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Occupation and occupation-based class variables in the Swedish National Election Studies 1968-2014

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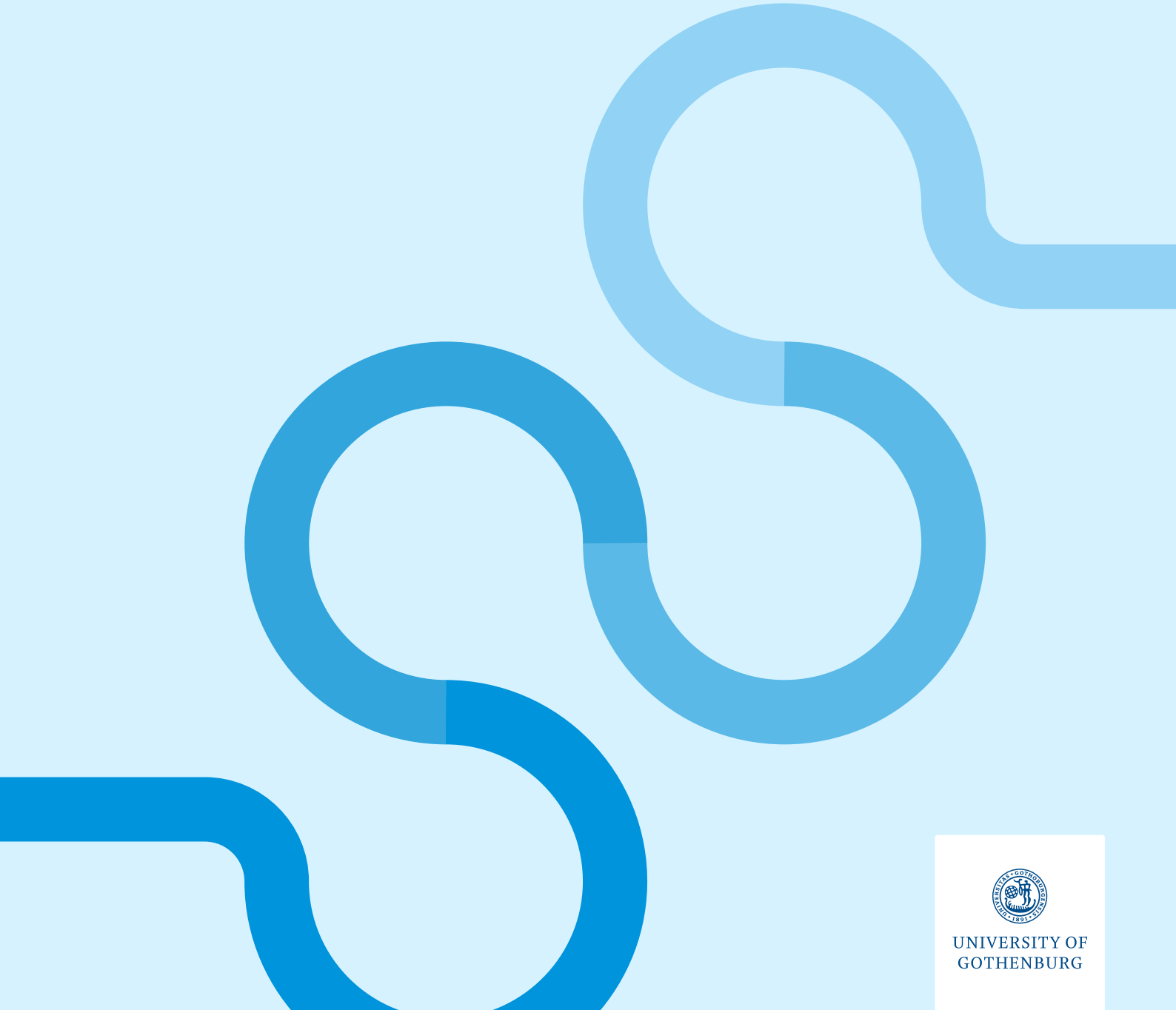

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Occupation and occupation-based class variables in the Swedish National Election Studies 1968-2014

ERIK VESTIN

Sammanfattning

Intervjufrågor om respondenternas yrke har funnits med i de svenska Valundersökningarna ända från början. Sedan 1968 har studierna använt sig av samma yrkeskod, vilket idag möjliggör analyser av utvecklingen över de senaste femtio åren. Denna rapport introducerar kort de yrkesvariabler som kommer att vara med i den första versionen av SNES Cumulative Data Set 1956-2014. Förutom yrkeskoden och Valundersökningarnas eget klasschema, har Valundersökningarnas yrkeskod också kodats om till flera klasscheman som används i internationell forskning. Detta underlättar möjligheterna att använda Valundersökningarna i jämförande studier av klass och politik.

Abstract

Survey questions about the respondents' occupation has been in the SNES since the beginning. Since 1968, the surveys have applied the same occupational code. Today, this makes it possible to analyze the development over the past fifty years. This report introduces the occupational variables that will be included in the first version of the SNES Cumulative Data Set 1956-2014. In addition to the occupational code, and the SNES own class schema, the occupational code has also been recoded into several class schemas used in international research. This facilitates the use of the SNES in historical and comparative studies of class and politics.

Introduction

This report contains a brief overview of the occupational variables in the Swedish National Election Studies (SNES) since 1968, and how they have been recoded into different class schemas that are included for the relevant years in the SNES Cumulative Data Set 1956-2014. The report represents the on-going efforts to improve the comparability of the long time series as regards the coding of occupation and class. Furthermore, the intention is to foster further use of the occupational variables in SNES and the various types of class variables that can be built from them. The information presented here is available in several different reports that are sometimes difficult to find, and sometimes only published in Swedish.

The variables discussed in this report is the group of variables in the SNES Cumulative Data Set that has the prefix 'ev_' (EV=Erik Vestin). Table 1 provides a list of those variables and a first, quick summary of their content.

The report serves as a complement to the SNES Cumulative Data Set codebook and provides further information about the meaning of the different categories and class schemas, or pointers to where such information can be found.

Table 1. Class variables and their content.

ev_snesocc	The original SNES occupational code, constructed by Bo Särlvik in 1968.
ev_snesocc_sp	The SNES occupational code for the respondent's spouse
ev_ssyk	A recoding of the SNES occupational code to the Statistics Sweden standard SSYK 96, based on Oskarson (2007).
ev_isco	A recoding of the SNES occupational code to the international standard ISCO 88, based on a report from Statistics Sweden (1998).
ev_snesclass	The SNES class schema, constructed by Petersson (1977, 1978), based on the instructions in Leiulfsrud et al. (2005).
ev_egp	The EGP class schema (Goldthorpe 2000), recoded from ev_isco based on the instructions in Leiulfsrud et al. (2005).
ev_esec	The European Socio-economic Classification (Rose and Harrison 2006), recoded from ev_snesocc, based on the recoding instructions in Oskarson (2007).
ev_oesch	The Oesch schema, recoded from ev_isco, based on the instruction in Oesch (2006).

Source: Swedish National Election Studies, Göteborgs universitet: The Election Studies 1968-2014.

Occupational variables

For each survey since 1956, all respondents have been asked about their occupation, and the answer has been recorded by interviewers as a free-text answer in the questionnaires. These answers were subsequently recoded in accordance with an occupational code. The free-text answers as such are not been preserved electronically, although some are stored in the historical archives of SNES.

For the surveys from 1956-1964, this information has been turned into occupational variables based on the social group (socialgrupp) categorization from Statistics Sweden.

Since 1968, the occupational variable has been based on Bo Särlvik's occupational code (henceforth SNESOCC). This code has three numbers, where the first two indicates 'occupational groups' (*yrkesgrupper*, or types of work, e.g. administrative work, agricultural work, manufacturing work etc.) and the last indicates 'status' (most often their

position in an organizational hierarchy). The occupational code also includes information about whether the respondents are employees or run their own business (those whose codes end with 1 or 2). Exact information about which occupation belongs to each code is avaliable in the technical reports from the surveys in the late 1970s and 1980s (Petersson 1978, pp. 199-226; Holmberg and Gilljam 1985, pp. 147-166; the same information is also available in Holmberg and Nordlöf 1982, Holmberg et al. 1988, and Gilljam et al. 1991).

Since 2006, the respondent question about occupation has been supplemented with register data from Statistics Sweden. The data is coded in accordance with Statistics Sweden's own occupational code, called SSYK. More information about that code can be found on the homepage of Statistics Sweden (2019a). The register data is collected from a number of sources that are all employer based. More information about their methods can be found in a recent report (2019b). The SSYK variables are included in the individual data set but is not yet included in the SNES Cumulative Data Set.

Recoding of SNESOCC

Most of the class schemas used in international, comparative research are based on ISCO codes (e.g. Leiulfsrud et al. 2005; Oesch 2006). Several of the occupation-based class variables in the SNES Cumulative file have thus been developed via a tedious recoding of the SNESOCC into ISCO-88, via the SSYK 96. SSYK 96 is an occupational code developed by Statistics Sweden that is very similar to ISCO.[1]

The recoding from SNESOCC to SSYK 96 was based on the key developed by Oskarson (2007). The recoding from SSYK 96 to ISCO88 was based on a report from Statistics Sweden (1998).

Vestin and Oskarson (2017, see also Vestin 2019, pp. 54-55 for an English version) conducted a few validity tests for the recoding from SNESOCC to SSYK 96. They found that the overall distribution of class positions was very similar to other surveys from around the same time that were coded directly with the SSYK 96. On the other hand, the discrepancies on the individual level were considerable. In analysis of the SNES surveys from 2006-2014, only 40% of the individuals got the same occupational code in the recoding procedure as in the register data from Statistics Sweden. However, when the occupational codes were reduced to the 8-categories version of the Oesch schema (see below), the recoding and the register data were put in the same category in 70% of the cases. The recommendation of this author is thus that this recoding procedure is only to be used in contexts where the occupation variable is to be reduced to relatively few categories.

It could be relevant to look further into the sources of these discrepancies, i.e. to what extent they are a matter of problems with matching codes, or to what extent the different sources (surveys vs. registers) have genuinely different information.

Class schemas

The occupational variables has then been recoded into occupational schemas, or class schemas, into fewer categories.

Petersson (SNES Class)

[1] In 2012, the SSYK 96 was updated to SSYK 2012.

For the survey of 1976, Olof Petersson (1977, 1978) constructed a class schema that has been employed in many analyses of Swedish class voting since (e.g. Oskarson 1994; Hedberg 2015; Oscarsson and Holmberg 2016). Vestin (2019) extended this time series by applying the schema to the SNES surveys from 1968-1973.

This schema contains eight categories, listed in Table 2. The distinction between Workers and other kinds of employees (White Collars and the Salariat) is based on the Swedish trade union structure (Petersson 1977, p. 283). Occupations organized in the Swedish Trade Union Confederation (*Landsorganisationen*, LO) are classified as Workers. 'Industrial Workers' are those employed in the manufacturing industry, the mining industry, and the building industry. 'Other Workers' are, for example, those employed in the service sector, the transport sector, or in agriculture. Occupations organized in the Swedish Confederation of Professional Employees (*Tjänstemännens centralorganisation*, TCO) or the Swedish Confederation for Professional Associations (*Sveriges akademikers centralorganisation*, Saco) are classified in the other three categories. The latter three groups of occupation are distinguished by their respective positions in the hierarchies of business organizations and public bureaucracies. The Self-employed and Farmers are both categories for business owners, with the category of Farmers distinguishing those whose business is in the agricultural sector. Students are people undergoing education or that have recently graduated and not yet started their first job.

Table 2. Categories in SNES Class variable.

Industrial workers (Industriarbetare)
Other workers (Övriga arbetare)
White collars (Lägre tjänstemän)
Lower salariat (Tjänstemän i mellanställning)
Higher salariat (Högre tjänstemän och storföretagare)
Small-business owners (Småföretagare)
Farmers (Jordbrukare)
Students (Studerande)

Source*:* Swedish National Election Studies, Göteborgs universitet: The Election Studies 1968-2014.

The schema is constructed as follows, in accordance with Petersson (1977, pp. 283-286): each individual is sorted according to their occupation, with two exceptions. First, women in unions[2] have been sorted under their husband's occupation *if* they are not active on the labor market themselves. Second, according to the same principle, widowed women not active on the labor market have been sorted according to the occupation of their late husband. However, if she is a student or recently graduated, she has remained in that category. These principles were applied on the surveys from 1968-1998. At that point, the SNES stopped collecting data about spouse's occupation and labor market activity (with the exception of a question about spouse's occupational group in 2002).

[2] This is mostly regardless of whether they are married or not. However, in the 1968 survey, the question about civil status did not include the option that the respondent was in a relationship with another person (and living together), but not married.

From 2002, all respondents have been sorted according to their own occupation. The share of women respondents that were re-sorted according to these principles, can be seen in Table 3.

The full list of which occupation belongs to which category can be found in the Technical reports from the late 1970s and the 1980s (Holmberg and Gilljam 1985, p. 260; the same information is also available in Holmberg and Nordlöf 1982, Holmberg et al. 1988, and Gilljam et al. 1991).

Table 3. Share of women respondents sorted according to their husband's occupation.

1968	29
1970	30
1973	25
1976	26
1979	20
1982	16
1985	9
1988	10
1991	11
1994	13
1998	12

Source*:* Swedish National Election Studies, Göteborgs universitet: The Election Studies 1968-1998.

Note*:* After 1998, the SNES surveys no longer include information about spouse's occupation (with the exception of a question about spouse's occupational group in 2002).

Erikson-Goldthorpe-Portacarero (EGP)

The EGP schema was developed by British social mobility researchers in the 1970s, and is by far the most popular class schema in studies of class and political behavior. The meaning of the different categories have been explicated by the original constructors in several publications (Goldthorpe 2000; Erikson and Goldthorpe 1992; Erikson et al. 1979).

The EGP variable in the SNES Cumulative File is based on recoding of SNESOCC into ISCO 88 (see above). The following sorting of the ISCO 88 codes into the EGP categories is based on Leiulfsrud et al. (2005). Their sorting is based on four-digit ISCO 88 and SNESOCC can only be recoded into 3-digit ISCO. This works rather well, however, as most of the occupational codes are sorted into the same EGP category on the 3-digit level. Put another way, it is mostly, the 3-digit level that makes a difference. In cases where there are differences on the 4-digit level, the 3-digit code has been asigned to the category where most of the 4-digit codes have been assigned by Leiulfsrud et al. (2005). For example, 2140-2147 are all assigned to the category Higher grade professionals, administrators and managers, but 2148 is assigned to Lower grade professionals, administrators and managers. In this case, the code 214 has been assigned to the former category. In those few cases where these number of codes are equally distributed between two categories, they have been assigned to the category with a higher number (and thus lower in terms of income, status etc.).

As mentioned above, the recoding of SNESOCC into ISCO 88 has certain reliability problems, and should preferably be reduced to few categories. While eleven categories is a considerable reduction compared to the 3-digit ISCO 88, it may still be at the border

of what is advisable. There are several ideas about how to reduce the EGP schema further, to seven or five classes. See Goldthorpe et al. (1987) and Erikson and Goldthorpe (1992) for two suggestions.

European Socio-economic Classification (ESeC)

The ESeC schema was created as part of a Eurostat harmonization project in order to facilitate comparative research on social structures and socio-economic conditions in the European Union (Rose and Harrison 2009, p. 3). It takes much of its inspiration from EGP (Rose and Harrison 2009, p. 9).

The recoding into ESeC is based on the work of Oskarson (2007) who sorted all codes in SNESOCC into the ESeC categories.

One of the main differences between ESeC and EGP is the inclusion of a special category for those who involuntarily lack a connection to the labor market. This was not included in Oskarson's (2007) translation, and there is no basis for doing so with the variables available in the SNES surveys. Instead, those who have never worked are counted as missing on the basis of them having no occupational information, and the long-term unemployed are classified according to their last occupation. The ESeC users guide (Rose and Harrison 2006, p. 9) readily accepts such procedures.

As the ESeC variable in the SNES Cumulative Data Set variable does not include a category for the non-employed, the most crucial difference between ev_esec and ev_egp can be said to be mainly in the methodological procedure. The first has been derived from Oskarson's (2007) classifications, whereas the latter has been derived by the recoding of SNESOCC to ISCO 88.

Oesch

The most recent proposal in the literature on class schemas has come from the Swiss scholar Daniel Oesch. The main innovation compared to the EGP schema, is the introduction of 'horizontal' class categories that distinguishes between different types of work (*work logics*). The schema thus have the ambition to be better than its predecessors in describing the 'post-industrial' labor market, affected by trends of feminization, rising education levels, and expansion of the service sector.

Oesch (2006) presents and operationalizes a schema with 17 categories (Oesch 2006, pp. 59-93, 222-224). The schema is based mainly on ISCO 88-codes. However, most published analyses of political attitudes and behavior have been using a version that contains eight categories, produced by merging the original 17 categories. This version was constructed by Oesch (2008) himself and he even recommends this simpler version for studies of political phenomena.

The Oesch schema is based on ISCO 88-codes, and on information regarding whether the respondent is employed or employer/self-employed (Oesch 2006, p. 79). Such information has been taken from a question in the SNES about which occupational group one identifies with: Workers (Arbetare), Salariat (Tjänstemän), Farmers (Jordbrukare) and Business owners (Företagare). Since 1982, Farmers and Business owners have also been asked to specify whether they have employees and how many (0, 1-9, 10 or more for business owners; 0 or 1 or more for farmers). For the surveys from before 1982, business owners have been coded as Bourgeoisie and farmers as Petit bourgeoisie. After 1982, business owners / farmers with employees have all been coded as Bourgeoisie. Business persons with no employees but an ISCO 88-codes from 200-247 have also been coded as Bourgeoisie. Business owners / farmers with no employees have all been coded as Petit bourgeoisie. The original operationalization of the Oesch schema also includes an adjustment for education levels (Oesch 2006, p. 79). This has not been included here, as this adjustment does not affect any categories in the eight class version of the schema.

Based on this recommendation, and on the validity problems in the 3-digit recoding from SNESOCC to ISCO 88 (se section 2 above), the SNES Cumulative File includes the version of the Oesch schema with eight categories.

The schema presented by Oesch (2006) is based on the 4-digit ISCO 88. The ambiguities that this creates when only a 3-digit code is avaliable, have been handled in the same way as with the EGP schema (see above).

Further possibilities

While the variables constructed here are available only from 1968 on, the surveys before that also have variables on occupation in them. Several earlier analyses has been using a two-class schema using the distinction between Working Class and Middle Class in analyses of all surveys since 1956 (e.g. Hedberg 2015; Oscarsson and Holmberg 2016). Future work could usefully include such a variable also in the SNES Cumulative File. Another possibility would be to construct a more nuanced occupational variable just for the years 1956-1964.

Another option for constructing a time series for all surveys since 1956, would be to use the question about which occupational group one identifies with. This would offer the possibility to construct a variable for all surveys, with four rough categories: Workers (*Arbetare*), Salariat (*Tjänstemän*), Farmers (*Jordbrukare*) and Business owners (*Företagare*).

Finally, the register data on occupations that have been added since 2006 should be further validated (see above) and included in the SNES Cumulative Data Set as well.

References

Erikson, Robert and John H. Goldthorpe (1992) *The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Oxford University Press.

Erikson, Robert, John H. Goldthorpe and Lucienne Portocarero (1979) 'Intergenerational Class Mobility in Three Western Societies: England, France and Sweden', pp. 415-441 in *The British Journal of Sociology*, vol. 30(4).

Gilljam, Mikael, Sören Holmberg and Martin Bennulf (1991) *Valundersökning 1988: Teknisk rapport*. University of Gothenburg: Department of Political Science.

Goldthorpe, John H. (2000) 'Social Class and the Differentiation of Employment Contracts', pp. 206-229 in *On Sociology: Numbers, Narrative and the Integration of Research and Theory*. Oxford: Oxford University Press.

Goldthorpe, John H., Catriona Llewellyn and Clive Payne (1987) *Social Mobility and Class Structure in Modern Britain*. Oxford: Clarendon Press.

Hedberg, Per (2015) *Väljarnas partier 2014*. SNES Report 2015:06. University of Gothenburg: Department of Political Science.

Holmberg, Sören and Mikael Gilljam (1985) *Valundersökning 1982: Teknisk rapport*. University of Gothenburg: Department of Political Science.

Holmberg, Sören, Mikael Gilljam, and Maria Oskarson (1988) *Valundersökning 1985: Teknisk rapport*. University of Gothenburg: Department of Political Science.

Holmberg, Sören and Hans Nordlöf (1982) *Valundersökning 1979: Teknisk rapport*. University of Gothenburg: Department of Political Science.

Leiulfsrud, Håkon, Ivano Bison and Heidi Jensberg (2005) *Social Class in Europe: European Social Survey 2002/3*. Trondheim: NTNU Social Research Ltd.

Oesch, Daniel (2006) *Redrawing the Class Map: Stratification and Institutions in Britain, Germany, Sweden and Switzerland*. Basingstoke: Palgrave Macmillan.

Oesch, Daniel (2008) 'The Changing Shape of Class Voting', pp. 329-355 in *European Societies*, vol. 10(3).

Oscarsson, Henrik and Sören Holmberg (2016) *Svenska väljare*. Göteborg: Wolters Kluwer.

Oskarson, Maria (1994) *Klassröstning i Sverige: Rationalitet, lojalitet eller bara slentrian?* Stockholm: Nerenius & Santérus.

Oskarson, Maria (2007) *Att koda klass: Valundersökningarnas klasschema jämfört med European Socio-economic Classification (ESeC)*. University of Gothenburg: SOM-Institute.

Petersson, Olof (1977) *Väljarna och valet 1976*. Stockholm: Statistiska centralbyrån.

Peterssson, Olof (1978) *Valundersökning 1976: Teknisk rapport*. Stockholm: Statistiska centralbyrån.

Rose, David and Eric Harrison (2006) *ESeC Users Guide*. Institute for Social and Economic Research: University of Essex.

Rose, David and Eric Harrison (2009) *Social Class in Europe: An Introduction to the European Socio-Economic Classification*. London: Routledge.

Statistics Sweden (1998) *SSYK 96: Standard för svensk yrkesklassificering*. Technical report 3. Stockholm: Statistics Sweden.

Statistics Sweden (2019a) *Standard för svensk yrkesklassificering (SSYK)*. Retrieved from: https://www.scb.se/dokumentation/klassifikationer-och-standarder/standard-for-svensk-yrkesklassificering-ssyk/

Statistics Sweden (2019b) *Statistikens framställning: Yrkesregistret med yrkesstatistik*. Report. Stockholm: Statistics Sweden.

Vestin, Erik (2019) *The Decline of Class Voting in Sweden 1968-2014: Reconsiderations, Explanations, and the Role of the New Middle Class*. University of Gothenburg: Department of Political Science.

Vestin, Erik and Maria Oskarson (2017) 'Klassröstning i Sverige på reträtt: Gör ett nytt klasschema någon skillnad?', pp. 179-198 in *Politica*, vol. 49(2).

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The Swedish National Election Studies Program was established in 1954 by Jörgen Westerståhl and Bo Särlvik and is today a high profile network of researchers at the Department of Political Science in Gothenburg. The Program serve as a collaborative platform for Swedish and international scholars interested in studies of electoral democracy, representative democracy, opinion formation, and voting behavior.

The aim of our research is among others to explain why people vote as they do and why an election ends in a particular way. We track and follow trends in the Swedish electoral democracy and make comparisons with other countries.

Professor Henrik Ekengren Oscarsson is the director of the Swedish Election Studies Program.