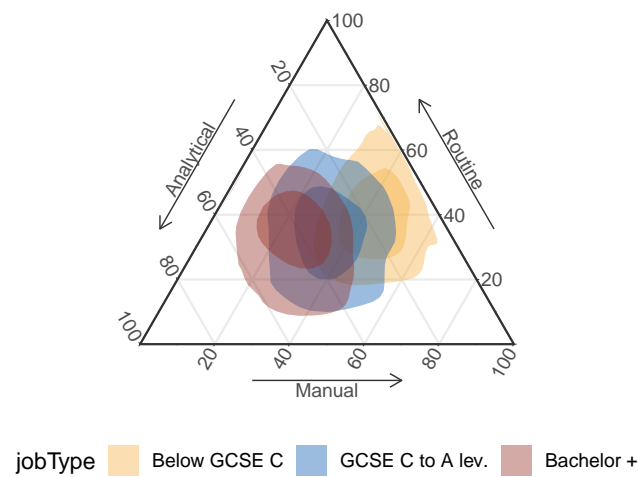


## References

- 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

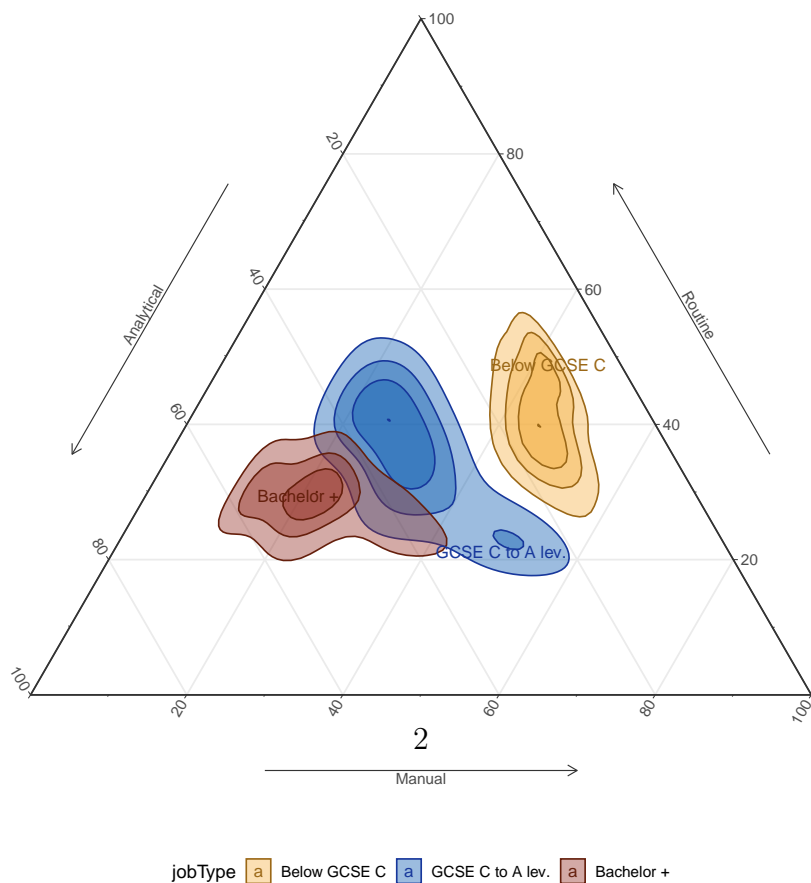


Figure 2: Time variation in skill use by education level in own-type jobs

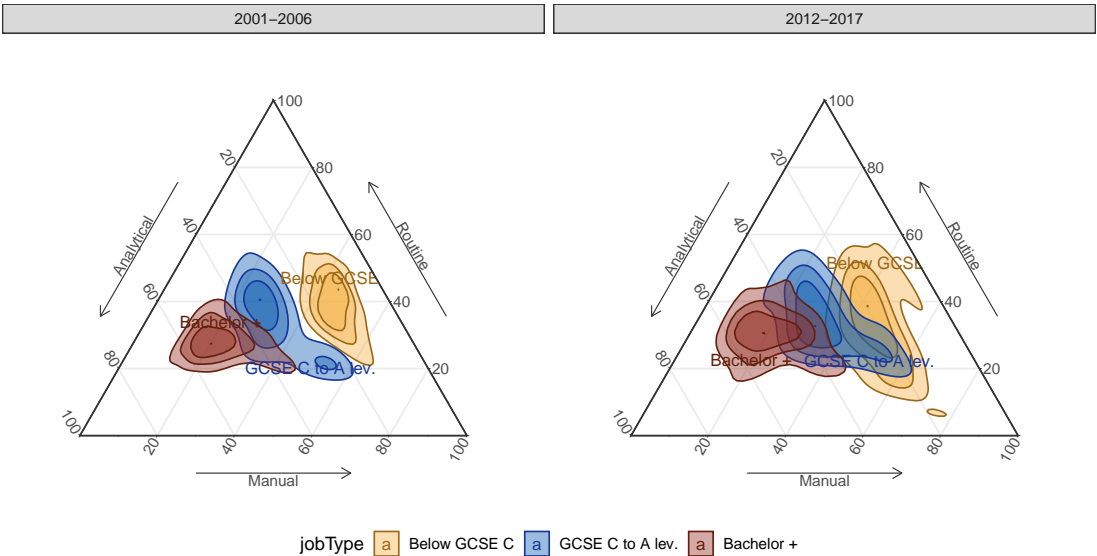


Table 1: Skill use percentile in GCSE C to A lev./Bachelor+ border jobs

<b>Base level: GCSE C-A levels</b>	<b>Analytical (1)</b>	<b>Manual (2)</b>	<b>Routine (3)</b>
<i>Simple average indexes</i>			
GCSE C-A levels	7.67** (2.58)	-9.33*** (2.47)	6.13* (2.81)
Bachelor+	16.30*** (2.55)	-15.44*** (2.41)	1.12 (2.78)
<i>t-statistic of difference</i>	5.86	-4.11	-2.64
Overall $R^2$	0.12	0.26	0.07
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)	-4.68 (2.92)
Bachelor+	11.79*** (2.73)	-15.10*** (2.44)	1.69 (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 14 Apr 2020 at 14:23:21.

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

<b>Base level: GCSE C-A levels</b>	<b>Analytical (1)</b>	<b>Manual (2)</b>	<b>Routine (3)</b>
<i>Simple average indexes</i>			
GCSE C-A levels	5.65*** (0.87)	0.36 (0.75)	-2.06* (1.03)
Bachelor+	9.70*** (1.29)	-4.36*** (1.19)	-1.57 (1.47)
<i>t-statistic of difference</i>	3.39	-4.25	0.36
Overall $R^2$	0.17	0.28	0.11
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 14 Apr 2020 at 14:23:20.

Table 3: Skill use percentile in Below GCSE C jobs

<b>Base level: GCSE C-A levels</b>	<b>Analytical (1)</b>	<b>Manual (2)</b>	<b>Routine (3)</b>
<i>Simple average indexes</i>			
GCSE C-A levels	2.70* (1.37)	1.42 (1.21)	-1.85 (1.74)
Bachelor+	10.49** (3.32)	-1.64 (2.61)	1.07 (3.49)
<i>t-statistic of difference</i>	2.33	-1.17	0.83
Overall $R^2$	0.11	0.16	0.08
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)	9.59** (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 14 Apr 2020 at 14:23:19.

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

<b>Base level: GCSE C-A levels</b>	<b>Analytical (1)</b>	<b>Manual (2)</b>	<b>Routine (3)</b>
<i>Simple average indexes</i>			
GCSE C-A levels	2.19 (1.26)	-4.94*** (1.09)	-0.48 (1.45)
Bachelor+	7.73*** (1.43)	-9.48*** (1.25)	-0.91 (1.63)
<i>t-statistic of difference</i>	5.78	-5.27	-0.40
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)	3.54** (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	3.36
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 14 Apr 2020 at 14:23:20.

Table 5: Skill use percentile in Bachelor+ jobs

<b>Base level: GCSE C-A levels</b>	<b>Analytical (1)</b>	<b>Manual (2)</b>	<b>Routine (3)</b>
<i>Simple average indexes</i>			
GCSE C-A levels	4.06* (1.78)	-4.39* (1.87)	-1.52 (2.09)
Bachelor+	11.05*** (1.71)	-11.49*** (1.78)	-1.85 (2.01)
<i>t-statistic of difference</i>	8.45	-8.71	-0.31
Overall $R^2$	0.15	0.32	0.05
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

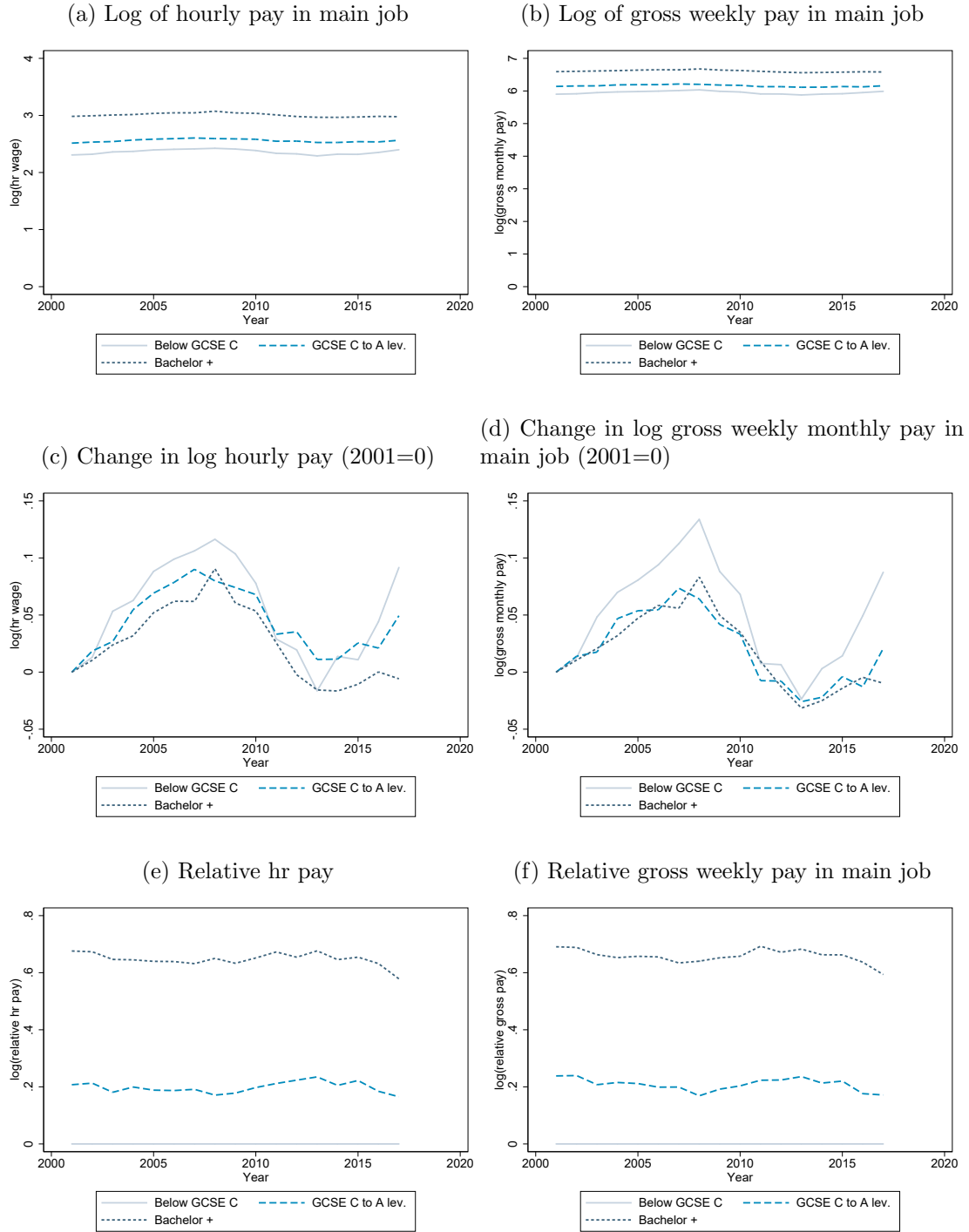
*Note:* robust standard errors in parenthesis. The regression includes data from occupations. I pool data from all years. Regressions include occupation fixed-effects. Table generated on 14 Apr 2020 at 14:23:20.

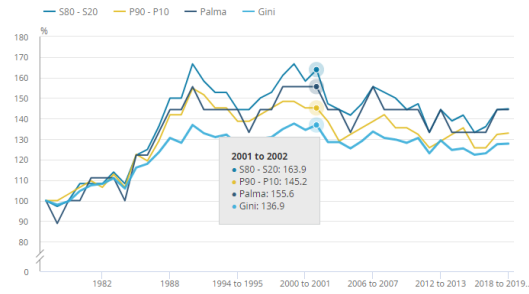


Table 6: Observations in regressions by job type and education level

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

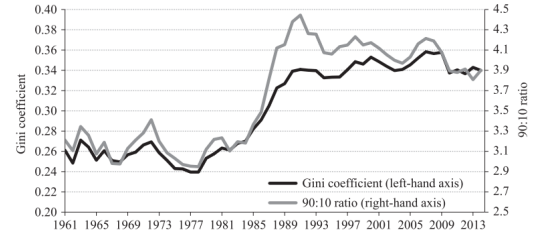
Figure 3: Income variables by education level





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

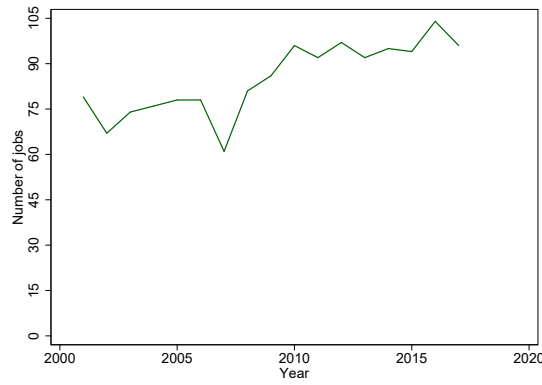
(a) Office for National Statistics (2019)



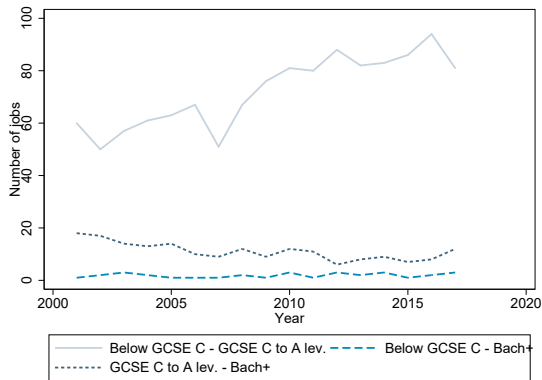
(b) Belfield et al. (2017)

Figure 4: Jobs classification by year

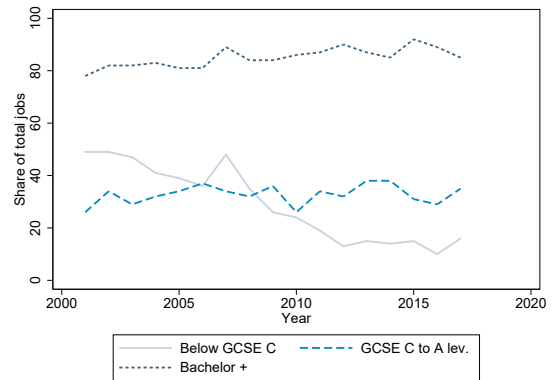
(a) Total jobs in border



(b) In the border



(c) Not in the border



**Note:** the dataset includes 232 jobs in total.

Figure 5: Employment shares

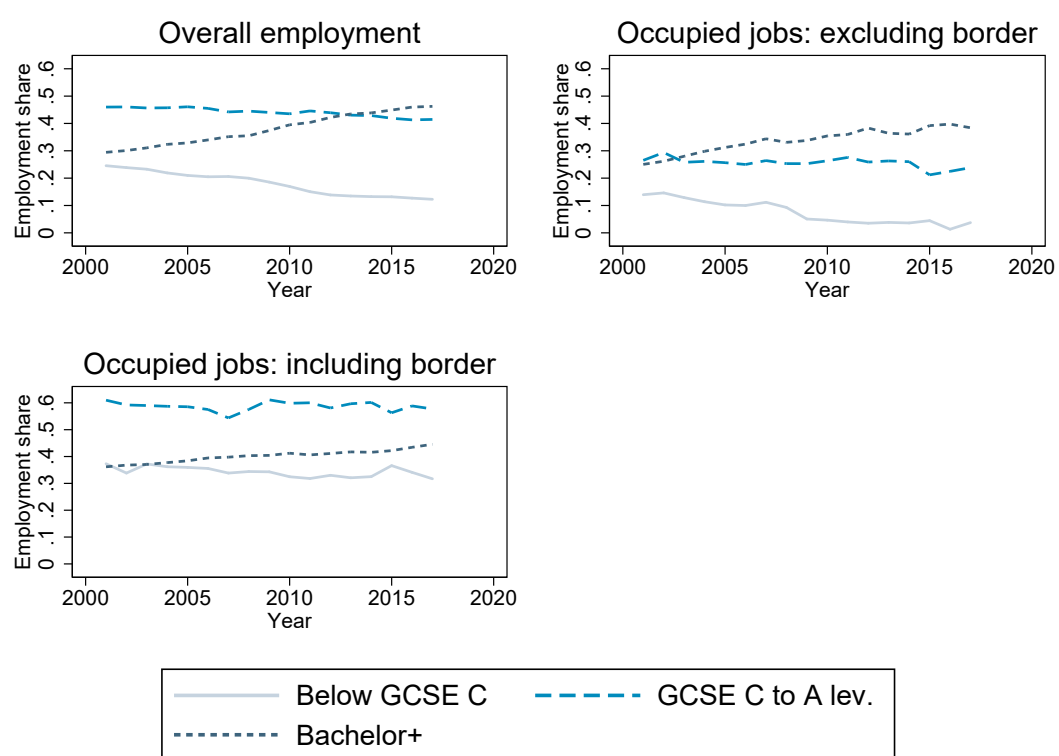
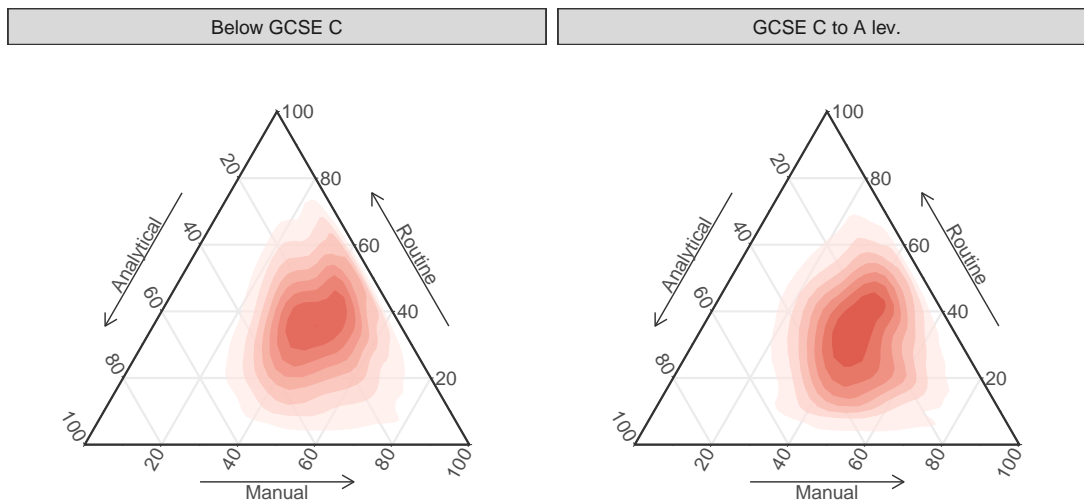
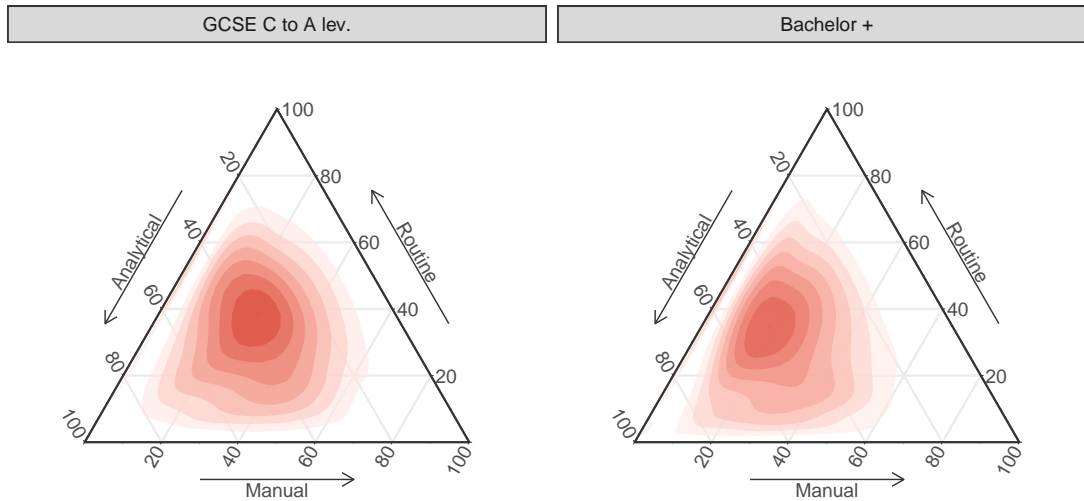


Figure 6: Individual level data: skill use (simple average indexes), different education levels in the same border job type

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



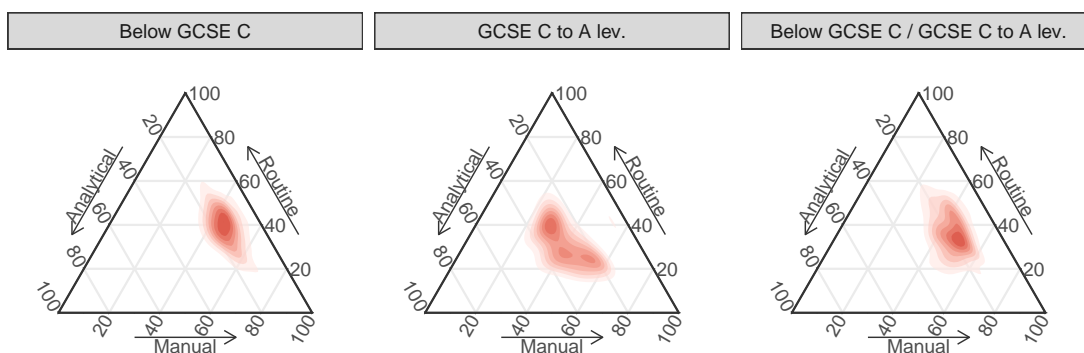
(b) GCSE C to A level jobs / Bachelor + border jobs



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

Figure 7: 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

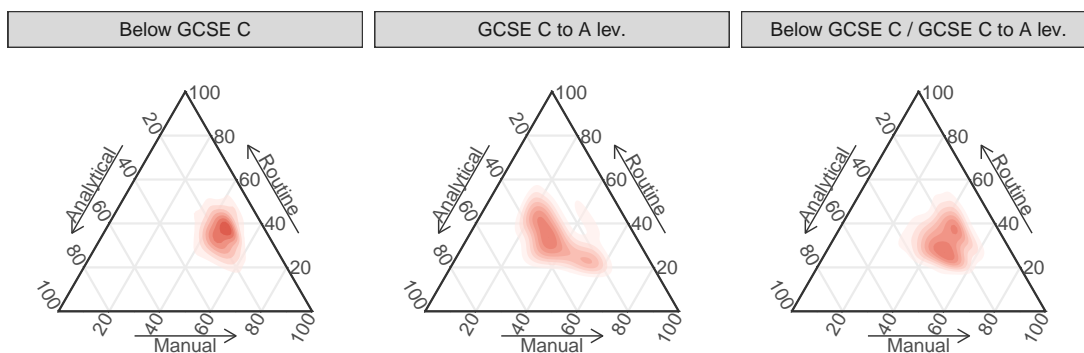
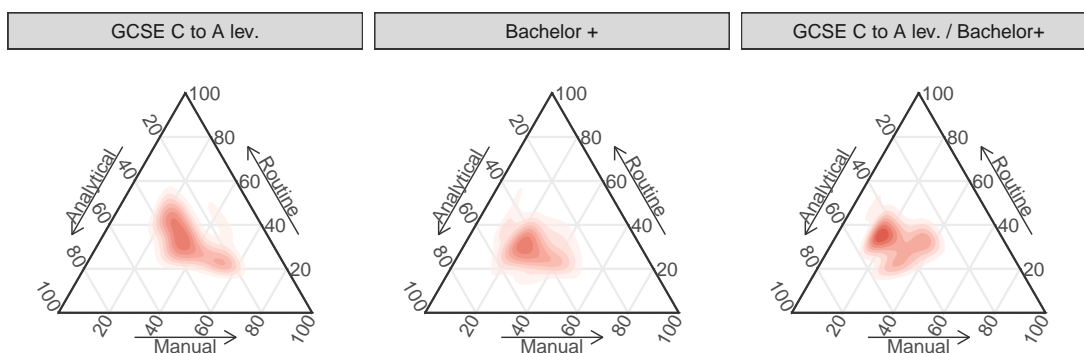


Figure 8: Individual level data: skill use (simple average indexes), same education level across different job types

(a) GCSE C to A lev. workers



(b) Bachelor+ workers

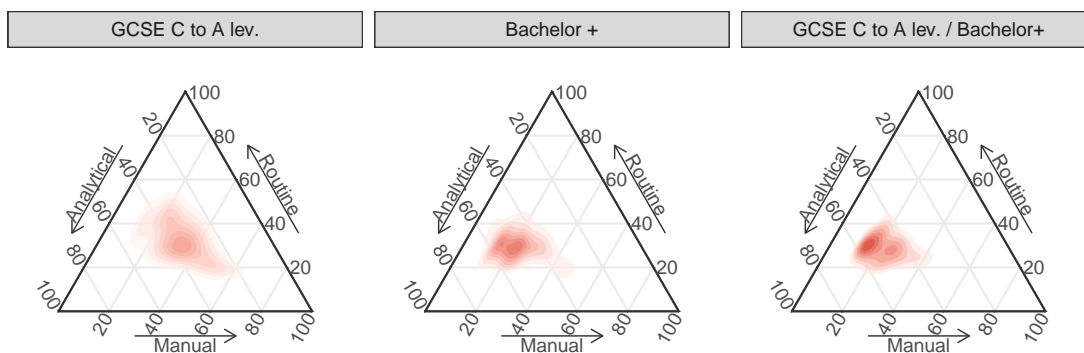
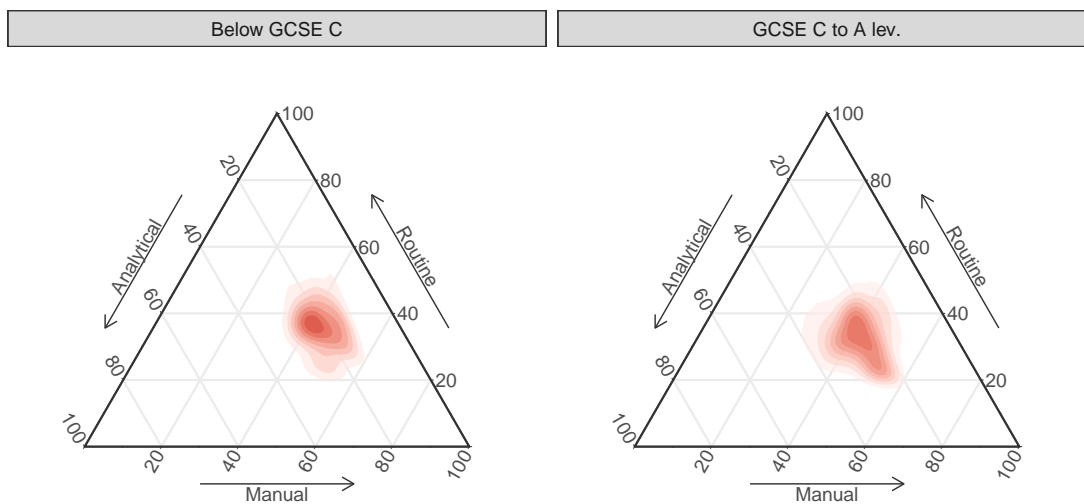
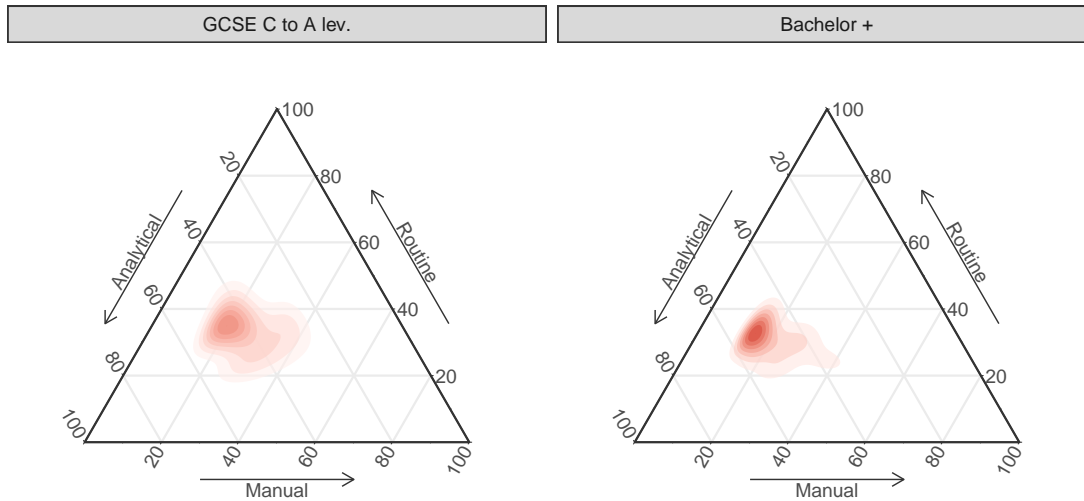


Figure 9: Skill use (simple average indexes): different education levels in the same border job type

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



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

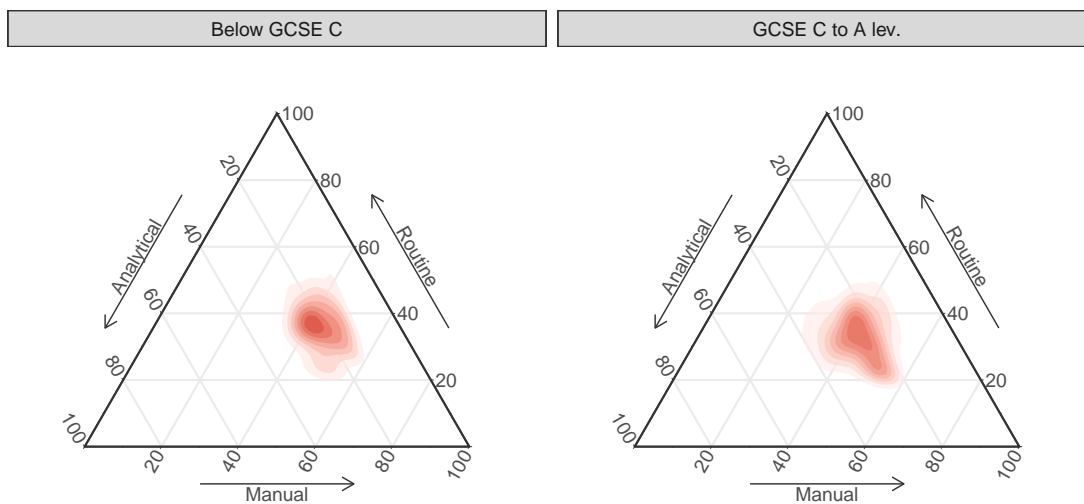


**Note:** occupation level averages. Observations weighted by number of observations in the occupation.

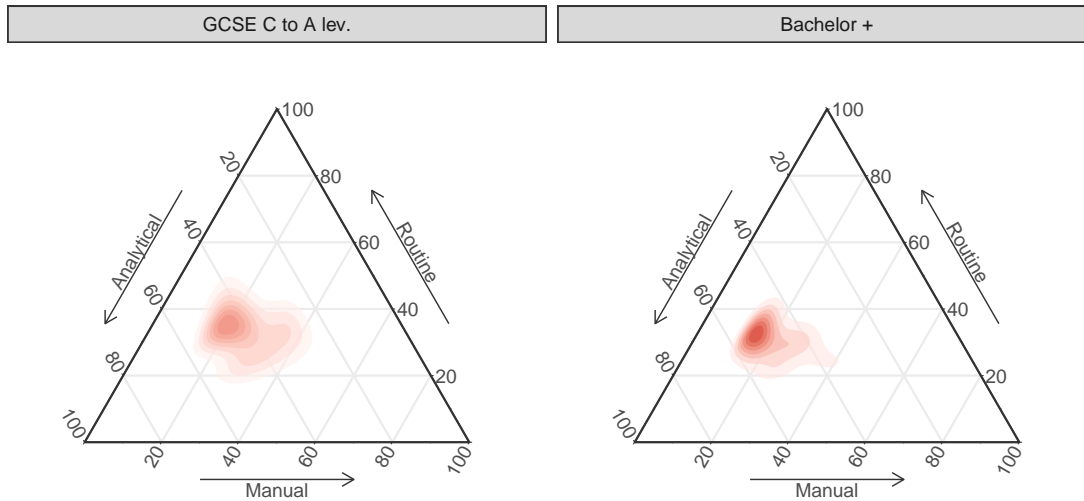


Figure 10: Skill use (simple average indexes): different education levels in the same border job type(occupation level weights)

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



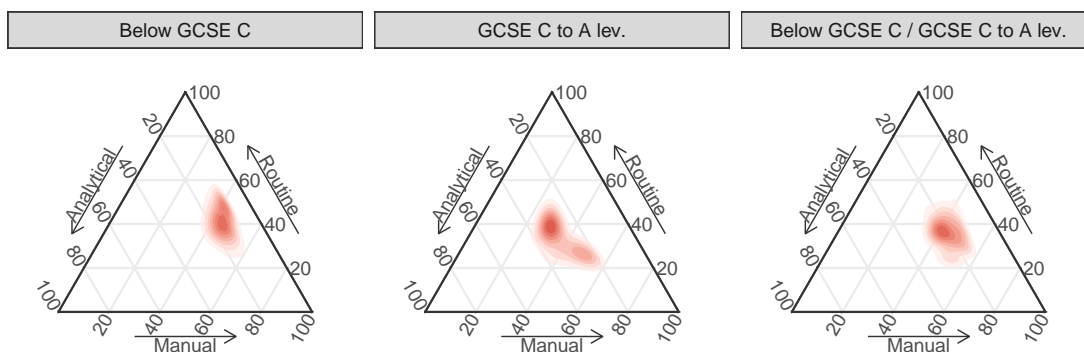
(b) GCSE C to A level jobs / Bachelor + border jobs



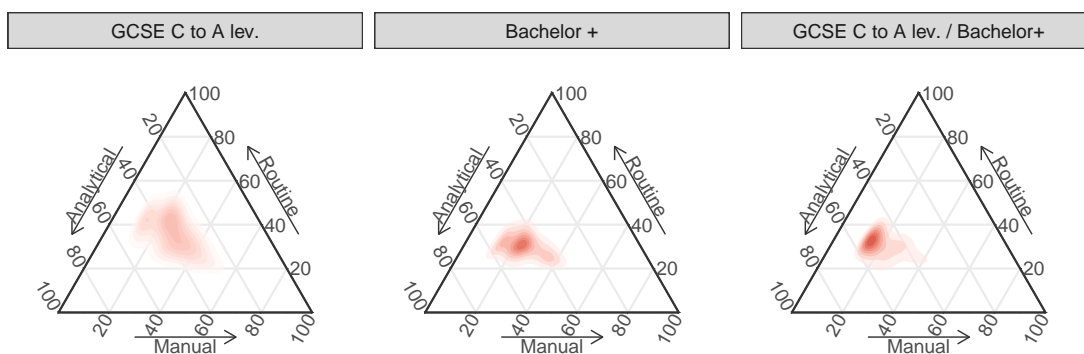
**Note:** occupation level averages. Observations weighted by number of observations in the occupation.

Figure 11: Skill use (simple average indexes): same education level across different job types

(a) Below GCSE C workers



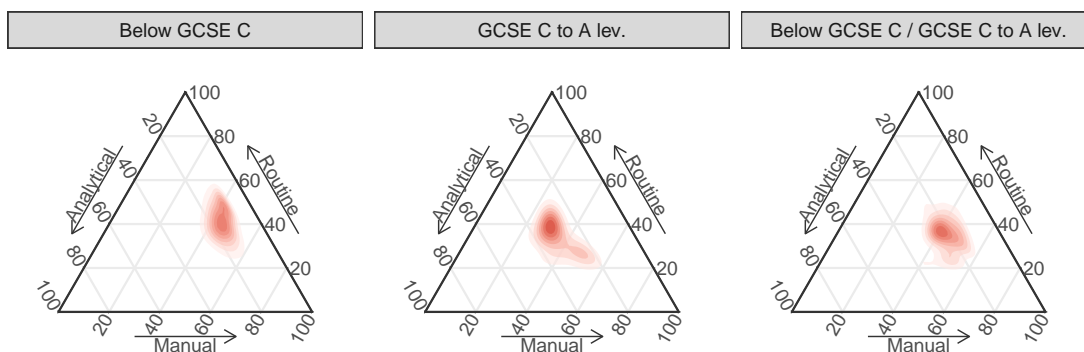
(b) GCSE C to A lev. workers



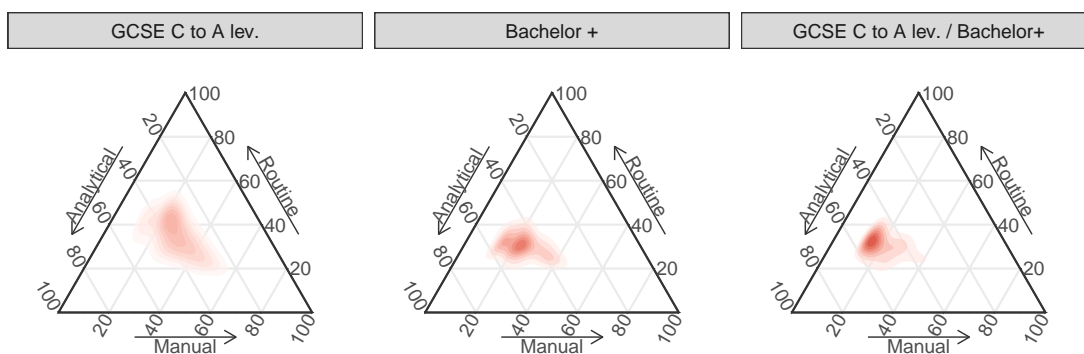
**Note:** occupation level averages. Observations weighted by number of observations in the occupation.

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

(a) Below GCSE C workers



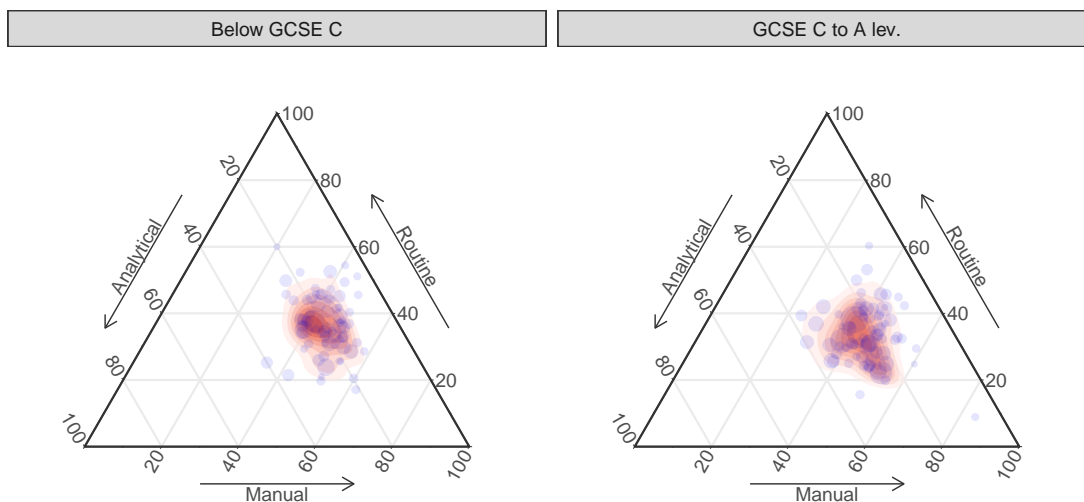
(b) GCSE C to A lev. workers



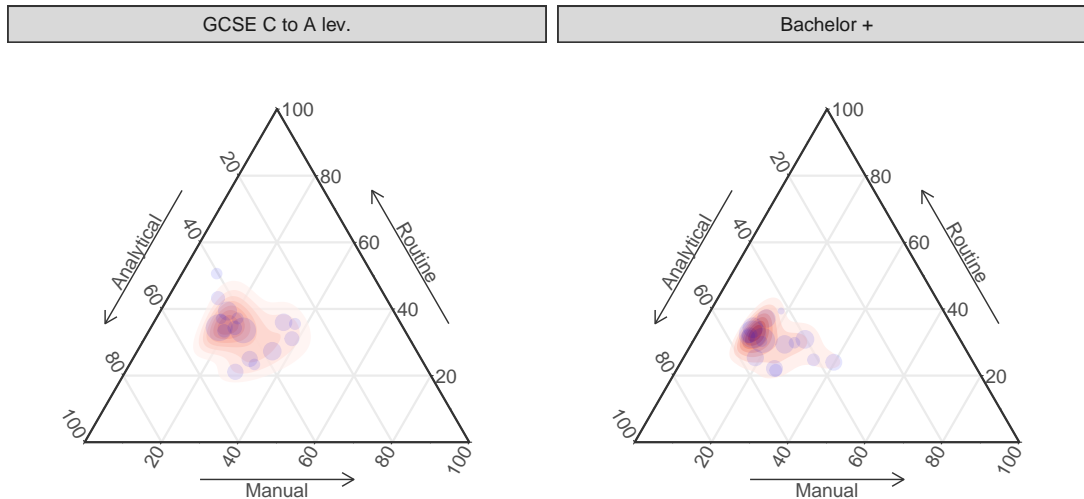
**Note:** occupation level averages. Observations weighted by number of observations in the occupation.

Figure 13: Skill use (simple average indexes): different education levels in the same border job type

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



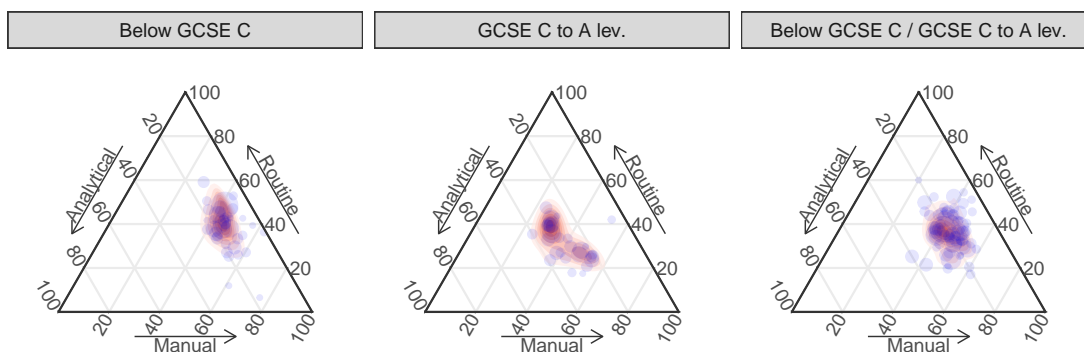
(b) GCSE C to A level jobs / Bachelor + border jobs



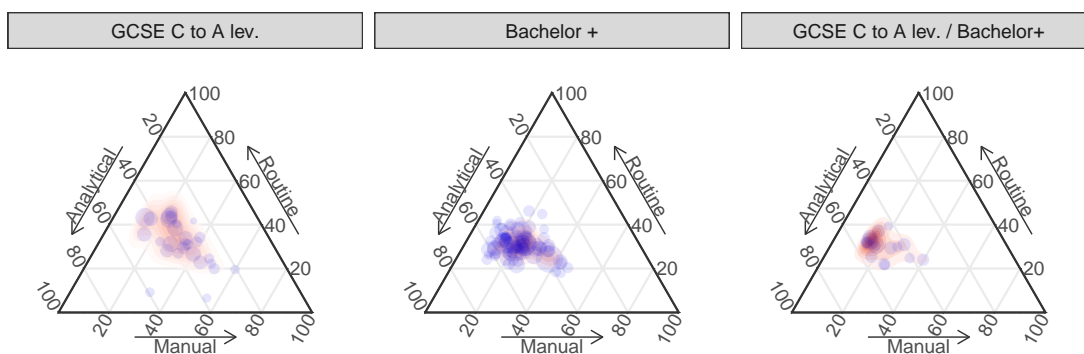
**Note:** occupation level averages. Observations weighted by number of observations in the occupation.

Figure 14: Skill use (simple average indexes): same education level across different job types

(a) Below GCSE C workers

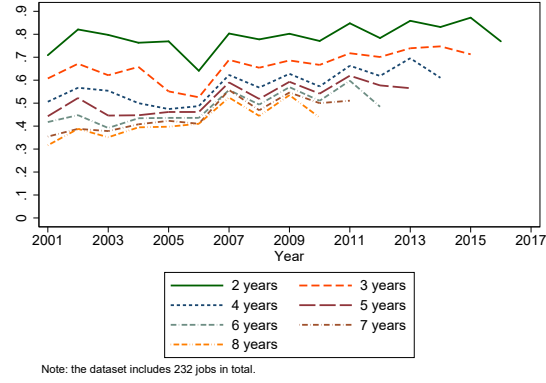


(b) GCSE C to A lev. workers



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

Figure 15: Share of border jobs still in the borders  $x$  years from now



**Note:** the dataset includes 232 jobs in total.

Figure 16: Share of jobs by border type and one digit occupation group

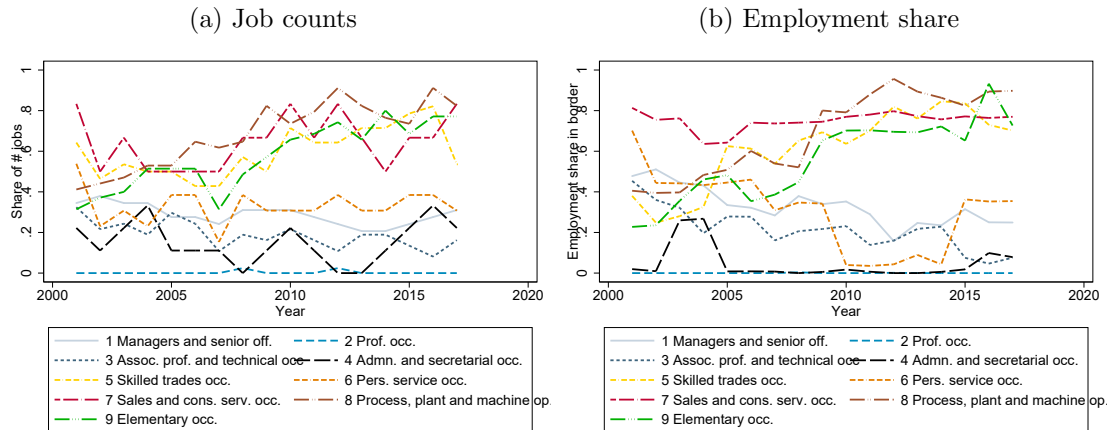


Figure 17: Share of jobs by border type and one digit occupation group

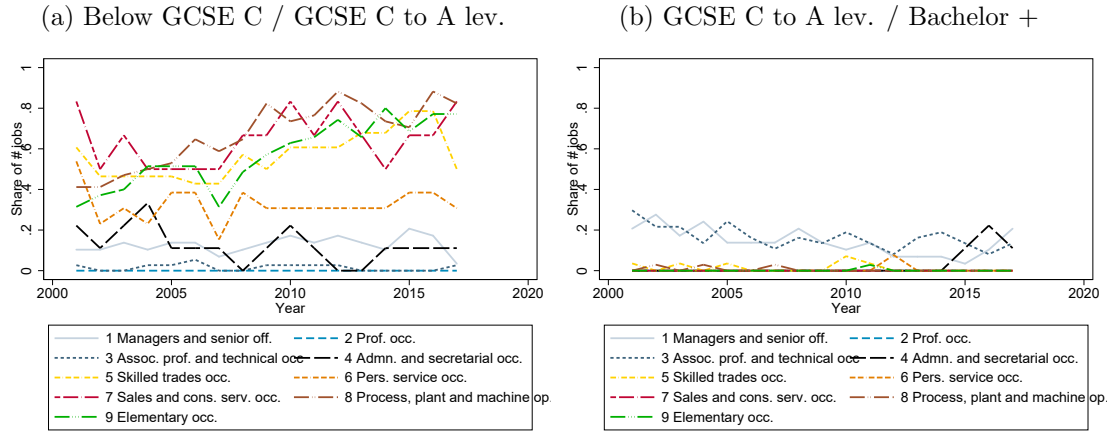


Figure 18: Share of employment in the border, by border type and one digit occupation group

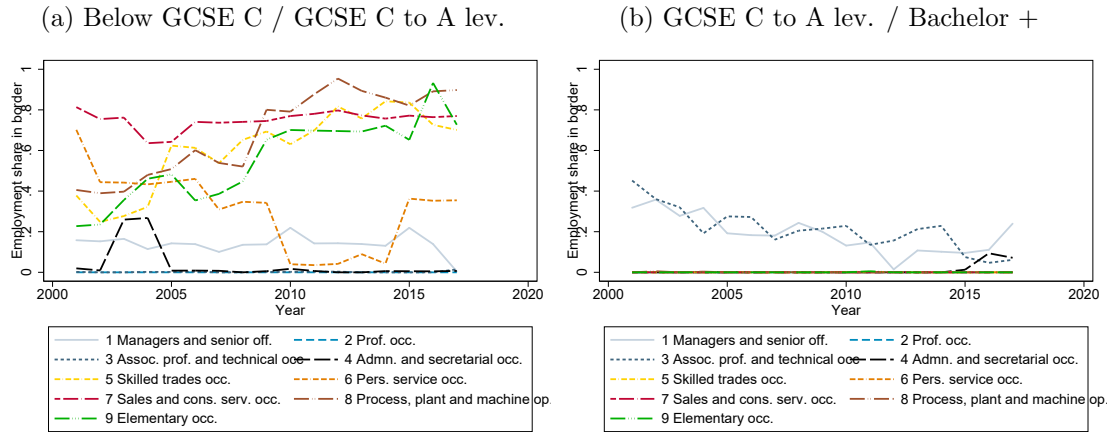


Figure 19: Share of employment in the border, by border type and selected two digit occupation group

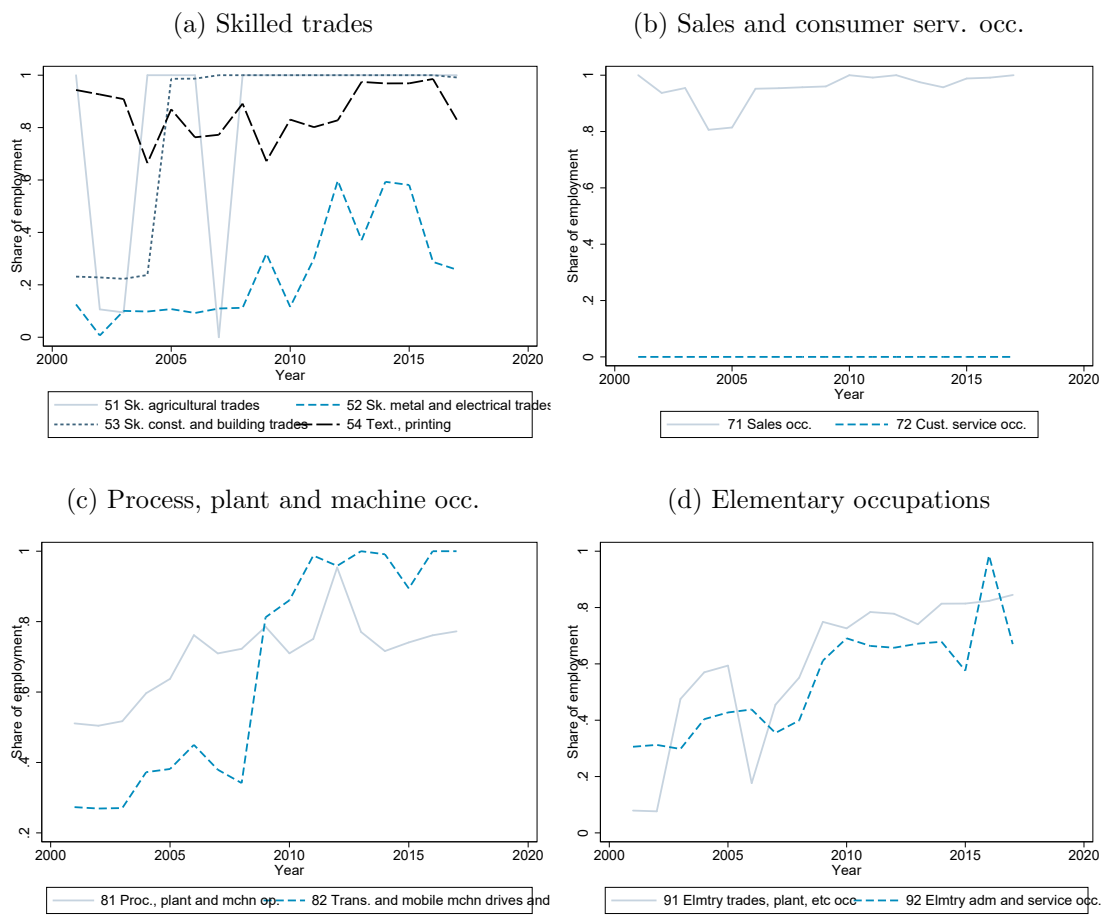




Figure 20: Share of employment in the border, by border type and selected three digit occupation group

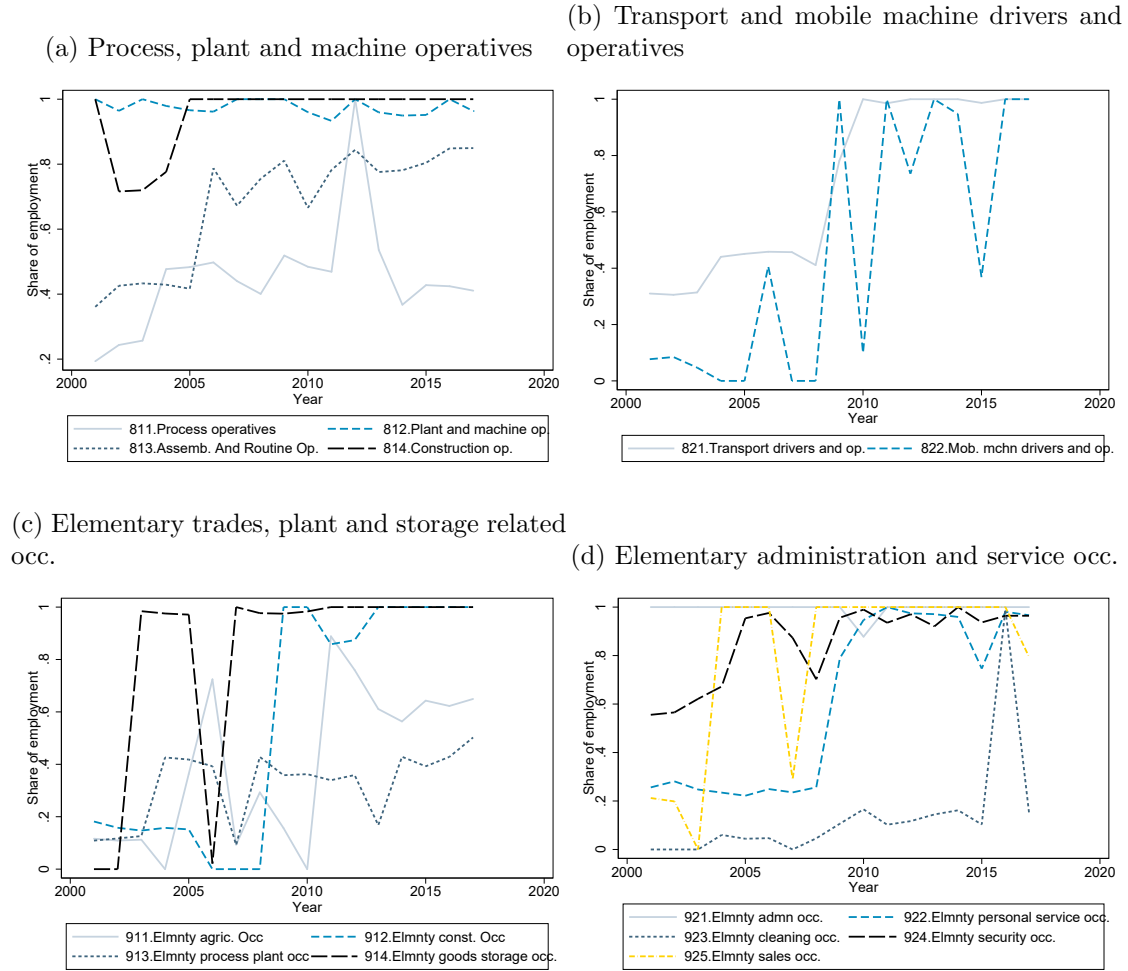
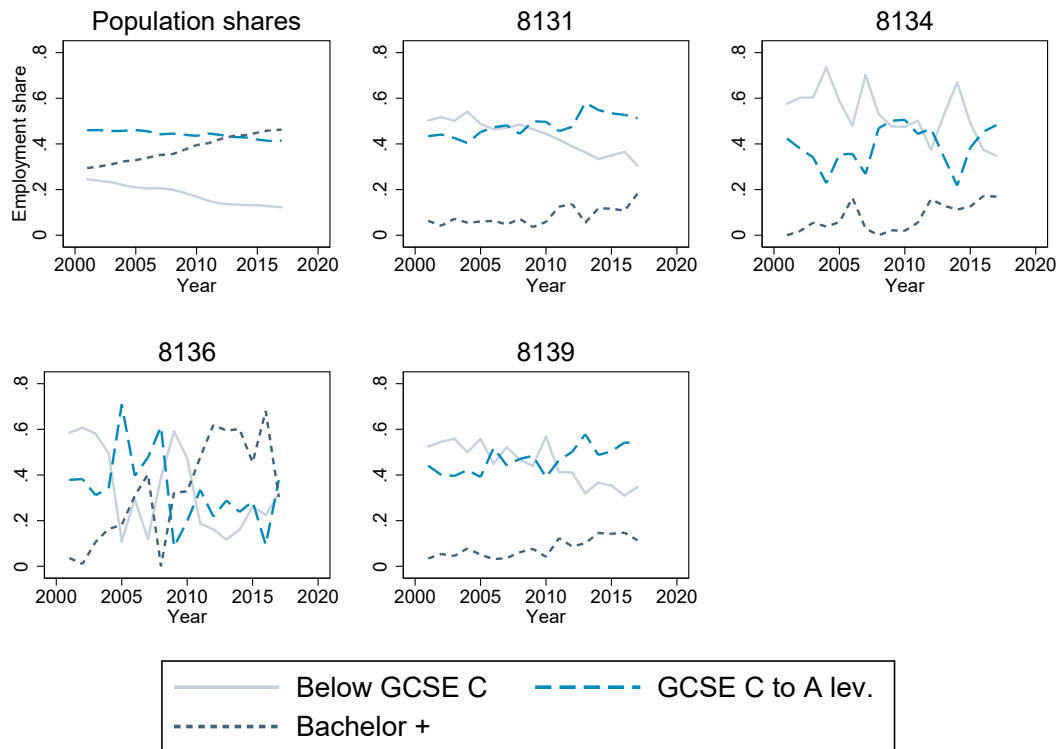


Figure 21: Employment shares by education level in selected jobs moving into the border

(a) Assemblers and routine occupations



(b) Transport drivers and operators

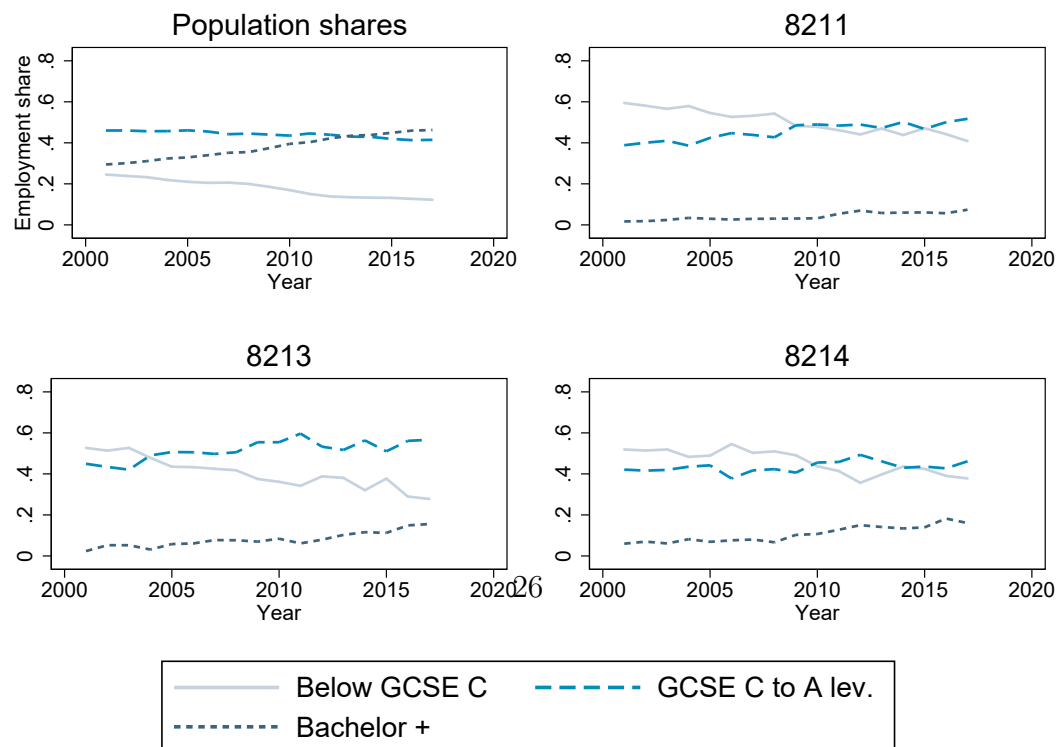
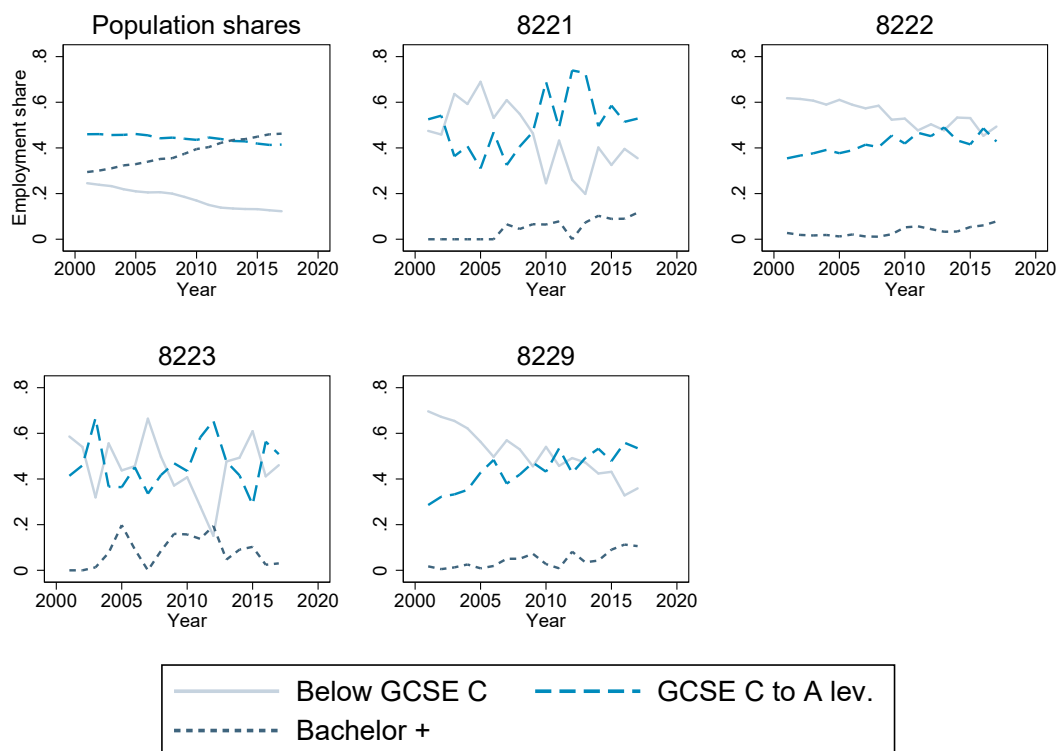


Figure 22: Employment shares by education level in selected jobs moving into the border

(a) Mobile machine drivers and operatives



(b) Elementary personal service occupations

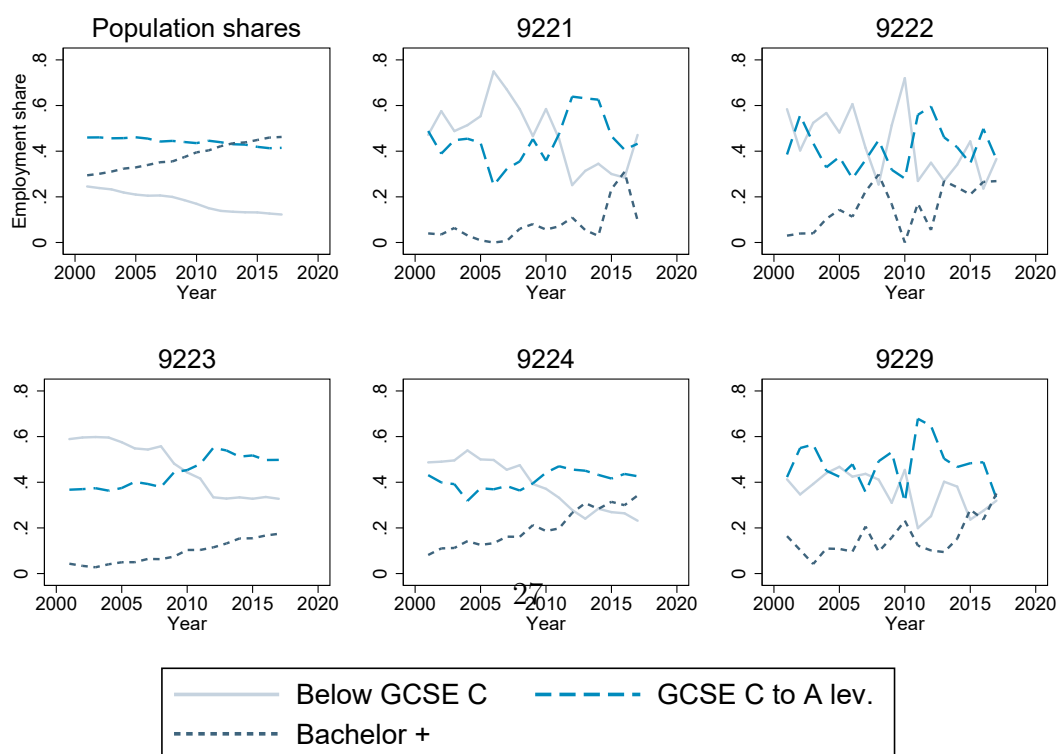


Table 7: Below GCSE C / GCSE C - A levels border job examples in 2006

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 8: 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 9: Below GCSE C / Bachelor + border job examples in 2009

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

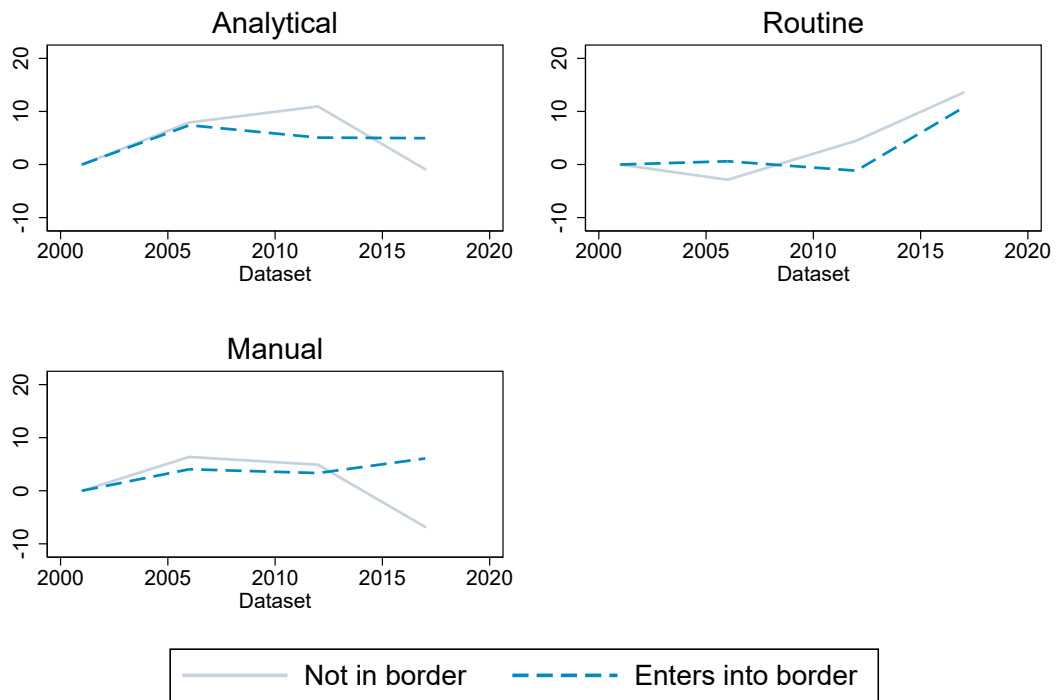
Table 10: Number of jobs in occupation panel by dataset

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

Table 11: 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

