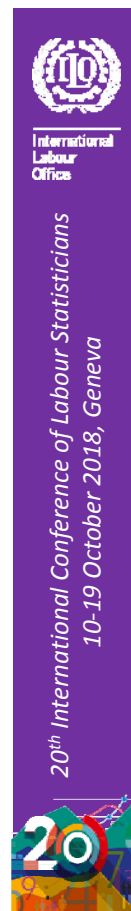


Ongoing impact of ICT

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

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Other known issues

- Conservator-restorers
- Company secretaries and corporate governance specialists
- Financial and trade dealers and brokers
- Subsistence Farmers, Fishers, Hunters and Gatherers
 - Potential removal of a sub-major group!
- Vehicle accessory fitters
- Delivery workers and mail carriers
- Operators of small boats
- Climate change and the green economy
- Armed Forces



Impact of the known problems

- ❖ Significant impact on the relevance of ISCO-08 for measurement and analysis of at least the following:
 - the supply of skilled workers and skill mismatch;
 - the health work force;
 - occupations related to ICT;
 - workers and skills in maintenance and repair of machinery.
- ❖ Significant consequences when national classifications based on ISCO are used in non-statistical applications:
 - matching job-seekers with job vacancies,
 - career guidance,
 - management of employment-related migration,
 - establishing rates of pay,
 - educational planning.
- classifications used for these purposes need to be aligned with the classification system used for statistical purposes as part of an integrated occupational information system.

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Overview of technical recommendations

- Review ISCO unit groups to address gaps and reduce internal skill level heterogeneity
- Review skill level placement of classes
- 4 skill levels should be maintained
- Adjust boundary between skill levels 2 and 3
- Redefinition of skill level
 - Experience
 - Post-hiring training
 - Extended vocational education and training
- Primacy of skill level over skill specialization
 - One skill level per major group
- Consistent identification of supervisors
- Review treatment of owner-operators of businesses



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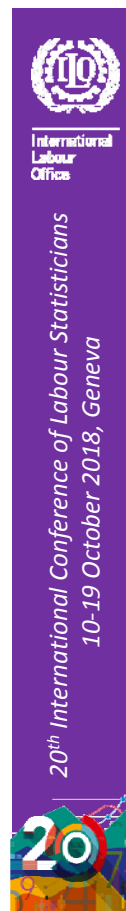
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Impact of delaying start of revision work

- If work not started until after the 21st ICLS in 2023, a revised ISCO may not be available until after 2028.
 - unsatisfactory for many users of ISCO
 - increasingly irrelevant for the production of meaningful occupational information.
 - unsatisfactory for the many professional associations ILO to request changes to ISCO and national classifications based on it.
- costs that would be entailed by a major revision,
 - time-series breaks,
 - investment in updating national data systems and classifications,
 - costs and time required for completion of a major revision.

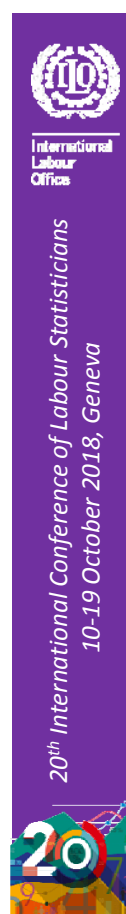
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Consultation with experts on occupations and classifications

- Strongly supportive of the need for revision of ISCO-08 to start as soon as possible
 - to be completed in time to allow implementation to coincide with the 2030 global round of censuses.
- Broad agreement with the recommendations on specific issues listed in the previous section.
- Stressed that work to revise ISCO should not be limited to the issues raised in the room document
 - broader conceptual framework for skills
 - provide a range of options for the aggregation and analysis of occupational data.
 - alternative classification hierarchies, as used in the Canadian NOC and in the proposed ICSE-18
 - other innovative approaches should be explored

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Conclusions

- Work on a full revision of ISCO should start as soon as practicable following the 20th ICLS
- Requires a working group made of experts on occupation and classifications
 - Should detailed consideration to each of the specific recommendations in room document 19 , but not be restricted to those recommendatoins
- Dedicated resources should be identified by the ILO and main partners
- Should be completed within a timeframe that would enable implementation time for the 2030 global round of censuses



Points for discussion

Participants in the Conference are invited to consider the issues identified in the room document regarding the case for the revision of ISCO and express their views as to:

- a) the need to start a revision of ISCO-08 through the establishment of a working group of experts on occupational classification
- b) possible ideas on the partnerships and the mobilization of resources that could facilitate achieving a full revision in order to allow implementation in time for the 2030 global round of population censuses;
- c) the conceptual approaches contained in the document that could be taken in the design of a revised ISCO.

