

SwedPop Documentation

Principles of Coding Swedish Historic Occupations

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Introduction

One of the aims of the national infrastructure SwedPop is to provide harmonized and linked historical population data from the major historical databases in Sweden to researchers. As a part of this, all occupational titles in the databases within SwedPop have been harmonized to ensure coherence in research, developing a Swedish standard for coding and classification of occupations until c. 1950.

The SwedPop encoding of occupational titles is based upon the international classification system HISCO – Historical International Standard Classification of Occupations (Leeuwen et al 2001), which facilitates a comparable classification of occupational titles across different epochs, languages and countries. It also enables further classification into schemes of class and social status, which is of analytical value to researchers interested in socioeconomic stratification and its relationship to demographic variables.

The purpose of this documentation is to provide a brief overview of the context in which occupations have been recorded in the Swedish historical sources, describe the established principles of coding and give examples on how the principles have been applied. Crucial methods in the extensive process of harmonizing historical occupations will also be discussed.

Historic occupations

Research on Swedish historic occupations will be facilitated by the harmonization SwedPop infrastructure, but nevertheless, there are many important issues that need to be taken into consideration when doing the analyses. This brief background will address some of the most important issues: things to consider when working with sources that span over 300 years, the reasons for recording individual's occupations, how contextuality play a part in which code is chosen and why there is such a large difference in frequency of occupational records between different parts of the country.

Sources

Information about occupations is found in a number of the historical sources that form the base of SwedPop data: in censuses, in taxation records and in church registers that was kept by the minister. Some of the sources span over 300 years and instructions of how and why to keep records of occupations have changed over time. In some sources, the main purpose of keeping record of people's occupations was not an interest in the occupations themselves, but rather to describe and locate people in social and legal positions. Social status, ownership, economic situation and employment were significant information in respect to the roles, responsibilities and rights of the position. Therefore, it is important to bear in mind that some of the information in the sources also concern titles, attributes, educational qualifications or economic circumstances.

300 years of contexts

Individuals hold occupations during a specific time and in a specific geographic or other contextual setting, and within a 300 year period, many occupations change and evolve in content and meaning. Knowing time and place of when and where the occupation is recorded are crucial pieces of information for a correct analysis.

Frequency

There is a large difference in the frequency of recording occupations between different time periods, as well as in different geographical contexts. For instance, in some parishes around 1800, as many as 95% of the individuals lack a registered occupation, while in another parish during the same time, there is only 7% missing records of occupations. The large difference in reporting occupations is a reflection of the particular context, a necessary task for the researcher to take into consideration when analysing the data.

Information about occupations is not complete from a population perspective. The household was the main unit and the occupational title was often recorded for the head of household, which was commonly a male person. Women's, and particularly married women's, occupations are known to be absent in official sources.

The process of harmonization

The extensive process of harmonization of occupational titles involves crucial decisions and choices before the title is finally encoded. Decisions include assessing abbreviations, words written separately that should (or should not) be held together in one title, considering which code is most likely when there are ambiguities, and so on. It is difficult to establish to what extent uncertainty is allowed in the harmonization process. Staff's knowledge of data and sources, as well as documentation of methods are key to ensure quality and transparency to the user.

Standardizing occupational titles

Coding is performed on standardized occupational titles, so the first step in the harmonization process is to determine standard names on the occupational titles that are recorded in the sources.

Abbreviations are common and although most of them are unproblematic, some demand a certain amount of deliberation. There is a correlation between an occupation's frequency and the inclination to use abbreviations, something that affects which standard name is chosen.

Examples of unproblematic abbreviations:

- 'Arb.' = arbetare (worker)
- 'P.' = if female person: piga (house servant)

Examples of abbreviations with multiple meanings:

- 'Dr.' = if male person: dräng (farm hand), doktor (doctor).
- 'St. dr.' = if male person: statdräng (bond servant), stalldräng (stable boy), stationsdräng (station boy).

Standardization is performed on single text strings, not taking the contextuality of occupational titles into consideration. For example, the abbreviation 'Dr.' is standardized into 'Dräng' (farm hand) because of its frequency in the sources, but it is also an abbreviation of 'Doctor'. When looking at standardized occupational titles alone, there may be seemingly odd professional careers that in fact are consequences of standardized abbreviations. An individual's career involving, for

example, both doctor and farm hand might be a case of contextual complication that the researcher must handle.

The information on occupations can hold many different elements, out of which some are irrelevant for the occupational title and are left out from the standardized name. Examples of such excluded elements are: civil status ("*married* farm servant"), relations ("*farmer's son out of wedlock*"), nationality ("*danish* sailor"), geographical location ("*soldier in Skellefteå*"), age definitions ("*young* weaver") and employment status ("*substitute* worker").

Other elements in occupational titles, adding essential information for the subsequent coding are included in the standardisation, are hence included. Some examples: specific locations of work ("Captain at the Royal Swedish Army of Västerbotten" is standardized to "Army captain", and "Captain onboard merchant fleet in Göteborg" is standardized to "Merchant fleet captain") and hierarchy or order of priority ("first bookkeeper", "ordinary midwife").

The user should be aware of the complexity of historical occupational titles and take due measures to ensure correctness when utilizing them.

HISCO coding

The SwedPop encoding of occupational titles are based on the principles of the Historical International Standard Classification of Occupations, HISCO, (van Leeuwen et al. 2002). In general, the SwedPop principles follow those of the HISCO standard, except from principles 1 and 6, which describe occupational titles with optional codes.

HISCO principle 1: "If more than one possible meaning existed, a number of alternative coding options were identified."

HISCO principle 6: "If an occupational title refers to a multitude of possible occupations" the code 99999 was given.

SwedPop principle: The most likely code is chosen. A list of alternative options will be published in a later version.

Ambiguity of occupational titles can be referred to three main circumstances: contextuality, vagueness and gendered occupations.

Ambiguity due to contextual circumstances in time or place is not always important for the research focus, since many ambiguous occupational titles are coded in the same minor group – or even the same unit group. Positioning these titles in social class schemes, such as HISCLASS, won't be affected. For example, the occupational title *brännare* can be coded in at least four ways, all of them are in minor group 7 and two are in unit group 77.

Ambiguity due to vagueness of occupational titles is somewhat different from contextuality, in the sense that vague titles can cover areas that are coded in different minor or major groups. For example, the occupational title *adjunct* can be coded either within the ecclesiastical or educational area.

Finally, ambiguity caused by gendered occupations are characterized by being solidly single-gendered, often surrounded by legal barriers protecting access from the other gender. Gendered ambiguities are not very frequent and can usually be handled during the process of harmonization by controls in the sources. Examples of gendered occupations are ecclesiastical positions and military officers. Legal constraints against Swedish women holding ecclesiastic positions, such as minister or vicar, were removed in 1958, and in 1981, some barriers restraining women from holding military positions were removed, although still surrounded by certain requirements until

1994. Gendered occupations that is correctly written in the sources, but impossible in reality, are left for the researcher to handle.

Coding principles

SwedPop has defined the following common coding principles in order to ensure coherent and transparent coding:

- Coding conforms to HISCO standard as described by van Leeuwen et al. (2002).
- Coding is made on a standardized occupational title.
- The code is set based on the occupation's main activity.
- Value on STATUS is set when the occupational title entails information about orientation of work, ownership or artisanship.
- Value on RELATION is set when the occupational title contains information about family relations, temporal information, honorary or voluntary activities or economic incapacity. If the occupational title carries more than one RELATION, the value is set based on an order of priority.
- Value on PRODUCT will be implemented in a later version.
- Coding is done with close reference to allocation in HISCLASS.
- Occupational titles that are described in Nyström et al. (1996) are coded as artisanship.

Coding examples

As clarification to the decisions involved when choosing between HISCO codes for an occupational title, or whether there should be a STATUS value, an overview of codes for occupational titles is provided.

Managers

Managers without information on business or trade.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Föreståndare	21000	-9	-9	n/a

Managers with some information on business or trade, not production.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Verkstadsföreståndare	21110	-9	-9	n/a
Ladugårdsföreståndare	21230	-9	-9	n/a

Managers within professional/technical occupations.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Apoteksföreståndare	6710	31	-9	n/a
Seminarierektor	13940	31	-9	n/a
Gymnastikdirektör	21490	-9	-9	n/a

Kyrkoföreståndare	14990	31	-9	n/a
Musikdirektör	17130	31	-9	n/a

Managers within sales, catering and lodging.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Affärsföreståndare	21340	-9	-9	n/a
Köksföreståndare	21430	-9	-9	n/a

Managers within specific business or trade.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Kvarnföreståndare	77120	31	-9	n/a

Supervisors, foremen and inspectors

Supervisory function without information on business or trade.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Förman	22000	-9	-9	n/a
Inspektör	22000	-9	-9	n/a
Verkmästare	22610	-9	-9	n/a

Supervisory function with information on business or trade. If something is produced, it is on industrial scale.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Kontorsföreståndare	22110	-9	-9	n/a
Chokladfabrikverkmästare	22665	-9	-9	n/a

Supervisory function within specific business or trade. If something is produced, it is not on industrial scale. Tasks within the profession is carried out to some degree.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Bageriföreståndare	77610	31	-9	n/a
Bageriförman	77610	31	-9	n/a
Lagerchef	97145	31	-9	n/a
Pianoverkmästare	94170	31	-9	n/a

Owners and working proprietors

In many cases, the HISCO code provides information of ownership or proprietary relations. The use of STATUS value is largely dependent on minor group classification.

Owner of large scale industrial production

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Skofabriksidkare	21220	11	-9	n/a

Working proprietors in sales, catering or lodging

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Fruktaffärsinnehavare	41030	-9	-9	n/a
Caféidkare	51050	-9	-9	n/a
Hotellinnehavare	51020	-9	-9	n/a

Owner of specific artisan or trade

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Bageriägare	77610	11	-9	n/a
Skomakeriidkare	80110	11	-9	n/a

Farmers

Setting STATUS values on farming titles is complicated since they are highly contextual in time and space. It is also problematic to determine the size of land that is being cultivated based on the occupational title. The principle is to use STATUS values only for undisputable titles.

Occupational title without information on ownership does not have STATUS value

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Bonde	61110	-9	-9	n/a
Jordbrukare	61110	-9	-9	n/a
Åbo	61110	-9	-9	n/a

Occupational title with information on ownership or lease- holding has STATUS value

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Hemmansägare	61110	11	-9	n/a
Skattebonde	61110	11	-9	n/a
Jordbruksarrendator	61110	12	-9	n/a
Arrendator	61110	12	-9	n/a

Occupational title with information on small scale farming but without information on ownership, has no STATUS value

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Torpare	61115	-9	-9	n/a
Torpareåbo	61115	-9	-9	n/a

Occupational title with information on small scale farming and information on ownership or lease-holding, has STATUS value

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Småbruksägare	61115	11	-9	n/a
Torplägenhetsbrukare	61115	12	-9	n/a

Workers

Coding occupational titles for workers follows the principle of setting STATUS values depending on the affiliation to artisan occupations.

Occupational title with the specification '-worker' that is not artisan has no STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Arbetare	99900	-9	-9	n/a
Cementarbetare	95210	-9	-9	n/a
Fabriksarbetare	99930	-9	-9	n/a

Occupational titles within artisans with the suffix '-worker' has STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Garveriarbetare	76145	32	-9	n/a
Väveriarbetare	75400	32	-9	n/a
Plåtslageriarbetare	87310	32	-9	n/a

Masters and apprentices

The suffixes '-master-' and '-apprentice' are common among the Swedish historic occupational titles, but their meanings are quite disparate depending on the occupation. In order to use correct STATUS values, a set of rules based on affiliation with artisans and supervisory functions are implemented.

Occupational title with the suffix '-master' in artisan occupations has STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Skomakaremästare	80110	21	-9	n/a
Bageriverkmästare	77610	21	-9	n/a

Occupational title with the suffix '-master' that is not an artisan occupation has no STATUS value when it is classified in minor group 22.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Fabriksmästare	22610	-9	-9	n/a
Verkmästare	22610	-9	-9	n/a
Skofabriksverkmästare	22670	-9	-9	n/a

Occupational title with the suffix '-master' that is neither an artisan occupation, nor has supervisory functions, has no STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Vaktmästare	55130	-9	-9	n/a

Occupational title with the suffix '-apprentice' that is not an artisan occupation has STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Verkstadslärling	84100	33	-9	n/a

Occupational title with the suffix '-apprentice' that is an artisan occupation has STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Skomakarelärling	80110	23	-9	n/a

Students, trainees and aspirants

Coding titles for education or training is difficult because of considerably changing educational and other requirements during the 300 year that the sources cover. In general, occupations that without reasonable doubt require a higher education are coded differently from other occupations.

General titles in education or higher education

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Seminariestuderande	-1	41	-9	n/a
Elev	-1	-9	-9	n/a

Student titles in higher education.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Lantmäterieleve	3020	41	-9	n/a
Arkitektstuderande	2120	41	-9	n/a

Training titles in other occupations.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Verkstadsselev	99930	33	-9	n/a
Bagareselev	77630	33	-9	n/a
Postbiträdeaspirant	33170	33	-9	n/a

Assistants and aids

Occupational titles with information on assistant or aiding tasks and duties are largely dependent on whether the HISCO code accommodate the information or not.

Occupational title with suffix meaning 'assistant' or 'aid' with main tasks and duties that are subordinate of the occupation has STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Lantmäteribiträde	3020	33	-9	n/a

Occupational title with suffix meaning 'assistant' or 'aid' with main tasks and duties that are accommodated by the HISCO code has no STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Kassabiträde	33135	-9	-9	n/a
Apoteksassistent	6810	-9	-9	n/a
Apoteksgosse	59950	-9	-9	n/a

Occupational title with suffix meaning 'assistant' or 'aid' within artisan occupations has STATUS value.

Occupational title	HISCO	STATUS	RELATION	PRODUCT
Garveribiträde	76145	33	-9	n/a
Bagerihjäl	77610	33	-9	n/a

Additional information in the source occupational fields

The occupational fields in the sources contain a wealth of information that is not directly related to an occupation, but rather descriptions of economic, social or civil status.

Title and description	HISCO	STATUS	RELATION	PRODUCT
<i>Inhyser</i> (lodger) is not an occupation, rather a legal position that varies between time, place and age categories. It is not univocally a sign that the person is living in someones household or a sign of poverty. It can be a note that the person doesn't own their house or dwelling, or is living on someone elses land.	-1	-9	-9	n/a
Titles describing poverty has STATUS value 'poor' Example: fattighjon, understödstagare, sockenhjon, tiggare.	-1	13	-9	n/a
Status 12 (tenant) is only used for agrarian titles with HISCO-code 61110.				
Example: Kvarnarrendator	77120	-9	-9	n/a
Example: Jordbruksarrendator	61110	12	-9	n/a
Information on civil status or family relations do not have status values. Example: Änka, fosterdotter.	-1	-9	-9	n/a
Due to implications of the allocation in HISCLASS, certain combinations of HISCO and STATUS must not occur: Example: HISCO= -1, STATUS= 11.				

Subsidiary information: RELATION

SwedPop handles information which belongs to dimensions of RELATION in conformity with the HISCO standard. In cases where an occupational title contains more than one dimension of relation, the priority rules are:

1. Family relations (wife/widow, son, daughter, other male relative, other female relative)
2. Temporal relations (former/retired, future)
3. Voluntary, honorary
4. Physical or mental disability
5. Homeworker

Fictitious examples illustrate the rules of priority:

Occupational title	HISCO	STATUS	RELATION	PRODUCT
FD mjölnaregesäll	77120	22	21	n/a
FD mjölnaregesällhustru	77120	22	11	n/a
Pastorsyster	14120	-9	15	n/a
FD pastorsyster	14120	-9	15	n/a
Officersvolontär	58330	-9	31	n/a
Officersvolontärdotter	58330	-9	13	n/a
Tillträdande hemmansägare	61110	11	22	n/a
Tillträdande hemmansägareson	61110	11	12	n/a
Dövstum hemarbetare	-1	-9	41	n/a
FD frukthandlaredotter	41030	-9	13	n/a

Artisan occupations

The following list contains occupations described as artisan occupations by Nyström et al. (1996). Occupational titles with an asterisk (*) are not coded as artisan occupations.

Apotekare	Farmaceut	Guskare
Arkitekt	Fatmakare	Gördelmakare
Armborstmakare	Filhuggare	Hampspinnare
Badarmästare	Filtberedare	Handskmakare
Bagare	Fiolmakare	Handsömmerska
Barberare	Fjädermakare	Harneskmakare
Bardskärare	Fleurist	Hattmakare
Barkare	Florist	Hattstofferare
Bildhuggare	Fodralmakare	Herrfrisör
Bildsnidare	Formare	Herrskräddare
Bleckslagare	Fotograf	Hjulmakare
Plåtslagare	Frisör	Hornskedmakare
Blockmakare	Fällberedare	Hovslagare
Boettmakare	Fällmakare	Hyskmakare
Bokbindare	Fältskär	Hårabeterska
Boktryckare	Färgare	Häktmakare
Borstbindare	Förgyllare	Ingenjör
Brukssmed	Galjonsbildhuggare	Instrumentmakare
Bryggare	Garvare	Jacquardvävare
Buntmakare	Gelbgjutare	Juvelerare
Bygdesmed	Gipsgjutare	Järnbärare
Bysmed	Gitarrbyggare	Järngjutare
Byggmästare	Gjutare	Kakelugnsmakare
Byggnadssnickare	Glasblåsare	Kalkbrännare
Båtbyggare	Glasgravör	Kammakare
Bälgmakare	Glas målare	Kanngjutare
Bältare	Glasmästare	Karamellkokare
Remslagare	Glasslipare	Kardmakare
Remsnidare	Glättare	Karduansmakare
Bössmakare	Golvläggare	Kattunstryckare
Charkuterist	Grafiker	Keramiker
Cigarettmakare	Gravör	Kistsmed
Cigarrmakare	Grovarbetare*	Kittelflickare
Ciselör	Grovsmed	Kittelsmed
Damastvävare	Grundläggare	Klensmed
Damfrisör	Grytgjutare	Klingsmed
Damskräddare	Grytstöpare	Klockgjutare
Dekopör	Guldarbetare	Klädesmakare
Dragare	Gulddragare	Klädesvävare
Drejare	Guldslagare	Knappmakare
Ebenist	Guldsmed	Knivsmed
Etsare	Silversmed	Kokillgjutare

Kolare	Optiker	Skinnskräddare
Kompassmakare	Orgelbyggare	Skoflickare
Konditor	Ornamentbildhuggare	Skobötare
Konservator	Pansarmakare	Skolappare
Konstförvant	Pappersmakare	Lappsomakare
Konstgjutare	Pappersmästare	Skomakare
Konstsmed	Paraplymakare	Skorstensfejare
Konterfejare	Parkettläggare	Skräddare
Kopparslagare	Pastejbagare	Skyltmålare
Koppartryckare	Pastellör	Skärslipare
Korgmakare	Penselmakare	Slaktare
Kransågare	Pergamentmakare	Slipstenshuggare
Kritpipmakare	Perukmakare	Smed
Krukmakare	Pianobyggare	Snickare
Kvarnstenshuggare	Pipmakare	Snörmakare
Kvastmakare	Pistolsmed	Socketbagare
Körsnär	Pistolmakare	Sotare
Köttmåglare	Pitscherstickare	Spegelmakare
Lackerare	Sillgravör	Spiksmed
Laggare	Plattsättare	Spinnrocksmakare
Laggkärlsmakare	Plysare	Sporrmakare
Liesmed	Plåtslagare	Sporrsmed
Likkistmakare	Possementmakare	Sprutmakare
Linväware	Pumpmakare	Stavhuggare
Litograf	Pungmakare	Stegmakare
Logarvare	Pälssömmerska	Stengravör
Lådmakare	Rammakare	Stenhuggare
Låssmed	Remslagare	Stenslipare
Lästmakare	Remsnidare	Stensättare
Madrassmakare	Repslagare	Stickare
Manufaktursmed	Rotgjutare	Stickerska
Masmästare	Räfsmakare	Stilgjutare
Mastmakare	Rödfärgare	Stoffväware
Metalltryckare	Rödfärgsmålare	Stolmakare
Mjölare	Rörmokare	Strumpväware
Modellsnickare	Rörsmed	Strumpstickare
Modellbyggare	Sadelmakare	Stuckatör
Modellör	Saxsmed	Styckgjutare
Modist	Schatullmakare	Stålbågsmed
Mundör	Segelmakare	Stålgravör
Murare	Sejlare	Svarvare
Maskininstrumentmakare	Senkelmakare	Svärdfejare
Målare	Serigraf	Sågtillverkare
Mältare	Sidenväware	Sämskmakare
Mässingslagare	Skeppsbyggare	Sättare
Möbelsnickare	Skeppstimmerman	Tagelberedare
Nålmakare	Skidtillverkare	Taktäckare
Oljeslagare	Skinnare	Takläggare

Tapetmakare
Tapettryckare
Tapetmålare
Tapetserare
Tegelslagare
Tenngjutare
Tillskärare
Timmerman
Tjärbrännare
Tobaksspinnare
Toffelmakare
Torkare
Tryckare

Tråddragare
Träbildhuggare
Träskomakare
Träsnidare
Trätoffelmakare
Tunnbindare
Tygmästare
Tygtryckare
Typograf
Urmakare
Vagnmakare
Vagnmålare
Vantmakare

Vapensmed
Vermästare
Verktygsmakare
Vindragare
Vitgarvare
Vågmästare
Vägare
Välsare
Väware
Vävskedmakare
Vävskyttelmakare
Överskärare

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