**In English**

**1 Introduction SSYK 2012**

**1.1 Background**

The Swedish Standard Classification of Occupations 2012 (SSYK 2012) is a

system for classifying and aggregating data about occupations in

administrative registers or statistical surveys. An example of the use of

SSYK is to classify people by the work they do and, as regards employment

agency services, to classify job vacancies and job-seekers.

SSYK 2012 is an update of the previous classification of occupations SSYK

96, which it also replaces. SSYK 2012 is based on the International

Classification of Occupations 2008 (ISCO-08), which is an update of its

predecessor ISCO-88 and ISCO-88COM1 which in turn formed the basis of

SSYK 96.

**1.2 ISCO-08**

The structure of ISCO-08 was established in December 2007 at a meeting of

experts organised by the International Labour Organization (ILO) attended

by employer, employee and governmental representatives. The update has

been performed in accordance with the mandate adopted at the 17th

International Conference of Labour Statisticians (ICLS), arranged by the

ILO in 2003.

Globalisation of the labour market has increased the demand for

internationally comparable data about occupations for both statistical and

administrative purposes. ISCO-08 aims to meet this need by:

• providing an up-to-date and relevant basis for international reporting,

comparisons and exchange of information about occupations

• serving as a model for the development of national and regional

classifications of occupations

• being applicable to countries that are not developing their own national

classifications of occupations.

Much the same as ISCO-88, ISCO-08 is a hierarchical classification on four

levels; 436 *Unit groups* comprise the most detailed level, which can be

aggregated into 130 *Minor groups*, into 43 *Sub-major groups* and 10 *Major*

*groups*. The classification is based on similarities as regards skills and

specialisation. The changes made to the classification, despite being entitled

an ‘update’ and not a ‘revision’, are relatively substantial and affect many

categories. It has focused on clarifying ambiguities in the previous version

and on adding new occupations to the classification, which has also been

adapted to today’s labour market. This applies in particular to occupations

related to the environment, information and communication technology

(ICT) and jobs in the healthcare sector.

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1ISCO-88(COM) is the European Union’s version of ISCO-88

Some of the most important changes in brief are:

• *Major group 1 (Managers)* has been reorganised. The categories for

specialist managers have been redefined while new categories for e.g.

managers in the trade sector and in the hotel and restaurant business

have been added. The classification of managers into large/mediumsized

enterprises and into small enterprises has been removed as has the

strict classification by industry. Greater importance is instead attached

to the functional role of managers.

• In *Major group 2 (Professionals)*, the number of categories has increased,

which depends both on the fact that the occupations have been

upgraded and moved from *Major group 3*, and on the fact that new

occupations have been added. For example, all teachers, nurses,

physiotherapists, occupational therapists, opticians and musicians now

belong to this professional group. New occupations in ICT and the

environment have been added.

• *Major group 4 (Clerical support workers)* and *5 (Service and sales*

*workers),*both of which include occupations that in many countries are

dominated by women, have been given a more detailed level of

classification. Jobs in *Major group 8 (Plant and machine operators, and*

*assemblers)*, that are often dominated by men, have on the other hand

been allotted a less detailed level.

• New categories for *supervisors*. According to ISCO 88, supervisors are

reported together with subordinate staff, on the assumption that they

often participate in operative tasks. In ISCO 08, the fact that certain

supervisor jobs include entirely or partly different working tasks has

been considered. In order to differentiate these, separate occupational

groups have been created for supervisors in the mining industry,

manufacturing, building and construction, offices, retailing and hotels

and housekeeping. Other supervisors are, as previously, classified

together with subordinate staff.

ISCO-08 is not primarily intended as a replacement for existing national

classification systems. A standard classification of occupations should

preferably reflect the various jobs available on the labour market of the

country in question. A country that has a classification of occupations that

is closely associated with ISCO-08 in contexts and structure, will on the

other hand obtain statistics that are easier to compare internationally.

Many countries, including Sweden, have chosen to develop a new

classification of occupations based on ISCO-08, but there are also examples

of countries with classifications that have a different structure and apply

different basic principles. Such countries have instead devised a conversion

key to ISCO-08.

**1.3 EU regulations**

The European Commission recommends the Member States to use ISCO-08

in their reporting from all the surveys included in the European Statistics

System (EC No 824/2009) For the *Labour Force Survey* (LFS), *Survey on*

*Income and Living Conditions* (EU-SILC), *Structure of Earnings Survey* and

other surveys, there is a mandatory regulation (EC 1022/2009). International

statistics reporting is normally done on the two- or three-digit level.

**1.4 Revision work**

To facilitate the implementation of ISCO-08, the Statistical Office of the

European Communities, Eurostat, gave the Member States the option of

applying for financial support. In October 2009, Statistics Sweden was

granted funding to perform a pre-study on how Sweden could best

implement ISCO-08, whereupon a project group was formed. The project

was divided into several stages, the first of which involved translating the

structure and definitions in ISCO-08 into Swedish. The second stage was to

classify all occupational titles in Statistics Sweden’s Swedish index in

accordance with ISCO-08 and to create a conversion key between SSYK 96

and ISCO-08. In addition, two seminars were held with colleagues from the

national statistics offices in Norway and Finland. The project came to an

end in November 2010.

Parallel to this work, there was an ongoing dialogue with various users and

other stakeholders. In February 2010, an initial letter was sent out to

external users, asking them for their opinion on whether the SSYK should

be revised and if so, when? The responses gave a uniform picture; Much of

SSYK 96 was seen as obsolete, ISCO-08 reflected the current labour market

much better. The majority of users were also very keen to see a prompt

revision of SSYK, as national adjustments were seen to be necessary.

During the first six months of 2010, a report was compiled on the

consequences for Sweden of updating ISCO-88 (Statistics Sweden 2010).

This report, intended to serve as a basis for an update of SSYK, was also

sent to the relevant employer and employee organisations, agencies,

researchers and analysts.

In September 2010, Statistics Sweden and the Swedish Public Employment

Service launched a joint project to update SSYK. A joint project group and

steering group were set up. During the course of the project, a large

number of stakeholders have had the opportunity to submit comments and

proposals for improvement.

A first draft of a new structure was presented in May 2011. The draft

explained which considerations had been made and which requests could

not be met (Statistics Sweden 2011). Work on the structure, names of

categories, definitions, indices and conversions keys has continued up until

March 2012 after further contact with experts and stakeholders.

**1.5 National adjustments**

The objective of the SSYK update has been to create a classification of

occupations that reflects the Swedish occupational structure, while

attempting to satisfy the requirements for international reporting and

comparability as far as possible. So as not to lose the comparability with

ISCO, the aim has been to avoid moving occupational groups to another

skill level. Occupational categories primarily intended for developing

countries have been excluded. To ensure the classification is as close to

ISCO-08 as possible, the numerical series have followed the international

structure as far as possible. This means that occupational groups on the

three-digit level, empty as a result of Swedish adjustments, have been

deleted and constitute gaps, instead of the series being filled in.

ISCO-08, which forms the basis of the SSYK update, is primarily designed

so that it reports occupational statistics on an overarching level from

population censuses and labour force surveys. The Swedish version,

however, also currently covers:

• wage and salary structure statistics and other statistical studies

• classification of job vacancies and job seekers

• registration of occupational accidents, injuries or illnesses

• application for work permits in Sweden.

More applications like this also put various requirements on the

classification, which means that the end-result has to be a compromise

between different needs.

The Swedish adjustments are based on both experience gained from the

application of SSYK 96 and the comments received from various

stakeholders in connection with the revision work or on an earlier occasion.

The changes made to SSYK are warranted primarily for statistical reasons

(pay differentials, gender equality), better job matching and international

reporting requirements.

It has not been possible to satisfy all the requests received from various

stakeholders. There is little point in having a greater level of detail in the

classification, for example, if it is achieved at the expense of quality. The

working group has based these considerations on the following criteria:

• If it is not possible to create a clear distinction between different

occupations so that it is obvious how interviewers, employers and jobseekers

are to classify the occupation, the preconditions will not be in

place to create occupational statistics of acceptable quality.

• From a matching point of view, it is not relevant to create as many and

as detailed occupational categories as possible.

• An occupational group or an occupation performed by very few people

cannot be reported separately in Statistics Sweden’s sample surveys, e.g.

the labour force surveys or wage and salary structure statistics.

The adjustments to the Swedish labour market (in relation to ISCO-08)

mainly consist of:

• more categories of managers, including an additional breakdown into

two different levels of responsibility

• more categories in Sub-major group 21 (Occupations requiring an

advanced level of higher education in science and engineering)

• more categories in healthcare, mainly for nurses and for health and care

personnel in Major group 5 (Service, care and shop sales workers)

• more categories for university and higher education teachers

• more categories in the legal field

• more categories in the social field

• a rearrangement of the categories in Major group 4 (Service and

administration clerks)

• fewer categories in Major group 6 (Agricultural, horticultural, forestry

and fishery workers)

• fewer categories in Major group 7 (Building and manufacturing

workers)

• more categories in Major group 8 (Mechanical manufacturing and

transport workers, etc.)

• fewer categories in Major group 9 (Elementary occupations).

As regards *police officers*, it has not been possible to follow ISCO’s intentions

to distinguish between *3355* (*Police inspectors and detectives* and *5412* (*Police*

*officers*). The educational and skills requirements for the majority of Swedish

police officers are very similar. In the Swedish version, all police officers

are therefore categorised (excluding managers) under Major group 3.

According to ISCO, all work in the armed forces belongs to *Major group 0*

*(Armed forces occupations).* According to SSYK 2012 jobs in the armed forces

that have a civilian equivalent are to be moved to their respective category

in Major groups 2-9.

The overview of the classification structure in English follows ISCO-08 as

far as possible but is not a direct translation of the Swedish headings.

**1.6 Relationships to others standards and**

**occupational systems**

SSYK 2012 is an update of SSYK 96. The changes are significant; categories

have been added, aggregated, divided up, moved or been deleted. The

content of many categories remains unchanged, however, but the

categories themselves may have been given a new code and/or name. To

facilitate comparisons over time, Statistics Sweden has developed

conversion keys between SSYK 2012 and SSYK 96 (See Appendices 1 and

2). The conversion key in Appendix 3 can be used for international

reporting in accordance with ISCO-08 on the three-digit level. The

conversion keys can also be found online at: www.scb.se/ssyk.2

In order to satisfy the needs of the labour market parties to shed light on

the wage and salary structure, occupational terminologies that follows the

various sectors and the agreements drawn up between employers and

workers representatives have been used on the Swedish labour market for

a long time. Each nomenclature covers only those occupations or

employment positions that are in the relevant labour market sector, albeit

significantly more detailed than SSYK. Concerning data collection for the

salary statistics and the occupational register, the classification has been

performed in accordance to a relevant occupational nomenclature, which is

then converted to SSYK using a conversion key.

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2Only in Swedish.

**2 Structure and fundamental**

**principles:**

The structure and underlying principles in SSYK 2012 are to all intents and

purposes unchanged compared to SSYK 96. The number of categories on

each level is shown in the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| Level/Code | SSYK 96 | SSYK 2012 | ISCO 08 |
| Major group/Single-digit level | 10 | 10 | 10 |
| Sub-major group/Two-digit level | 27 | 46 | 43 |
| Minor group/Three-digit level | 113 | 1473 | 130 |
| Unit groups/Four-digit level | 355 | 4294 | 436 |

Example:

Major group: 5 Service and shop sales workers

Sub-major group: 53 Personal care workers

Minor group: 531 Child minders and teachers aids

Unit group: 5311 Child care workers

The fundamental concepts on which the classification is based are *job* and

*qualifications*. These are essentially defined in the same way as in ISCO-08.

**2.1 Definition of job and occupation**

A *job* is defined as a set of tasks and duties performed or meant to be

performed by a person who is employed or self-employed.

The concept *of* occupation refers to the type of work performed. A number

of different jobs with similar tasks and duties constitutes an occupation.

*Example*: A job can consist of driving a bus between airport terminals and

aircraft, another of driving a coach between the airport and the city centre,

while a third might be driving a school bus. Three separate jobs with

slightly different conditions but the occupation is the same - bus driver.

The same person can be associated with an occupation through the job he

or she has at present, has had previously or is seeking to have in the future.

The classification attaches no or little weight to a person’s formal

education, his or her employment status (employed/self-employed) or the

enterprise’s industry and size.

**2.2 Skill level and skill specialisation**

Skills, defined as the knowledge and expertise needed to perform the tasks

and duties attached to a given occupation, have two dimensions: skill level

and skill specialisation. Skill level is mainly used as the criterion on

one-digit level, while specialisation is often the guiding principle on the

more detailed sub-levels.

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3The categories for Nurses comprise two minor groups.

4The number of unit groups is based on the proposed recommendation for a breakdown

into two levels of managerial responsibility.

**2.2.1 Skill level**

Skill level reflects the type of working tasks and their complexity. It is

applied operationally by considering one or more of the following aspects

when classifying an occupation:

• The tasks involved in the occupation compared with those described

under different Major groups with their associated skill level.

• The length of formal education that is normal for the occupation,

defined in accordance with the International Classification of Education

ISCED-97.5

• The working life experience and amount of informal training required in

the occupation.

To facilitate international comparisons, the first of these three criteria

weighs heavier than formal education and working life experience. Formal

education is only to be seen as one of several components that indicate a

skill level; knowledge and expertise needed in an occupation may also have

been gained through professional experience. As the length of formal

education tends to be extended, it may also be difficult to clarify what is

normal for an occupation.

It should be observed that what is referred to here are the skills that are

normal for an occupation, which do not necessarily tally with the skills

possessed by the employee who is performing the job.

Since SSYK 2012 is based on an international classification, only four broad

skill levels have been defined:

• Level 1 corresponds to ISCED 97.-97 Level 1, which covers elementary

education at primary school level. Translated into a Swedish context,

this means no or a low formal education requirements.

• Level 2 corresponds to ISCED 97.-97 Level 2–4, which covers education

programmes at upper secondary and tertiary level of no more than 2

years in length.

• Level 3 corresponds to ISCED 97 Level 5b, which covers practical or

vocational tertiary education programmes of 2-3 years in length.

• Level 4 corresponds to ISCED 97 Level 5a-6, which covers theoretical or

research-oriented tertiary education programmes and third-cycle

programmes of at least 3 years, normally 4 years or longer in length.

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5International Standard Classification of Education, UNESCO 1997.

The Major groups in SSYK 2012 are associated with the following skill

levels:

|  |  |  |
| --- | --- | --- |
| Major group/  Sub-group | Name | Skill level |
| 1 (excl. 17) | Managers | 4 |
| 17 | Operations managers in service industries | 3 |
| 2 | Occupations requiring advanced level of higher education | 4 |
| 3 | Occupations requiring higher education qualifications or equivalent | 3 |
| 4 | Administration and customer service clerks | 2 |
| 5 | Service, care and shop sales workers | 2 |
| 6 | Agricultural, horticultural, forestry and fishery workers | 2 |
| 7 | Building and manufacturing workers | 2 |
| 8 | Mechanical manufacturing and transport workers, etc. | 2 |
| 9 | Elementary occupations | 1 |
| 01 | Commissioned officers | 4 |
| 02 | Non-commissioned officers | 3 |
| 03 | Other ranks (privates. etc.). | 2 |

**2.2.2 Specialisation**

The more detailed levels in SSYK 2012 are primarily based on the

similarities in the specialisation required for a job. The following aspects

have been considered:

• the required subject knowledge

• the tools, equipment and machines used

• the type of material processed

• the type of product or service produced.

**3 Description of the standard**

SSYK 2012 is intended to cover all jobs on the Swedish labour market for

which salary or other compensation is paid. Voluntary work is excluded,

but it should be possible to classify unpaid work in the family business . In

principle, it should only be possible to classify any given job in one way.

The classification covers the following ten broad occupational fields (Major

groups):

1 Managers

2 Occupations requiring advanced level of higher education

3 Occupations requiring higher education qualifications or equivalent

4 Administration and customer service clerks

5 Service, care and shop sales workers

6 Agricultural, horticultural, forestry and fishery workers

7 Building and manufacturing workers

8 Mechanical manufacturing and transport workers, etc.

9 Elementary occupations

0 Armed forces occupations

**3.1 Level of responsibility for managers**

One request during the development of SSYK 2012 has been for Swedish

use to reflect levels of responsibility for managers.

The highest executive manager level, Sub-major group 11, in organisations

with managerial hierarchies follow the international proposal. A matrix

model has been developed for other managers for Sub-major groups 12-17.

Three-digit codes are used to identify four-digit categories in accordance

with ISCO-08 and Swedish adjustments. The fourth digit is used purely for:

1 = Department managers, or intermediate-level managers. Reporting

to the managing director (MD) or equivalent.

2 = Line managers reporting to intermediate managers or managing

director (MD) or equivalent. Highest manager in enterprises with no

managerial hierarchy.

For certain categories, where there is reason to believe that no breakdown

into different levels of responsibility is necessary or possible, the fourth

digit is set to 0. In individual surveys, it is possible to choose beforehand

not to divide up managers into different levels of responsibility, In such

cases, the fourth digit for sub-major groups 12-17 is always set to 0.

The matrix model makes it possible to use the nomenclature without

dividing up into skill levels and still fulfil the requirements for

international reporting.

**3.2 Descriptions of occupations**

A category is defined using an associated description. General descriptions

have been developed for each major group, sub-major group, minor group

and unit group. These descriptions do not however claim to describe all the

tasks and duties that may be included in an occupation. An associated

occupation may include all or just some of the enumerated tasks and

duties. Examples of occupations that belong or don’t belong to the category

have been stipulated in order to clarify the boundaries between different

categories.

Compared to SSYK 96, the descriptions of occupations for many of the

remaining categories have been updated. New definitions for newly added

occupations have been developed.

Occupations that do not belong to a specific unit group are classified in a

residual group (as and when appropriate). The name of a residual group

always starts with the word “Other”, while the code finishes with a “9”.

**3.3 Index of occupational titles**

To facilitate classification, Statistics Sweden provides a list (index) of

occupational titles with their associated SSYK codes (see documents under

www.scb.se/ssyk6). The index is regularly updated, but makes no claim to

include all existing occupational titles. Since the same occupational title can

be used to denote entirely different jobs depending on e.g. industry or

sector, such an index must always be used with a certain amount of

caution. Information on main tasks and duties often improves the chances

of a correct classification. Occupational titles cannot be used to define the

content of a category, but are only to be seen as an aid to coding.

**3.4 Some application issues**

**3.4.1 Managers and supervisors**

In the Swedish update, which follows the international update, the top

manager is to be coded as 1120 Managing directors, etc., in enterprises that

are large enough to have a managerial hierarchy. For enterprises that do

not have a managerial hierarchy, the top manager is to be coded in submajor

group 12-17 by business activity.

Differentiating between managers and supervisors can be problematic.

Both managers and supervisors plan, organise, coordinate, control and lead

work performed by others. A crucial difference is that supervisors are only

responsible for activities performed by other employees, whereas managers

classified under Major group 1 must have an overarching responsibility for

a department/organisational unit in an enterprise. Furthermore, most

managers are responsible for and take decisions on:

a) the overarching strategic and operative management of an enterprise or

organisational unit (e.g. type of product or service, quantity and

quality),

b) budget (how much money that is to be used and for what purposes),

c) selection, hiring and firing of personnel.

It is not necessary for managers to be responsible for all three of these

areas, as the degree of autonomy may vary.

Supervisors may give advice in these issues, especially when it comes to

personnel issues, but don’t have authority to take decisions. They often

have work experience of one of more of the jobs they supervise.

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6Only in Swedish.

Both ISCO-08 and SSYK 2012 have taken into account the fact that

supervisors don’t always perform the same tasks as their subordinate staff.

The following separate unit groups have therefore been created for

supervisors in SSYK 2012:

3121 Construction, plant and mining supervisors

3122 Manufacturing supervisors

3341 Office supervisors

4321 Stock and warehouse supervisors

5151 Cleaning supervisors and head housekeepers

5221 Shop sales and shop department managers

Other supervisors are to be classified in the same category as subordinate

staff. Relevant tasks and duties in addition to coordination and control of

work performed may include instructing new employees and sometimes

taking part in day-to-day work.

**3.4.2 Jobs with diversified working tasks**

The following general rules may be applied where necessary:

a) If the working tasks require skills that are not normally obtained via a

long education or through work experience, the job shall be classified

according to the tasks that have the highest skill level.

b) *Example*: A job that consists of driving a delivery van and

loading/unloading goods, is to be classified as “delivery van driver”.

c) If the working tasks can be attributed to both the production and

distribution of goods, the job shall be classified as the former.

d) *Example*: A job that consists of both baking and selling bread shall be

classified as “baker”, not as shop assistant/salesperson.

e) If the various tasks and duties can be attributed to production and the

skill level is the same, consideration is to be taken of which tasks require

the most time.

*Example*: A job that consists of both assembling doors and door-frames

and of installing electric door-closers is to be classified as a joiner.

**3.4.3 Trainees and apprentices**

Students, apprentices and trainees are to be classified in accordance with

their *future* job. This may apply to trainee doctors, legal advisors,

carpenters and other handicraft workers.

**3.4.4 Doctoral students**

Doctoral students constitute their own group in SSYK. Their main task is to

study and in cases where teaching and other tasks occur, these are deemed

to constitute such a small proportion of their time as to set them apart from

other occupational groups working in higher education.

Industrial doctoral students shall primarily be included in the job within

the field in which the research is performed.

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