WARWICK INSTITUTE *for* EMPLOYMENT RESEARCH IER

Creating comparative occupational data within the ESS:

problems and possibilities

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Structure of the presentation

- Methods for the collection and coding of occupational information

- What have we learnt from ISCO88(COM)?

- What new tools are now becoming available?

- Where should a programme of quality improvement be focussed?

Collecting/coding occupational information

- ○ Self-assignment versus occupational description?

- ○ More detail may not be more helpful

- ○ The need for the interviewer to understand the occupational classification

- ○ Control of the coding process

- ○ Setting targets for validity and reliability

Lessons from ISCO88(COM)

- The problem of common interpretation

- The use of cross-walks from national classifications (NACE, establishment size)

- The problem of comparison

- The culture of job titles, status and work organisation (the 'managers' problem in the UK)

The 'managers' problem in the UK

ISCO88 Major Group 1

○ Nearly all EU countries and the US show a deviation from the EU average of +/- 2.5 percentage points (2003).

○ The UK and Ireland stand out by showing a deviation of **+6 percentage points.**

○ Similar tabulations received by the IER from Eurostat for 2006 show the same pattern.

Redefining managers in the UK SOC

For SOC2010 Managers will be redefined:

○ **SOC2000**: This major group covers occupations whose *main* tasks consist of the direction and coordination of the functioning of organisations and businesses, *including internal departments and sections, often with the help of subordinate managers and supervisors.*

○ **SOC2010**: This major group covers occupations whose tasks consist of *planning*, directing and coordinating *resources* to achieve the *efficient* functioning of organisations and businesses.

New tools for occupational coding

○ Occupational coding used to be the most time intensive activity in survey coding

○ Computer assisted techniques have now abolished most of the drudgery

○ Need for as much care and attention in the coding process as before

○ CASCOT – a flexible coding tool

Cascot - SOC 2000

File Edit Options Classification Help

Input

File : No input file, Record Number : 0, Progress : [   ] [▦]

Text : [   ] [Code]

Recommendations

Code	Group title	Best matching index entry	Score

Selection

Classification structure - SOC 2000

1	Managers and Senior Officials
2	Professional Occupations
3	Associate Professional and Technical Occupations
4	Administrative and Secretarial Occupations
5	Skilled Trades Occupations
6	Personal Service Occupations
7	Sales and Customer Service Occupations
8	Process, Plant and Machine Operatives
9	Elementary Occupations

Index entries

Index entry	Score

Output

[   ] [Edit] [Accept]

File : No output file   No automatic processing   [No Conclusion]

Cascot - SOC 2000

File Edit Options Classification Help

Input

File : No input file   Record Number : 0   Progress :

Text :   Code

Recommendations

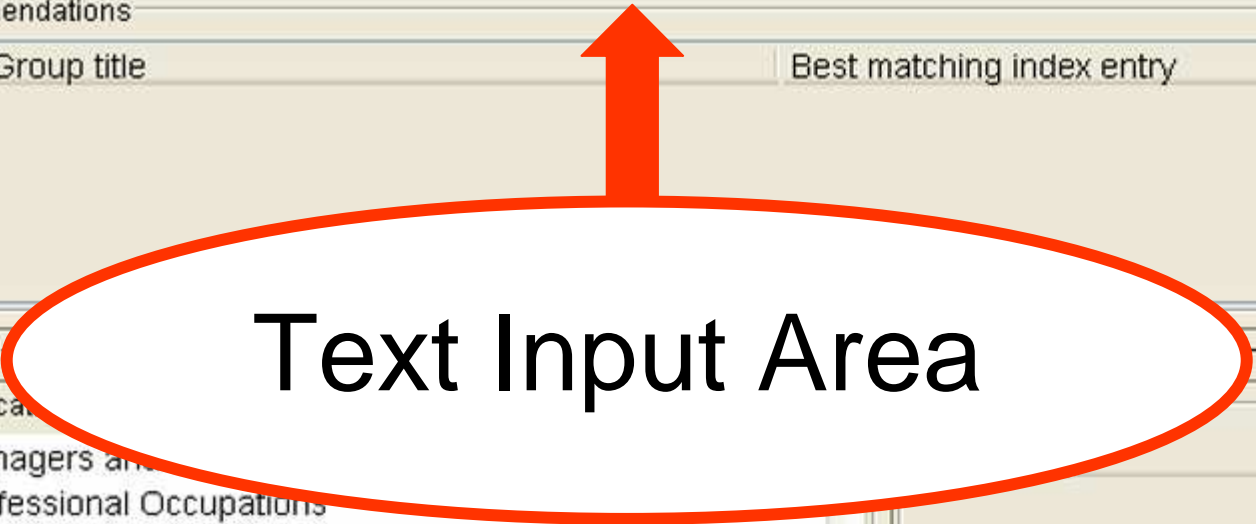| Code	Group title	Best matching index entry	Score

Selection

Classification

1 Managers and
2 Professional Occupations
3 Associate Professional and Technical Occupations
4 Administrative and Secretarial Occupations
5 Skilled Trades Occupations
6 Personal Service Occupations
7 Sales and Customer Service Occupations
8 Process, Plant and Machine Operatives
9 Elementary Occupations

Score

Text Input Area

Output

Edit   Accept

File : No output file   No automatic processing   No Conclusion

Cascot - SOC 2000

File   Edit   Options   Classification   Help

Input

File : No input file,   Record Number : 0,   Progress :

Text : civil engineer   [Code]

Recommendations

Code	Group title	Best matching index entry	Score

Type job title

Selection

Classification structure - SOC

1   Managers and Senior Officials
2   Professional Occupations
3   Associate Professional and Technical Occupations
4   Administrative and Secretarial Occupations
5   Skilled Trades Occupations
6   Personal Service Occupations
7   Sales and Customer Service Occupations
8   Process, Plant and Machine Operatives
9   Elementary Occupations

Press enter, or click 'Code' button

Index entry   Score

Output

[Edit]   [Accept]

File : No output file   No automatic processing   [No Conclusion]

Cascot - SOC 2000

File Edit Options Classification Help

Input
File : No input file
Text : civil e...

Classification Structure

Code

Recommend...

Code	Group ...		Score	
2121	Civil engineer...	...eering)	84	
3114	Building and civil engine...	...ter, engineering, civil	39	
8149	Construction operatives nec.	...nt, engineering, civil	38	
1122	Managers in construction	...ourer, engineering, civil	38	
9121	Labourers in building and woodworking trades		38	

Selection

Classification structure - SOC 2000

	Index entries for 2121	
1 Managers and Senior Officials	Index entry	Score
2 Professional Occupations	Engineer, civil	84
⊟ **21 Science and Technology Professionals**	Engineer (professional, civil)	75
⊞ 211 Science Professionals	Engineer, building and civil	72
⊟ **212 Engineering Professionals**	Consultant, engineering, civil	69
2121 Civil engineers	Consultant; engineering; civil	69
2122 Mechanical engineers	Consultant (civil engineering)	63
2123 Electrical engineers	Engineer (professional, constructional)	48
2124 Electronics engineers	Engineer (professional, highway)	48
	Engineer (professional, highways)	48
	Engineer (professional, irrigation)	48

Output

2121 Civil engineers	Edit	Accept

File : No output file   No automatic processing   No Conclusion

Cascot - SOC 2000

File Edit Options Classification Help

Input

File : No input file, Record Number : 0, Progress : [   ]

Text : civil engineer

Recommendations

Code	Group title		core
2121	Civil engineers	E	84
3114	Building and civil engineering technicians	Engine	39
8149	Construction operatives nec.	Contractor, eng	38
1122	Managers in construction	Agent, engineering, ci	38
9121	Labourers in building and woodworking trades	Labourer, engineering vil	38

Index Entries

Selection

Classification structure - SOC 2000

1   Managers and Senior Officials
2   Professional Occupations
⊟ **21   Science and Technology Professionals**
  ⊞ 211 Science Professionals
  ⊟ **212 Engineering Professionals**
    2121 Civil engineers
    2122 Mechanical engineers
    2123 Electrical engineers
    2124 Electronics engineers

Index entries for 2121

Index entry	Score
Engineer, civil	84
Engineer (professional, civil)	75
Engineer, building and civil	72
Consultant, engineering, civil	69
Consultant; engineering; civil	69
Consultant (civil engineering)	63
Engineer (professional, constructional)	48
Engineer (professional, highway)	48
Engineer (professional, highways)	48
Engineer (professional, irrigation)	48

Output

2121 Civil engineers   [Edit] [Accept]

File : No output file   No automatic processing   [No Conclusion]

File   Edit   Options   Classification   Help

Input

File : No input file,   Record Number : 0,   Progress : [＿＿＿＿＿＿＿＿＿＿＿]   [▥]

Text :   civil engineer   [Code]

Recommendations

Code	Group title	Best matching index entry	Score
2121	Civil engineers	Engineer, civil	84
3114	Building and civil engineering technicians	Engineer, incorporated (civil engineering)	39
8149	Construction operatives nec.	Contractor, engineering, civil	38
1122	Managers in construction	Agent, engineering, civil	38
9121	Labourers in building and woodworking trades	Labourer, engineering, civil	38

Selection

Classification structure - SOC 2000

1   Managers and Senior Officials
2   **Professional**
☐ **21   Scien**   **als**
   ⊞ 211
   ☐ 212
      21
      2122
      2123 Elec
      2124 Electronics   ineers

Output

Index entries for 2121

Index entry	Score
Engineer, civil	84
Engineer (professional, civil)	75
Engineer, building and civil	72
Consultant, engineering, civil	69
Consultant; engineering; civil	69
Consultant (civil engineering)	63
Engineer (professional, constructional)	48
Engineer (professional, highway)	48
Engineer (professional, highways)	48
Engineer (professional, irrigation)	48

Output

2121 Civil engineers	Edit	Accept

File : No output file   No automatic processing   No Conclusion

Cascot - SOC 2000

File   Edit   Options   Classification   Help

Input
File : N[...]
Text : [...]

Best recommendation selected automatically.
Select another by clicking a different line.

Recommend[...]

Code	Gro[...]	Best matching index entry	Score
2121	Civil engineers	Engineer, civil	84
3114	Building and civil engineering technicians	Engineer, incorporated (civil engineering)	39
8149	Construction operatives nec.	Contractor, engineering, civil	38
1122	Managers in construction	Agent, engineering, civil	38
9121	Labourers in building and woodworking trades	Labourer, engineering, civil	38

Selection

Classification structure - SOC 2000

1	Managers and Senior Officials
2	**Professional Occupations**
⊟ **21**	**Science and Technology Professionals**
⊞ 211	Science Professionals
⊟ **212**	**Engineering Professionals**
2121	**Civil engineers**
2122	Mechanical engineers
2123	Electrical engineers
2124	Electronics engineers

Index entries for 2121

Index entry	Score
Engineer, civil	84
Engineer (professional, civil)	75
Engineer, building and civil	72
Consultant, engineering, civil	69
Consultant; engineering; civil	69
Consultant (civil engineering)	63
Engineer (professional, constructional)	48
Engineer (professional, highway)	48
Engineer (professional, highways)	48
Engineer (professional, irrigation)	48

Output

2121 Civil engineers	Edit	Accept

File : No output file   No automatic processing   No Conclusion

Cascot - SOC 2000

File   Edit   Options   Classification   Help

Input

File : No input file,   Record Number : 0,   Progress :

Text : civil engineer   Code

Recommendations

Code	Group title	Best matching index entry	Score
2121	Civil engineers	Engineer, civil	84
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Structure & Index entry list will change.

Selection

Classification

1   Managers and Senior Officials
2   **Professional Occupations**
  ⊟ **21   Science and Technology Professionals**
    ⊞ 211 Science Professionals
      ⊟ **212 Engineering Professionals**
        2121 Civil engineers
        2122 Mechanical engineers
        2123 Electrical engineers
        2124 Electronics engineers

Index entry	Score
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Consultant (civil engineering)	63
Engineer (professional, constructional)	48
Engineer (professional, highway)	48
Engineer (professional, highways)	48
Engineer (professional, irrigation)	48

Output

2121   Civil engineers   Edit   Accept

File : No output file   No automatic processing   No Conclusion

Cascot - SOC 2000

File Edit Options Classification Help

Input

File : No input file, Record Number : 0, Progress : [   ]

Text : civil engineer   [Code]

Recommendations

Code	Group title	Best matching index entry	Score
2121	Civil engineers	Engineer, civil	84
3114	Building and civil engineering technicians	Engineer, incorporated (civil engineering)	39
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1122	Managers in construction	Agent, engineering, civil	38
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Selection

Classification structure - SOC 2000

- ⊞ 23 Teaching and Research Professionals
- ⊞ 24 Business and Public Service Professionals

And output has changed.

- 31 Laboratory technicians
- 31 Electrical/electronics technicians
- 31 Engineering technicians
- 31 **Building and civil engineering technicians**

Index entries for 3114

Index entry	Score
Engineer, incorporated (civil engineering)	39
Assistant, engineering, civil	38
Technician, engineering, civil	38
Technician; engineering; civil	38
Technician (civil engineering)	35
Technician (engineering, civil)	35
Assistant, technical (civil engineering)	32
Officer, technical (civil engineering)	32
Engineer, services, building	23
Technician, engineering, structural	21

Output

3114   Building and civil engineering technicians   [Edit] [Accept]

File : No output file   No automatic processing   [No Conclusion]

Cascot - SOC 2000

File   Edit   Options   Classification   Help

Input

File : No input file,   Record Number : 0,   Progress :

Text : civil engineer   Code

Recommendations

Code	Group title	Best matching index entry	Score
2121	Civil engineers	Engineer, civil	84
3114	Building and civil engineering technicians	Engineer, incorporated (civil engineering)	39
8149	Construction operatives nec.	Contractor, engineering, civil	38
1122	Managers in construction	Agent, engineering, civil	38
9121			38

Change selection via structure

Selection

Classification structure - SOC 2000

- 22   Health Professionals
- 23   Teaching and Research Professionals
- 24   Business and Public Service Professionals
- 3   **Associate Professional and Technical Occupations**
  - 31   **Science and Technology Associate Professionals**
    - 311 **Science And Engineering Technicians**
      - 3111 Laboratory technicians
      - 3112 Electrical/electronics technicians
      - 3113 Engineering technicians
      - **3114 Building and civil engineering technicians**

Index entries for 3114

Index entry	Score
Engineer, incorporated (civil engineering)	39
Assistant, engineering, civil	38
Technician, engineering, civil	38
Technician; engineering; civil	38
Technician (civil engineering)	35
Technician (engineering, civil)	35
Assistant, technical (civil engineering)	32
Officer, technical (civil engineering)	32
Engineer, services, building	23
Technician, engineering, structural	21

Output

3114   Building and civil engineering technicians   Edit   Accept

File : No output file   No automatic processing   No Conclusion

Cascot - SOC 2000

File Edit Options Classification Help

Input

File : No input file, Record Number : 0, Progress :

Text : civil engineer   [Code]

Recommendations

Code	Group title	Best matching index entry	Score
2121	Civil engineers		
3114	Building and civil engineering technicians		
8149	Construction operatives nec.	Contractor, engineering,	38
1122	Managers in construction	Agent, engineering, civil	38
9121	Labourers in building and woodworking trades	Labourer, engineering, ci	38

Index entry list will change.

Selection

Classification structure - SOC 2000

- 22 Health Professionals
- ⊞ 23 Teaching and Research Professionals
- ⊞ 24 Business and Public Service Professionals
- **3 Associate Professional and Technical Occupations**
- ⊟ **31 Science and Technology Associate Professionals**
  - ⊟ **311 Science And Engineering Technicians**
    - **3111 Laboratory technicians**
    - 3112 Electrical/electronics technicians
    - 3113 Engineering technicians
    - 3114 Building and civil engineering technicians

Index entries for 3

Index entry	Score
Engineer, incorporated (civil engineering)	39
Assistant, engineering, civil	38
Technician, engineering, civil	38
Technician; engineering; civil	38
Technician (civil engineering)	35
Technician (engineering, civil)	35
Assistant, technical (civil engineering)	32
Officer, technical (civil engineering)	32
Engineer, services, building	23
Technician, engineering, structural	21

Output

3114 Building and civil engineering technicians   [Edit] [Accept]

File : No output file   No automatic processing   [No Conclusion]

File Edit Options Classification Help

Input

File : No input file, Record Number : 0, Progress :

Text : civil engineer

Code

Recommendations

Code	Group title	Best matching index entry	Score
2121	Civil engineers	Engineer, civil	84
3114	Building and civil engineering technicians	Engineer, incorporated (civil engineering)	39
8149	Construction operatives nec.	Contractor, engineering, civil	38
1122	Managers in construction	Agent, engineering, civil	38
9121	Labourers in building and woodworking trades	Labourer, engineering, civil	38

Selection

Classification structure - SOC 2000

- 22 Health Professionals
- ⊞ 23 Teaching and Research Professionals
- ⊞ 24 Business and Public Service Professionals
- **3 Associate Professional and Technical Occupations**
- ⊟ **31 Science and Technology Associate Professionals**
    - ⊟ **311 Science And Engineering Technicians**
        - **3111 Laboratory technicians**
        - 3112 Electrical/electronics technicians

Index entries for 3111

Index entry	Score
Engineer; laboratory	25
Analyser	5
Analyst	5
Analyst, geophysical	5
Analyst, laboratory	5
Analyst, material	5
Analyst, materials	5
Assistant, research (medical)	5
Assistant, scientific	5
Assistant: wind tunnel test	5

And output has changed.

Output

3111   Laboratory technicians

Edit   Accept

File : No output file   No automatic processing   No Conclusion

Where to focus efforts to improve occupation?

- ○ Develop common multilingual coding tools (Euroccupations? www.euroccupations.org)

- ○ Ask the right questions (job title; what kind of work do you do?)

- ○ Train interviewers in aspects of occupational classification and coding

- ○ Conduct validity and reliability checks

- ○ Collect and store text as basic data

- ○ Conduct research on the boundaries of major occupation groups (esp. professional/technical and craft/operative)

ISCO08

○ No need for establishment size to define managers

○ Various groups of supervisors

○ The 'new' occupations – how well do these translate from English?

○ Will Eurostat use this opportunity to introduce a common and mandatory classification for the EU?

○ The ESS as a 'proving ground' for what Eurostat should achieve (but the problem of sample size)