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EurOccupations and social stratification

Third Reporting Period – D28

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Research paper: Euroccupations and social stratification

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1. Introduction

Social stratification has been a main theme in sociological research for many decades now. There are many ways to look at stratification, but for obvious reasons we will here look only at occupation based stratification. The main way in which stratification is look at in this approach is through socio-economic classification.

What is a 'socio-economic classification'? The term 'socio-economic classification' (SEC) is merely a descriptive one. That is, it has no theoretical or analytic status whatever and so may be applied as a generic term for a variety of different measures designed to reflect how societies are stratified. Social stratification refers to social inequalities that may be attributed to the way a society is organised, to its socio-economic structure. SECs all share in common the idea that in market economies it is market position, and especially position in the occupational division of labour, which is fundamental to the generation of social inequalities. The life chances of individuals and families are largely determined by their position in the market and occupation is taken to be its central indicator; that is the occupational structure is viewed as the backbone of the stratification system.

A number of European countries have their own national socio-economic classifications which they use to illustrate the social patterns associated with a variety of life-chances such as health, education, deprivation, poverty and so on. However, there has not been an equivalent European classification which would allow researchers to compare the relationship between social organization and life chances cross-nationally.

In 1999, Eurostat, as part of its statistical harmonisation programme, established an expert group to advise on the possibility of creating a European SEC, leading to the European socio-economic Classification (Esec). ESeC thus is the culmination of this group's work. The main purpose of the stratification research part of the Eurocupations project was to try and contribute to the validation of the EseC class schema (http//www.iser.essex.ac.uk/esec).

The EseC schema aims at being a class schema adapted for use in comparative research (at least within Europe's member states). The allocation of respondents to the EseC schema is mainly based on the ISCO88 (com) occupational calssification schema. Added to this it uses information about the number of subordinates and about the supervisory tasks in the job. The EseC schema could be regarded as an update of one of the most influential contemporary social class schemas, the EGP (Erikson, Goldthorpe and Portocarero) class schema.

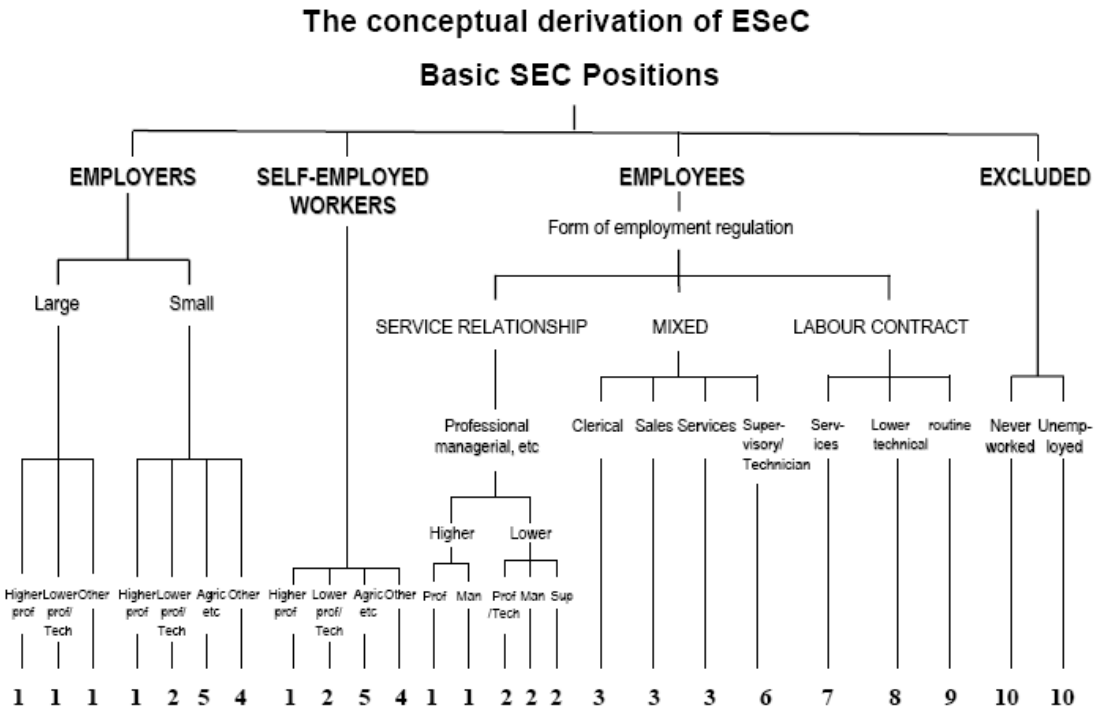
With EseC, a tremendous effort has been made to harmonise occupation based soio-economic measures, but they still rely on an indicator which has not been harmonised so far, namely occupation. Ofcourse, internationally used classifications exist. The ISCO, developed

by the ILO, will probably be the most important one. Still, it is not because a classification can be used in different countries, that one can call it harmonized.

2. Measurement issues

In order for the ESEC to be fully operationalized in line with the underlying theoretical model, at a minimum it requires measures of both occupation, status in employment and, in some cases, enterprise size. The researches constructing the EseC also believe that labour market position should be part of what an ESEC measures. In addition, some measure of farm size may be necessary, too, in order to distinguish capitalist farmers from other (eg subsistence) farmers. How, precisely, are these common elements to be measured?

The most important indicator is occupation. For the most part of the Esec construction occupation has been measured either by ISCO88(COM) or by a national occupational classification similar to it. ISCO88(COM) is a core variable for the Eurostat harmonisation programme and so was the obvious measure of occupation to use for ESEC.



The schedule above clarifies how the ten basic SEC position are being derived. We will not go into further detail, not in the least because all aspects of the EseC are very well documented and fully available[1].

3. Extending the Euroccupations database

[1] http://www.iser.essex.ac.uk/research/esec

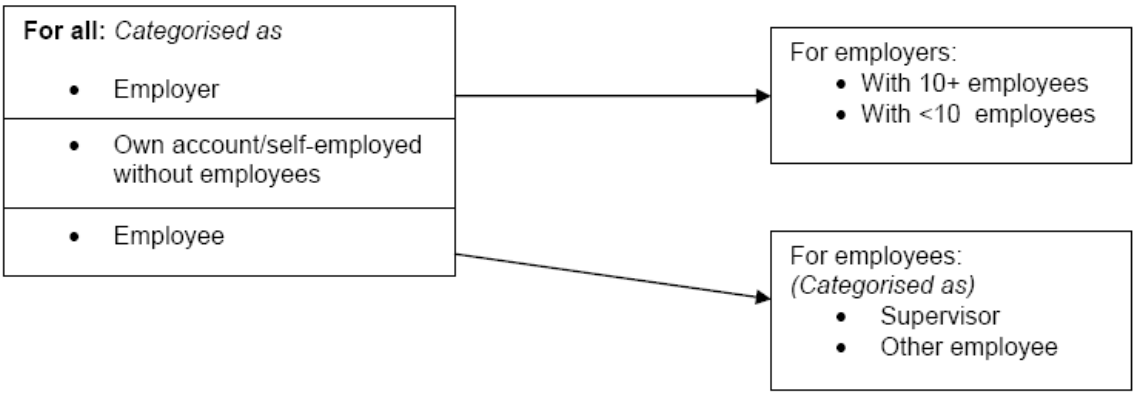
Since the Euroccupations project aims at harmonizing occupational classification throughout Europe, it seemed logical that for the extension of the database the research team looked for harmonized measures of social stratification. The European Socio-economic Classification (EseC) answers best to this description. As said above, the European Socio-economic Classification (ESeC) is an occupationally based classification. In its simplified version, it only requires occupation (for measurement issues, see the next paragraph).

Method	**Information required**
Full	ISCO minor group, employment status, size of organisation
Simplified	ISCO minor group only

As you can see from the table above, a full construction of the occupation based ESEC-schema requires ISCO-minor group, employment status, and size of organization.

Figure one sketches the full derivation algorythm.

FIGURE 1: POSSIBLE EMPLOYMENT STATUSES IN THE FULL METHOD DERIVATION



During the ESeC-project a number of iterations of the ESeC matrix were produced, each one revised as a result of discussions within the consortium and empirical evidence from different countries. Initially this was constructed to comprise every occupational unit group (OUG) within ISCO. In the later phase it was decided to proceed with a single international version of ESeC for use on comparative data sources. Because of national variations in micro-data it was only feasible to do this at the level of ISCO minor groups (3 digits).

The Euroccupations database could have offered an opportunity to go beyond the three digit level, and construct the EseC on the level of occupations (5-digit level). But because of reasons discussed in the next paragraph, this opportunity could not be ceased.

During the course of the Euroccupations project a choice was made to focus on the expert recruitment, and to lessen the efforts to recruit occupational workers. This because the main focus of Euroccupations lay on the validation of the occupational profile by experts. The

length of the expert questionnaire turned out to hamper the participation of experts in our webinquiry. Therefore the consortium in its Marseille meeting in 2008 chose to shorten the expert inquiry questionnaire, leaving out the ESEC questions. Only the occupational worker inquiry would include some questions pertaining to ESEC from then on.

In the table below, the available questions from the final worker questionnaire are depicted.

Questions available for the construction of EseC from the Euroccupations worker questionnaire.

15. Are you an employee or self-employed?

Employee / Self-employed

16. How are you paid?

- Monthly salary plus performance
- Monthly salary only
- Weekly wage
- Hourly paid
- Piecework
- Other

17. Do you have a pay scale with increments, either automatic or performance related?

Yes /No /I don't know

18. If you want to quit your job, how much notice do you have?

None
Less than 1 week
1 week or over but less than 1 month
1 month or more but less than 3 months
3 months or more
I don't know

19. Who decides what time you start and leave work?

My supervisor decides
I decide without limitations
I decide with limitations

20. Do you have opportunities for promotion or career developments either within your organisation or by changing employer?

Yes
No
I don't know

As a result, some of the main variables needed to produce EseC are missing, and there are only very little usable data to analyse cross-national differences in the ESEC on an occupational level (496 responses, unevenly spread over countries, to assess variations of over 160 occupations in 8 countries, which means a base table with more cells than observations).

Another solution could have been to select a number of occupations with reasonably high response, and derive the EseC for those occupations in each country, and then compare to 'simplified' EseC, based solely on three digit ISCO-codes, which are available in the

Euroccupations database, since integration with ISCO08 has been a main issue in constructing het extended list of occupations for the project. But as we said, we lack some important variables like size of firm, and scope of supervision, to be able to do this.

Another way to validate the ESEC, based on the Euroccupations database, would have been to use the simplified version of EseC, that we accorded to all key-occupations, and then to see whether distributions over the relevant characteristics within EseC-classes would differ between countries.

The 10 class model may be collapsed to 6, 5 or 3 classes. In the six class model,

- classes 1 and 2 are combined to form **class 1** 'the salariat';
- classes 3 and 6 combine into an 'intermediate employee' **class 2**;
- classes 4 and 5 become a single **class 3** of 'small employers and self-employed';
- class 7 (lower grade white collar workers) becomes **class 4**;
- class 8 (skilled workers') becomes **class 5**;
- class 9 (semi- and unskilled workers) becomes **class 6**.

To make the 5 class model, classes 5 and 6 in the six class model are combined into a single class of 'lower technical and routine occupations'.

With the ten class schema, this did not produce usable statistics because of the amount of empty cells when crosstabulating the results. We therefore decided to collapse the ESEC into its five class version. This still did not produce reliable nor relevant statistics. There are however things to say about the results in general. The autonomy of the lower ESEC-classes for example is clearly lower than that of the higher classes, for example. Interesting as this may be, this finding does not contribute to a better insight in the possible importance of the cross-national context of socio-economic classifications based on occupation for the construction of measures of social stratification. In other words, over-all analyses are possible, but do not serve our goal of validation the cross-national character of the EseC.

4. Conclusions

As is often the case in complex and lengthy research designs, outcomes do not always match intentions formulated at the beginning of a research project. The same counts for the social stratification theme within the research part of the Euroccupations project. Due to the limited number of responses to the webinquiries at the intermediate evaluation in Marseille, a revision and shortening of the questionnaire was decided. The questions pertaining to social stratification measures were transferred from the expert inquiry to the occupational workers inquiry. As a consequence, a full assessment of the cross-national validity of the EseC was no longer possible. However, this did not mean that a considerable step forward concerning the measurement of social stratification could not be made.

As can be seen in the annex to this paper, EseC codes were accorded to all occupations from the keylist, and will be made available as part of the coding tool for web- of computer assisted surveys coming out of the Euroccupations research. This implies that whoever codes

occupational information with the Euroccupations tool, will automatically dispose of the EseC classification as well. To our knowledge this is a first, because researchers up to now had to turn to algorithms that needed statistical software to apply them, to derive a social stratification measure like status or class. The direct link between ISCO08 codes and the EseC classification, is in our view a major advancement in the availability of social stratification measures, and a possible facilitator of the interest in the social stratification outcomes of occupations, because of the ease with which this information wil now be made available.

Ockey	euroccupations_code	Key_occupation	ISCO88code	ISCO08_code	ISCO083	ESEC
1	51330100000	Maternity carer in private homes	5133	5133	513	7
2	22220000000	Midwifery professional	2230	2222	222	1
3	22350100000	Dietician	3223	2235	223	2
4	51350000000	Carer for the disabled	5132	5135	513	7
5	51340000000	Carer for the elderly	5132	5134	513	7
6	51320400000	Personal carer in an institution for the elderly	5132	5132	513	7
7	51320500000	Personal carer in an institution for the handicapped	5132	5132	513	7
8	51330000000	Personal carer in private homes	5133	5133	513	7
9	24460100000	Community or social service worker	2446	2446	244	2
10	32360500000	Scanning equipment operator	3133	3236	323	2
11	31420000000	Medical laboratory technician	.	3212	321	2
12	32310200000	Dental hygienist	3225	3231	323	2
13	32100200000	Physician assistant	3221	3210	321	2
14	22110000000	General Practitioner GP	2221	2211	221	1
15	22120300000	Surgeon	2221	2212	221	1
16	22210200000	Charge nurse	2230	2221	222	1
17	22210500000	Hospital nurse	2230	2221	222	1
18	51320200000	Nursing aid	5132	5132	513	7
19	13420000000	Health service manager	1229	1342	134	1
21	73140200000	Dental prosthesis technician	.	7314	731	6

22	32340200000	Optician	3224	3234	323	2
23	72310700000	Garage supervisor	7231	7231	723	8
24	74120000000	Electrical mechanic or fitter	7241	7412	741	8
25	25220000000	IT systems administrator	2131	2522	252	1
26	21430000000	Electrical engineer	.	2151	215	1
27	21420100000	Building structure engineer	2142	2142	214	1
28	31120000000	Civil engineering technician	.	3112	311	2
29	31150000000	Mechanical engineering technician	.	3115	311	2
30	72310300000	Car mechanic	7231	7231	723	8
31	72310600000	First line supervisor mechanics, installers, or repairers	7231	7231	723	8
32	21120000000	Climatologist / metereologist	2112	2112	211	1
33	21510000000	Building architect	2141	2151	215	1
34	93130000000	Building construction helper	9313	9313	931	9
35	71220200000	Construction bricklayer	7122	7122	712	8
36	71250100000	Carpenter	7124	7125	712	8
37	72330400000	Refrigeration or air-conditioning equipment erector	7233	7233	723	8
38	72330500000	Refrigeration or air-conditioning equipment mechanic	7233	7233	723	8
39	71410300000	House painter	7141	7141	714	8
40	34520600000	Interior decorator	3471	3452	345	2
41	71320600000	Tile setter, tile layer	7132	7132	713	8
42	71360400000	Plumber	7136	7136	713	8
43	71310000000	Roofer	7131	7131	713	8
44	71310100000	Roofer bituminous operator	7131	7131	713	8
45	72311400000	Master technician cars	7231	7231	723	8
46	71240400000	Concrete steel worker	9313	9313	931	9
47	71220600000	Road paviour, jack hammer operator	.	9312	931	9

48	13410000000	Child care service manager	1229	1341	134	2
49	51310000000	child carer	.	513	513	7
50	34110100000	Nursery school teacher	.	3411	341	3
51	22390200000	Speech therapist	.	2234	223	2
52	23510100000	Education advisor	2351	2351	235	1
53	.	Post-secondary education teacher	.	2310	231	1
54	23400000000	Primary school teacher	.	2340	234	2
55	23400100000	Primary school principal	.	1345	134	2
56	.	University professor	.	2310	231	1
57	.	University researcher	.	2310	231	1
58	.	Secondary education teacher	2320	2330	233	2
59	13450100000	Secondary school principal	1229	1345	134	2
60	.	Vocational education teacher	2320	2330	233	2
61	12130000000	Human Resource manager	1232	1213	121	1
62	41910000000	Personnel clerk	4190	4191	419	3
63	24450000000	Psychologist	2445	2445	244	2
64	14320200000	Library manager	1319	1432	143	1
65	25210200000	Database designer	2131	2521	252	1
66	24530100000	Web designer	3471	2453	245	2
67	35310000000	IT applications programmer	2132	3531	353	1
69	74220200000	Telecommunication equipment installer or repairer	.	7422	742	8
70	24110000000	Accountant	2411	2411	241	1
71	41100200000	Bank clerk	4190	4110	411	3
72	14310000000	Financial institution branch manager	1319	1431	143	1
73	41220800000	Mortgage clerk	4122	4122	412	3
74	41220500000	Financial clerk	4122	4122	412	3
75	33130000000	Estate agent	3413	3313	331	3
76	24130100000	Policy adviser	2419	2413	241	1

77	24220000000	Judge	2422	2422	242	1
78	24210000000	Lawyer	2421	2421	242	1
79	33520200000	Tax inspector	3442	3352	335	2
80	12210100000	Marketing manager	1233	1221	122	2
81	24570000000	Journalist	2451	2457	245	2
82	73120100000	Musical instrument maker	7312	7312	731	6
83	34510500000	Portrait, wedding or other events photographer	3131	3451	345	2
84	81610000000	Printing machine operator	8251	8161	816	9
85	81880200000	Beverage production process operator	8278	8188	818	9
86	31220100000	First line supervisor manufacturing workers	.	3122	312	2
87	75120500000	Confectionery maker	7412	7512	751	8
88	81810300000	Meat processing machine operator	8271	8181	818	9
89	31220300000	Quality assurance inspector	.	.		?
90	93210000000	Assembling helper	9321	9321	932	9
91	82110000000	First line supervisor assembly line workers	.	8211	821	9
92	72230100000	Lathe or turning machine tool setter-operator	7223	7223	722	8
93	72230300000	Metal molder or metal molding machine setter-operator	7223	7223	722	8
94	72331300000	Plant maintenance mechanic	7233	7233	723	8
95	81301000000	CNC operator	.	8130	813	9
96	81300000000	Machine tool operator	.	8130	813	9
97	31370100000	Metal production process operator	.	3137	313	6
98	72130000000	Sheet-metal worker	7213	7213	721	8
99	72120600000	Welder	7212	7212	721	8

100	75340100000	Sewer, seamstress	7436	7534	753	8
101	81920000000	Wood processing plant operator	8141	8192	819	9
102	81130500000	Boring machine operator	8113	8113	811	9
103	71360200000	Pipe fitter	7136	7136	713	8
104	31310000000	Power production plant operator	8161	3131	313	6
105	72320300000	Aircraft mechanic or service technician	.	7232	723	8
106	41100100000	Administrative services department manager	4190	4110	411	3
107	41410100000	Filing clerk	4141	4141	414	9
108	41230000000	Payroll clerk	4121	4123	412	3
109	41420000000	Post sorting or distributing clerk	4142	4142	414	9
110	42260000000	Receptionist	4222	4226	422	7
111	33430200000	Executive secretary	3431	3343	334	2
112	33420000000	Legal secretary	4115	3342	334	2
113	41600000000	Secretary (general)	4115	4160	416	3
114	42110100000	Cashier	4211	4211	421	7
115	1000300000	Non-commissioned officer armed forces	.	100	100	1
116	51360000000	Ambulance attendant	5132	5136	513	7
117	2000400000	Soldier, military operations crew member	.	.	21	3
118	2000300000	Seaman, military operations crew member	.	200	200	1
119	51610000000	Fire fighter	5161	5161	516	7
120	51640000000	Security guard	.	5164	516	7
121	51620200000	Local police officer	5162	5162	516	7
122	34210300000	Police inspector	3450	3421	342	2
123	96210100000	Doorkeeper, concierge	.	.	515	9

124	11200100000	Company director, chief executive 10-50 employees	1210	1120	112	1
125	13230100000	Logistics manager	.	1323	132	1
126	61120000000	Field crop or vegetable grower	6111	6112	611	5
127	92120000000	Livestock farm helper	9211	9212	921	9
128	13130100000	Mixed crop farm manager	1221	1313	131	4
129	61290500000	Non-farm animal caretaker	6129	6129	612	5
130	61540200000	Vermin control worker	.	6154	615	8
132	31460100000	Florist	3212	3146	314	2
133	34430200000	Horse riding instructor	3475	3443	344	2
134	61140200000	First line supervisor landscaping, lawn service, or groundskeeping workers	6113	6114	611	5
135	61140300000	Gardener	6113	6114	611	5
136	21340000000	Veterinarian	2223	2134	213	1
137	31470100000	Agricultural advisor	3213	3147	314	2
138	21330200000	Food science technician	2213	2133	213	1
139	34520100000	Display decorator	3471	3452	345	2
140	51420100000	Beautician	5141	5142	514	7
141	51410000000	Hairdresser	5141	5141	514	7
142	41990400000	Sales clerk	4190	4199	419	3
143	33151000000	Sales representative other products	3415	3315	331	3
144	75110100000	Butcher or fishmonger in retail	7411	7511	751	8
145	75330700000	Surgical footwear maker	7435	7533	753	8
146	75370200000	Shoemaker, leather repairer	7442	7537	753	8
147	52220000000	Shop sales assistant	.	.	522	7
148	61520200000	Inland waters fisherman	6152	6152	615	8
149	14200300000	Department store manager	1314	1420	142	4
150	96290400000	Cloak room attendant	.	9629	962	9

151	51720400000	Restaurant cook	5122	5172	517	8
152	51810000000	Waiter or waitress	5123	5181	518	9
153	14110000000	Hotel manager	1315	1411	141	4
154	94120000000	Kitchen helper	9132	9412	941	9
155	34430600000	Swimming instructor	3475	3443	344	2
156	42210100000	Travel agency clerk	4221	4221	422	7
157	51110300000	Flight attendant	5111	5111	511	7
158	83320100000	International truck driver	8324	8332	833	9
159	83220300000	Taxi driver	8322	8322	832	9
160	83500200000	Sailor	8340	8350	835	6
161	72331500000	Ship mechanic	7233	7233	723	8
162	41330000000	Transport clerk	4133	4133	413	7
163	91120200000	Cleaner in offices, schools or other establishments	9132	9112	911	4
164	91120500000	First line supervisor cleaning workers	0	9112	911	4
165	91290100000	Asbestos removal worker	9142	9129	912	9