

1 Skills (moving to SES data)

1.1 Preliminaries

Table 1: Number of jobs in occupation panel by dataset

Number of occupations	Occupation
In LFS	233
In SES (complete sample 2001-2017)	175

1.2 Skills chosen to proxy [Autor and Dorn \(2013\)](#)

Index composition: questions as they appear in the 2012 questionnaire. **Analytical skills:**

- cpeople: In your job, how important is dealing with people?
- cteach: How important is instructing, training or teaching people, individually or in groups?
- cpersuad: How important is persuading or influencing others?
- cplanoth: How important is planning the activities of others?
- csolutn: How important is thinking of solutions to problems? The problems could be with your own work, someone else's work or equipment.
- canalyse: How important is analysing complex problems in depth?
- ccalca: In your job, how important is adding, subtracting, multiplying or dividing numbers? (Note: using a calculator or computer if necessary)
- cpercent: How important are calculations using decimals, percentages or fractions? (Note: using a calculator or computer if necessary)

Routine: *main change: combined all indexes into only one*

- brepeat: How often does your work involve carrying out short, repetitive tasks? (I recoded this variable so that larger values). I recoded the variable so that larger values imply **less** repetitiveness in the job.
- bvaryety: How much variety is there in your job?
- cfaults: How important is spotting problems or faults? The problems or faults could be with your own work, or someone else's work or equipment.

Manual: before I was using skphys (physical strength) but I realized that this a derived index that included cstren, cstam, ctools and chand. I excluded skphys and put its components instead.

- cstreng: how important is physical strength?
- cstam: how important is physical stamina?
- chands: how important is skill or accuracy in using your hands or fingers (for example, to mend, repair, assemble, construct or adjust things)?
- ctools: how important is knowledge of how to use or operate tools, equipment or machinery?

References

Autor, D. H. and Dorn, D. (2013). The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market. *American Economic Review*, 103(5):1553–1597.

A Appendix

Figure 1: LFS: employment shares by educational level

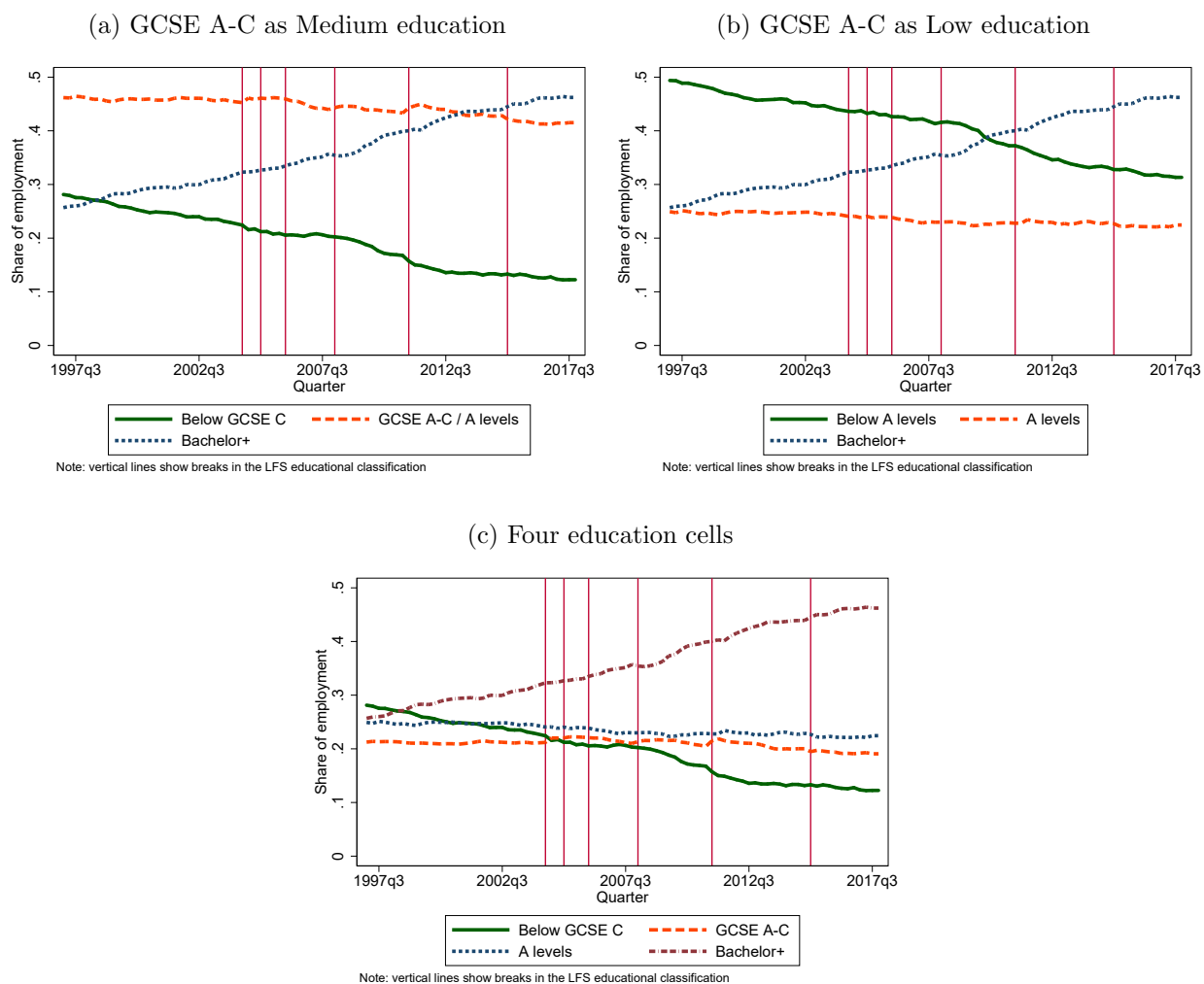


Figure 2: Skill simplex: [Autor and Dorn \(2013\)](#) indexes

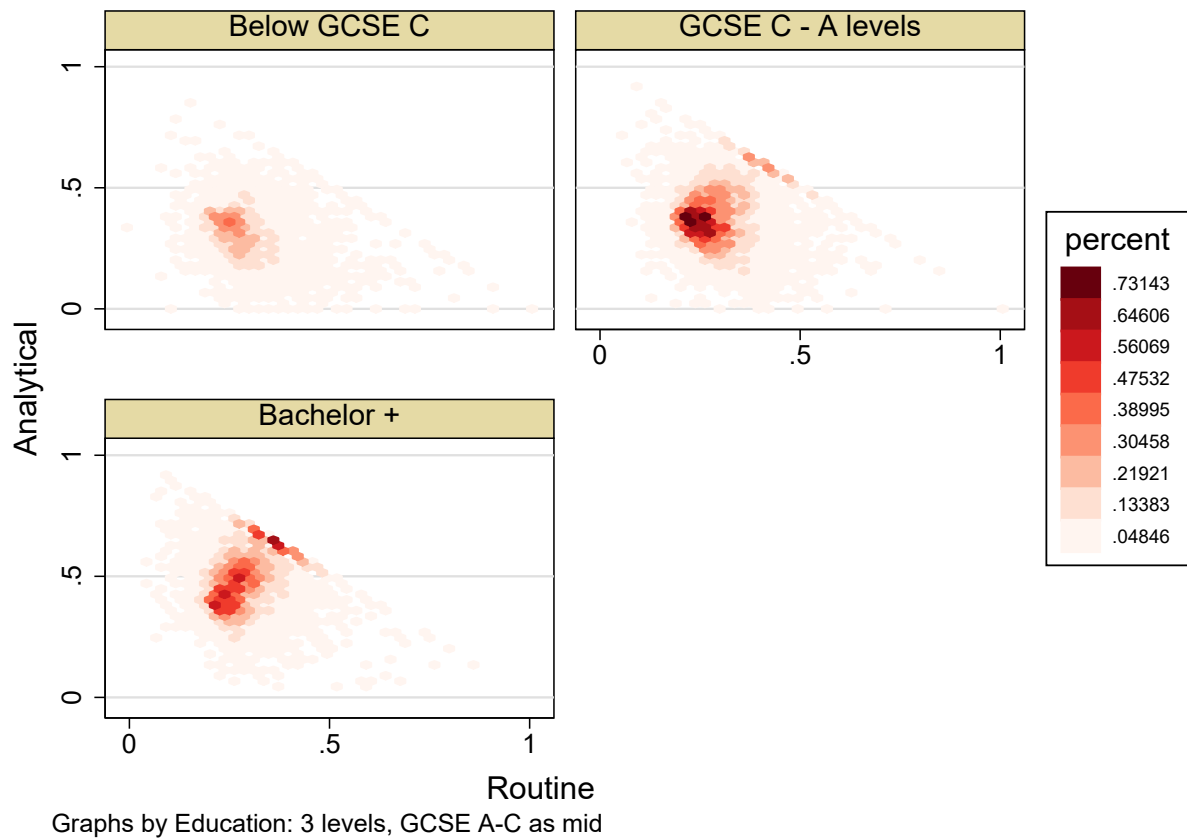
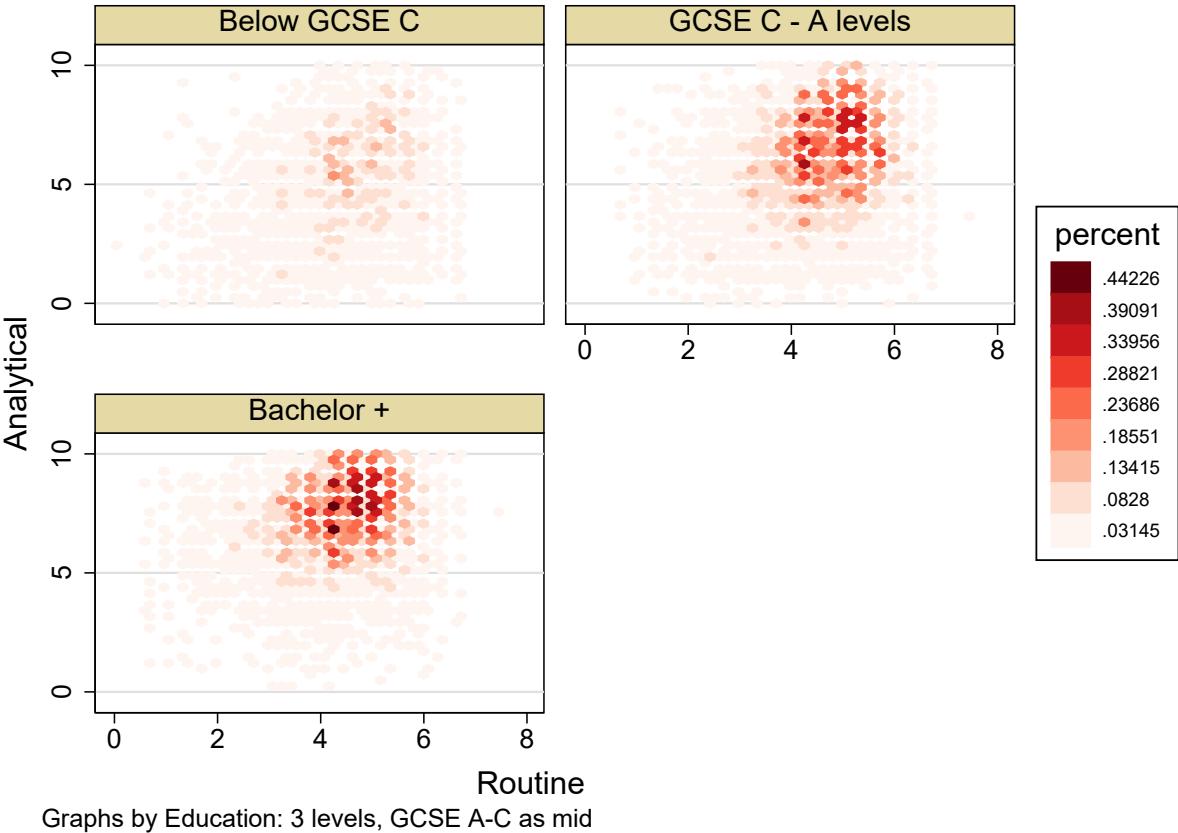


Figure 3: Skill simplex: factor analysis

(a) Analytical vs routine



(b) Manual vs routine

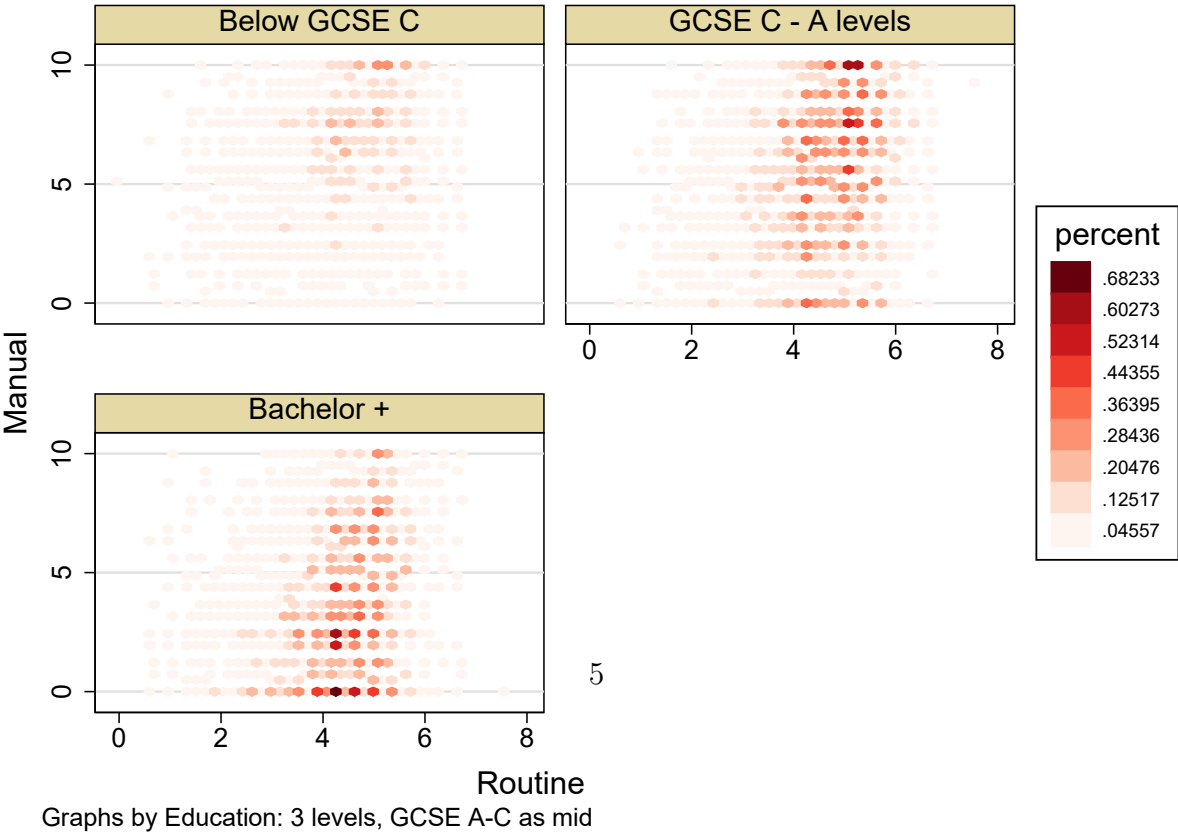


Table 2: Skill indexes description

variableName	description
cfaults	importance of: spotting problems or faults
ccause	importance of: working out cause of problems/ faults
csoltn	importance of: thinking of solutions to problems
canalyse	importance of: analysing complex problems in depth
cread	importance of: reading written information (eg. forms, notices, signs)
cshort	importance of: reading short documents
clong	importance of: reading long documents
cwrite	importance of: writing materials such as forms, notices or signs
cwritesh	importance of: writing short documents
cwritelg	importance of: writing long documents
cpeople	importance of: dealing with people
cteach	importance of: teaching people (individuals or groups)
cspeech	importance of: making speeches/ presentations
cpersuad	importance of: persuading or influencing others
ccaring	importance of: counselling, advising or caring for customers or clients
cteamwk	importance of: working with a team
clisten	importance of: listening carefully to colleagues
ccoop	importance of: cooperating with colleagues
cusepc	importance of: using a computer/ pc/ other computerised equipment
bchoice	how much choice have over way in which do job
bme1	influence personally have on: how hard work
bme2	influence personally have on: what tasks to do
bme3	influence personally have on: how to do the task
bme4	influence personally have on: quality standards work to
cstrengt	importance of: physical strength
cstamina	importance of: physical stamina
chands	importance of: skill or accuracy in using hands/fingers
ctools	importance of: knowledge of use or operation of tools
ccalca	importance of: basic arithmetics
cpercent	Importance of: using fractions
brepeat	how often work involves short repetitive tasks
bvariety	how much variety in job
cselling	importance of: selling a product or service
cproduct	importance of: knowledge of particular products or services
cspecial	importance of: specialist knowledge or understanding
corgwork	importance of: knowledge of how organisation works
cplanme	importance of: planning own activities
cplanoth	importance of: planning the activities of others
cmytime	importance of: organising own time
cahead	importance of: thinking ahead

Figure 4: Reported skill use by education level, [Autor and Dorn \(2013\)](#) indexes

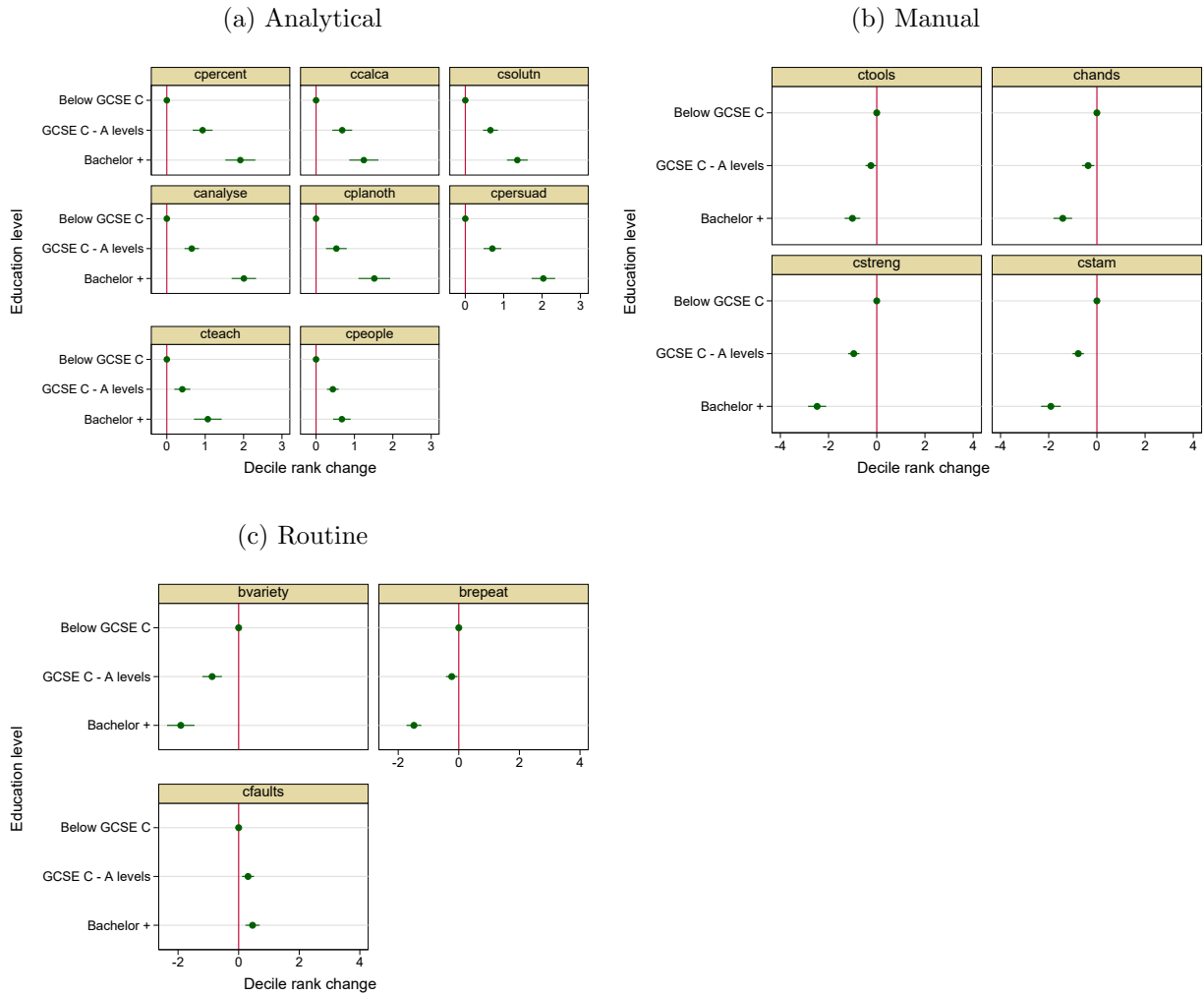


Table 3: Top occupations: Analytical

bsoc00Agg	Mean observations
1112 directors & chief execs of maj orgs	18.0
1114 sen. officials spec interest orgs	18.0
1121 prod. works & maintenance managers	238.0
1122 managers in construction, mining and energy	105.0
1131 financial managers & chartered secs	128.0
1133 purchasing managers	26.0
1137 research and development managers	38.0
1161 Transport, distribution, storage and warehouse managers	105.0
1172 protective service officers	26.0
2213 pharmacists & pharmacologists	21.0
2216 veterinarians	10.0
2314 secondary eductn teaching prfsnals	257.0
2315 prim & nurs eductn teaching profs	327.0
2422 management accountants	9.0
2423 mngmnt cons, actuar, econs & statn	88.0
Total	94.3

Table 4: Top occupations: Routine

bsoc00Agg	Mean observations
1211 farm managers	9.0
2111 chemists	10.0
2213 pharmacists & pharmacologists	21.0
3511 Transport Associate Professionals	45.0
5433 fishmongers, poultry dressers	7.0
8112 glass and ceramics process oprties	10.0
8113 textile process operatives	14.0
8119 process operatives n.e.c.	8.0
8132 assemblers (veh and metal goods)	30.0
8133 routine inspectors and testers	92.0
8134 weighers, graders, sorters	4.0
8139 assemblers and routine oprtves nec.	57.0
8141 scaffolders, staggers, riggers	11.0
8221 crane drivers	8.0
9133 printing machine minders and assist	25.0
Total	23.4

Table 5: Top occupations: Manual

bsoc00Agg	Mean observations
1211 farm managers	9.0
5111 Farmers, gardeners and ground women	130.0
5119 agricult and fishing trades n.e.c.	16.0
5213 Metal forming, welding and related trades	85.0
5231 Vehicle trades	131.0
5312 bricklayers, masons, roofers	441.0
5412 upholsterers	9.0
5431 butchers, meat cutters	21.0
5433 fishmongers, poultry dressers	7.0
8112 glass and ceramics process oprties	10.0
8119 process operatives n.e.c.	8.0
8141 scaffolders, staggers, riggers	11.0
8221 crane drivers	8.0
9121 labrers build & woodworking trades	81.0
9129 lab oth const trades n.e.c.	15.0
Total	65.5

Figure 5: Reported skill use by education level, [Autor and Dorn \(2013\)](#) indexes

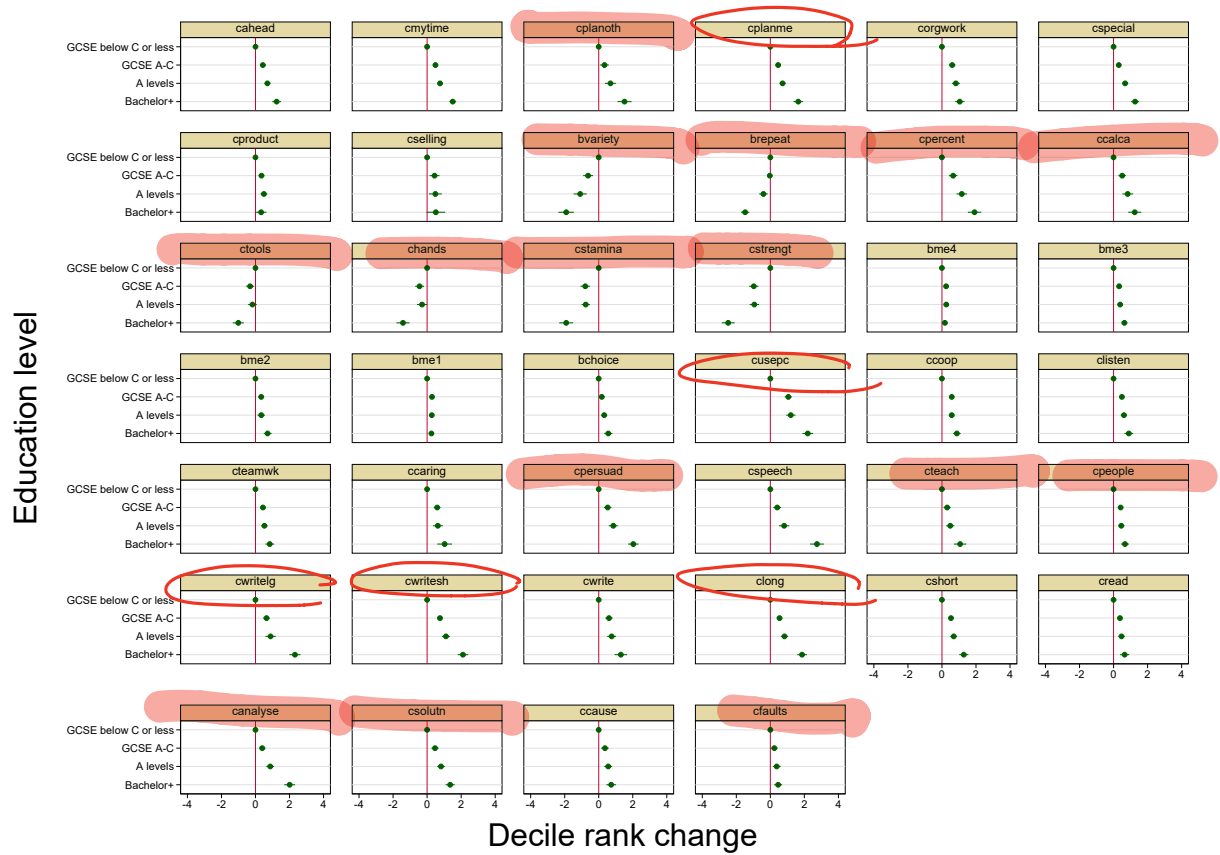


Table 6: Top occupations: No variety

bsoc00Agg	Mean observations
8113 textile process operatives	14.0
8119 process operatives n.e.c.	8.0
8132 assemblers (veh and metal goods)	30.0
8134 weighers, graders, sorters	4.0
8139 assemblers and routine oprtves nec.	57.0
9134 packers, bottlers, canners, fillers	103.0
9211 post wrkr, mail sort, msngr, courir	109.0
224 waiters, waitresses	47.0
9225 bar staff	86.0
9231 window cleaners	22.0
9233 cleaners, domestics	394.0
9234 launderers, dry cleaners, pressers	23.0
9235 refuse and salvage occupations	20.0
9251 shelf fillers	59.0
9259 elementary sales occupations nec.	20.0
Total	66.4

Table 7: Top occupations: Repetitiveness

bsoc00Agg	Mean observations
5433 fishmongers, poultry dressers	7.0
8112 glass and ceramics process oprties	10.0
8113 textile process operatives	14.0
8131 assemblers (electrical products)	34.0
8132 assemblers (veh and metal goods)	30.0
8134 weighers, graders, sorters	4.0
8139 assemblers and routine oprtves nec.	57.0
8141 scaffolders, staggers, riggers	11.0
8221 crane drivers	8.0
9119 fishng & agric reltd occupatns nec.	19.0
9211 post wrkr, mail sort, msngr, courir	109.0
9221 hospital porters	11.0
9231 window cleaners	22.0
9235 refuse and salvage occupations	20.0
9259 elementary sales occupations nec.	20.0
Total	25.1

Table 8: Top occupations: Arithmetic

bsoc00Agg	Mean observations
1133 purchasing managers	26.0
1211 farm managers	9.0
2111 chemists	10.0
2121 civil, mechanical, electrical and electronics engineers	62.0
2126 design, development, production and process engineers	69.0
2213 pharmacists & pharmacologists	21.0
2321 scientific researchers	21.0
2421 chartered and certified accountants	39.0
2422 management accountants	9.0
2433 quantity surveyors	13.0
2434 chartrd surveyors (not qntity surv)	32.0
3531 Estimators, valuers, assessors, brokers and insurance underwriters	82.0
3534 fin., invest, and taxation analysts and advisers	118.0
4121 Credit controllers, accnts wages clear, bookkeeper	313.0
8134 weighers, graders, sorters	4.0
Total	55.2

Table 9: Top occupations: Fractions

bsoc00Agg	Mean observations
1112 directors & chief execs of maj orgs	18.0
1133 purchasing managers	26.0
2111 chemists	10.0
2121 civil, mechanical, electrical and electronics engineers	62.0
2126 design, development, production and process engineers	69.0
2213 pharmacists & pharmacologists	21.0
2321 scientific researchers	21.0
2421 chartered and certified accountants	39.0
2422 management accountants	9.0
2433 quantity surveyors	13.0
2434 chartrd surveyors (not qntity surv)	32.0
3531 Estimators, valuers, assessors, brokers and insurance underwriters	82.0
3534 fin., invest, and taxation analysts and advisers	118.0
4121 Credit controllers, accnts wages clear, bookkeeper	313.0
8134 weighers, graders, sorters	4.0
Total	55.8