

21st

International
Conference of
Labour Statisticians

11-20 October 2023

Overview of the progress of work in revising ISCO-08 and major recent developments

Meeting of the United Nations Committee of Experts on International
Statistical Classifications New York, 24-27 October 2023

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► Overview of the progress of work on the ISCO-08 revision

The case to revise ISCO-08 at the 20th ICLS in 2018

- 20th ICLS: support and mandate to start the revision of ISCO-08, after the 20th ICLS, to be completed in time for the 2030 round of housing and population censuses

ISCO revision following the 20th ICLS

- Established the TWG in June 2021 and undertook several online meetings
- Evaluated the various known issues and recommendations of the 20th ICLS
- Identified additional issues and made proposals for improvements

Undertaking the revision of ISCO-08 following the 20th ICLS

Identified and evaluated a considerable number of issues in ISCO-08, from various sources



Progress of work: major skill related issues and aligning ISCO with recent statistical standards

► Progress of work on major issues in ISCO-08

Major concerns/issues identified by users regarding skill levels

- Breadth of Skill Level 2/ Boundary between Skill Levels 2 and 3
- Measurement and application of skill level as a classification criterion

Align ISCO with recent statistical standards

- The 19th and the 20th ICLS resolution I

Progress of work on major skill-related issues in ISCO-08

Breadth of Skill Level 2/ boundary between skill levels 2 and 3

The nature of the issue (s)

Skill Level 2: most problematic level, it incorporates a broad range of skill complexity

No systematic distinction between occupations requiring the completion of extensive, structured training/ VET and those requiring a short period of training

Problems with the boundary in skill level between the most skilled technical occupations of Major Group 7 and occupations of Major Group

The proposed approach (s)

- **Adjust the boundary** between Skill Levels 2 and 3 to reduce the breadth of Skill Level 2
- Moving ISCED-11 Level 4 *Post-secondary non-tertiary education* from Skill Level 2 to Skill Level 3

ISCO-08 Skill levels	ISCED-97 levels of education	Revised ISCO skill levels	ISCED-11 levels of education	Scope of change on ISCO skill levels
4	6 - Second stage of tertiary education) 5a - First stage of tertiary education, 1st degree (medium duration)	4	8 - Doctoral or equivalent 7 - Master's or equivalent 6 - Bachelor's or equivalent	Unchanged
3	5b - First stage of tertiary education (short or medium duration) ¹	3	5 - Short-cycle tertiary education 4 - Post-secondary non-tertiary education	ISCED level 4 Post-secondary non-tertiary education is moved from ISCO Skill Level 2 to Skill Level 3.
2	4 - Post-secondary non-tertiary education 3 - Upper secondary education 2 - Lower secondary education	2	3 - Upper secondary education 2 - Lower secondary education	
1	1 - Primary level of education	1	1 - Primary level of education 0 - Early childhood education	Unchanged

► Progress of work on major skill-related issues in ISCO-08

Measurement and application of skill level as a classification criterion

The nature of the issue (s)

- Dimensions, other than formal levels of education, are not identified as a possible requirement in themselves (such as experience, on-the job training)
 - Do not contribute to the placement of categories within the framework of ISCO
- Some dimensions were broadly described (no typical requirements or measurement guidelines were provided)
- Responsibilities were not defined at each skill level

The proposed approach (s)

- **Extend the measurement** of skill levels, reflects a more comprehensive approach (skill level framework) that extends beyond formal education.
 - the boundaries between skill levels would be based on sets of criteria or dimension, in addition to the level of formal education, such as responsibilities, experience, and other forms of training
 - Identified as a possible requirement in themselves
- Most criteria will be objectively defined and measured

The skill level framework Set of independent criteria, considered as a possible requirement in themselves

Dimension	Inclusion criteria for Skill level 1	Inclusion criteria for Skill level 2	Inclusion criteria for Skill level 3	Inclusion criteria for Skill level 4
Formal levels of education	Up to primary education	Lower secondary education or Upper secondary education	Post-secondary non-tertiary education or Short-cycle tertiary education	Bachelor's or Master's or Doctoral or equivalent level
<i>Typical requirements using ISCED-11 levels</i>	<i>Up to ISCED-11 level 1</i>	<i>ISCED-11 level 2 or level 3</i>	<i>ISCED-11 level 4 or level 5</i>	<i>ISCED-11 level 6 or level 7 or level 8</i>
Responsibilities	No responsibilities are involved (none)	Not a significant component of the work	Moderate component of the work	Significant component of the work
<i>Typical requirements</i>	<i>Not a requirement, most jobs are supervised by workers at other Skill levels. Occupations at this skill level require close and extensive guidance. They typically involve performing simple and routine tasks with minimal decision-making.</i>	<i>Relevant for some occupations when this involves carrying out the line or technical work with limited supervision of workers and/or overseeing of the day-to-day activities of a small business, but responsibilities are not a major component of the work. Occupations at this skill level typically involve a range of tasks that may require some degree of judgement.</i>	<i>Relevant for some occupations when this involves: -Supervision of staff when supervisors do not mainly perform the same tasks as the workers they supervise, or - Considerable safety responsibility Occupations at this level typically involve a variety of tasks that require independent decision-making.</i>	<i>Relevant for some occupations -when management of an enterprise or organization or a department within an organization with a hierarchy of managers is the major or significant component of the work. - or when occupations typically involve complex tasks that require advanced skills, knowledge, and significant decision-making.</i>
Experience	Little or no previous experience is required	Some previous relevant experience is required	Considerable previous relevant experience is required	Extensive previous relevant experience is required
<i>Typical requirements</i>	<i>Few days to a few months, when applicable</i>	<i>Less than 2 years in a related occupation, when applicable</i>	<i>Between 2 and less than 5 years in a related occupation from skill level 2, possibly in a related field, when applicable.</i>	<i>5 or more years in a related occupation from skill levels 3 or 4, often in a specialized field, when applicable</i>
Other training/learning dimensions (To be identified)	Ongoing discussion within the TWG (example: often not a requirement, but a short demonstration or a basic level training/ learning may be provided for some jobs classified at this level)	Ongoing discussion within the TWG (example: a moderate-term or initial levels of training/learning may be provided for some jobs classified at this level, in some cases leading to a certification, if any)	Ongoing discussion within the TWG (example: may involve long-term or advanced levels of specialized training/ learning provided after completion of secondary education, in some cases leading to a diploma, if any)	Ongoing discussion within the TWG (example: often not a requirement, but may involve some highly specialized or professional training/learning to develop expertise, when relevant)

Progress of work : Align ISCO with recent statistical standards

The 19th ICLS resolution I concerning statistics of work, employment and labour underutilization adopted five forms of work

Intended destination of production	for own final use		for use by others			
	Own-use production work	Employment (work for pay or profit)	Unpaid trainee work	Other work activities	Volunteer work	
Forms of work	of services	of goods			in market and non-market units	in households producing goods services
Relation to 2008 SNA	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Activities within the SNA production boundary </div> Activities inside the SNA General production boundary					

The 19th ICLS resolution I concerning statistics of work, employment and labour underutilization adopted an updated definition of the concept of job which was also used by the 20th ICLS Resolution I concerning statistics on work relationships

‘A job or work activity is defined as a set of tasks and duties performed, or meant to be performed, by one person for a single economic unit.

A *job* is defined in ISCO-08 as “a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self employment”.

- Restricts *employment* to any activity to produce goods and provide services for *pay or profit* and uses *work activity* to measure forms of work other than employment

► Progress of work : Align ISCO with recent statistical standards


Update definition of job and occupations

Extend the unit in ISCO

- Jobs and work activities
- ISCO can be used to code all forms of work, when needed
- Not maintain market orientation in any category in ISCO, as they is now established by the forms of work
 - discontinue SMG 63 Subsistence Farmers, Fishers, Hunters and Gatherers and merge with SMG 61/62 as relevant (many tasks in common) as such a distinction becomes irrelevant at the level of any specific group in ISCO (becomes not relevant to employment)

Approaches to other issues in ISCO-08

- Contributing to improving the measurement of mismatches (reducing breadth of SL2, introducing additional criteria in the measurement of skill levels, etc)
- Addressing a number of categories or occupation-specific issues
 - Specialist Medical practitioner (a separate category for Surgeons)
 - Biomedical engineer (a separate category)
 - Vehicle and mechanics and accessory fitters (a separate category)
 - Home improvement installers (a separate category)
 - etc




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► **Room document* : 18**

The International Standard Classification of Occupations (ISCO-08): Recent developments and revision



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100 years of ICLS

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▶ Conclusions related to the proposed approaches

- Not deviating from the approach used in ISCO-08, builds and capitalizes on ISCO-08
- Improve many areas and reflect many of the recommendations of the 20th ICLS
- Similar approaches (varying details) were used in recently updated NOCs or similar frameworks

The modernization of ISCO and future plans

► The modernization of ISCO

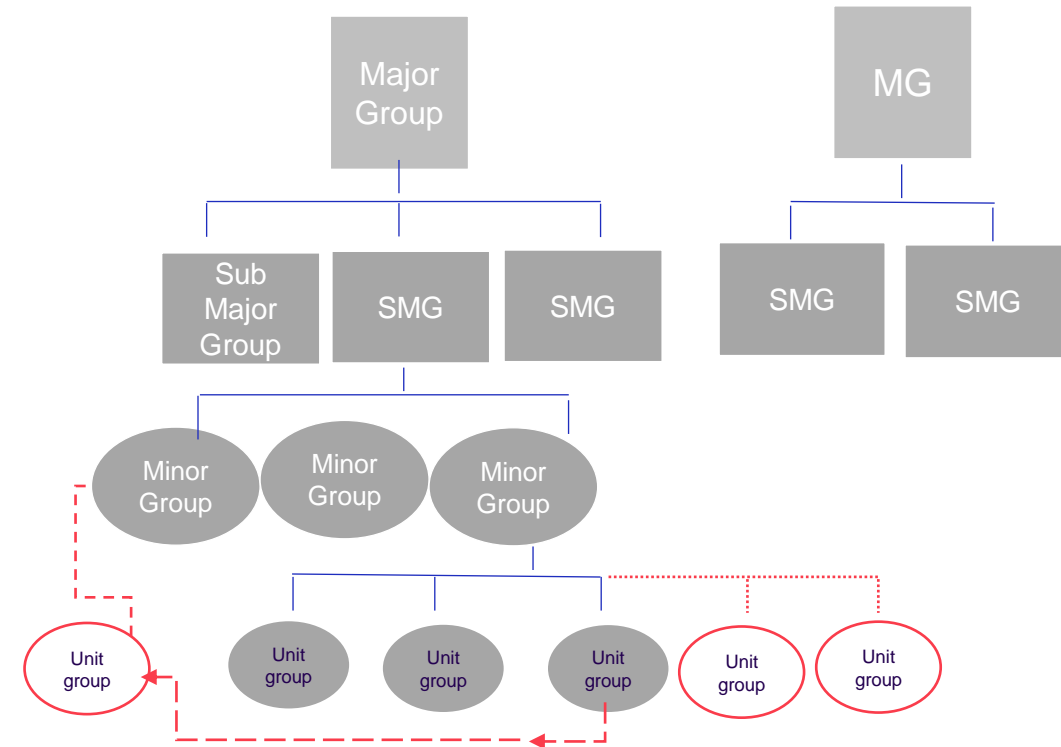
Objectives

- Approaches and activities to improve various aspects of ISCO, including:
 - Maintaining ISCO relevant between major revisions
 - Improving ISCO presentation and dissemination
 - Establishing a research agenda on the future of ISCO (resolve outstanding and non-priority issues, rethink critical aspects of ISCO, anticipate change to the ISCO conceptual approach, rethink the future of ISCO, etc)
- Long-term plans
 - Concrete work was undertaken by the TWG or the office

► Maintain ISCO relevant between major revisions

Periodic targeted ISCO updates or maintenance

- Non-structural changes
 - Will not alter the groups at aggregate levels, they remain stable until the next major revision (structural changes, revision of skills, conceptual approach, boundaries, etc)
- Focus on areas where changes are essential for the proper use of the classification:
 - Incorporating NEO
 - Guidance on how to treat these
 - Updating/ drafting related group descriptions
 - Updating the Index of occupational titles, etc



ISCO- XX V 1.0.0 Versioning protocol

ISCO code	ISCO Unit group title	Status	Type of change	Date of change
2120	Mathematicians, Actuaries and Statisticians	Existing		
212X	Data Scientist	New entry	New Unit Group	XXX

- Group description, guidance, etc
- Index
- Crosswalk with ISCO-08

► Maintain ISCO relevant between major revisions

Key requirements of the successful maintenance and targeted updates of ISCO

Periodicity and type of modifications



- Structured proposal for discussions at the 22nd ICLS (type and nature of change, modalities, considering country practices)

Governance arrangements



- Feedback mechanism
- Establish an advisory committee to co-chair & collaboratively undertake the task, decision-making and advice on areas of improvements in ISCO



Essential data sources to update ISCO

- In addition to current available sources
- Explore avenues of using new data sources and technologies



Versioning protocol of ISCO

- Clear and transparent understanding of the updates
- ILO constituents anticipate and plan for necessary modifications



Availability of resources

- Collaborations and partnerships

SIDE EVENT OCTOBER 18th

- PoC on the feasibility of updating ISCO by leveraging AI and new data sources from OJA



- Pilot tests for sustainable industry solutions: leveraging advanced AI technologies (ChatGPT and Azure ML Cloud)

► Annex 2

► Enhanced ISCO presentation and dissemination

- Categories in ISCO are organized on the basis of skill levels first, and then on skill specialization
 - E.g. agriculture related groups are not only in Major Group 6; health-related groups are found in several major groups, etc.

Proposal: Developing job families or thematic views

- Group together categories in a thematic view or job cluster/ family regardless of skill levels or their current organization in the framework of ISCO
 - Example: science, technology, engineering, and math (STEM) occupations, health occupations, tourism occupations, ICT occupations, agriculture occupations, etc
 - Demand on grouping together occupations on certain topics (policy needs, including planning and analysis, coding)
- Future work, but TWG needs proposals from users on the topics of interest and (methodological) proposals on grouping categories together

A group of people working in a rice field, ILO

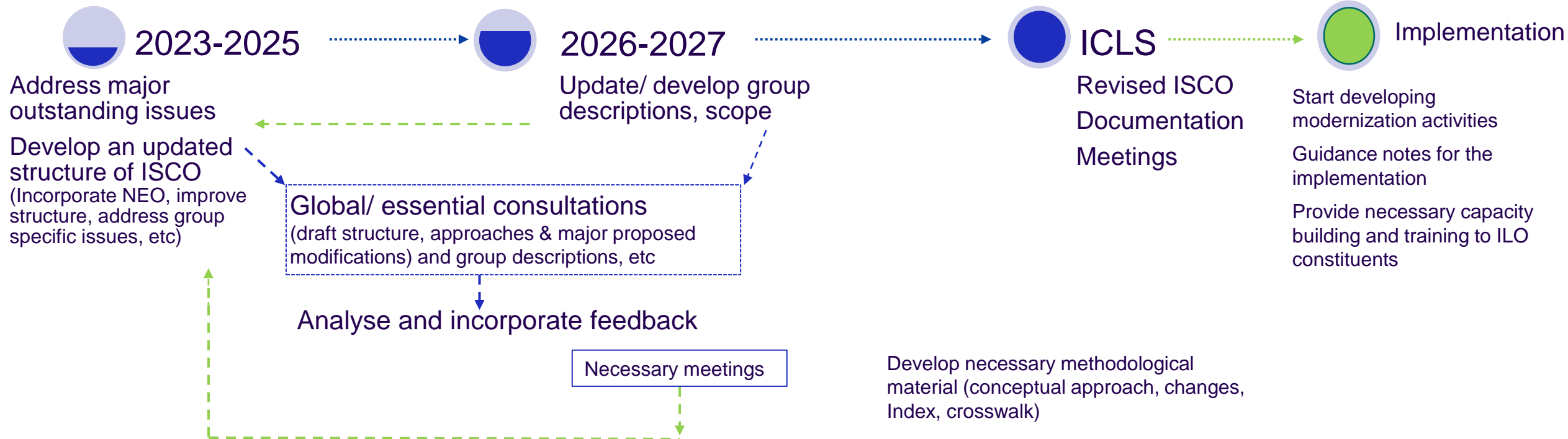


A person standing next to a herd of sheep, ILO




Key milestones and next steps on the ISCO revision

Technical Working Group Meetings (depending on the availability of resources: mixed mode: online + in person)



Discussions at the 21st ICLS (11-20 Oct 2023)

Strong support on the proposed approaches and interest to contribute to many proposed activities




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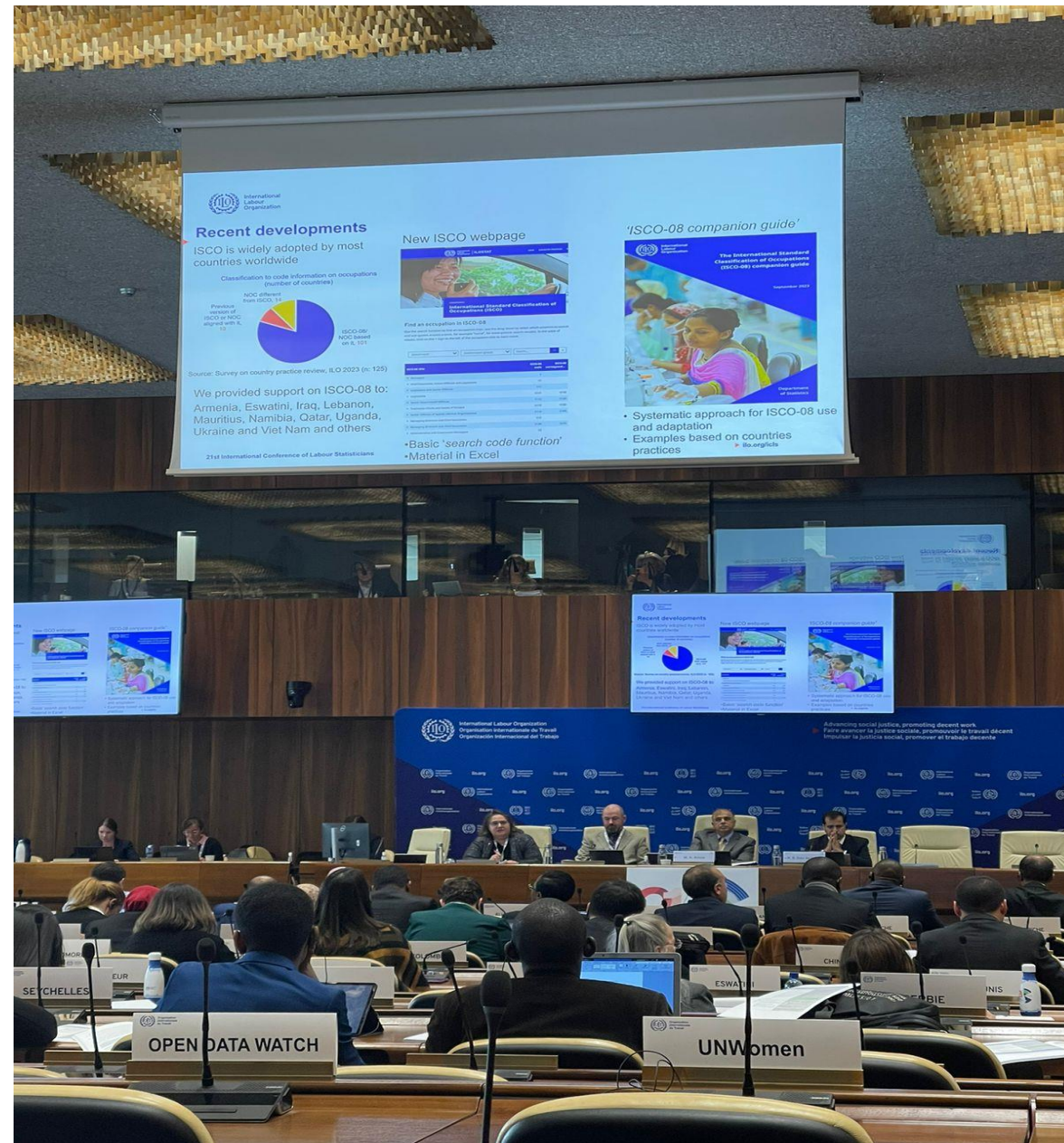
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The International Standard Classification of Occupations (ISCO-08): Recent developments and revision



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Major recent developments

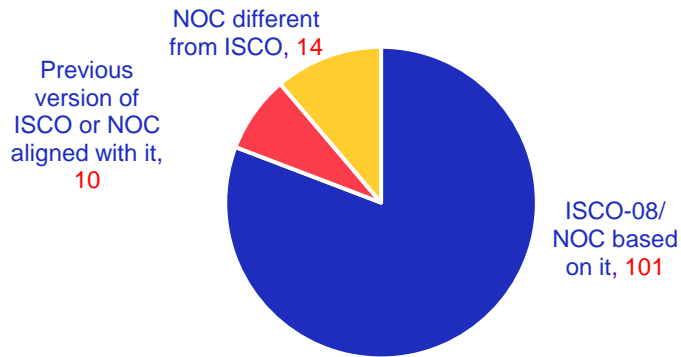
► Survey of country practice review (21st ICLS)

New ISCO webpage

‘ISCO-08 companion guide’

ISCO is widely adopted by most countries worldwide

Classification to code information on occupations (number of countries)



Source: Survey on country practice review, ILO 2023 (n: 125)



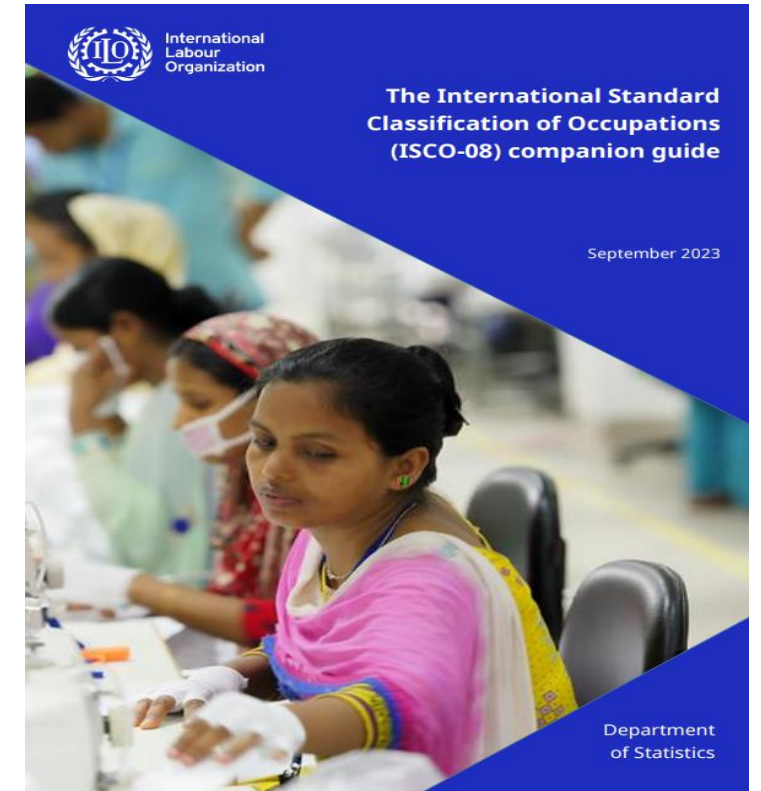
Find an occupation in ISCO-08

Use the search function to find an occupation (tips: use the drop-down to select which columns to search and use quotes around a term, for example "nurse", for more precise search results). In the table of results, click on the + sign to the left of the occupation title to learn more.

[Select level] [Select major group] Search...

ISCO-08 title	ISCO-08 code	ISCO-08 correspond...
+ Managers	1	
+ Chief Executives, Senior Officials and Legislators	11	
+ Legislators and Senior Officials	111	
+ Legislators	1111	1110
+ Senior Government Officials	1112	1120
+ Traditional Chiefs and Heads of Villages	1113	1130
+ Senior Officials of Special-Interest Organizations	1114	1143
+ Managing Directors and Chief Executives	112	
+ Managing Directors and Chief Executives	1120	1210
+ Administrative and Commercial Managers	12	

- Basic ‘search code function’
- Material in Excel



- Systematic approach for ISCO-08 use and adaptation
 - Examples based on countries practices
- ilo.org/icls

▶ **Thank you!**

