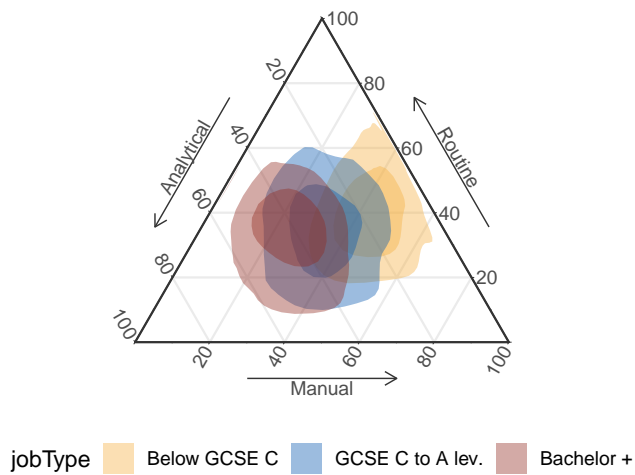


References

- Belfield, C., Blundell, R., Cribb, J., Hood, A., and Joyce, R. (2017). Two Decades of Income Inequality in Britain: The Role of Wages, Household Earnings and Redistribution. *Economica*, 84(334):157–179.
- Office for National Statistics (2019). Average household income, UK - Office for National Statistics.

Figure 1: Skill use by education level in own-type jobs

(a) Individual data



(b) Occupation-level aggregates

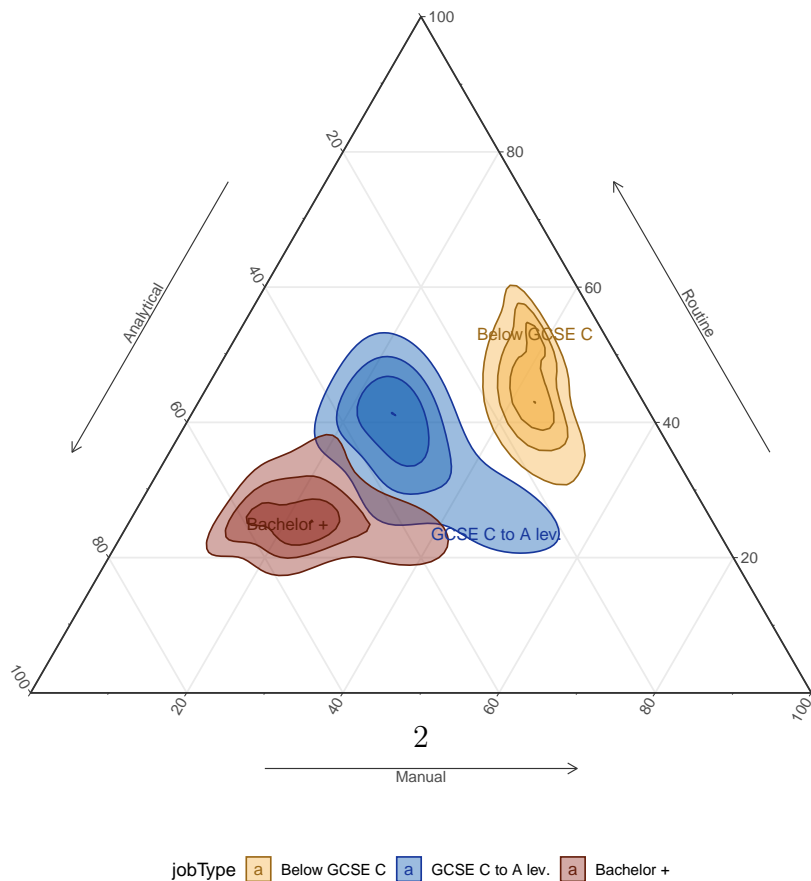
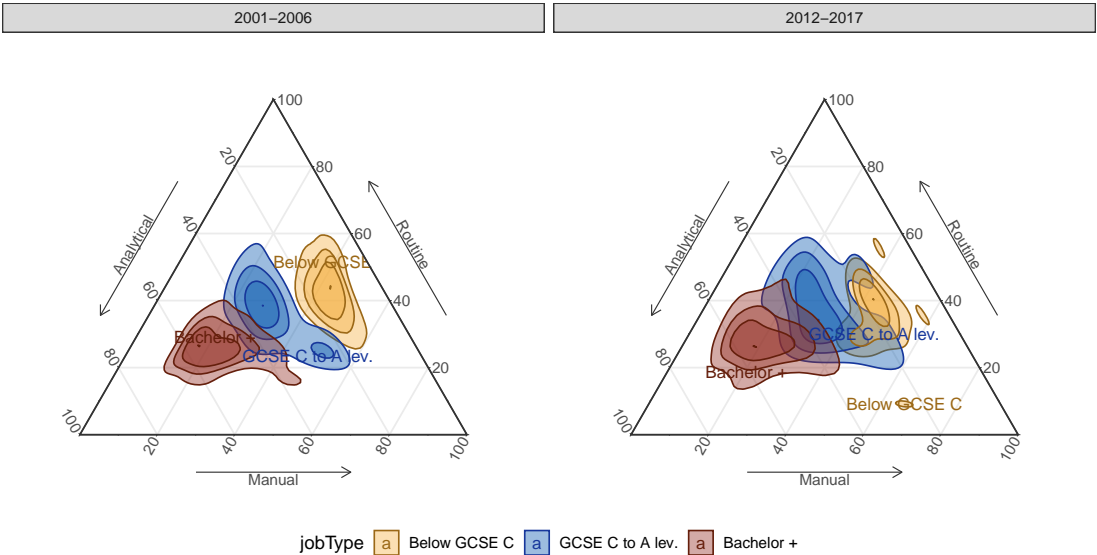


Figure 2: Time variation in skill use by education level in own-type jobs

(a) Time panel



(b) Job type panel

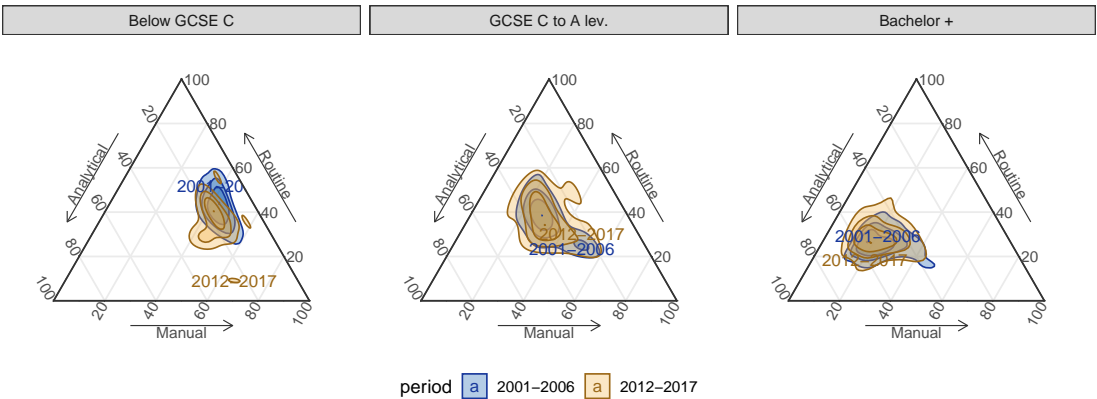


Table 1: Skill use percentile in GCSE C to A lev./Bachelor+ border jobs

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Simple average indexes</i>			
GCSE C-A levels	7.67** (2.58)	-9.33*** (2.47)	3.67 (2.96)
Bachelor+	16.30*** (2.55)	-15.44*** (2.41)	-2.83 (2.92)
<i>t-statistic of difference</i>	5.86	-4.11	-3.59
Overall R^2	0.12	0.26	0.09
Within R^2			
Observations	1,091	1,091	1,091
<i>Factor analysis: restricted</i>			
GCSE C-A levels	7.52** (2.63)	-9.69*** (2.48)	1.27 (2.86)
Bachelor+	16.92*** (2.60)	-15.87*** (2.42)	-7.33** (2.80)
<i>t-statistic of difference</i>	6.37	-4.12	-5.28
Overall R^2	0.12	0.28	0.11
Within R^2			
Observations	1,091	1,091	1,091
<i>Factor analysis: orthogonal factors</i>			
GCSE C-A levels	5.64* (2.74)	-8.99*** (2.50)	4.67 (2.92)
Bachelor+	11.79*** (2.73)	-15.10*** (2.44)	-1.70 (2.88)
<i>t-statistic of difference</i>	4.10	-4.18	-3.83
Overall R^2	0.14	0.28	0.12
Within R^2			
Observations	1,091	1,091	1,091

Note: robust standard errors in parenthesis. The regression includes data from occupations. I pool data from all years. Regressions include occupation fixed-effects. Table generated on 20 Apr 2020 at 09:56:47.

Table 2: Skill use percentile in Below GCSE C/GCSE C to A lev. border jobs

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Simple average indexes</i>			
GCSE C-A levels	5.65*** (0.87)	0.36 (0.75)	-3.77*** (0.97)
Bachelor+	9.70*** (1.29)	-4.36*** (1.19)	-5.98*** (1.41)
<i>t-statistic of difference</i>	3.39	-4.25	-1.69
Overall R^2	0.17	0.28	0.19
Within R^2			
Observations	3,997	3,997	3,997
<i>Factor analysis: restricted</i>			
GCSE C-A levels	5.68*** (0.88)	-0.32 (0.72)	-2.99** (0.93)
Bachelor+	9.30*** (1.30)	-5.03*** (1.18)	-6.49*** (1.36)
<i>t-statistic of difference</i>	3.01	-4.28	-2.78
Overall R^2	0.17	0.26	0.20
Within R^2			
Observations	3,997	3,997	3,997
<i>Factor analysis: orthogonal factors</i>			
GCSE C-A levels	6.27*** (0.92)	0.00 (0.75)	-1.03 (1.00)
Bachelor+	9.55*** (1.35)	-4.91*** (1.20)	-3.40* (1.44)
<i>t-statistic of difference</i>	2.61	-4.40	-1.79
Overall R^2	0.14	0.24	0.19
Within R^2			
Observations	3,997	3,997	3,997

Note: robust standard errors in parenthesis. The regression includes data from occupations. I pool data from all years. Regressions include occupation fixed-effects. Table generated on 20 Apr 2020 at 09:56:47.

Table 3: Skill use percentile in Below GCSE C jobs

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Simple average indexes</i>			
GCSE C-A levels	2.70* (1.37)	1.42 (1.21)	-4.04** (1.55)
Bachelor+	10.49** (3.32)	-1.64 (2.61)	-8.19* (3.55)
<i>t-statistic of difference</i>	2.33	-1.17	-1.16
Overall R^2	0.11	0.16	0.13
Within R^2			
Observations	1,267	1,267	1,267
<i>Factor analysis: restricted</i>			
GCSE C-A levels	2.43 (1.40)	1.30 (1.16)	-2.59 (1.42)
Bachelor+	9.50** (3.36)	-1.81 (2.57)	-10.90** (3.53)
<i>t-statistic of difference</i>	2.09	-1.21	-2.35
Overall R^2	0.11	0.15	0.16
Within R^2			
Observations	1,267	1,267	1,267
<i>Factor analysis: orthogonal factors</i>			
GCSE C-A levels	1.96 (1.41)	1.44 (1.22)	-2.37 (1.59)
Bachelor+	9.32** (3.37)	-1.21 (2.64)	-9.60** (3.69)
<i>t-statistic of difference</i>	2.17	-1.00	-1.95
Overall R^2	0.16	0.15	0.18
Within R^2			
Observations	1,267	1,267	1,267

Note: robust standard errors in parenthesis. The regression includes data from occupations. I pool data from all years. Regressions include occupation fixed-effects. Table generated on 20 Apr 2020 at 09:56:46.

Table 4: Skill use percentile in GCSE C to A lev. jobs

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Simple average indexes</i>			
GCSE C-A levels	2.19 (1.26)	-4.94*** (1.09)	-2.84* (1.36)
Bachelor+	7.73*** (1.43)	-9.48*** (1.25)	-4.85** (1.55)
<i>t-statistic of difference</i>	5.78	-5.27	-1.87
Overall R^2	0.09	0.40	0.09
Within R^2			
Observations	3,934	3,934	3,934
<i>Factor analysis: restricted</i>			
GCSE C-A levels	2.34 (1.27)	-5.35*** (1.08)	-3.85** (1.30)
Bachelor+	7.96*** (1.44)	-9.91*** (1.24)	-8.36*** (1.47)
<i>t-statistic of difference</i>	5.80	-5.27	-4.50
Overall R^2	0.09	0.40	0.08
Within R^2			
Observations	3,934	3,934	3,934
<i>Factor analysis: orthogonal factors</i>			
GCSE C-A levels	3.50** (1.36)	-5.37*** (1.09)	-3.55** (1.35)
Bachelor+	7.51*** (1.51)	-10.06*** (1.25)	-7.00*** (1.52)
<i>t-statistic of difference</i>	4.04	-5.45	-3.37
Overall R^2	0.10	0.39	0.10
Within R^2			
Observations	3,934	3,934	3,934

Note: robust standard errors in parenthesis. The regression includes data from occupations. I pool data from all years. Regressions include occupation fixed-effects. Table generated on 20 Apr 2020 at 09:56:47.

Table 5: Skill use percentile in Bachelor+ jobs

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Simple average indexes</i>			
GCSE C-A levels	4.06* (1.78)	-4.39* (1.87)	-2.24 (2.11)
Bachelor+	11.05*** (1.71)	-11.49*** (1.78)	-4.48* (2.04)
<i>t-statistic of difference</i>	8.45	-8.71	-2.26
Overall R^2	0.15	0.32	0.06
Within R^2			
Observations	5,207	5,207	5,207
<i>Factor analysis: restricted</i>			
GCSE C-A levels	4.28* (1.80)	-4.93** (1.87)	-4.35* (2.04)
Bachelor+	11.58*** (1.72)	-12.27*** (1.78)	-9.51*** (1.96)
<i>t-statistic of difference</i>	8.79	-8.95	-5.76
Overall R^2	0.14	0.32	0.09
Within R^2			
Observations	5,207	5,207	5,207
<i>Factor analysis: orthogonal factors</i>			
GCSE C-A levels	4.35* (1.90)	-5.24** (1.86)	-3.48 (2.06)
Bachelor+	9.81*** (1.82)	-12.45*** (1.77)	-7.06*** (1.98)
<i>t-statistic of difference</i>	6.18	-8.92	-3.93
Overall R^2	0.13	0.32	0.09
Within R^2			
Observations	5,207	5,207	5,207

Note: robust standard errors in parenthesis. The regression includes data from occupations. I pool data from all years. Regressions include occupation fixed-effects. Table generated on 20 Apr 2020 at 09:56:47.

Table 6: Observations in regressions by job type and education level

Job Type	Education level		
	GCSE C-	GCSE C-A lev.	Bachelor+
<i>A. Total observations</i>			
Below GCSE C	679	512	76
GCSE C to A lev.	502	2,401	1,031
Bachelor +	215	1,181	3,811
Below GCSE C / GCSE C to A lev.	1,238	2,158	599
GCSE C to A lev. / Bachelor +	117	459	515
<i>B. Mean observations per occupation</i>			
Below GCSE C	17.87	13.47	3.17
GCSE C to A lev.	17.31	80.03	36.82
Bachelor +	4.57	16.87	50.14
Below GCSE C / GCSE C to A lev.	18.21	30.83	10.70
GCSE C to A lev. / Bachelor +	8.36	28.69	32.19
<i>C. Median observations per occupation</i>			
Below GCSE C	8	7	2
GCSE C to A lev.	12	71	24
Bachelor +	3	9	29
Below GCSE C / GCSE C to A lev.	9	14	5
GCSE C to A lev. / Bachelor +	7	19	28

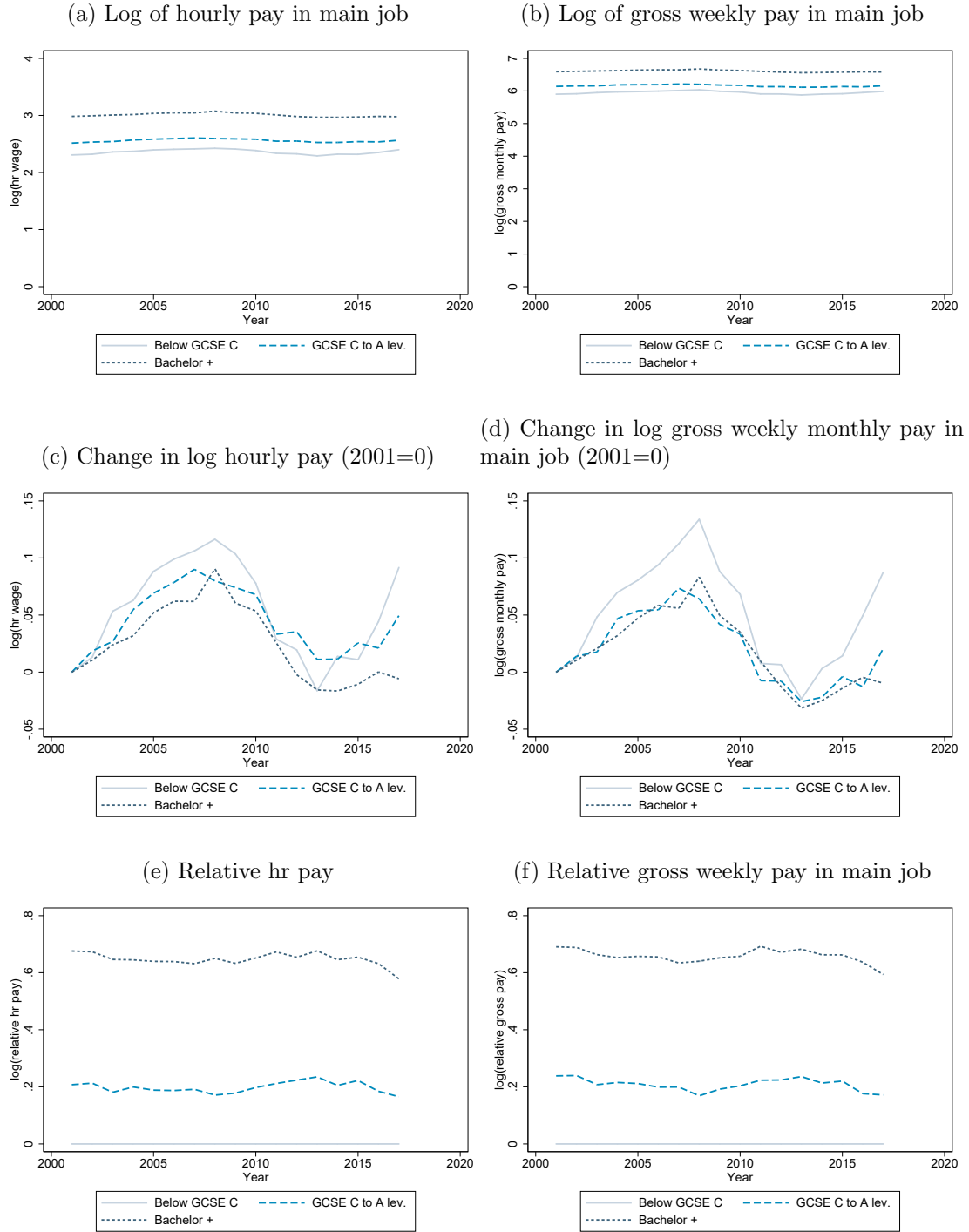
Table 7: Factor loadings

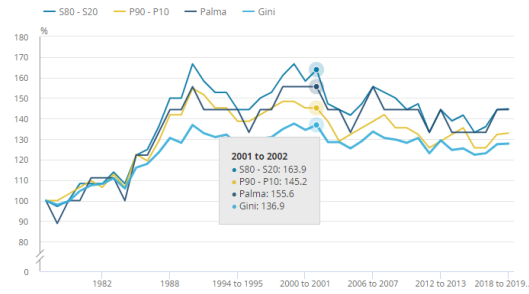
Variable	Loading
Analytical	
cpeople	0.394
cteach	0.526
cpersuad	0.623
cplanoth	0.553
canalyse	0.686
csolutn	0.575
ccalca	0.486
cpercent	0.539
cwritelg	0.727
cwritesh	0.757
clong	0.758
cshort	0.701
Manual	
cstamina	0.788
cstrengt	0.801
chands	0.710
ctools	0.626
Routine	
brepeat	0.366
bvariety	0.574
cplanme	0.497
bme4	0.361

Table 8: Orthogonal factor loadings

	Writing	Analytical Numerical	Comunication	Manual	Routine
cstamina	-0.178	-0.126	0.001	0.760	0.153
cstrengt	-0.270	-0.092	0.020	0.757	0.129
chands	-0.135	0.095	0.080	0.701	-0.161
ctools	-0.082	0.117	0.103	0.632	-0.185
brepeat	-0.230	0.053	0.156	0.198	0.179
bvariety	-0.466	0.082	0.226	-0.021	0.192
cplanme	-0.571	0.073	0.194	-0.056	0.076
bme4	-0.201	0.059	0.200	-0.115	0.135
cpeople	0.415	-0.181	-0.147	-0.004	0.126
cteach	0.504	-0.210	-0.149	0.198	0.211
cpersuad	0.637	-0.178	-0.220	0.032	0.119
cplanoth	0.558	-0.168	-0.220	0.195	0.170
canalyse	0.682	0.001	-0.006	0.128	-0.233
csolutn	0.572	0.019	-0.088	0.240	-0.246
ccalca	0.469	0.651	-0.103	0.097	0.145
cpercent	0.527	0.645	-0.091	0.052	0.097
cwritelg	0.726	-0.073	0.246	-0.073	0.027
cwritesh	0.758	-0.068	0.256	-0.065	0.038
clong	0.737	-0.075	0.358	0.044	-0.007
cshort	0.683	-0.044	0.336	0.018	0.049

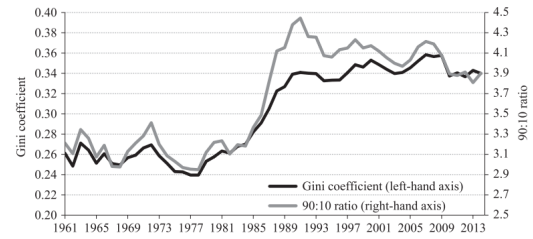
Figure 3: Income variables by education level





Source: Office for National Statistics – Living Costs and Food Survey

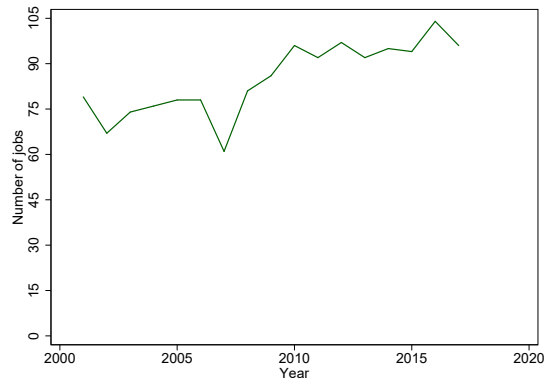
(a) Office for National Statistics (2019)



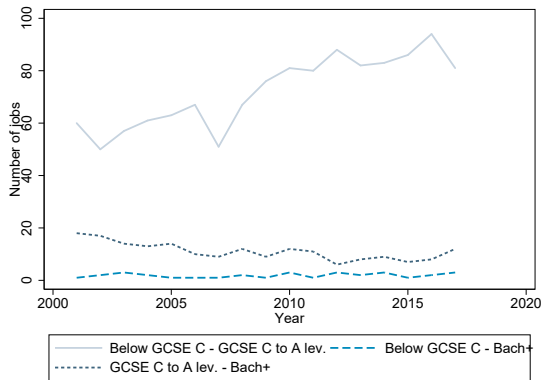
(b) Belfield et al. (2017)

Figure 4: Jobs classification by year

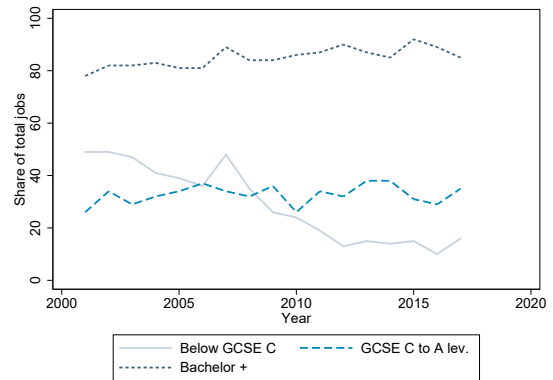
(a) Total jobs in border



(b) In the border



(c) Not in the border



Note: the dataset includes 232 jobs in total.

Figure 5: Relationship between skill measures

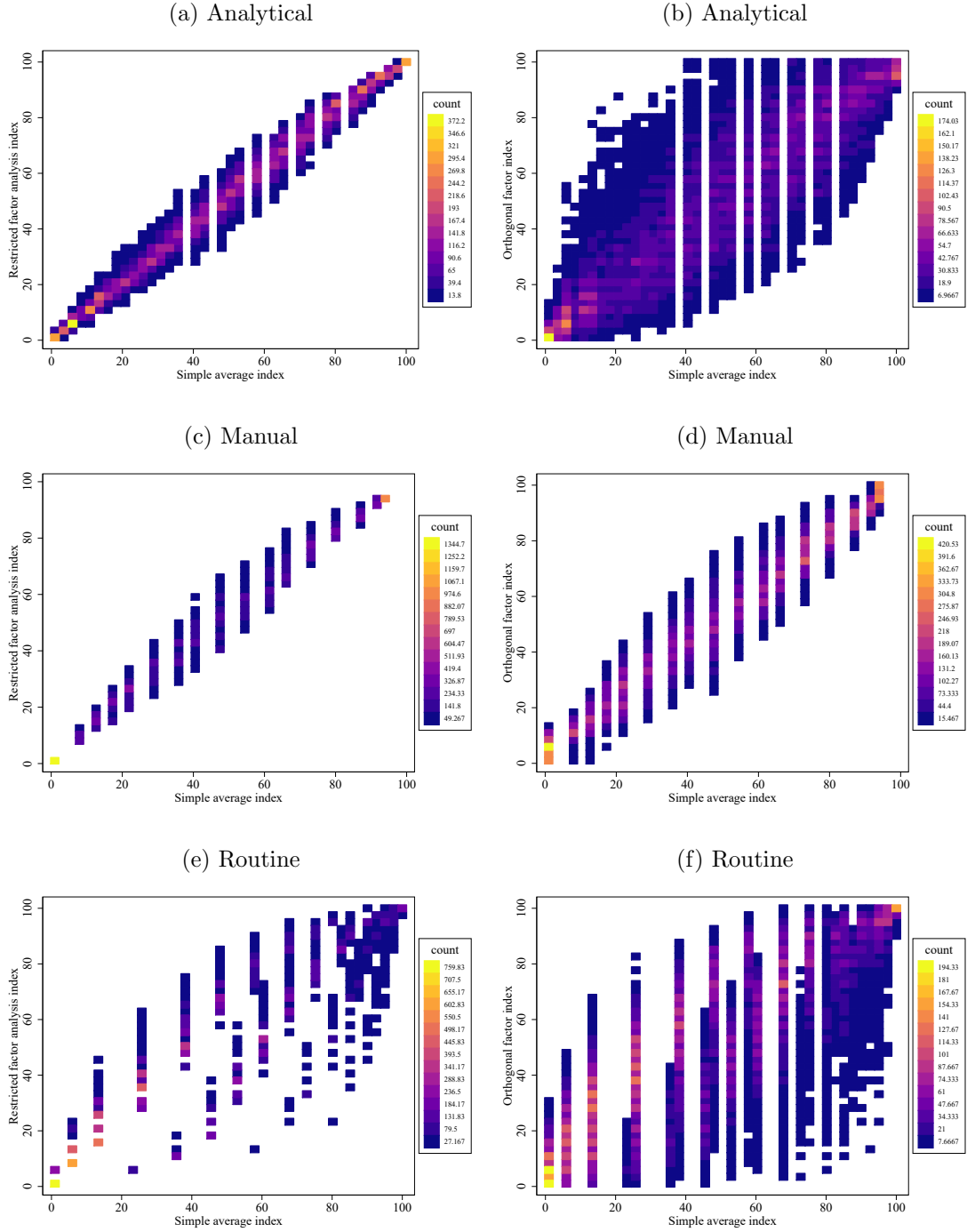


Figure 6: Employment shares

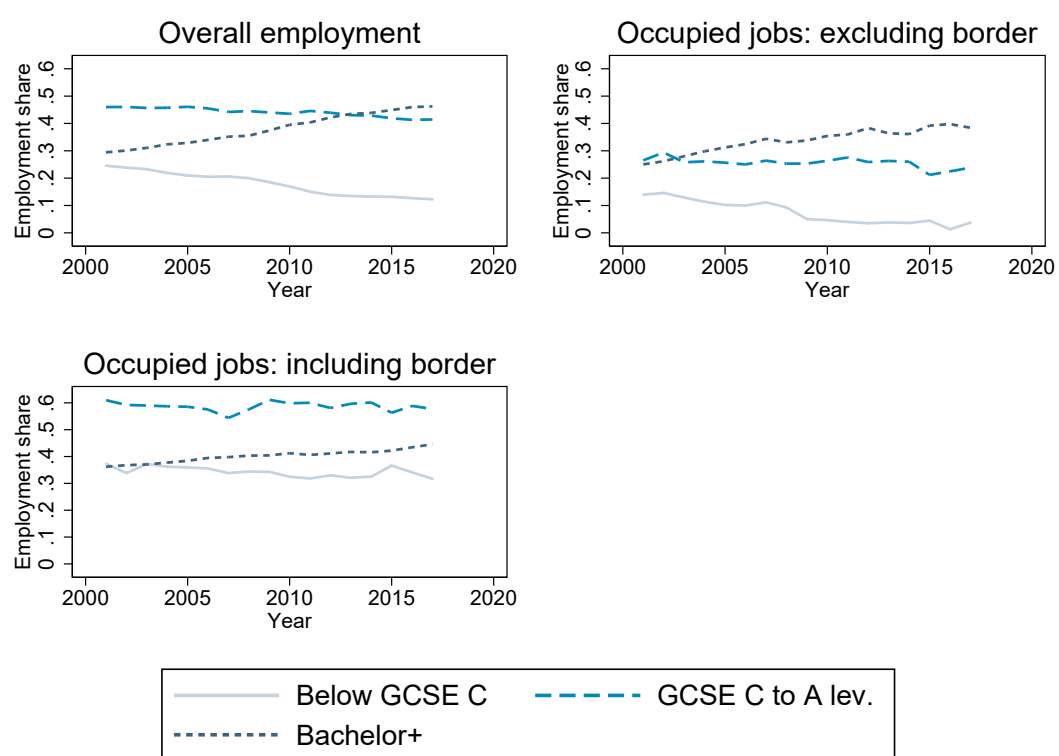
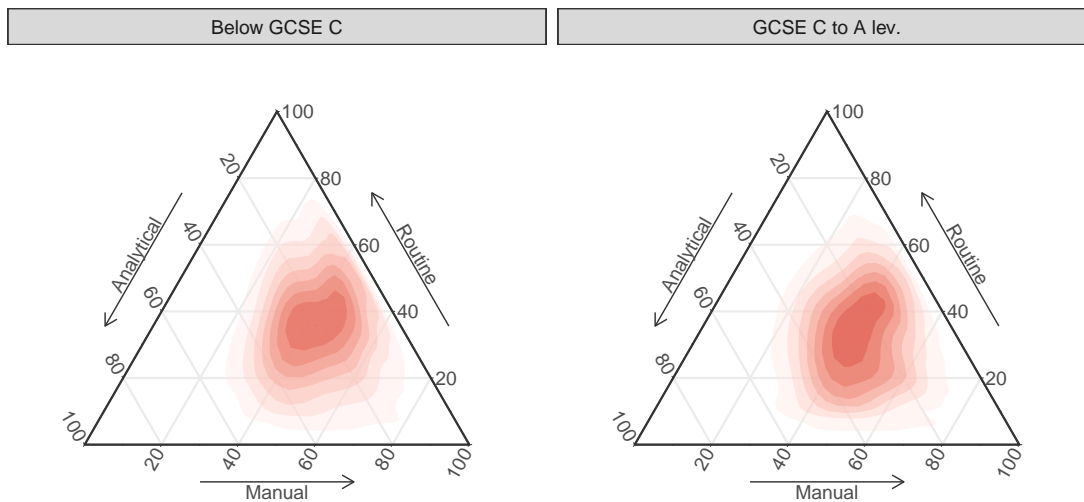
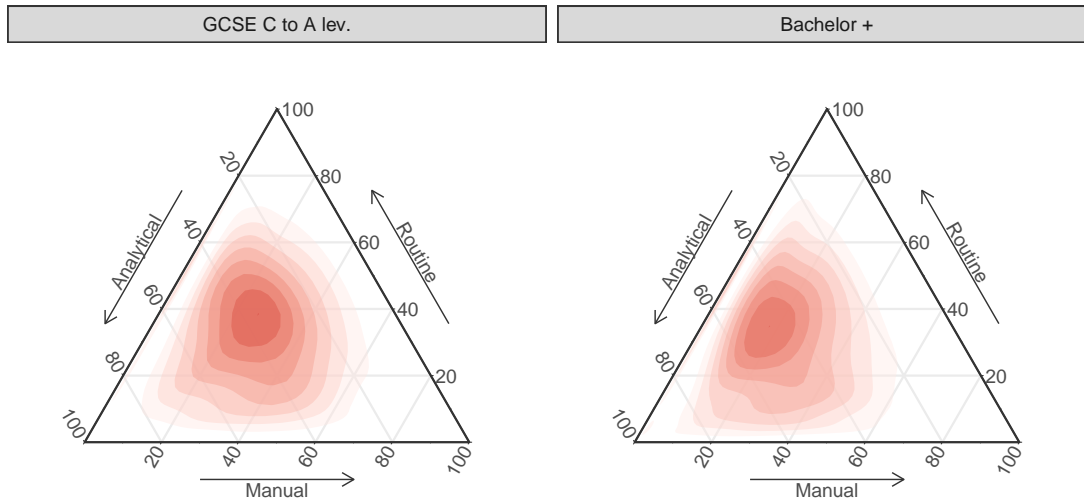


Figure 7: Individual level data: skill use (simple average indexes), different education levels in the same border job type

(a) Below GCSE C / GCSE C to A level jobs



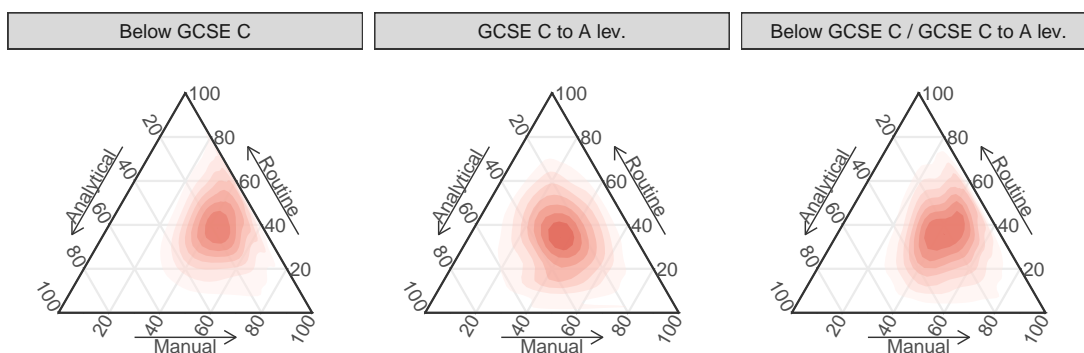
(b) GCSE C to A level jobs / Bachelor + border jobs



Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 8: Individual level data: skill use (simple average indexes), same education level across different job types

(a) Below GCSE C workers



(b) GCSE C to A lev. workers

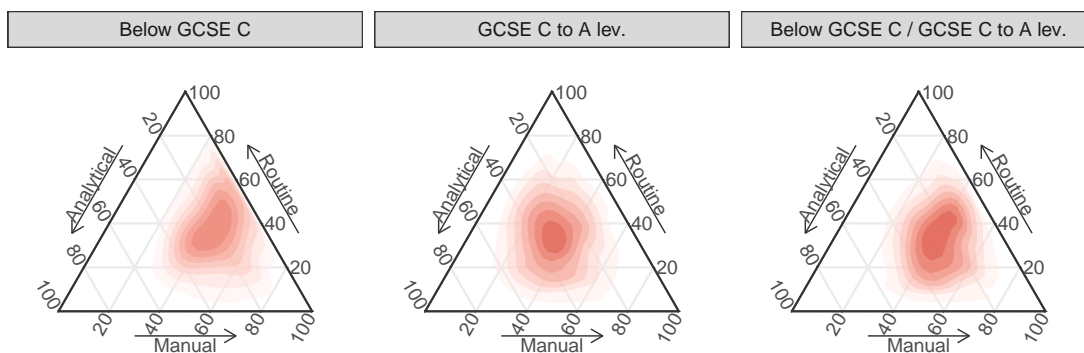
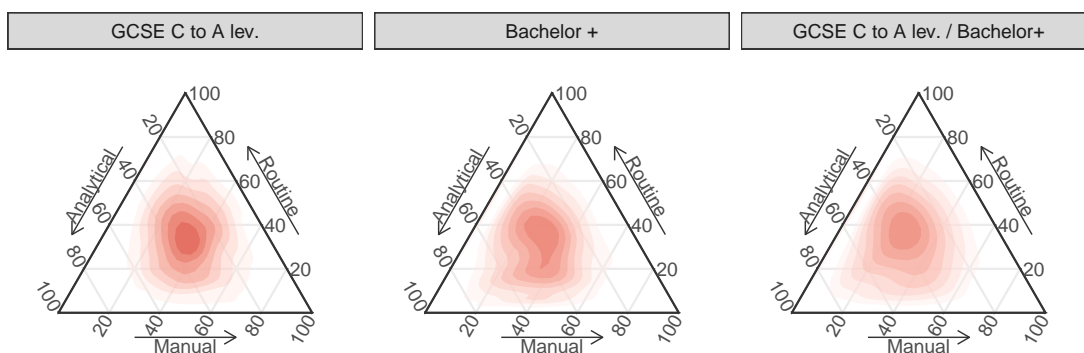


Figure 9: Individual level data: skill use (simple average indexes), same education level across different job types

(a) GCSE C to A lev. workers



(b) Bachelor+ workers

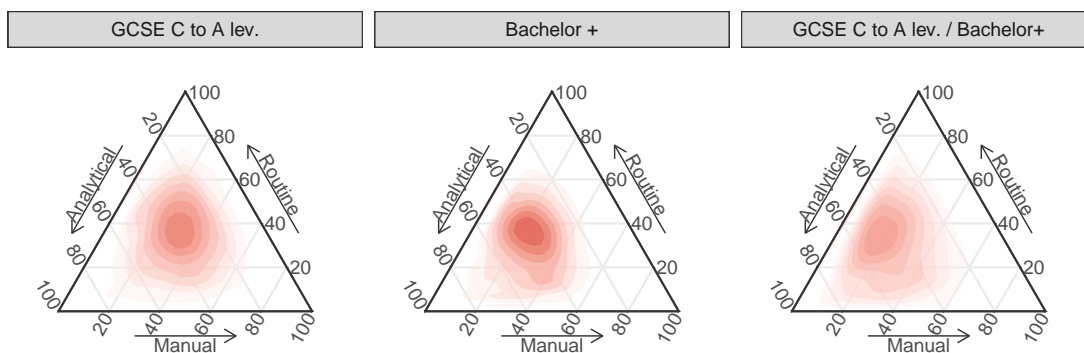
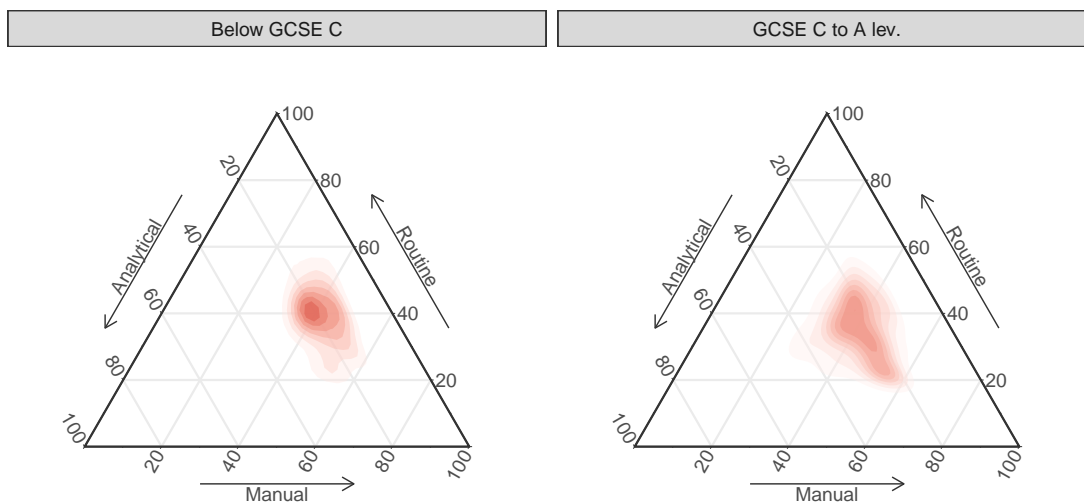
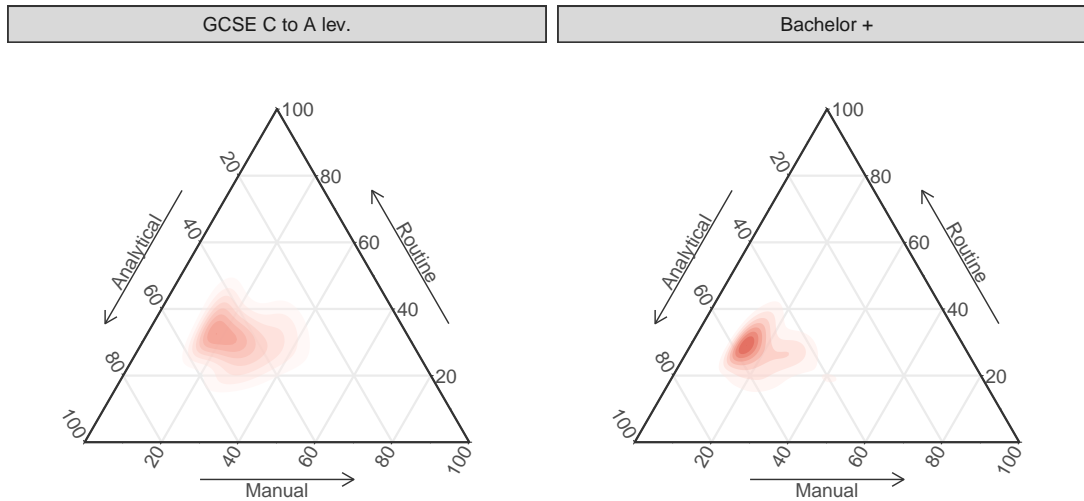


Figure 10: Skill use (simple average indexes): different education levels in the same border job type

(a) Below GCSE C / GCSE C to A level jobs



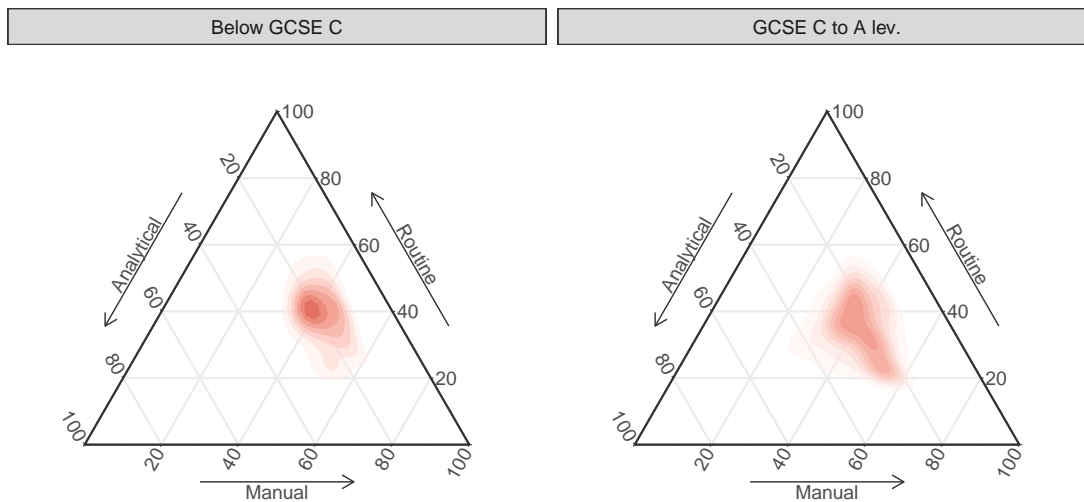
(b) GCSE C to A level jobs / Bachelor + border jobs



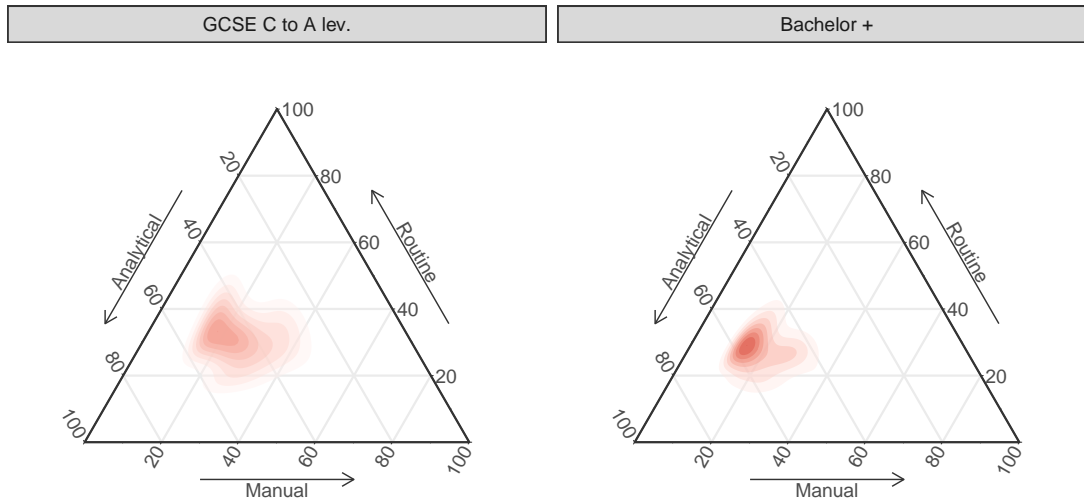
Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 11: Skill use (simple average indexes): different education levels in the same border job type(occupation level weights)

(a) Below GCSE C / GCSE C to A level jobs



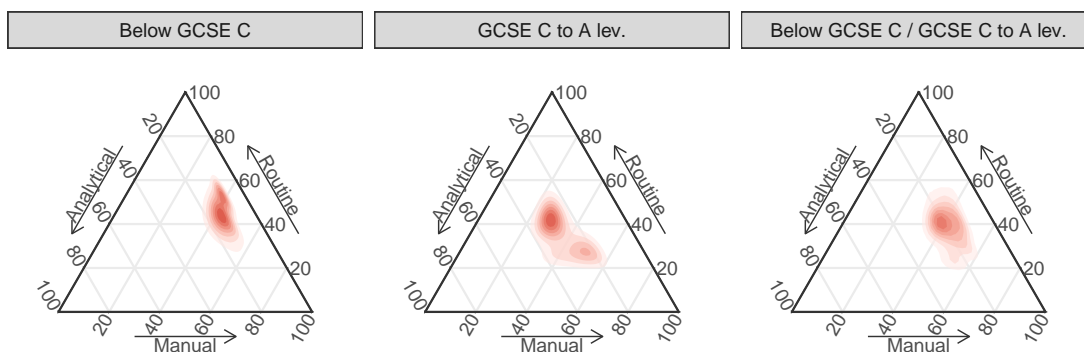
(b) GCSE C to A level jobs / Bachelor + border jobs



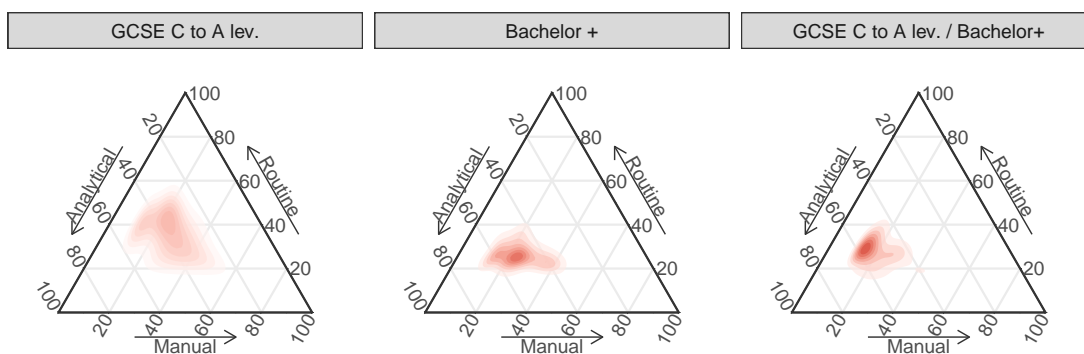
Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 12: Skill use (simple average indexes): same education level across different job types

(a) Below GCSE C workers



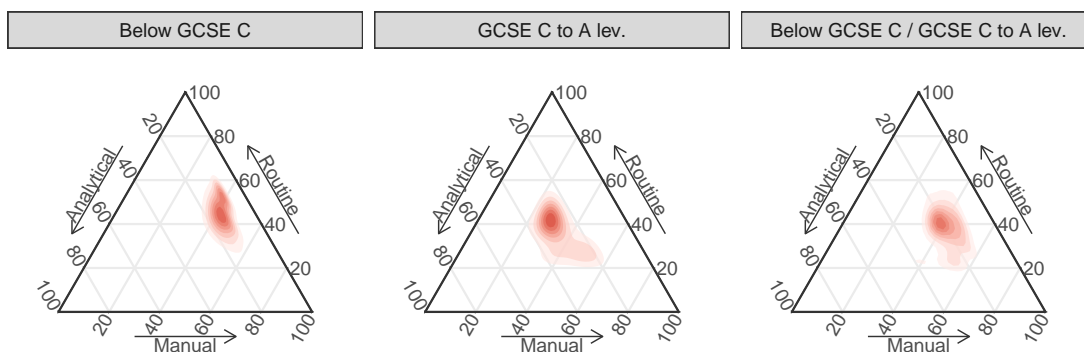
(b) GCSE C to A lev. workers



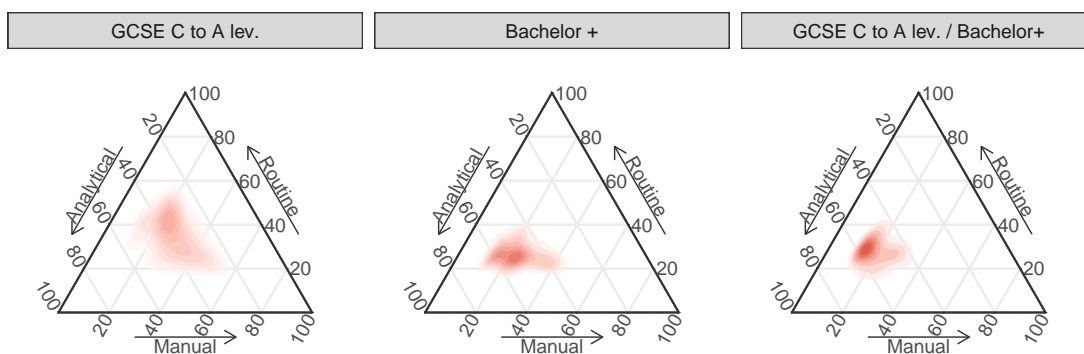
Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 13: Skill use (simple average indexes): same education level across different job types(occupation level weights)

(a) Below GCSE C workers



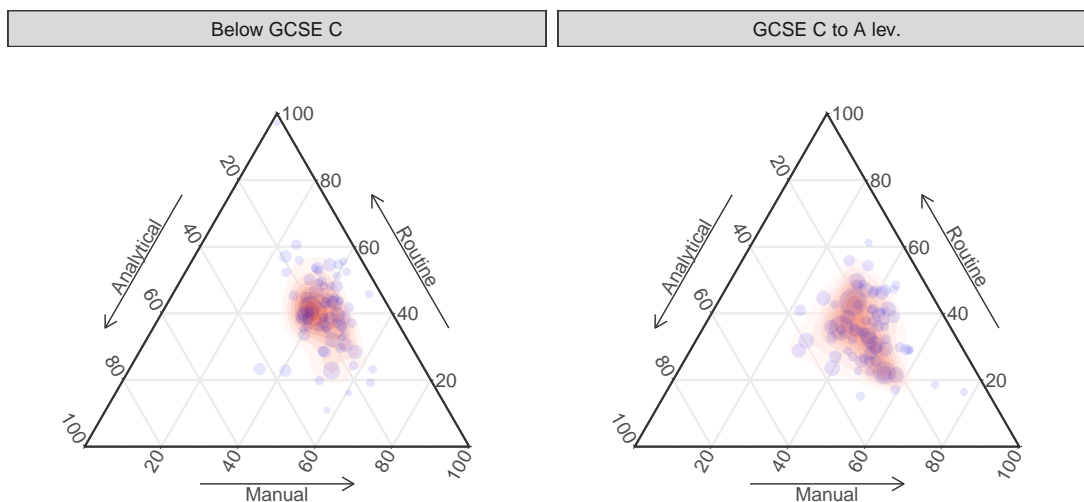
(b) GCSE C to A lev. workers



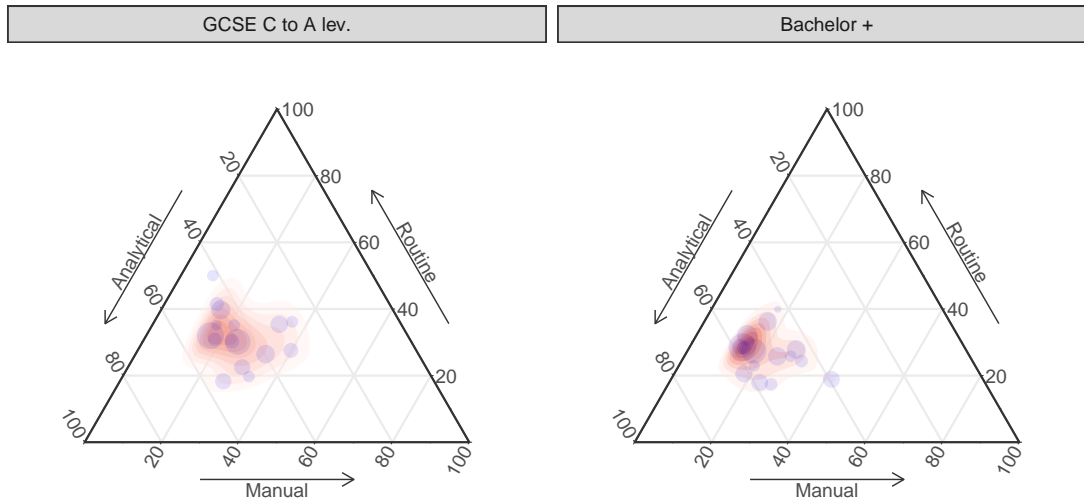
Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 14: Skill use (simple average indexes): different education levels in the same border job type

(a) Below GCSE C / GCSE C to A level jobs



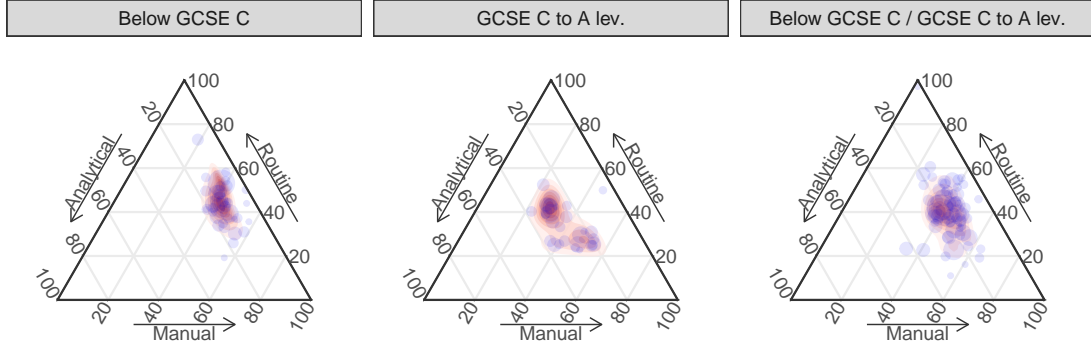
(b) GCSE C to A level jobs / Bachelor + border jobs



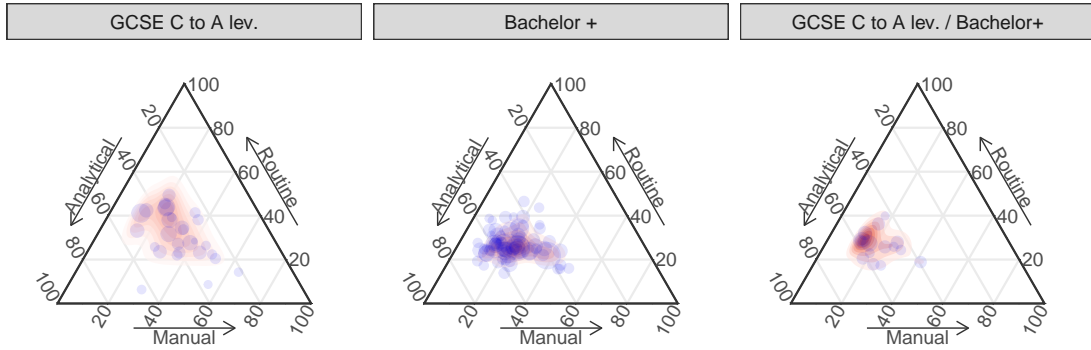
Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 15: Skill use (simple average indexes): same education level across different job types

(a) Below GCSE C workers

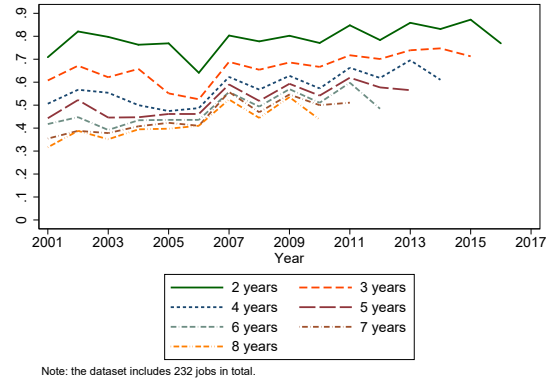


(b) GCSE C to A lev. workers



Note: occupation level averages. Observations weighted by number of observations in the occupation.

Figure 16: Share of border jobs still in the borders x years from now



Note: the dataset includes 232 jobs in total.

Figure 17: Share of jobs by border type and one digit occupation group

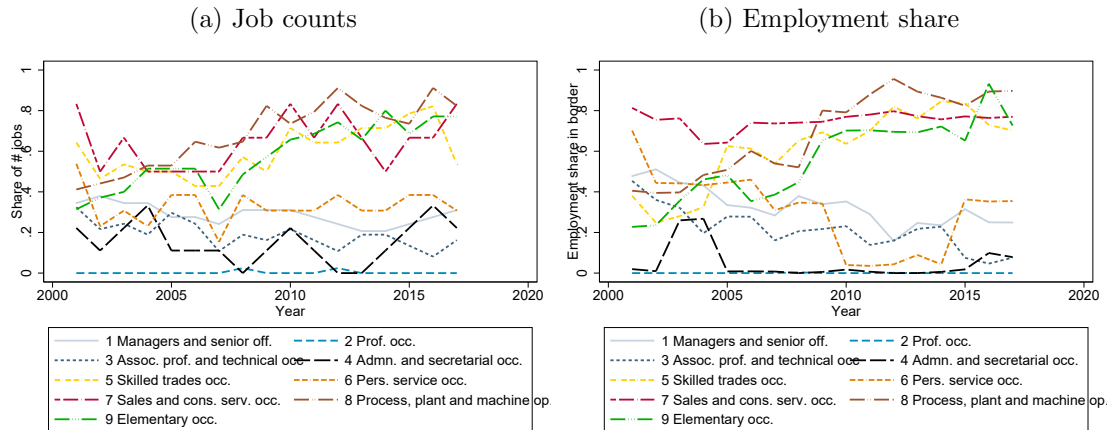


Figure 18: Share of jobs by border type and one digit occupation group

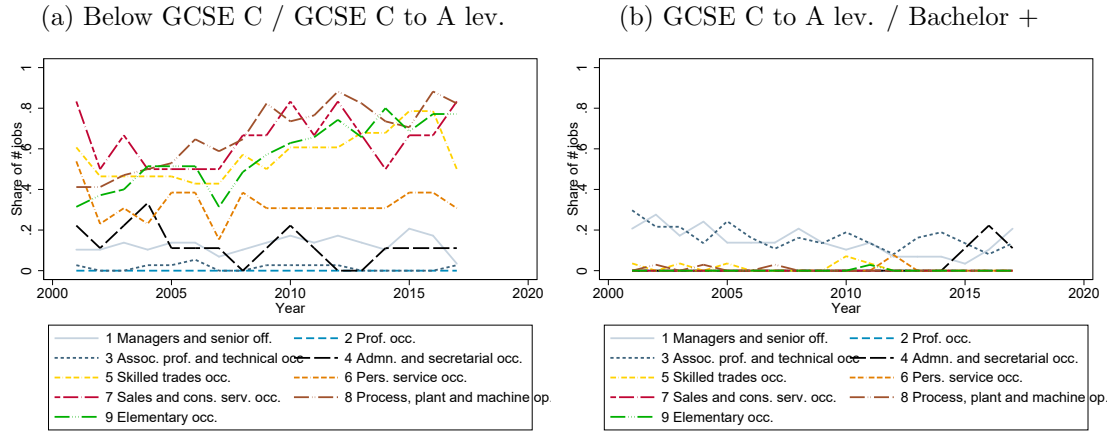


Figure 19: Share of employment in the border, by border type and one digit occupation group

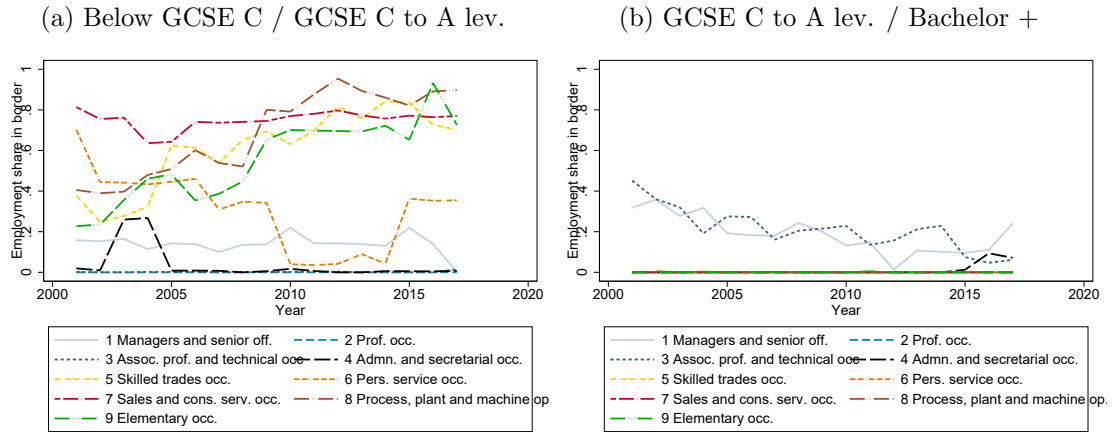


Figure 20: Share of employment in the border, by border type and selected two digit occupation group

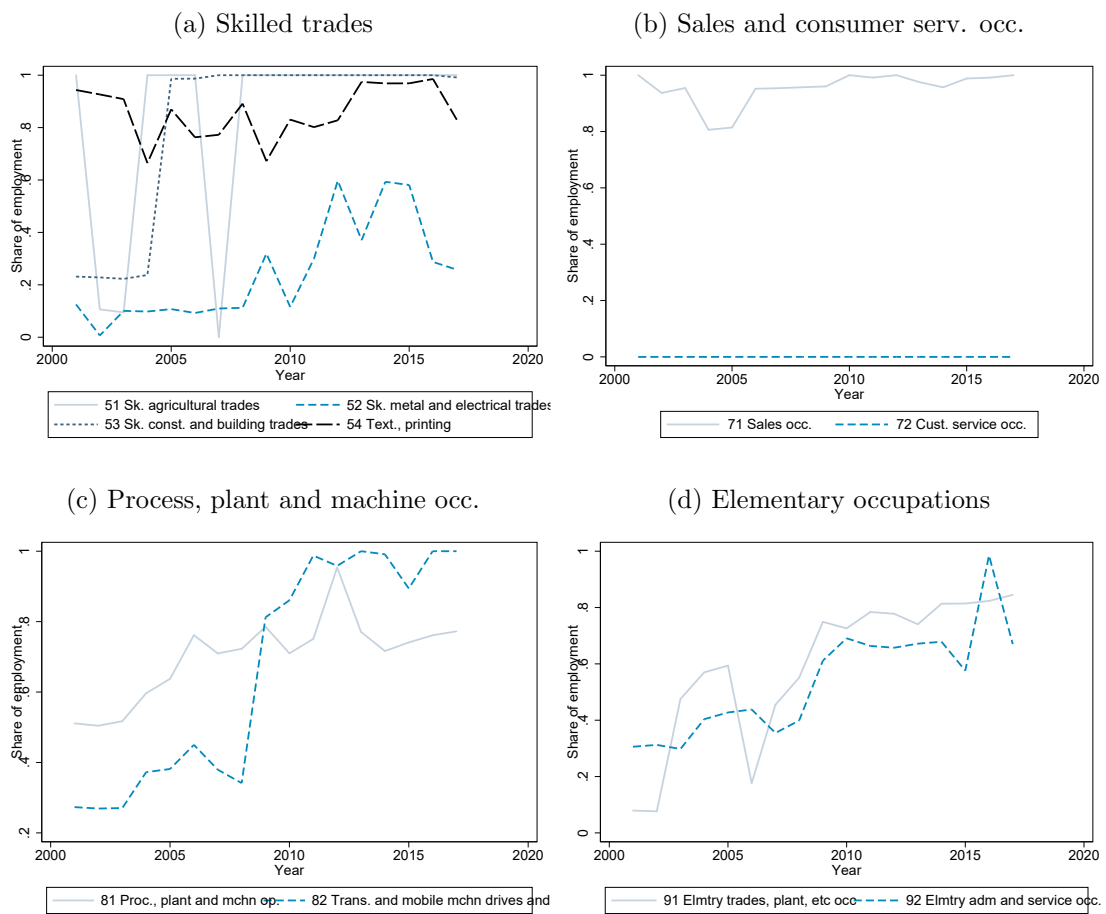


Figure 21: Share of employment in the border, by border type and selected three digit occupation group

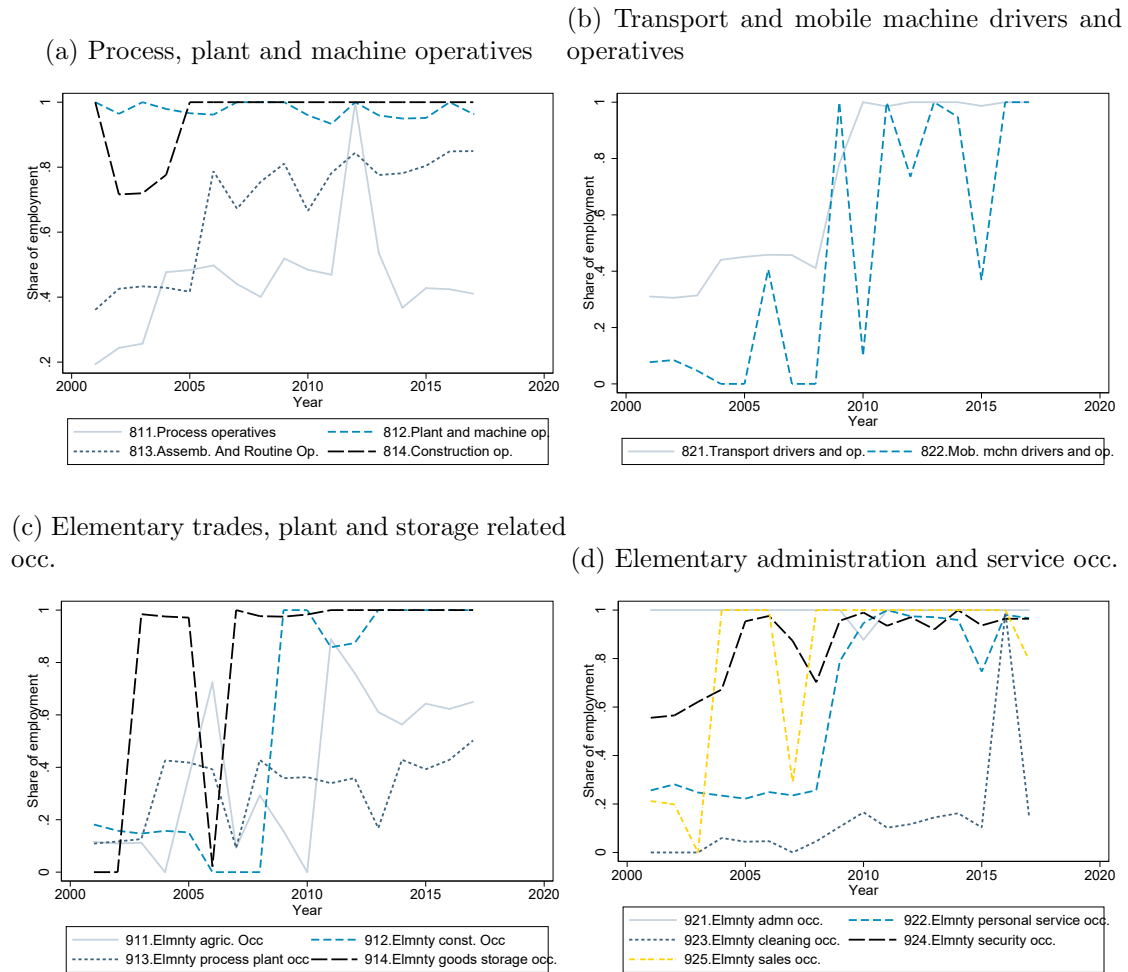
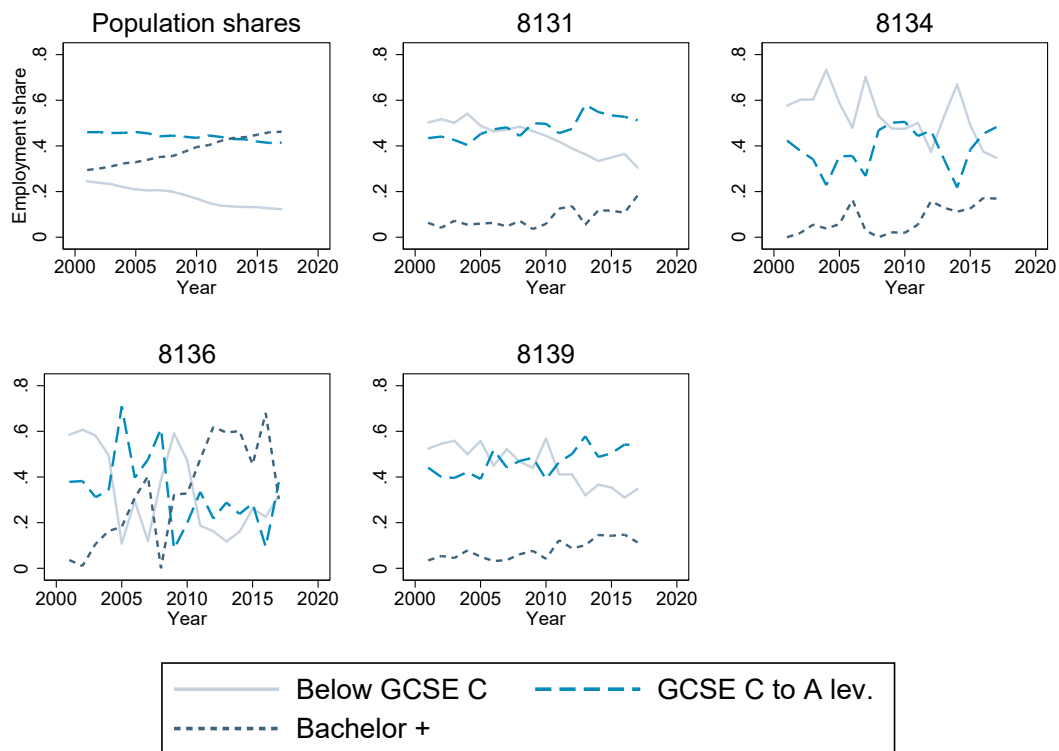


Figure 22: Employment shares by education level in selected jobs moving into the border

(a) Assemblers and routine occupations



(b) Transport drivers and operators

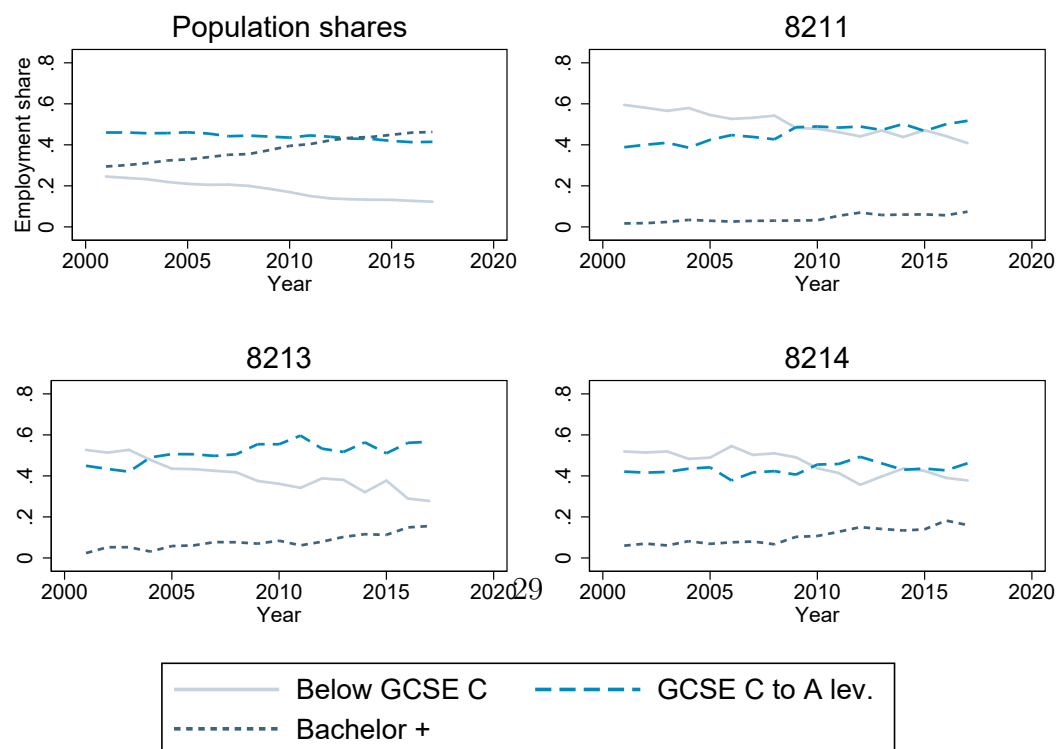
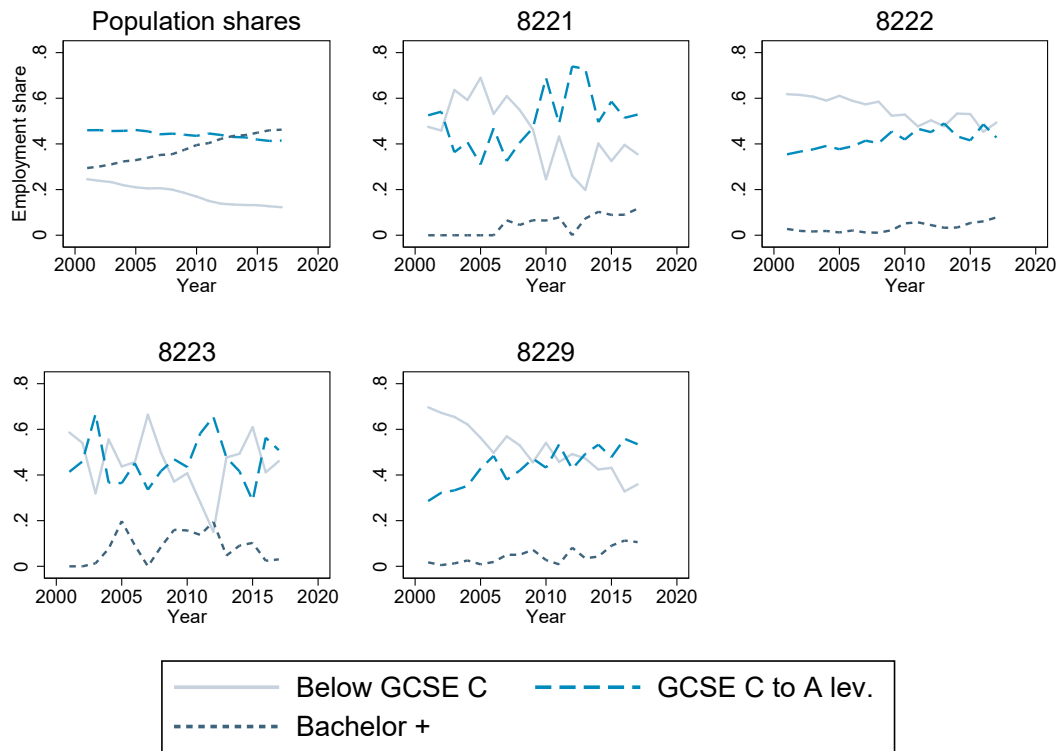


Figure 23: Employment shares by education level in selected jobs moving into the border

(a) Mobile machine drivers and operatives



(b) Elementary personal service occupations

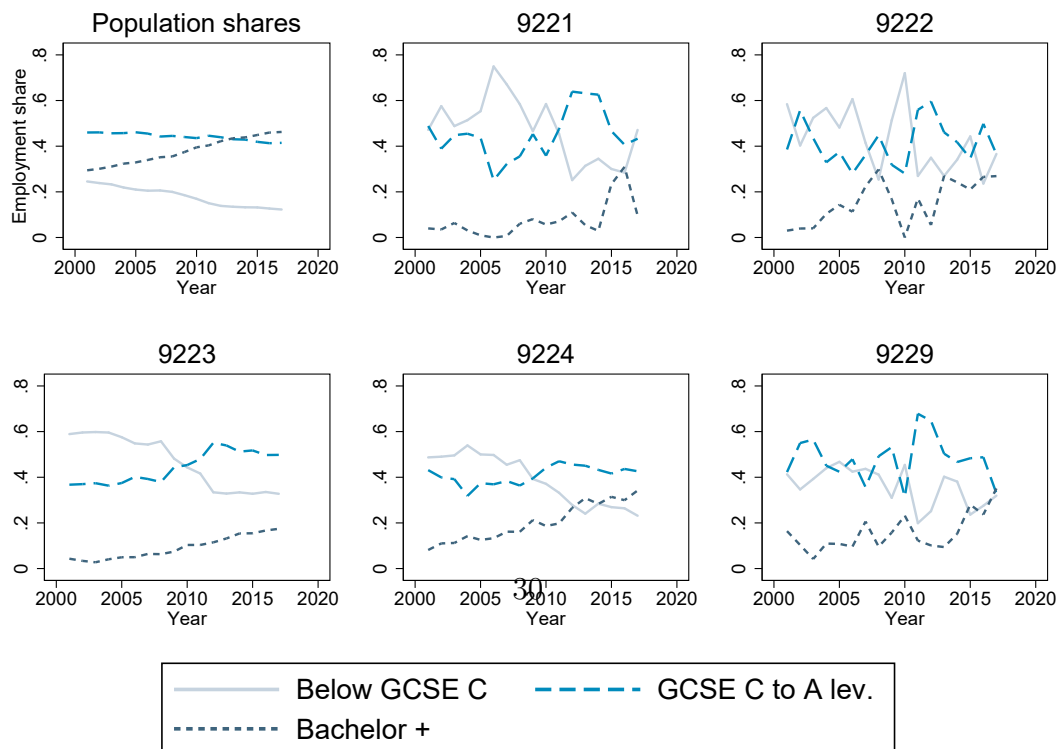


Table 9: Below GCSE C / GCSE C - A levels border job examples in 2006

Occupation	Observations	
	Below GCSE C	GCSE C - A levels
1161 Transport, distribution, storage and	243	584
1211 farm managers	47	87
1221 Managers and proprietors in hospitals	452	929
1234 shopkeepers, wholesale & retail dealers	223	371
3536 importers, exporters	12	27
4141 telephonists	34	73
5111 Farmers, gardeners and ground workers	599	832
5119 agriculture and fishing trades n.e.c.	52	108
5212 moulders, core makers, die casters	6	12
5213 Metal forming, welding and related	183	484
5231 Vehicle trades	294	1034
5311 Construction trades	26	43
5312 bricklayers, masons, roofers	1120	3494
5321 building trades	457	886

Table 10: GCSE C - A levels / Bachelor + border job examples in 2009

Occupation	Observations	
	GCSE C - A levels	Bachelor +
1122 managers in construction, mining and	801	703
1141 quality assurance and customer care	496	384
1151 Financial institution and office managers	1532	1038
1172 protective service officers	176	149
3111 laboratory, engineering, and quality	599	566
3442 Sports And Fitness Occupations	291	212
3520 legal associate professionals	163	159
3531 Estimators, valuers, assessors, brokers	450	355
3541 sales representatives, marketing professionals	1206	1077

Table 11: Below GCSE C / Bachelor + border job examples in 2009

Occupation	Observations	
	Below GCSE C	Bachelor +
1235 recyc and refuse disposal managers	12	25

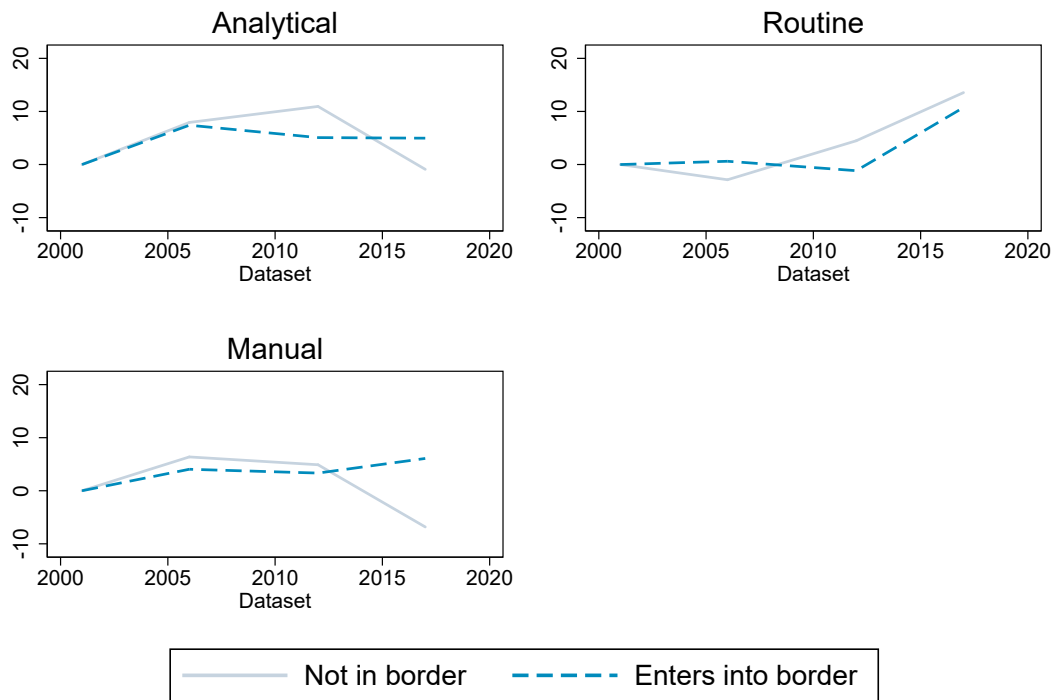
Table 12: Number of jobs in occupation panel by dataset

Number of occupations	Occupation
In LFS	232
In SES (complete sample 2001-2017)	175

Table 13: Share of observations in low-mid border

	2001	2006	2012	2017
Not in border	0.67 (0.01)	0.79 (0.01)	0.86 (0.02)	0.81 (0.02)
Observations	1081	1429	455	630
Becoming border	0.38 (0.03)	0.58 (0.02)	0.99 (0.01)	0.99 (0.01)
Observations	370	452	207	240

Below GCSE C workers



GCSE C to A levels workers

