

# Putting Europeans in their Place

## Notes on the Measurement of Social Class for Cross-national Research

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Euro Peristat meeting  
13<sup>th</sup> January 2012

# Why Class?

- A unique concept: most disputed but most powerful
- Division of labour between those studying class structure with large data sets and those doing case studies of class-related behaviours and consciousness
- Different and complementary – but which is the independent variable?

- Class is related to ...the ages at which people marry, how they vote, church attendance and risk of criminal conviction. These inequalities may not, in themselves, prove that society is divided into separate classes. The challenge is: can anyone explain these inequalities without a theory of class? (Roberts 2001)

# Starting from theory

Why do we need a clear conceptual framework for class?

If we want to explain the variations in life chances we see, we need to know what we are actually measuring, if we can hope to find the mechanism

Induction v Deduction

Only a conceptual rationale allows us to maintain and revalidate a classification

# A (very) brief History of Class schemas

- Employers, self-employed, employees
- Then within employees....
- Lockwood – Market situation v Work situation
- Goldthorpe – redevelops and formalises this in terms of ‘contractual hazards for employers’
- Asset specificity (market situation)
- Monitoring problems (work situation)

# Different forms of employer response

Service relationship

Labour contract

Pure and attenuated forms of both (lower managers & professionals, skilled workers)

‘Mixed’ forms of employment regulation where one dimension is high and one low

# Operationalising Classes

- Achieved through ‘Occupation+’
- Employment relations are embedded in occupations (through custom and practice)
- And they provide a convenient proxy in surveys
- Occupation, establishment size and employment status
- ‘Convenient’ perhaps but it still needs eight questions

### **Question 1 - Industry description**

"What did the firm/organisation you worked for mainly make or do (at the place where you worked)?"

(Open)

*DESCRIBE FULLY - PROBE MANUFACTURING or PROCESSING or DISTRIBUTING ETC. AND MAIN GOODS PRODUCED, MATERIALS USED, WHOLESALE or RETAIL ETC."*

### **Question 2 - Occupation title current or last main job**

"What was your (main) job?"

(Open)

### **Question 3 - Occupation description current or last main job**

"What did you mainly do in your job?"

(Open)

*CHECK SPECIAL QUALIFICATIONS/TRAINING NEEDED TO DO THE JOB*



## **Employment status/size of organisation**

### **Question 4 - Employee or self-employed**

"Were you working as an employee or were you self-employed?"

1. Employee Go to question 5
2. Self-employed Go to question 7

*The division between employees and self-employed is based on RESPONDENTS' OWN ASSESSMENT of their employment status in their main job.*

### **Question 5 - Supervisory status**

"In your job, did you have any formal responsibility for supervising the work of other employees?"

1. Yes Go to question 6
2. No Go to question 6

*Include people who say they are managers*

**DO NOT INCLUDE:**

- supervisors of children, e.g. teachers, nannies, childminders;
- supervisors of animals;
- people who supervise security or buildings only, e.g. caretakers, security guards

### **Question 6 - Number of employees (Employees)**

"How many people worked for your employer at the place where you worked?"

This should be coded to 1-9; 10+. If categories are 1-10; 11+, then code to this. If 1-4; 5-19, code to 1-19, 20+.

*We are interested in the size of the 'local unit of the establishment' at which the respondent works in terms of total number of employees. The 'local unit' is considered to be the geographical location where the job is mainly carried out.*

### **Question 7 - Self-employed working on own or with employees**

"Were you working on your own or did you have employees?"

1. On own/with partner(s) but no employees
2. With employees Go to question 8

### **Question 8 – Self-employed working on own or with employees**

"How many people did you employ at the place where you worked?"

Were there ... (RUNNING PROMPT)...

0, 1-9, 10+. For other size bands, see question 6 above.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1															
2															
3															
4															
5															
6															
7	Class matrix for ESeC														
			Employment status					If missing							
	Code	Description	se10+	se<10	seno	sup	emp	ess sc	mode						
10	010	Armed forces (officers)	1	1	1	1	1	1	sup						
11	011	Armed forces (other ranks)	3	3	3	2	3	3	emp						
12	100	Legislators, senior officials and managers	1	4	4	1	1	1	sup						
13	110	Legislators and senior officials	1	1	1	1	1	1	sup						
14	111	Legislators and senior government officials	1	1	1	1	1	1	sup						
15	114	Senior officials of special interest organisations	1	1	1	1	1	1	sup						
16	120	Other corporate managers	1	4	4	1	1	1	sup						
17	121	Directors and chief executives	1	4	4	1	1	1	sup						
18	122	Production and operations managers	1	4	4	2	2	2	sup						
19	123	Other specialist managers	1	4	4	1	1	1	sup						
20	130	Managers of small enterprises nes	1	4	4	2	2	4	self						
21	131	Managers of small enterprises	1	4	4	2	2	4	self						
22	200	Professionals	1	1	1	1	1	1	emp						
23	210	Phys, math, engin science professionals	1	1	1	1	1	1	sup						
24	211	Physicists, chemists and related professionals	1	1	1	1	1	1	sup						
25	212	Mathematicians, statisticians and related professionals	1	1	1	1	1	1	emp						
26	213	Computing professionals	1	1	1	1	1	1	emp						
27	214	Architects, engineers and related professionals	1	1	1	1	1	1	sup						
28	220	Life science and health professionals	1	1	1	1	1	1	sup						
29	221	Life science professionals	1	1	1	1	1	1	sup						
30	222	Health professionals (exc. nursing)	1	1	1	1	1	1	sup						
31	223	Nursing and midwifery professionals	1	2	2	2	2	2	sup						
32	230	Teaching Professionals	1	2	2	2	2	2	emp						
33	231	College, university and HE teaching professionals	1	1	1	1	1	1	emp						
34	232	Secondary education teaching professionals	1	2	2	2	2	2	emp						
35	233	Primary and pre-primary education teaching professionals	1	2	2	2	2	2	emp						
36	234	Special education teaching professionals	1	2	2	2	2	2	emp						
37	235	Other teaching professionals	1	1	1	1	1	1	emp						
38	240	Other professionals	1	1	1	1	1	1	sup						
39	241	Business professionals	1	1	1	1	1	1	emp						
40	242	Legal professionals	1	1	1	1	1	1	sup						
41	243	Archivists, librarians and related information professionals	1	2	2	2	2	2	emp						

# The European Socio-economic Classification (ESeC)

	<b>ESeC Class</b>	<b>Common Term</b>	<b>Employment regulation</b>
1	Large employers, higher grade professional, administrative and managerial occupations	Higher salariat	Service Relationship
2	Lower grade professional, administrative and managerial occupations and higher grade technician and supervisory occupations	Lower salariat	Service Relationship (modified)
3	Intermediate occupations	Higher grade white collar workers	Mixed
4	Small employer and self employed occupations (exc agriculture etc)	Petit bourgeoisie or independents	Not applicable
5	Self employed occupations (agriculture etc)	Petit bourgeoisie or independents	Not applicable
6	Lower supervisory and lower technician occupations	Higher grade blue collar workers	Mixed
7	Lower services, sales and clerical occupations	Lower grade white collar workers	Labour Contract (modified)
8	Lower technical occupations	Skilled workers	Labour Contract (modified)
9	Routine occupations	Semi- and non-skilled workers	Labour Contract
10	Never worked and long-term unemployed	Unemployed	Not applicable

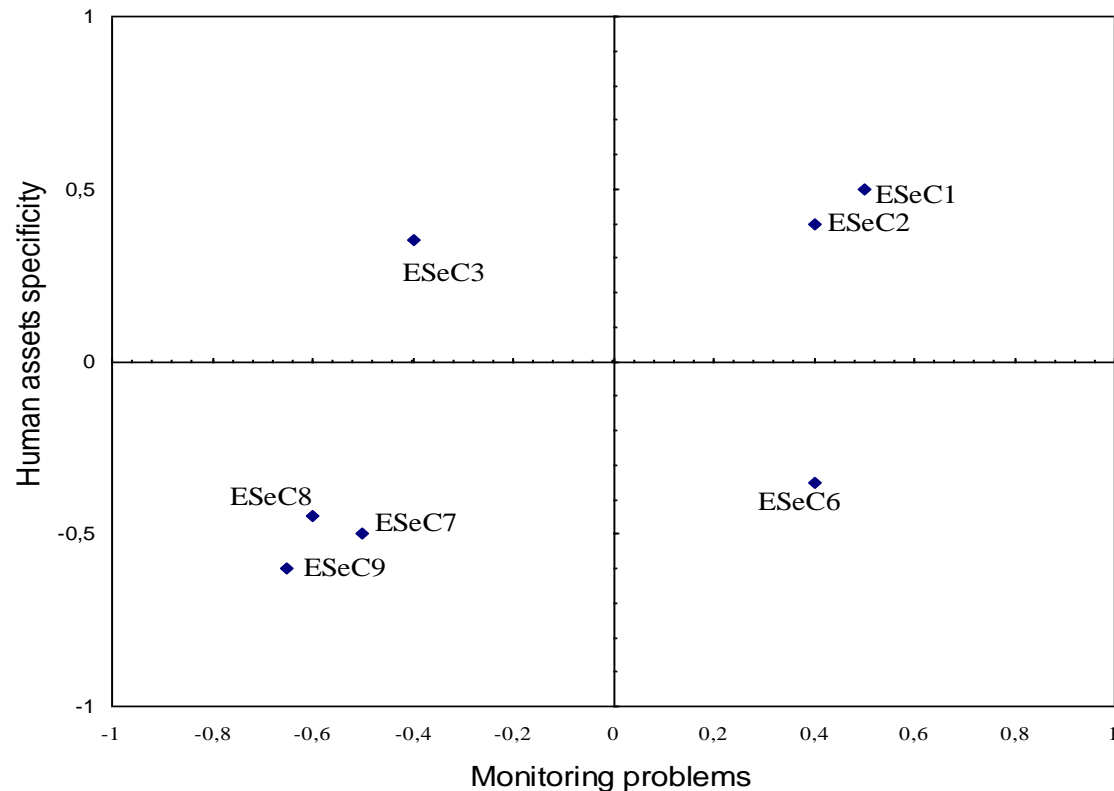
# Three Step Validation

- Criterion Validity (does it measure what it purports to measure?)
- Construct Validity (does it correlate with the types of outcome measures predicted by theory?)
- Operational Validity (does it work; can it be used on any/every data set we want?)

# Criterion Validity

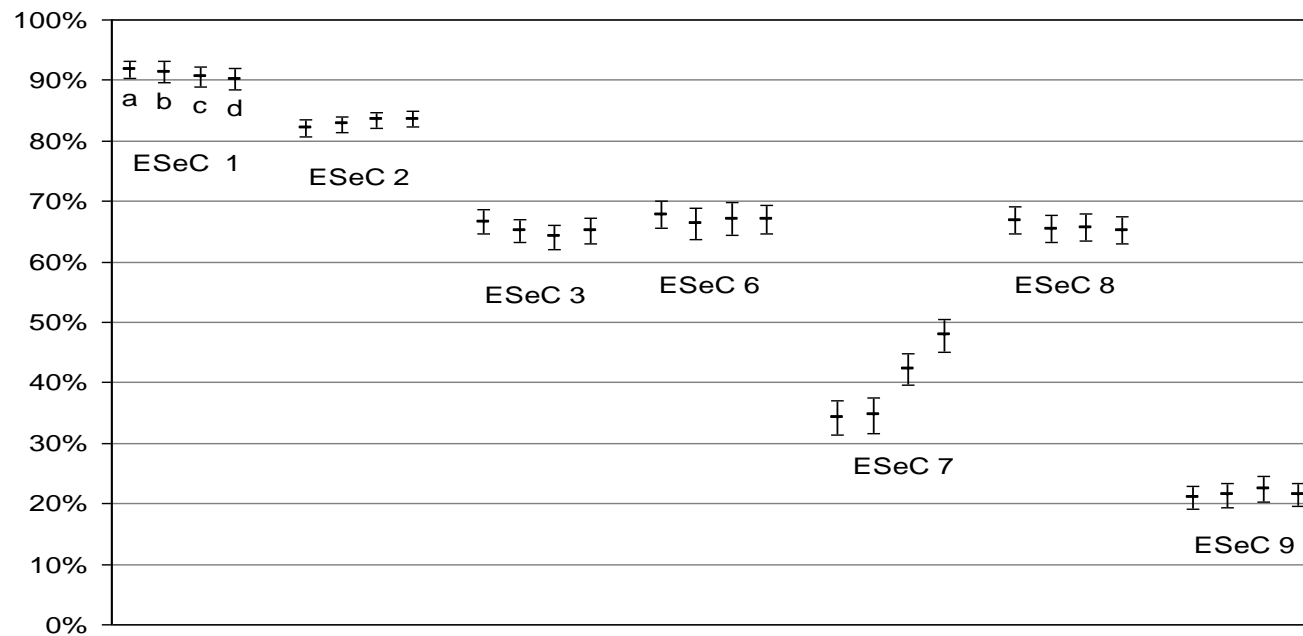
# ESeC classes in a two dimensional diagram in terms of human assets specificity and monitoring problems

- Source: Bihagen et al, 2009



# Employment relations Measures: Required highest qualification: any qualification (%)

Source: Wirth et al, 2009



<sup>a</sup> ESeC German Version, based on 4 digit ISCO-COM

<sup>b</sup> ESeC German Version, based on 3 digit ISCO-COM

<sup>c</sup> ESeC German Version, based on 2 digit ISCO-COM

<sup>d</sup> ESeC International Version (based on 3 digit ISCO-COM)



# Mean Scores on Work autonomy for ESeC Classes

Data: European Social Survey R1

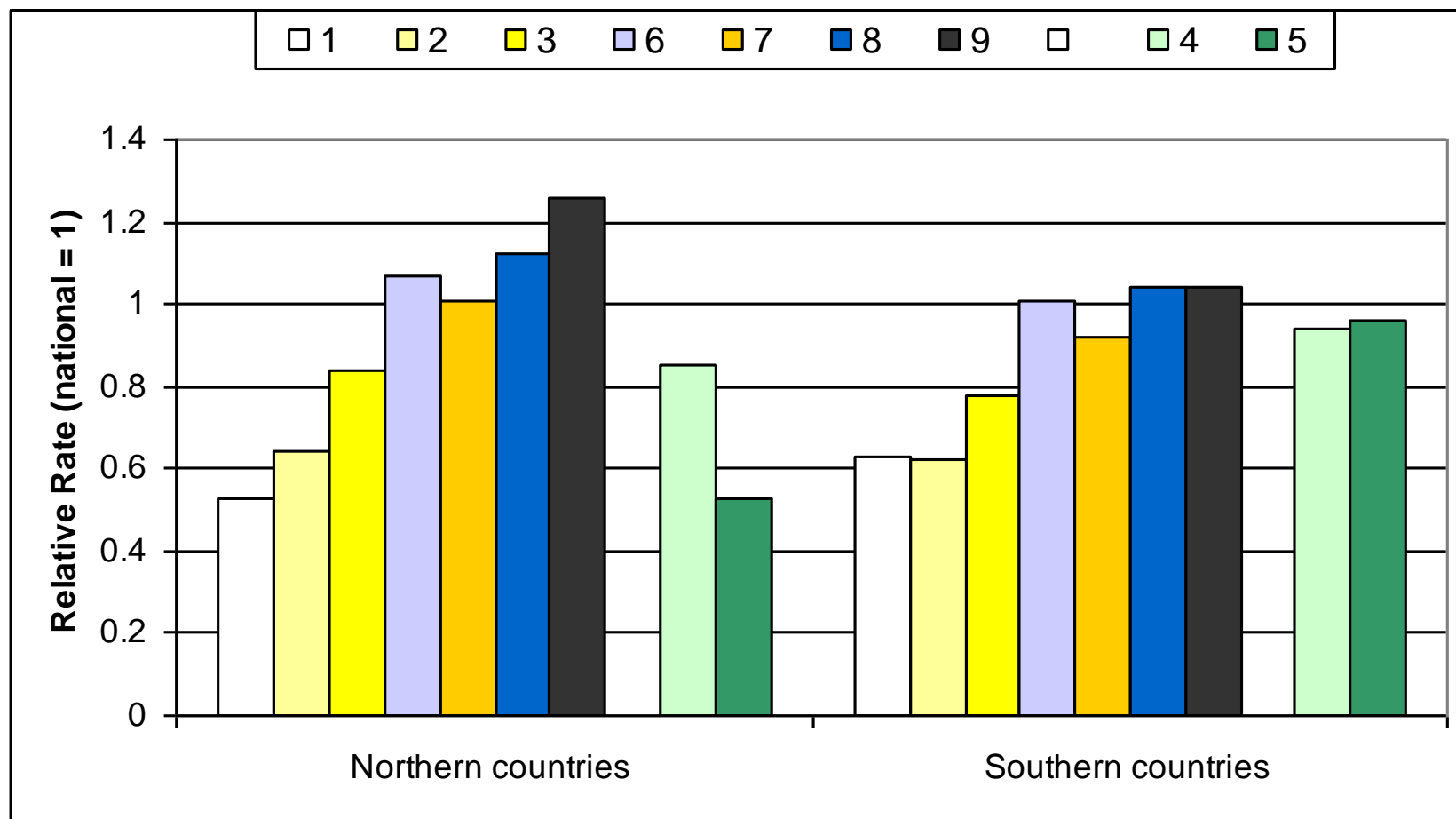
<i>Class</i>	<i>N</i>	<i>Mean</i>	<i>sd</i>	<i>se</i>	<i>95% CI for Mean</i>	
					Lower	Upper
1. Higher managerial and professional	1997	6.52	2.10	0.05	6.43	6.62
2. Lower managerial and professional	5343	6.31	2.24	0.03	6.25	6.37
3. Intermediate	2242	5.27	2.40	0.05	5.17	5.36
6. Lower supervisory and lower technicians	2300	5.75	2.50	0.05	5.64	5.85
7. Lower services, sales and clerical	1943	4.60	2.52	0.06	4.49	4.71
8. Lower technical	1735	3.92	2.67	0.06	3.80	4.05
9. Routine	2858	3.87	2.74	0.05	3.77	3.97
Total	18418	5.35	2.64	0.02	5.31	5.39

# Construct Validity

# Prevalence of “poor” health in Men by ESEC Class

## Northern compared to southern countries

Source: Kunst et al, 2006)



# Income and Deprivation by ESeC Classes

## Hypotheses

Stronger class differences as one moves from

Income poverty --> deprivation --> Consistent poverty

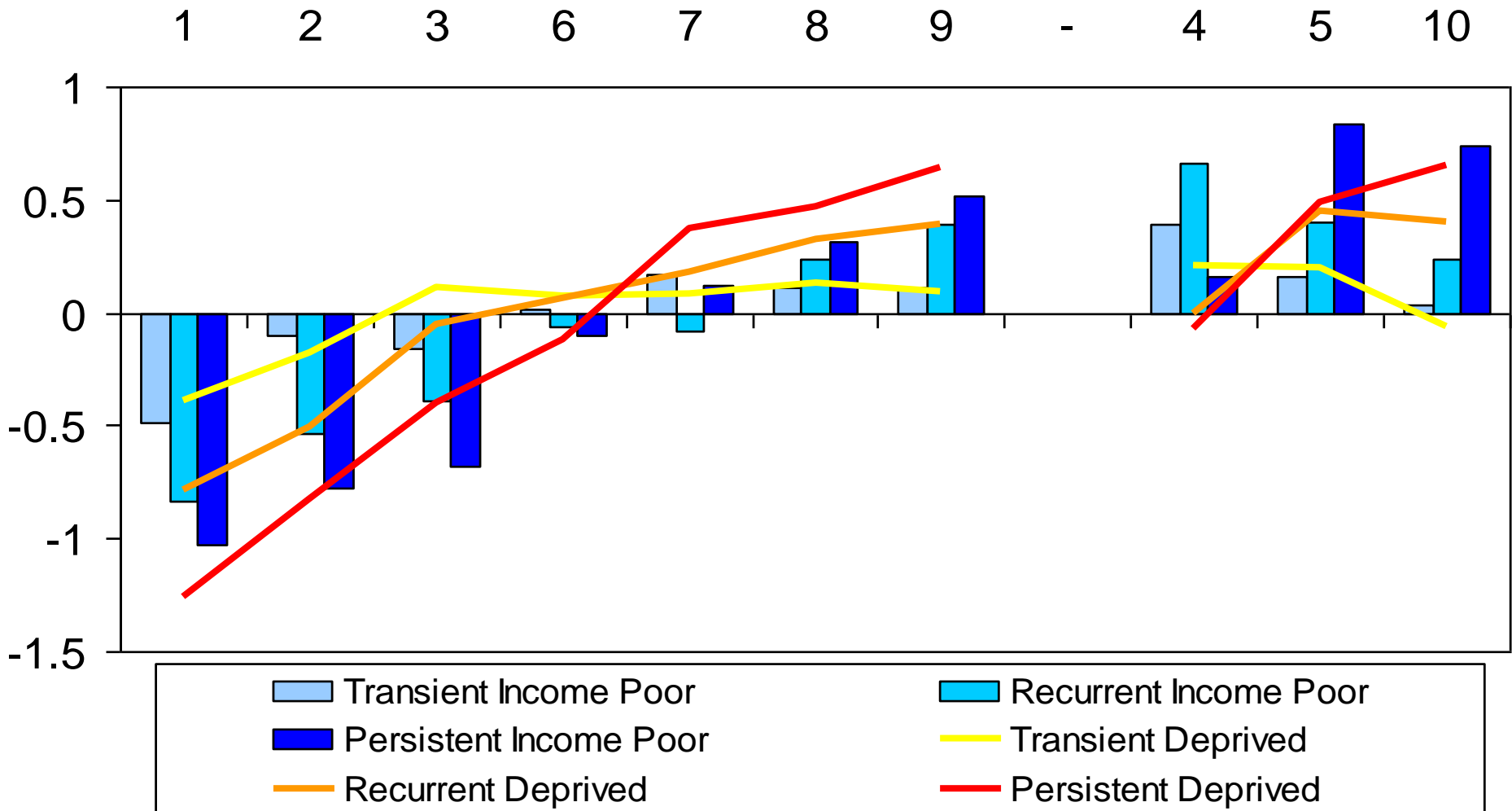
Point-in-time --> persistent poverty / deprivation

Persistent income poverty --> persistent deprivation --  
> Both

# Persistent Poverty & Deprivation in ECHP

## All Countries

Source: Watson et al, 2006



# The Problem of Order(ing)

ESeC, like most employment relations schemas, works well at the ends of the scale

Empirically the intermediate and lower technical and sales classes are more 'mixed'

Reflects reality and in any case ESeC is a relational rather than strictly hierarchical scheme

# Operational Validity

Designed as cross-national instrument – needs to travel well and capture real differences

Frequently need to construct ESeC in conditions of imperfect information

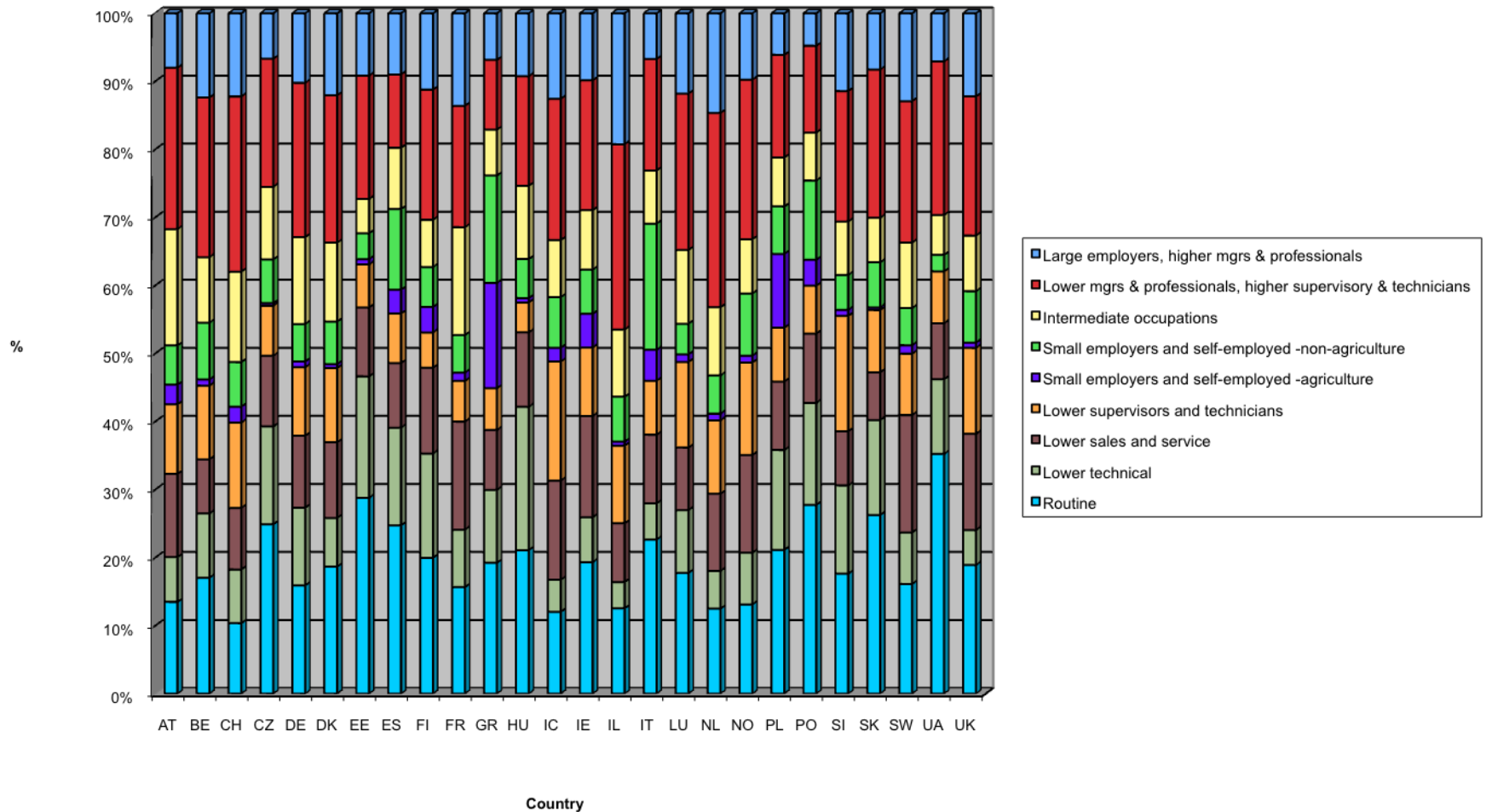
Imprecise coding of occupation

Absence of or fault with supervision or establishment size variable

More than one of these

Need for a flexible schema that can adapt

# ESeC Distributions for ESS countries





# Collapsing ESeC

EseC Class	9 class version	6 class version	5 class version	3 class version
Higher salariat	1	1 + 2	1 + 2	1 + 2
Lower salariat	2			
Higher white collar	3	3 + 6	3 + 6	3 + 4 + 5 + 6
Petite bourgeoisie	4	4 + 5	4 + 5	
Small farmers	5			
Higher blue collar	6	3 + 6	3 + 6	
Lower white collar	7	7	7	7 + 8 + 9
Skilled manual	8	8	8 + 9	
Unskilled manual	9	9		
Unemployed	(10)	(10)	(10)	(10)

# Trading Precision for Reliability

ESeC from 3 digits		ESeC from 2 digits									Total
	Class	1	2	3	4	5	6	7	8	9	
	1	<b>91.20</b>	8.80								100
	2	20.69	<b>73.96</b>	4.43	0.84		0.01	0.07			100
	3	0.01		<b>99.94</b>	0.04						100
	4		0.76		<b>99.03</b>					0.21	100
	5					<b>100.00</b>					100
	6		13.69				<b>86.31</b>				100
	7			21.87				<b>77.23</b>		0.91	100
	8					0.08	3.77		<b>93.50</b>	2.65	100
	9			3.06				11.91		<b>85.03</b>	100
		13.37	16.52	14.39	7.32	2.58	8.21	11.33	9.38	16.89	100

# Unpacking ESeC: Looking Within Classes

- ESeC was designed as a 'nested hierarchy': each class has a number of distinct groups below the top level.
- Revised ESeC now has 41 active SEGs
- Coding structure offers chance to make fine distinctions among the 'inactive groups' which can be used in modelling

# Examples of SEGs

## Class 1:

- 11. Employers (non-agric) with 10+ employees
- 12. Large business farmers
- 13. Higher managerial and administrative
- 14. Higher professional occupations (employees)
- 15. Higher professional occupations (self-employed)

# Examples of SEGs

Class 2:

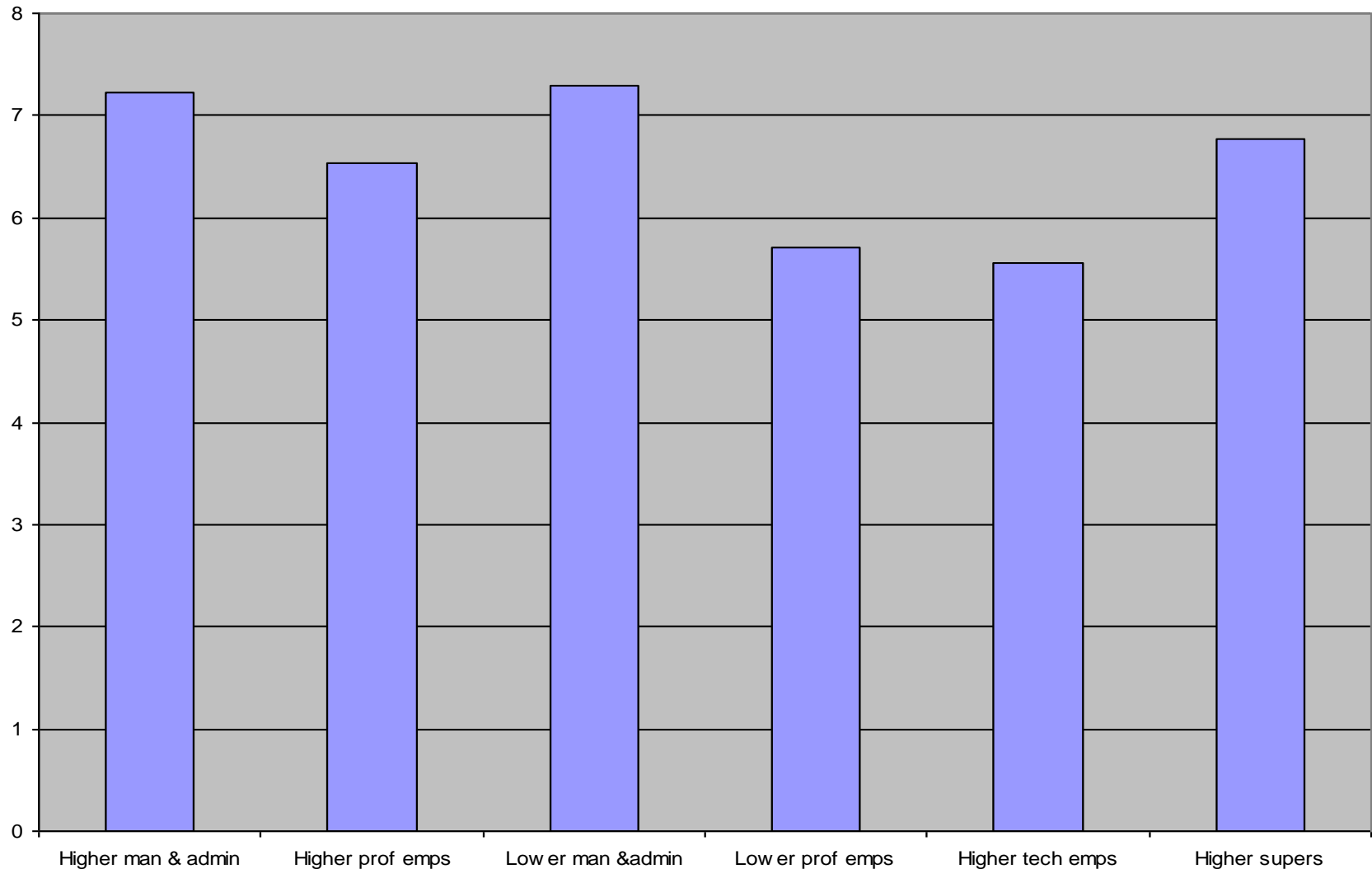
- 21. Lower managerial and administrative occupations
- 22. Lower professional occupations (employees)
- 23. Lower professional occupations (Self-employed)
- 24. Higher technician occupations (employees)
- 25. Higher technician occupations (self-employed)
- 26. Higher supervisory occupations

# Employment Relations through Work Autonomy (difficulty of monitoring)

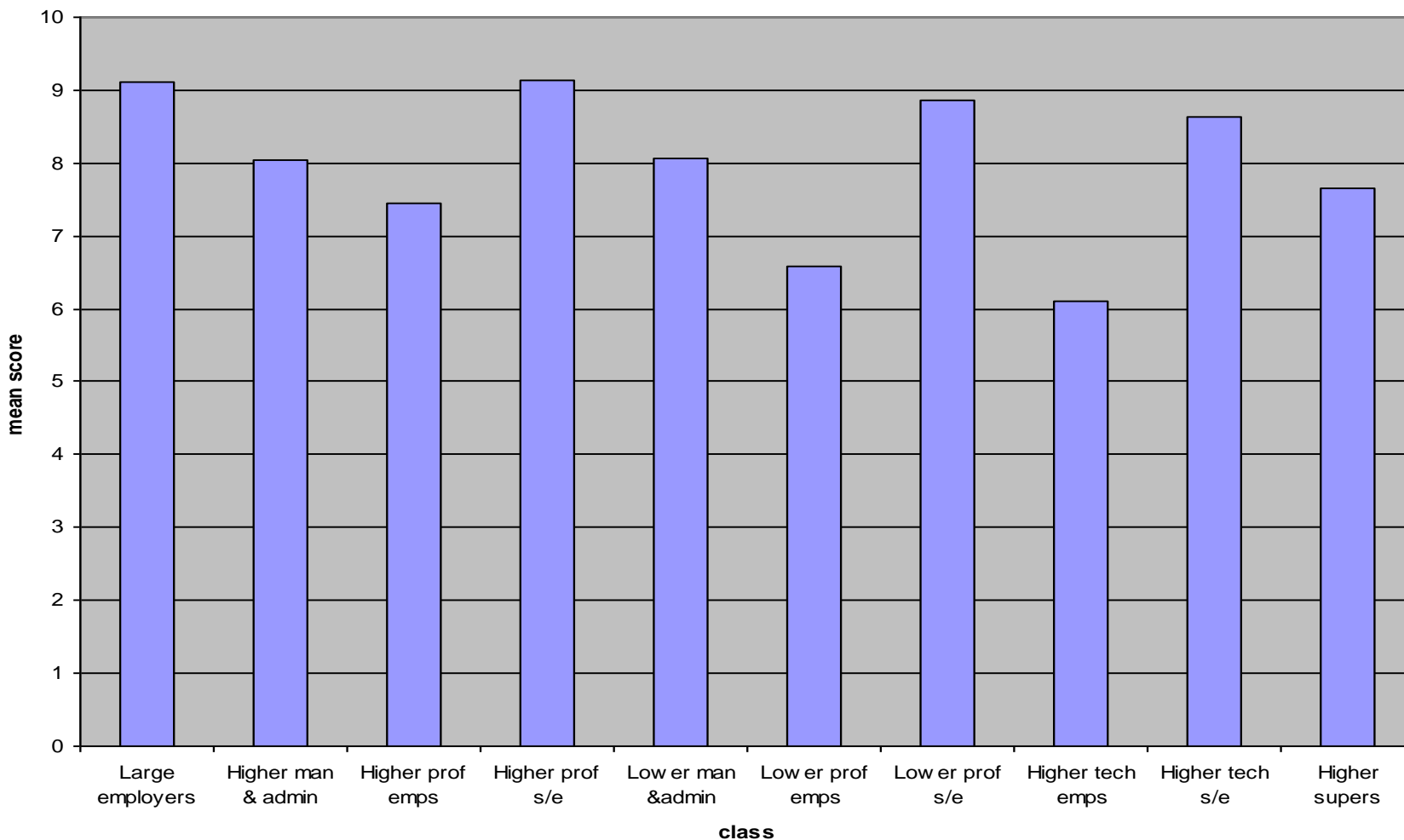
The ESS invited respondents to say

- 'how much the management at your work allows you....
- to be flexible in your working hours?
- To decide how your own daily work is organised?
- To influence your environment?
- To influence decisions about the general direction of your work?
- To change your work tasks if you wish to?

# Five-item work autonomy scale: Employees in Class 1 and 2

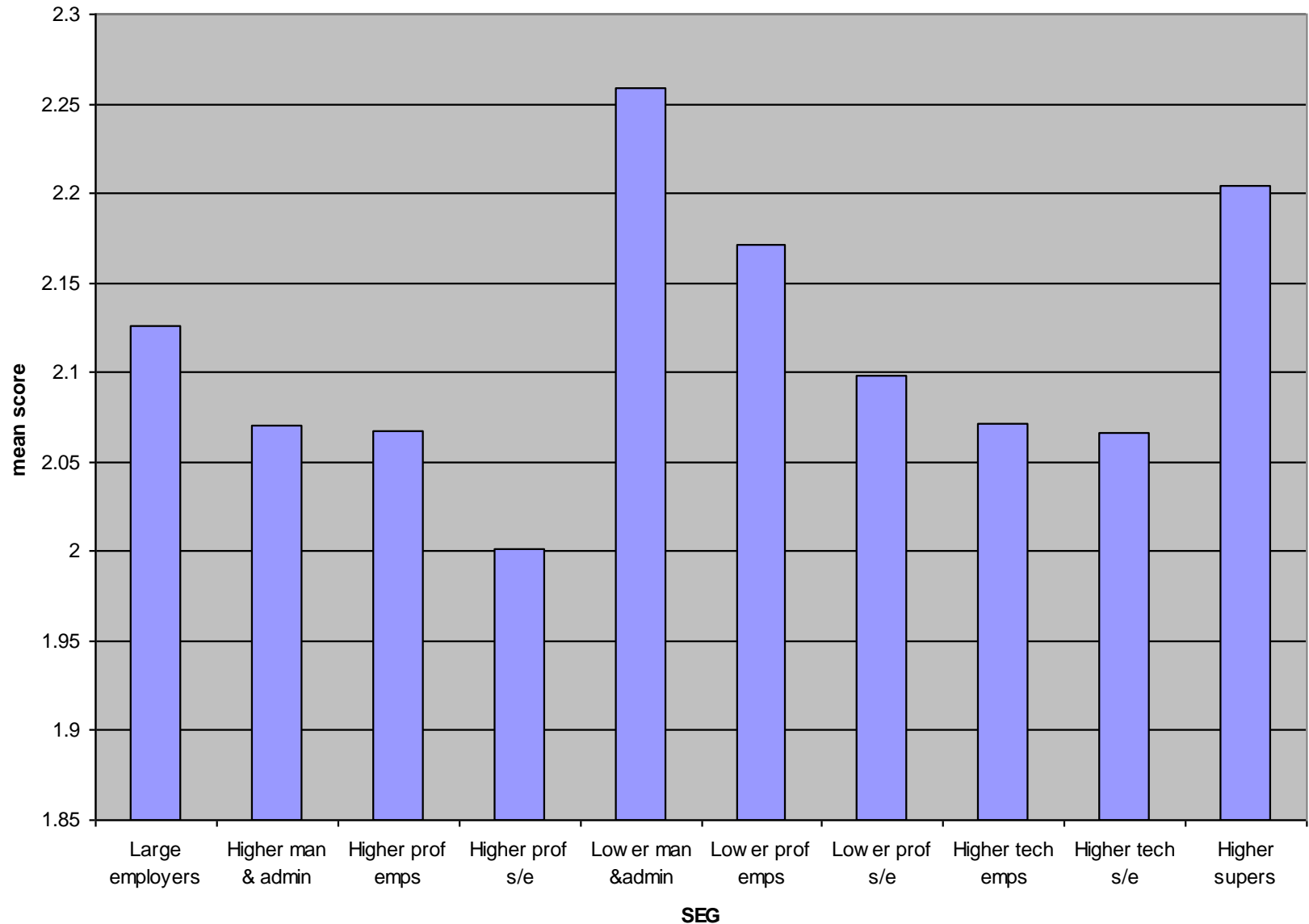


# Influence on organising own work: SEGS in class 1 and 2





# Subjective Poor Health: Classes 1 and 2



# What next for Class measurement?

- ESeC is
  - Conceptually clear and rigorous
  - Fully documented and simple to implement
  - Flexible in use (through 'collapses' and incomplete forms)
  - In full form able to cover the entire population
  - Standardised tool for comparative research
  - Better validated than most
  - Able to describe AND explain

# But there is trouble ahead

- Class structure is always shifting – they are slots or locations
- New measuring instrument to respond – development of ISCO-08
- New categories, new distinctions, new occupations
- Problems remain:
  - Supervision is conceptually important but operationally problematic
  - Ongoing disagreements about relationship between ‘skill’, occupation and employment relations
  - Employment relations: is it really one concept, one measure?
  - North, South, East, West – is the ESeC always best?
- Without fresh research and validation, ESeC won’t be fit to serve the present, only to remind us of the past

# What needs to be done?

- More research and experimentation on quality of occupational measurement
- More integration between survey instruments and substantive research
- Double measurement – crude and sophisticated!
- More thought and debate about what is needed and what 'will do'

# What needs to be done?

- Sticking to 2 digit ISCO would save time, reduce resource burden, increase national comparability
- But would undermine theoretical foundations, i.e. individual occupations are where ER are embedded
- Could use collapsed class schemas for general surveys but devote more resources to specialist research into social stratification and mobility across Europe

# More specifically

Rebasing ESeC on ISCO-08

Examining potential for nationally-based ESeC mappings

Round 5 of ESS involves partial replication of work, family and well-being module - contains measures of asset specificity, monitoring problems, job quality – plus numerous covariates of interest

Opportunity to ‘re-validate’ with current data

Pooling observations from R2&5 for analysis of occupational groups

Release in September 2011