

The International Standard Classification of Occupations (ISCO) in the European Union¹

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The revision of the International Standard Classification of Occupations (ISCO) offers the European Union an opportunity to harmonize its employment statistics. Despite their efforts, however, Eurostat and EU Member States failed to define a satisfactory common position during the International Labor Office's 2004-2007 review. A new field of study is now opening up, with the aim of adopting the new version of the classification (ISCO-08) as a benchmark for the EU. The most promising approach is a judicious linkage between ISCO-08 and the EU's ESeC project.

The International Standard Classification of Occupations (ISCO) came into widespread use in the European Union (EU) in the 1990s (see article by Brousse) but has been adapted in various ways.

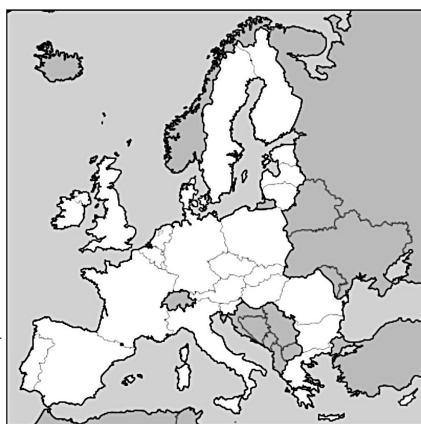
Its official EU adaptation, ISCO-88(COM), is being used by Eurostat, of course, but also by certain countries such as Finland and Sweden. Other countries use specific national versions. Two examples are Spain and Portugal.

The ISCO revision offered an opportunity to promote convergence among EU countries and to genuinely harmonize employment statistics—within a classification framework that Eurostat did not intend, this time, to adapt to EU practices.

The EU countries, not the Union itself, are members of the International Labor Office. Eurostat's role therefore consisted in initiating consultations between countries to reveal convergence in certain areas and encourage countries to take common positions.

General organization of the process

In December 2003, the 17th International Conference of Labor Statisticians (ICLS) called for an ISCO updating. The revised classification would meet the needs of the next world population-census round



European Union

planned for 2010. The ICLS decision came in response to a request from the United Nations Statistical Commission (UNSC) in March 2003. At the UNSC's 35th session, in March 2004, the ILO pledged to complete the updating by end-2007 in order to present the classification to the UNSC in March 2008.

The need for the updating arose from the significant changes in the world of labor since ISCO-88 was developed in the first half of the 1980s. One area requiring examination consisted of occupations in information and communication technologies (ICTs), as most of them were new and thus very poorly classified in ISCO-88.

Two other areas were also singled out for special attention:

- occupations in which women are a majority, for example by disaggregating the “secretaries” group

- informal-sector and self-consumption occupations such as production of goods for one's own household—activities often performed by women—and subsistence agriculture.

Another goal was to link the ISCO updating to that of the International Standard Industry Classification (ISIC: see articles on classifications of activities in this issue).

For this purpose, it was decided to depart from the standard revision procedure, whereby the classification must be adopted successively by an ICLS and by the Governing Body of the ILO. The next ICLS was scheduled for 2008, and the new version had to be ready by end-2007 in order to be used in the upcoming census round. The adoption of the new ISCO was therefore assigned to a tripartite meeting of labor-statistics experts representing governments, employees, and employers.

The 17th ICLS had recommended a limited updating, without challenging

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1. Originally published as “La classification internationale type des professions dans l'Union européenne,” *Courrier des statistiques* (French series), no. 125, Nov.-Dec. 2008, pp. 22-26, http://www.insee.fr/fr/ffc/docs_ffc/cs125e.pdf.

ISCO principles and concepts. Moreover, a major updating—such as the shift from ISCO-68 to ISCO-88—was a difficult proposition to contemplate for many countries using an ISCO-88 model.

Accordingly, no changes were planned at the higher level of the classification. Besides classifying new occupations, the updating would aim instead to merge, split, and reposition ISCO unit groups and rewrite certain descriptions.

The ILO Bureau of Statistics, which was masterminding the updating, had to engage in consultations both on the general concepts and on specific occupational groups on the basis of ICLS recommendations.

In particular, the ILO was tasked with surveying the national applications of the “skill level” criterion in countries that use it to classify occupations. Special attention would be paid to (1) the choice of titles, in order to minimize the risk of misinterpretation, and (2) “not elsewhere classified” (n.e.c.) categories, also called residual categories.

In sum, the updating would draw lessons from the experience gained from ISCO-88 implementation in many countries.

Indeed, successive versions of ISCO have served as classification “standards.” Application problems were often common to several countries. One example was the proliferation of parallel groups, which describe occupations that are similar but linked to a very diverse range of skill and education levels, according to specific national legislation. This profusion raised major data-comparability problems: some concepts such as “manager” were not even defined.

Lastly, the ISCO revision could offer the opportunity to minimize a weakness of the classification as an international standard: “occupation” in the English sense is closer to the concept of “job”

(French: *emploi*) than to the French concept of *profession* without being totally equivalent. ISCO defines these concepts (Box 2), but maintains an ambiguity about the entities that it organizes. In the French version, it theoretically classifies jobs (*emplois*), but actually does so by occupation (*profession*). For this purpose, ISCO contains a set of classification priority rules. When the tasks relating to a job concern more than one unit group, the job is classified in the category that represents the highest skill level. When the same skill level comprises several tasks, the job is classified in the unit group corresponding to the task that requires the largest share of working time. This arrangement, which is, theoretically, of narrow import, has major practical consequences for ISCO-based comparisons. For



Source: ILO

International Labor Office

example, it poses a problem for the establishment of the EU register of occupations, EurOccupations.² One of the project’s assumptions is that a classification in the same unit group for different countries *necessarily* implies unquestionable comparability between the *occupations* studied: the “same occupation” (*même métier*) should—owing to a confusion between job (“occupation”) and *métier*—imply comparable working conditions or pay.

We may, however, consider that ISCO-08—like its predecessor ISCO-88(COM)—classifies occupations *rather* than jobs. In this approach, the question is whether it is useful to have general categories of occupations, i.e., sets of jobs whose tasks are common to several occupational groups at

the same classification level, whereas their tasks are not very specialized and should therefore not be placed in residual categories.

A final measure envisaged in the updating was to set up groups for “professional civil servants,” whose occupations have no equivalents in the private sector.

Two successive questionnaires were sent at end-2004 and in mid-2006 to:

- national institutions concerned, including statistical institutes, labor ministries, and employment agencies (State-run exchanges)
- employers’ and employees’ organizations
- specific international organizations, such as OMS for health-related occupations and FAO for agriculture-related occupations.

Many trade associations had appealed directly to the ILO, asking that the occupations they represented should be classified separately in order to give them a higher profile and greater weight in the countries that will adopt ISCO.

The EU in the updating process

In the wake of the decision to update ISCO, Eurostat and the European national statistical institutes (NSIs) were strongly encouraged to supply a coordinated response to ILO. This approach paralleled the launch by the European Commission and Eurostat of a project to develop a European socio-economic classification (ESeC: see article by Brousse).

To facilitate Eurostat coordination and allow in-depth discussion, four regional meetings were held between June and December 2005. They covered ISCO updating, the ESeC project, and the links between the two. ILO representatives were invited.

Statistics Norway hosted representatives from the Baltic and

2. www.eurooccupations.org.

Scandinavian countries. Portugal's INE convened delegates from Belgium, France, Italy, and Spain,. The Greek NSSG invited colleagues from Cyprus, Germany, and Switzerland. Hungary's HCSO received statisticians from Bulgaria, the Czech Republic, Ireland, the Netherlands, Romania, Slovakia, and Slovenia. Participants were asked to focus their presentations on national positions regarding several questions in the questionnaire sent by the ILO to NSIs in December 2004.

The proceedings were summarized by Peter Elias and Margaret Birsh (Institute for Employment Research, University of Warwick), ISCO-updating consultants for Eurostat and

the number of employees. However, this simple criterion was not always viewed as capable of ensuring adequate comparability between the different types of "managers." The problem is that the links between the number of employees in the local unit or firm and the management structure are not always clear.

For the rapporteurs, the use of the number of employees in the local unit was not satisfactory. They suggested modifying the definition of the "managers and managers of small enterprises" to bring it closer to the notion of "owners of their own small enterprises." While such a shift would make the definition more status-determined, the rapporteurs believe that the specificity of the tasks performed by such managers, compared with those of a manager working in a large hierarchical structure, justify their separate classification.

Another important point discussed was the identification of "supervisor" occupations, as "supervision" is one of the main criteria used to construct ESeC classes. ISIC-68 frequently identified these occupations and classified them separately in a specific sub-major group. ISIC-88 did not preserve this distinction. According to the ILO Bureau of Statistics, the decision was due to two factors:

- data-collection problems: in most cases, a special question is required in order to identify supervisors
- information loss due to the classification in the same unit group of occupations requiring a very wide variety of technical skills.

One possible solution, adopted by some countries, is to identify "supervisors" thanks to an additional level of the classification, but the rapporteurs prefer the introduction of certain categories of "supervisors" in sectors where "supervision" is recognized as a specific set of tasks that constitute the majority of tasks within the job.

One of the main differences between ISCO-88 and ISCO-88(COM) is the



Eurostat, entrance to Bech Building, Luxembourg

introduction of a new minor group in the latter for "public[-]service administrative professionals." The rapporteurs noted a consensus in favor of retaining the category and promoting it in the updating. However, the available summary of NSIs' specific comments on this point do not clearly indicate such a conclusion. The ILO, for its part, came out against the inclusion of this specific category at minor-group level in the new ISCO; instead, the ILO proposed introducing a unit group of "administrative professionals" in a minor group of "business professionals"—a term whose translation into French is a challenging task. The rapporteurs endorsed the ILO proposal. They stipulated that the accompanying definitional notes should clarify that this group consists of those occupations which fall primarily (but not exclusively) within the public sector and for which a high-level education is a requirement.

Eurostat and the European Commission's Directorate-General for Research (DG-Research) strongly advocated the inclusion of categories specific to researchers. However, most EU Member States declined to accept the proposal. Few of them identify research occupations in their national classifications or wish to do so. France, which identifies researchers in the public sector only, took a distinct position.

The final issue raised was the classification of "wholesalers/retailers," which re-emerged as a critical point at the tripartite meeting. Their classification in major group 1 ("managers") may seem the most



FAO headquarters, Rome

promoters of the ESeC project. We reproduce the main conclusions of their abstract, published in *The Review of ISCO88: a European perspective*. The document emphasizes the common difficulties connected with managerial and supervisory occupations—"managers" and "foremen/women and supervisors"—and government occupations.

The NSIs that participated in the regional meetings consistently underlined the difficulty of classifying "managers" according to the number of other "managers" employed in the organization (criterion proposed by ILO for ISCO-88). ISCO-88(COM) suggested proxying the criterion by

logical answer, but it creates sizable heterogeneity in the major group. Spain adopted the solution in CNO-94, and the rapporteurs recommended it at the conclusion of these meetings.

A temporary failure

In theory, the meetings were an excellent initiative. While not forming an image of the world in miniature, the EU comprises countries with extremely diverse economic and social structures. The exchanges could foreshadow those that would take place during the adoption of the classification. They should, therefore, have interested the ILO as much as Eurostat.

The meetings might have devised, for example, a consensual solution among NSIs for the classification of wholesalers/retailers that would have satisfied the Netherlands (where most retail sales take place in large stores) as much as France or Spain (which have large networks of small retailers). The Europeans could have offered such a solution to the ILO, with a significant chance of adoption by the other States. The emergence of such a consensus at EU level might have allowed the ILO, at a relatively early phase of the process, to make relevant proposals. But the meetings ended in failure. Why?

First, holding the meetings by region generated a weakness: the occupational structures and tasks in the countries attending the meetings are often similar, so that some basic divergences did not emerge, despite the organizers' efforts. Perhaps, in order to succeed, the meetings should not have taken the form of consultations. Because of this format, the NSIs had no incentive to recognize the European dimension of certain issues. Ultimately, it was Eurostat alone that argued for *what the EU position should be*. This sent each State back to its national issues. By placing itself in the same position as the NSIs, Eurostat probably sacrificed its potential role as organizer of EU statistics and, paradoxically, the possibility that EU

consensus would emerge on various points.

Absent a classification well suited to the EU, the Union's NSIs and Eurostat must now work to ensure the convergence of coding procedures, so as to finally obtain a corpus of truly harmonized and usable data. It makes sense, therefore, that ISCO coding by the Member States should have been the topic of the first NSI meeting to assess the European Socio-economic Classification (ESeC) project—whose standard implementation should be based on ISCO, according to the recommendations. We lack an EU classification, but we could seek a common interpretation of the new ISCO.

Toward an EU interpretation of ISCO-08?

There are several standard alternatives to achieve convergence of EU-country codes in the new ISCO.

Creating an additional level in ISCO would make it possible to define specific categories without being obliged to describe all the occupations in extreme detail. This is the type of obstacle that revealed the limitations of ISCO-68, which identified more than 1,500 occupations. Many occupations, for instance, could be usefully defined with information on the activity sector. This could apply to management personnel, of course, but also to "non-managing managers" (such as road-traffic engineers) or even to "non-managers" such as secretaries. The distinction between public and private sectors, which ISCO does not apply, would become possible.

Another path to progress is the **enhancement and harmonization of the alphabetical index of occupations**. The standard ILO index, while available in English, French, and Spanish, cannot solve all coding issues. The identification and naming of occupations are rooted in very diverse sociolinguistic contexts that need to be taken into account. For example, totally different names can

Box 1: "Supervision" in Europe

According to the Warwick IER rapporteurs, Peter Elias and Margaret Birsh, a consensus emerged over the need to identify "supervisors" separately.

If we review the points raised by representatives of the Member States in the summary, we find that the situation is complex.

Some countries are unreservedly in favor (Bulgaria, Slovakia, and Spain, as well as Cyprus and Slovenia for certain specific areas). Others are equally in favor but raise major problems relating to data collection or identification via occupation descriptions (Czech Republic, Germany, and Hungary).

Some countries take no position and make no comments (Belgium, Finland, Latvia, Netherlands, Portugal, and Romania). Others, without pronouncing themselves on the fundamental issue, mention data-collection problems (Denmark, Estonia, Greece, Norway, and Sweden).

As regards classification, Italy and Lithuania prefer to include "supervisors" with persons "supervised." France notes that only certain jobs can be identified. Switzerland favors identification using an ancillary variable.

be used for the same job in the same language, but in different countries: a female kindergarten teacher is an *institutrice de maternelle* in France and a *jardinière d'enfants* in Switzerland.

The use of ancillary variables, to supplement individuals' self-descriptions, seems necessary to obtain relevant codings. They include tasks performed, occupational position, and education level.

A more interesting and original approach would be to conduct ESeC and ISCO-08 coding harmonization as part of a single conceptual process, since the construction of ESeC classes relies on ISCO coding and a few ancillary variables. Ideally, the key criteria of both classifications should be homogeneous.

The prospect of reallocating occupational unit groups makes it

possible to examine, for each group and on a country-by-country basis, the validity of the classification in terms of the employment relationship recommended in the ESeC theoretical framework. That is the subject, for example, of an article by Michael Tählin, which is critical of ESeC.³

Tählin's paradoxical conclusion is that the theoretical underpinning of the ESeC project—most notably, the concept of employment relationship—should be abandoned, but not necessarily the classes proposed by the project. Tählin suggests reinterpreting the classes in terms of education level,⁴ and to reassign certain “occupations x education” cross-tabulations to strengthen the classes. If that were done, the use of ISCO and ancillary variables would not be an artifact to proxy an evanescent theory of employment relationships.

The education criterion is not always easy to use, as national legislations may sometimes differ significantly. The employment relationship is far from being stabler in time and is even harder to quantify. Moreover, the “skill level”—a similar concept—is one of the explicit ISCO classification criteria. As the EU is a set of countries with more consistent standards of formal education and on-the-job training than ILO countries, one could try to express “skill levels” in the corresponding EU classifications.

This linkage between EU classifications is desirable in itself, but even more so in the context of the ESeC project, if it emerged that education could be a workable criterion for defining socio-economic classes.

Very generally, the prospect of reallocating occupations raises the question of determining what exactly we want to measure by reaggregating subsets into a socio-economic classification. As in all taxonomic problems, the goal is the initial question that should determine the theoretical choices. The choices may even be arbitrary, as long as they make sense. That is the meaning of Tählin's paradoxical conclusion: we should use ESeC classes while reviewing their theoretical framework *a posteriori* in order to redirect it toward the explanatory dimensions that we can and want to display.

We should therefore try to use the suggested classes in different spheres, so as to identify the social areas where they are interpretable and where they give meaning to an analysis. We can envisage other criteria than education, or even reconsider certain thresholds in the additional variables propose by ESeC. This integration of ESeC constraints into ISCO coding standards could also allow a coding of socio-economic classes from a higher level of the classification and using fewer additional variables, which would result in the use of these classes in a larger number of sources.

In particular, we could consider using the ESeC criteria of enterprise (or local-unit) size (currently 10 employees, but thresholds of 5 or 50 employees would be relevant as well), or even employees' statuses by assessing the corresponding variables contained in EU sources, in order to standardize choices between categories. The coding of occupations performed in

Box 2: Jobs, skills, tasks, duties, specializations, and occupations⁵

The resolution offers the following definitions:

- ISCO-08 classifies jobs; a job is defined as a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self[-]employment.
- An *occupation* is defined as a set of jobs whose main tasks and duties are characterized by a high degree of similarity. A person may be associated with an occupation through the main job currently held, a second job or a job previously held.
- Jobs are classified by occupation with respect to the type of work performed, or to be performed. The basic criteria used to define the system of major, sub-major, minor, and unit groups are the “skill level” and “skill specialization” required to competently perform the tasks and duties of the occupations.

a “craft” or “trade” context (self-employed mechanic, or butcher, whose distinctive status lies between employee and employer) might thus be settled at EU level and allow data harmonization. ■

3. M. Tählin, “Class Clues,” *European Sociological Review*, vol 23, no. 5, 2007.

4. In this context, not restricted to formal education, but extending to on-the-job training.

5. Excerpt from resolution adopted by ILO in December 2007.