

Table 1: Effect of relaxing number of switches constraint

	Switches I allow				
	1	3	5	7	9
Low to Low-Mid	9	17	22	23	23
Mid to Low-Mid	1	1	2	2	2
Low-Mid to Mid	1	1	1	1	1
Mid-High to Mid	0	0	0	1	1
Mid-High to High	2	3	4	5	5
Total	13	22	29	32	32

Note: I keep the outer 3 year window fixed, and I vary the number of inner switches that are allowed. Table generated on 4 Jun 2020 at 11:47:41.

Table 2: Effect of relaxing length of outer window

	Outer window			
	5	4	3	2
Low to Low-Mid	10	13	22	28
Mid to Low-Mid	0	2	2	2
Mid to Mid-High	0	0	0	1
High to Mid-High	0	0	0	1
Low-Mid to Mid	1	1	1	1
Mid-High to High	0	1	4	5
Total	11	17	29	38

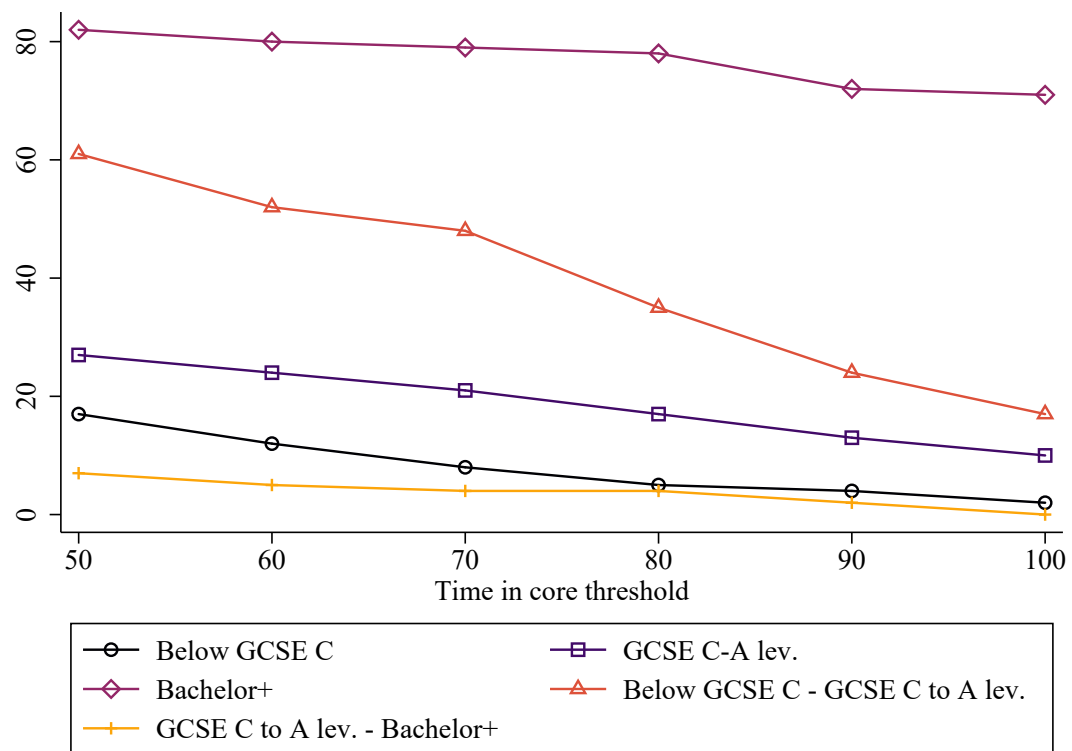
Note: I keep the number of switches I allow fixed at 5, and then vary the length of the outer window. Table generated on 4 Jun 2020 at 11:47:41.

Table 3: Types of switching jobs

	Count
Low to Low-Mid	19
Mid to Low-Mid	2
Low-Mid to Mid	1
Mid-High to High	3
Total	25

Note: switching jobs are defined as the union of 3-3-1, 4-4-3, 5-5-7 definitions (numbers denote: initial window- final window - number switches).
Table generated on 4 Jun 2020 at 14:53:25.

Figure 1: Number of core jobs at different thresholds

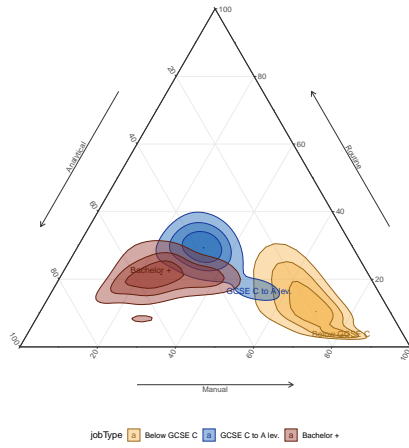


Note: core jobs are those which (i) meet the time at core threshold and (ii) are not flagged as transitioning.

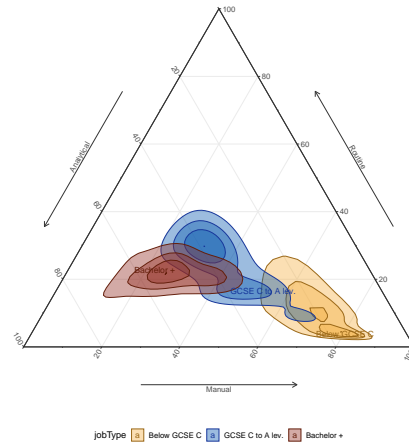
Figure generated on 4 Jun 2020 at 16:19:47.

Figure 2: Exploring weighting schemes (density plots)

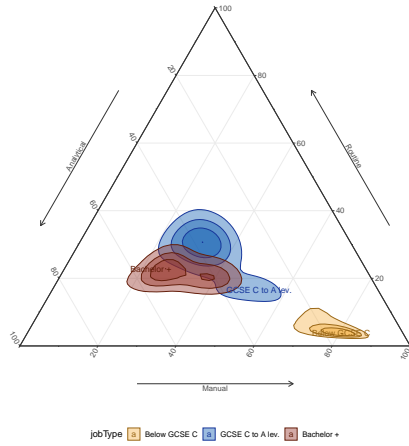
(a) Observations in SES education-occupation-
job type cell



(b) $\sqrt{d_1 d_2} \times observations_{LFS}$



(c) $\sqrt{d_1 d_2} \times observations_{LFS} \times observations_{SES}$



(d) $\sqrt{d_1 d_2} \times observations_{SES}$

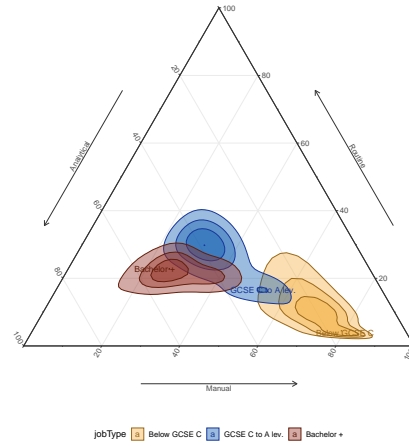
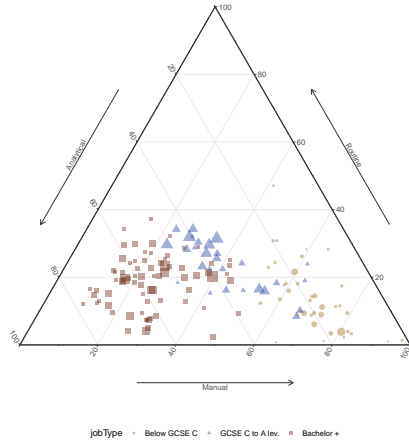
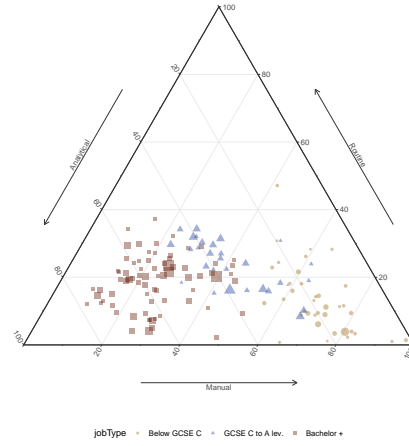


Figure 3: Exploring weighting schemes (scatterplots)

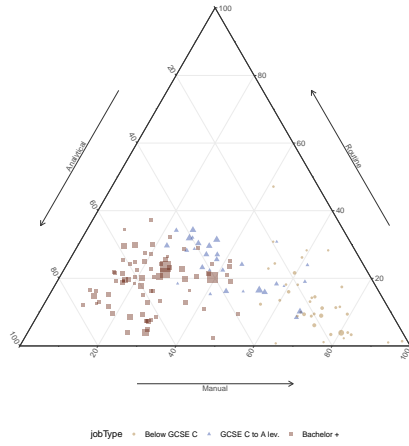
(a) Observations in SES education-occupation-
job type cell



(b) $\sqrt{d_1 d_2} \times observations_{LFS}$



(c) $\sqrt{d_1 d_2} \times observations_{LFS} \times observations_{SES}$



(d) $\sqrt{d_1 d_2} \times observations_{SES}$

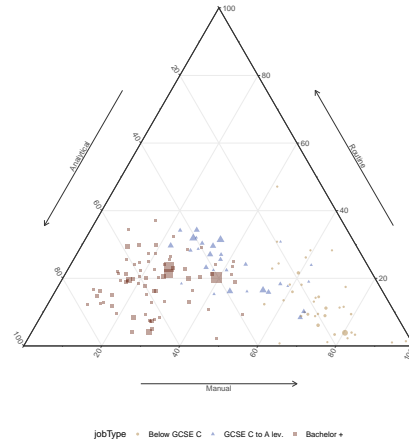
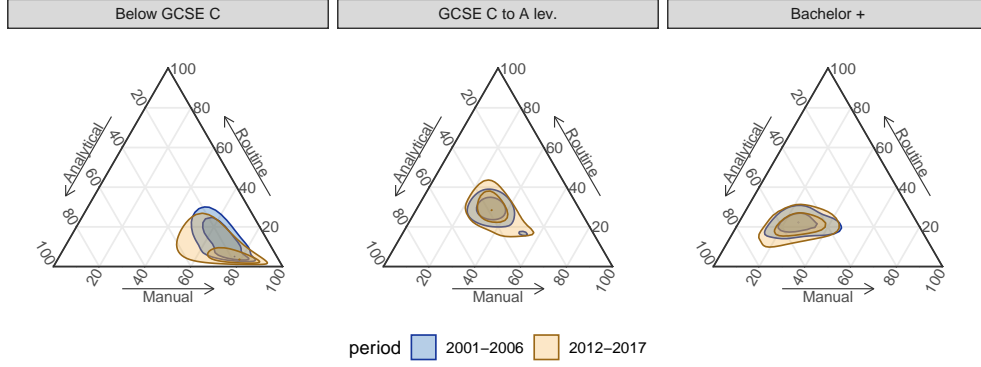
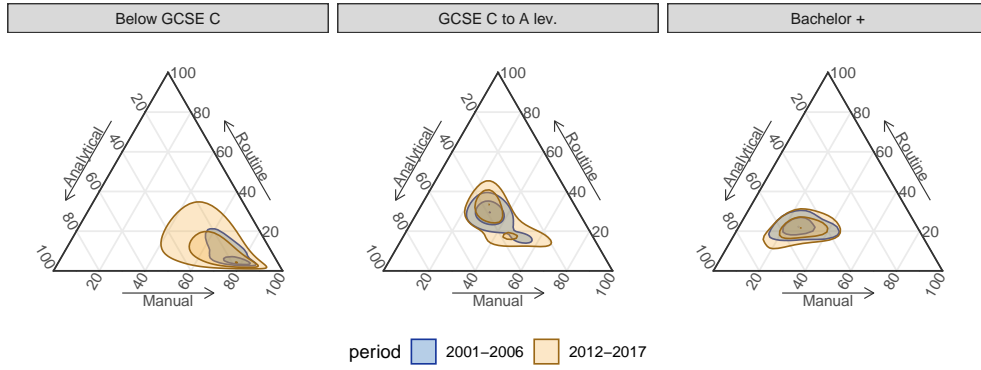


Figure 4: Exploring weighting: time change density plots

(a) Observations in SES education-occupation-job type cell



(b) $\sqrt{d_1 d_2} \times observations_{LFS}$



(c) $\sqrt{d_1 d_2} \times observations_{LFS} \times observations_{SES}$

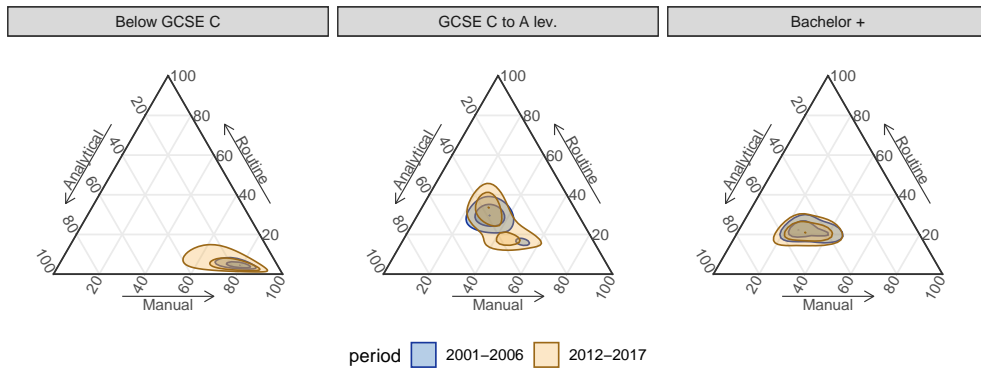


Figure 5: Number of jobs and switching jobs by category

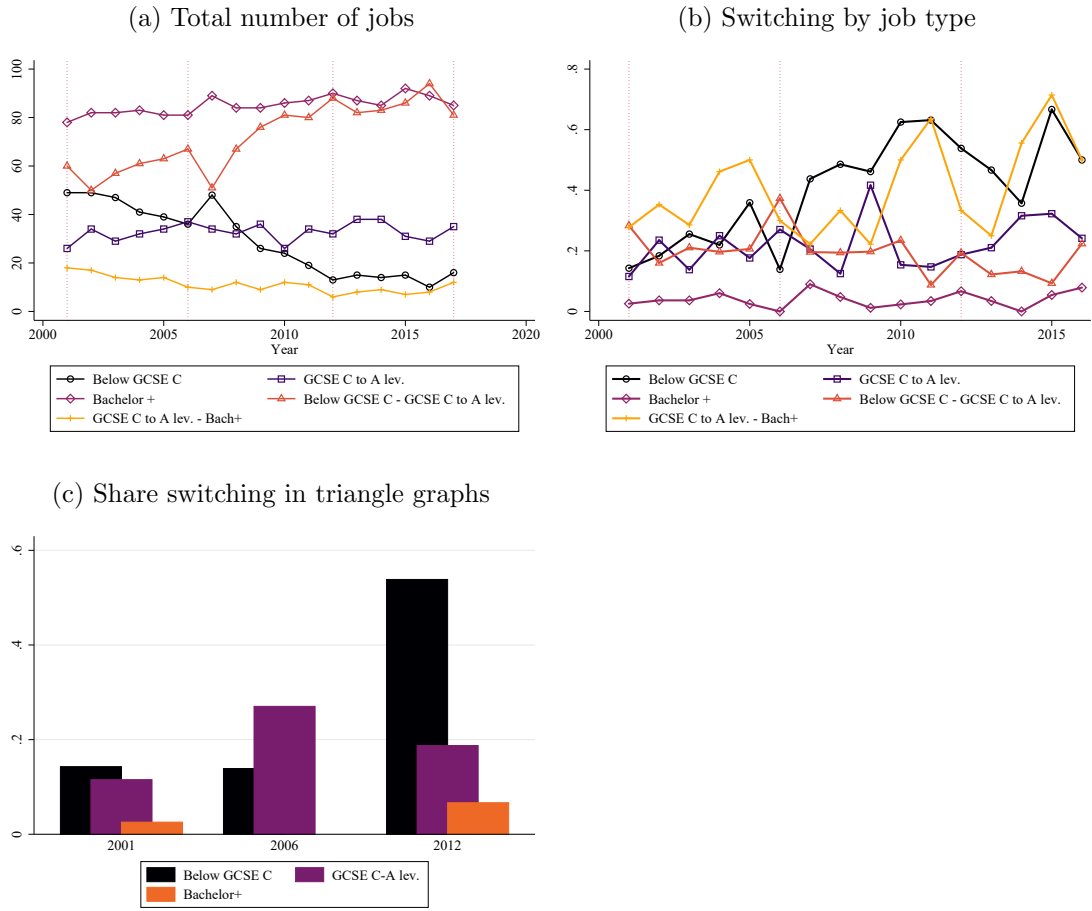
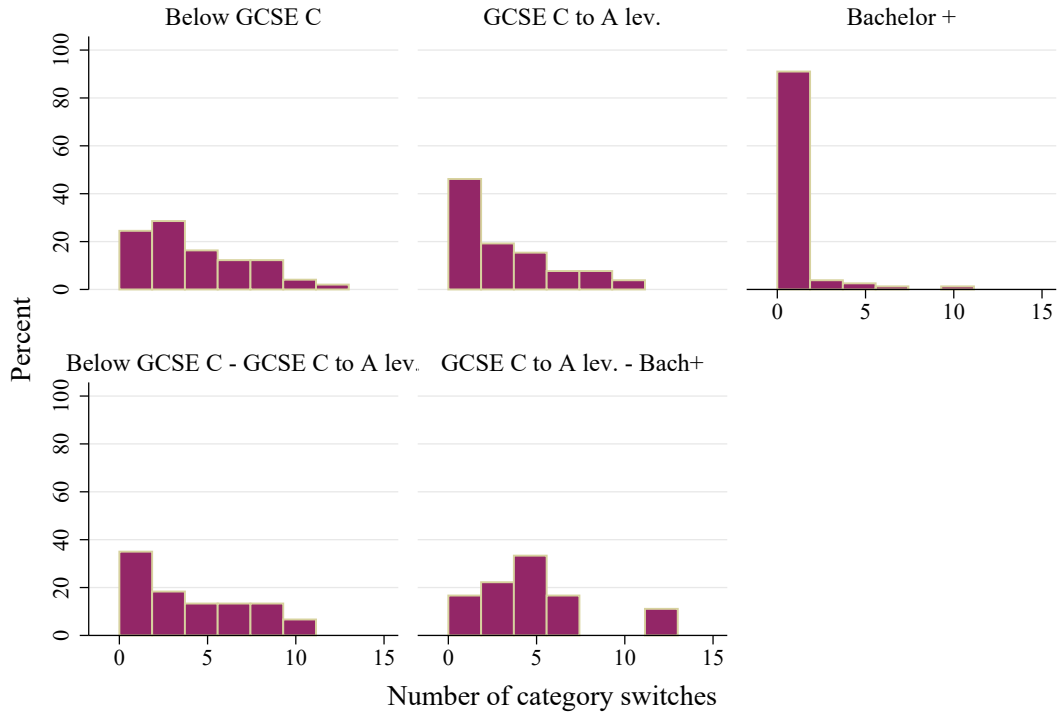


Table 4: Weight of switching vs non-switching jobs

	Low (1)	Mid (2)	High (3)	Low-Mid (4)	Mid-High (5)
$\sqrt{\text{distance}}$	0.751	0.941	0.322	0.871	0.815
$\sqrt{\text{distance}} * \text{observations}_{LFS}$	0.243	0.187	0.094	0.285	0.345

Figure 6: Number of job-level switches by job type, 2001-2017



Graphs by jobType

Table 5: Jobs with fixed job classification

Job type	Count	Avg. observations
Below GCSE C	2	533
GCSE C to A lev.	10	2223
Bachelor +	71	666
Below GCSE C - GCSE C to A lev.	17	1014
Total	100	878

Note: the table shows the number of occupations that did not change their job classification during 2001-2017. Observations correspond to the average number of observations in the job type-occupation cells over the period 2001-2017. Table generated on 30 May 2020 at 12:34:15.

Table 6: Transition of switching jobs

Job type in 2001	Job type in 2017				Total
	Mid	High	Low-Mid	Mid-High	
Low	0	0	9	0	9
Mid	0	0	1	1	2
Low-Mid	1	0	0	0	1
Mid-High	0	3	0	0	3
Total	1	3	10	1	15

Note: I switching job is an occupation that satisfies two conditions: (i) it changes category only once during 2001-2017, (ii) this change doesn't happen between 2001-2002 or 2016-2017. Table generated on 1 Jun 2020 at 10:22:34.

Table 7: List of switching jobs

Occupation	Observations
1121 prod. works & maintenance	2342
3541 sales representatives, ma	2660
3561 public service associates	1272
4111 civil service officers an	1964
5312 bricklayers, masons, roof	4842
6111 nursing aux, amb staff, d	1953
6231 housekprs and related occ	311
6232 caretakers	392
8117 mtl mkng & treating procs	107
8211 heavy goods vehicle drive	1905
8213 bus and coach drivers	683
8214 taxi, cab drivers and cha	1081
9121 labrers build & woodworki	950
9223 kitchen and catering assi	1960
9235 refuse and salvage occupa	201

Figure 7: Switching jobs

(a) Position in 2001

(b) Position in 2017

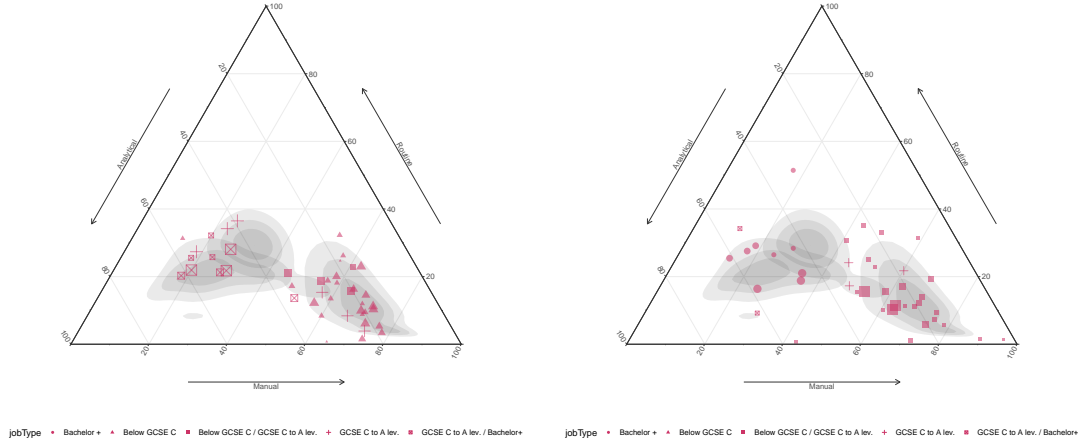


Table 8: Observations by occupation type

Job classification	Observations in SES
Low	98
Mid	1974
High	4192
Low-mid	1548
Low to Low-Mid	571
Mid to Low-Mid	400
Mid to Mid-High	134
Low-Mid to Mid	154
Mid-High to High	576
Total	9647

Table 9: Average skill requirements by occupation type

Job classification	Analytical	Manual	Routine
Low	0.42	0.68	0.41
Mid	0.62	0.41	0.68
High	0.75	0.37	0.59
Low-mid	0.53	0.63	0.59
Low to Low-Mid	0.45	0.67	0.38
Mid to Low-Mid	0.59	0.85	0.41
Mid to Mid-High	0.66	0.23	0.75
Low-Mid to Mid	0.59	0.70	0.71
Mid-High to High	0.72	0.32	0.62
Total	0.66	0.46	0.59

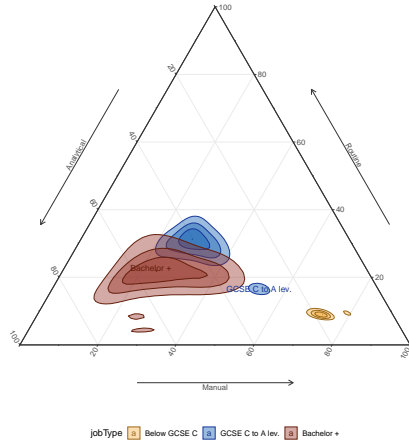
Note: the table shows average skill requirements over the whole 2001-2017 period. Table generated on 1 Jun 2020 at 09:46:20.

Table 10: Average skill requirents for switching jobs

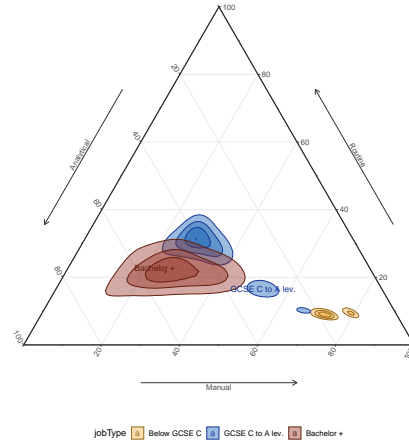
Job classification	Analytical	Manual	Routine
<i>Low to Low-Mid</i>			
Before change	0.444*** (0.011)	0.665*** (0.012)	0.331*** (0.026)
After change	0.464*** (0.013)	0.670*** (0.015)	0.445*** (0.032)
Observations	571	571	571
<i>Mid to Low-Mid</i>			
Before change	0.547*** (0.020)	0.821*** (0.016)	0.273*** (0.045)
After change	0.599*** (0.009)	0.857*** (0.009)	0.452*** (0.029)
Observations	400	400	400
<i>Mid to Mid-High</i>			
Before change	0.656*** (0.016)	0.234*** (0.019)	0.773*** (0.039)
After change	0.700*** (0.030)	0.179*** (0.043)	0.600*** (0.127)
Observations	134	134	134
<i>Low-Mid to Mid</i>			
Before change	0.557*** (0.022)	0.706*** (0.022)	0.644*** (0.051)
After change	0.644*** (0.022)	0.699*** (0.029)	0.813*** (0.049)
Observations	154	154	154
<i>Mid-High to High</i>			
Before change	0.715*** (0.010)	0.309*** (0.015)	0.621*** (0.029)
After change	0.725*** (0.009)	0.325*** (0.016)	0.622*** (0.028)
Observations	576	576	576

Figure 8: Limiting to jobs that stay in the same type (density plots)

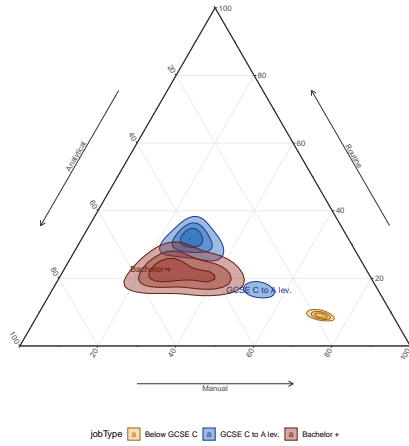
(a) Observations in SES education-occupation-
job type cell



(b) $\sqrt{d_1 d_2} \times observations_{LFS}$



(c) $\sqrt{d_1 d_2} \times observations_{LFS} \times observations_{SES}$



(d) $\sqrt{d_1 d_2} \times observations_{SES}$

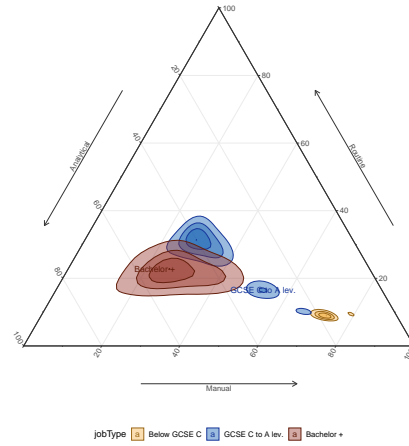
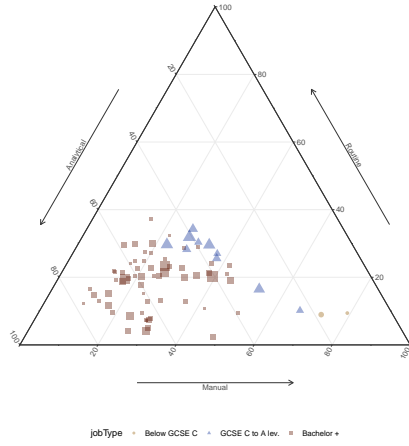
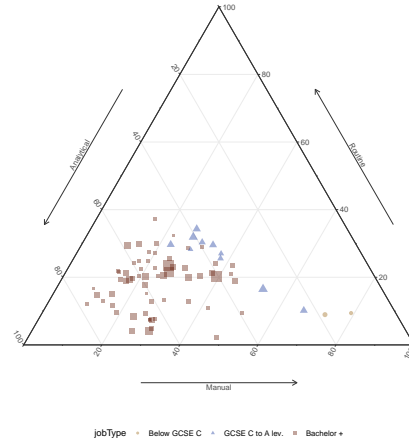


Figure 9: Limiting to jobs that stay in the same type (scatterplots)

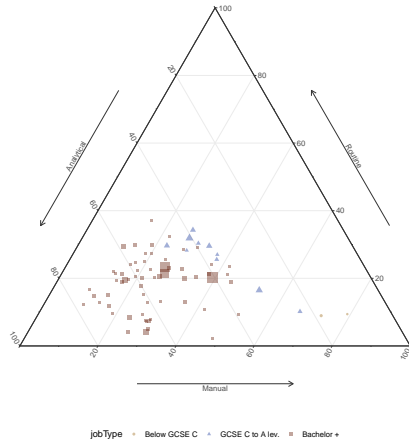
(a) Observations in SES education-occupation-
job type cell



(b) $\sqrt{d_1 d_2} \times observations_{LFS}$



(c) $\sqrt{d_1 d_2} \times observations_{LFS} \times observations_{SES}$



(d) $\sqrt{d_1 d_2} \times observations_{SES}$

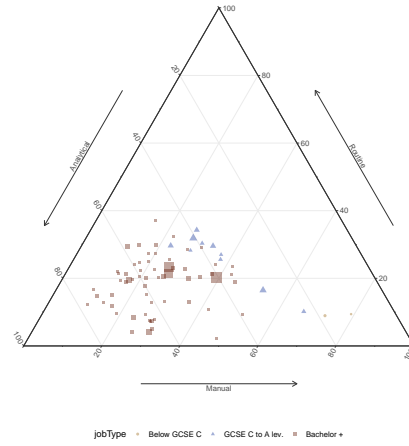


Table 11: Relative skill use in border jobs across education groups (simple average indexes)

	Analytical (1)	Manual (2)	Routine (3)
<i>Below GCSE C / GCSE C-A lev. border</i>			
GCSE C-A levels	0.042*** (0.007)	-0.007 (0.008)	0.066*** (0.018)
Effect size	0.367	-0.035	0.387
Overall R^2	0.17	0.30	0.10
Observations	3,100.00	3,100.00	3,100.00
<i>GCSE C to A lev. / Bachelor+ border</i>			
Bachelor+	0.053*** (0.009)	-0.065*** (0.016)	-0.021 (0.031)
Effect size	0.454	-0.329	-0.122
Overall R^2	0.11	0.22	0.06
Observations	961.00	961.00	961.00

Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. Coefficients represent the difference relative the lower education level. I use dummy of basic to moderate PC use complexity as measure of routineness. I pool data from all years. Regressions include occupation fixed-effects. Effect sizes are computed as the regression coefficient divided by the standard deviation in the occupation-level skill indexes. Table generated on 20 May 2020 at 19:22:12.

Table 12: Relative skill use in border jobs across education groups (index with standardized variables)

	Analytical (1)	Manual (2)	Routine (3)
<i>Below GCSE C / GCSE C-A lev. border</i>			
GCSE C-A levels	0.042*** (0.007)	-0.008 (0.008)	0.066*** (0.018)
Effect size	0.374	-0.040	0.387
Overall R^2	0.17	0.29	0.10
Observations	3,100.00	3,100.00	3,100.00
<i>GCSE C to A lev. / Bachelor+ border</i>			
Bachelor+	0.050*** (0.009)	-0.065*** (0.016)	-0.021 (0.031)
Effect size	0.443	-0.327	-0.122
Overall R^2	0.10	0.22	0.06
Observations	961.00	961.00	961.00

Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. Coefficients represent the difference relative the lower education level. I use dummy of basic to moderate PC use complexity as measure of routineness. I pool data from all years. Regressions include occupation fixed-effects. Effect sizes are computed as the regression coefficient divided by the standard deviation in the occupation-level skill indexes. Table generated on 20 May 2020 at 19:22:12.

Table 13: Relative skill use in border jobs across education groups (simple average indexes)

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Below GCSE C / GCSE C-A lev. border</i>			
GCSE C-A levels	0.042*** (0.007)	-0.005 (0.008)	0.066*** (0.018)
Bachelor+	0.063*** (0.010)	-0.054*** (0.012)	0.027 (0.025)
Overall R^2	0.19	0.29	0.09
Observations	3,669	3,669	3,669
<i>GCSE C to A lev. / Bachelor+ border</i>			
GCSE C-A levels	0.050** (0.017)	-0.096*** (0.026)	-0.096* (0.048)
Bachelor+	0.103*** (0.017)	-0.162*** (0.025)	-0.120* (0.048)
Overall R^2	0.11	0.26	0.05
Observations	1,076	1,076	1,076
<i>Below GCSE C jobs</i>			
GCSE C-A levels	0.022 (0.014)	0.011 (0.013)	0.081** (0.030)
Bachelor+	0.078** (0.029)	-0.023 (0.028)	0.120 (0.064)
Overall R^2	0.17	0.17	0.19
Observations	1,108	1,108	1,108
<i>GCSE C-A lev. jobs</i>			
GCSE C-A levels	0.020* (0.009)	-0.050*** (0.012)	-0.007 (0.022)
Bachelor+	0.054*** (0.010)	-0.099*** (0.013)	-0.108*** (0.025)
Overall R^2	0.11	0.40	0.06
Observations	3,695	3,695	3,695
<i>Bachelor+ jobs</i>			
GCSE C-A levels	0.026* (0.012)	-0.049* (0.020)	-0.078* (0.033)
Bachelor+	0.067*** (0.011)	-0.122*** (0.019)	-0.167*** (0.032)
Overall R^2	0.15	0.32	0.22
Observations	5,043	5,043	5,043

Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. I use dummy of basic to moderate PC use complexity as measure of routineness. I pool data from all years. Regressions include occupation fixed-effects. Effect sizes are computed as the regression coefficient divided by the standard deviation in the occupation-level skill indexes. Table generated on 20 May 2020 at 19:22:15.

Table 14: Relative skill use in border jobs across education groups (index with standardized variables)

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
<i>Below GCSE C / GCSE C-A lev. border</i>			
GCSE C-A levels	0.041*** (0.007)	-0.006 (0.008)	0.066*** (0.018)
Bachelor+	0.061*** (0.009)	-0.055*** (0.012)	0.027 (0.025)
Overall R^2	0.19	0.28	0.09
Observations	3,669	3,669	3,669
<i>GCSE C to A lev. / Bachelor+ border</i>			
GCSE C-A levels	0.049** (0.016)	-0.096*** (0.026)	-0.096* (0.048)
Bachelor+	0.099*** (0.016)	-0.162*** (0.025)	-0.120* (0.048)
Overall R^2	0.11	0.26	0.05
Observations	1,076	1,076	1,076
<i>Below GCSE C jobs</i>			
GCSE C-A levels	0.022 (0.014)	0.011 (0.013)	0.081** (0.030)
Bachelor+	0.077** (0.028)	-0.023 (0.028)	0.120 (0.064)
Overall R^2	0.16	0.17	0.19
Observations	1,108	1,108	1,108
<i>GCSE C-A lev. jobs</i>			
GCSE C-A levels	0.019* (0.009)	-0.051*** (0.012)	-0.007 (0.022)
Bachelor+	0.051*** (0.010)	-0.099*** (0.013)	-0.108*** (0.025)
Overall R^2	0.11	0.40	0.06
Observations	3,695	3,695	3,695
<i>Bachelor+ jobs</i>			
GCSE C-A levels	0.025* (0.011)	-0.050* (0.020)	-0.078* (0.033)
Bachelor+	0.064*** (0.011)	-0.123*** (0.019)	-0.167*** (0.032)
Overall R^2	0.15	0.32	0.22
Observations	5,043	5,043	5,043

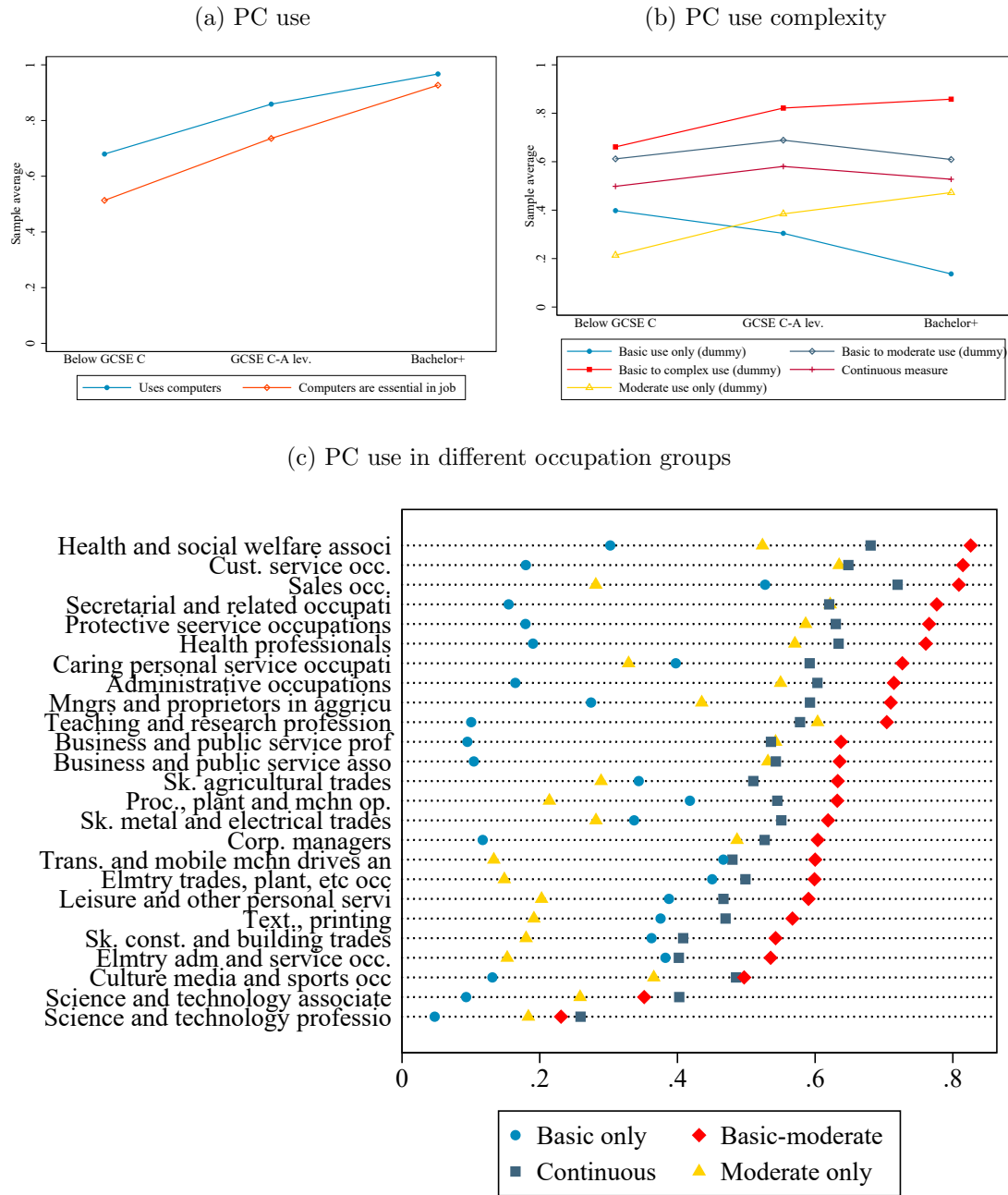
Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. I use dummy of basic to moderate PC use complexity as measure of routineness. I pool data from all years. Regressions include occupation fixed-effects. Effect sizes are computed as the regression coefficient divided by the standard deviation in the occupation-level skill indexes. Table generated on 20 May 2020 at 19:22:15.

Table 15: Relative skill use across education groups (simple average indexes)

	Analytical	Manual	Routine
	(1)	(2)	(3)
GCSE C-A levels	0.034***	-0.018**	0.043***
	(0.005)	(0.006)	(0.011)
<i>Effect size</i>	0.293	-0.090	0.254
Bachelor+	0.072***	-0.081***	-0.039**
	(0.005)	(0.007)	(0.013)
<i>Effect size</i>	0.618	-0.409	-0.227
Overall R^2	0.35	0.44	0.13
Observations	14,592	14,592	14,592

Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. Coefficients represent the difference relative the lower education level. I use dummy of basic to moderate PC use complexity as measure of routineness. I pool data from all years. Regressions include occupation fixed-effects. Effect sizes are computed as the regression coefficient divided by the standard deviation in the occupation-level skill indexes. Table generated on 27 May 2020 at 20:10:35.

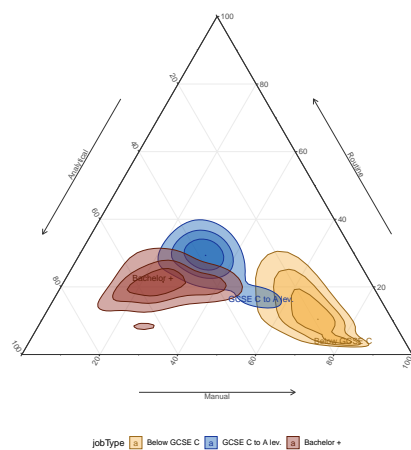
Figure 10: PC use complexity across different occupation groups



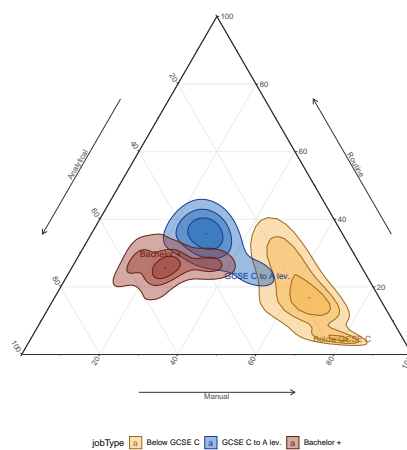
Note: basic use involves routine procedures such as printing and invoicing. Moderate use involves use of email and word processing and/or spreadsheets. Complex use involves use for statistical analysis. Table generated on 11 May 2020 at 10:34:54.

Figure 11: Comparison of routine measures

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

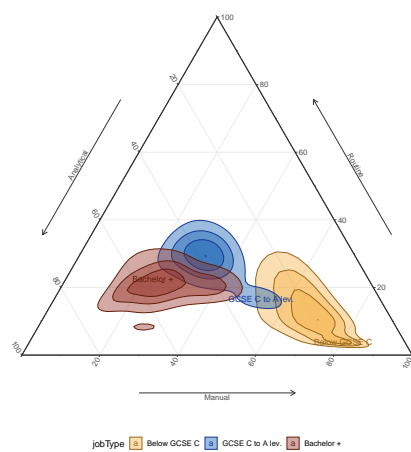
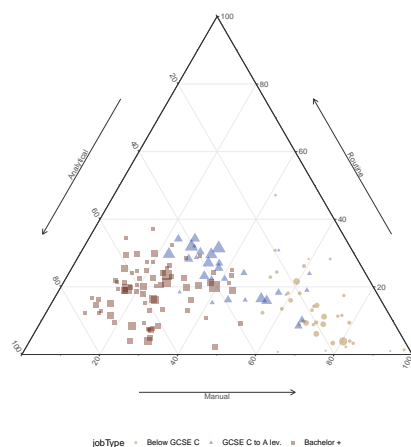
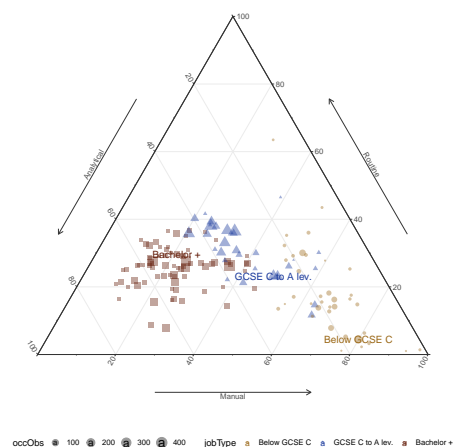


Figure 12: Comparison of routine measures (scatterplots)

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

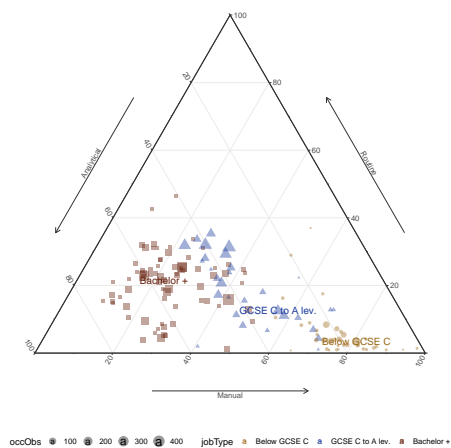
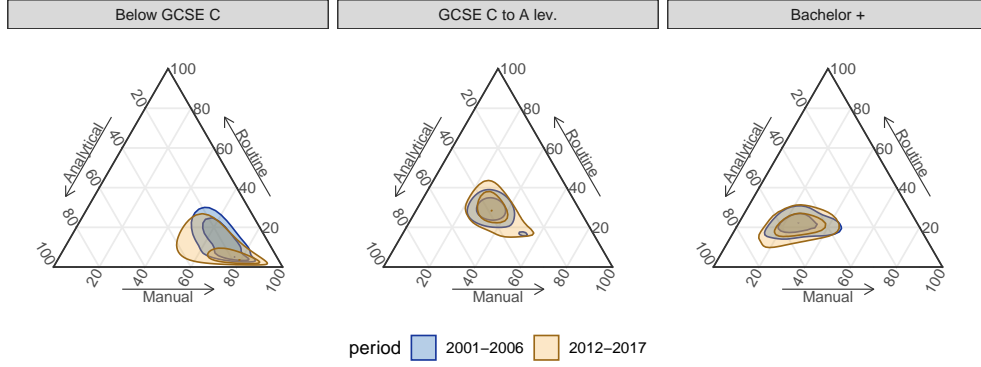
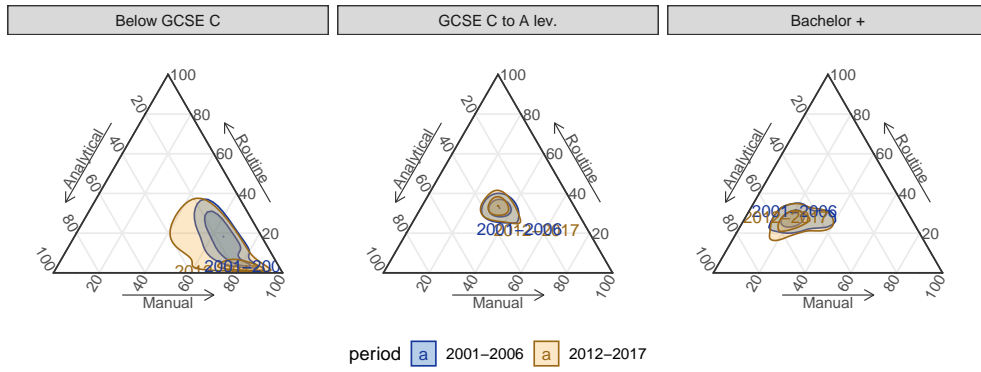


Figure 13: Change across time - comparison of routine measures

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

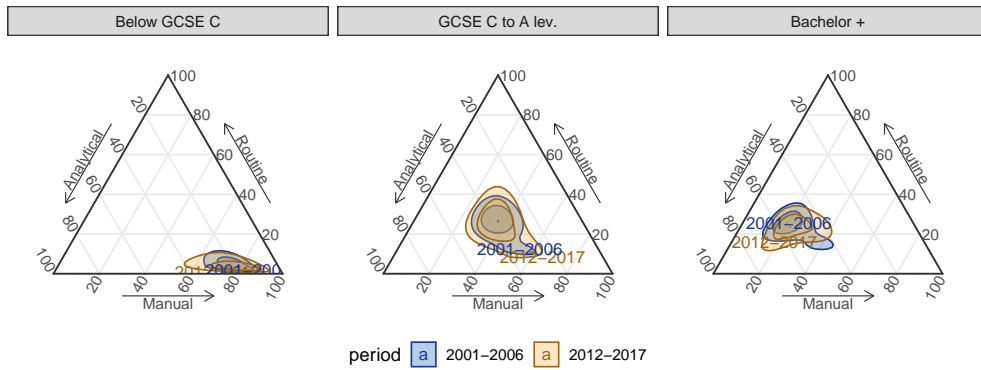
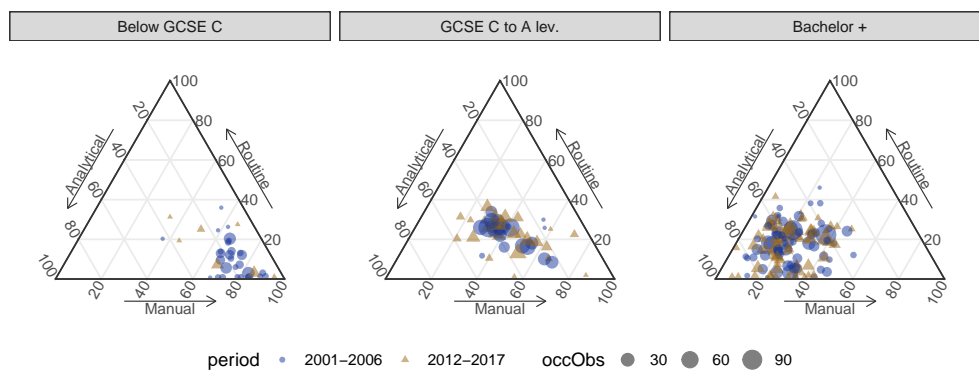
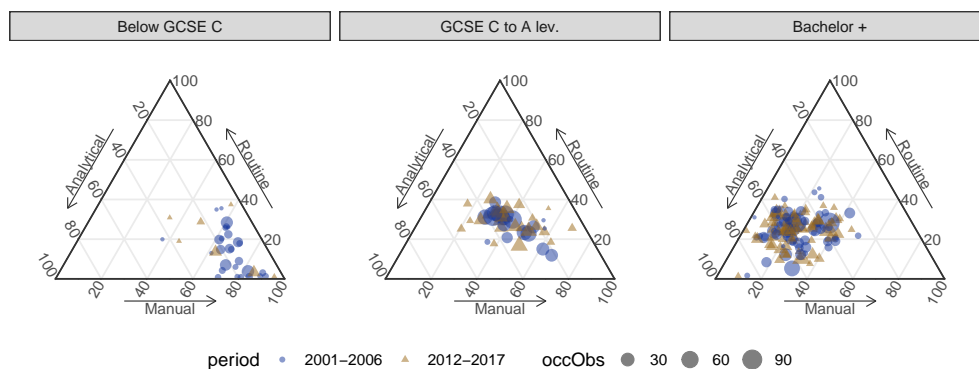


Figure 14: Change across time - comparison of routine measures (scatterplots)

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

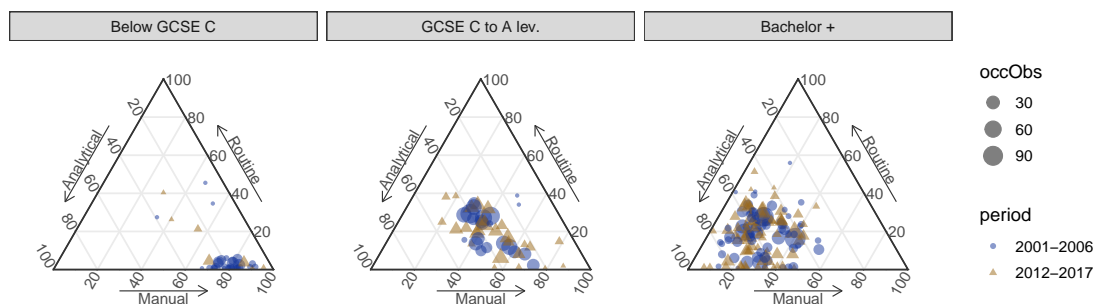
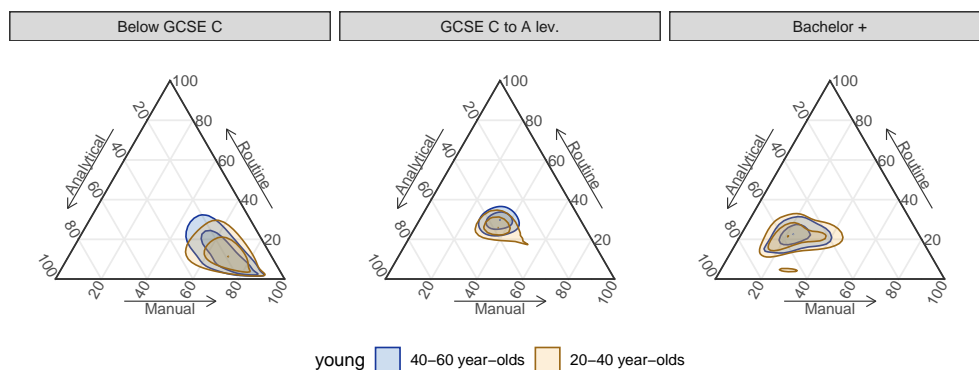
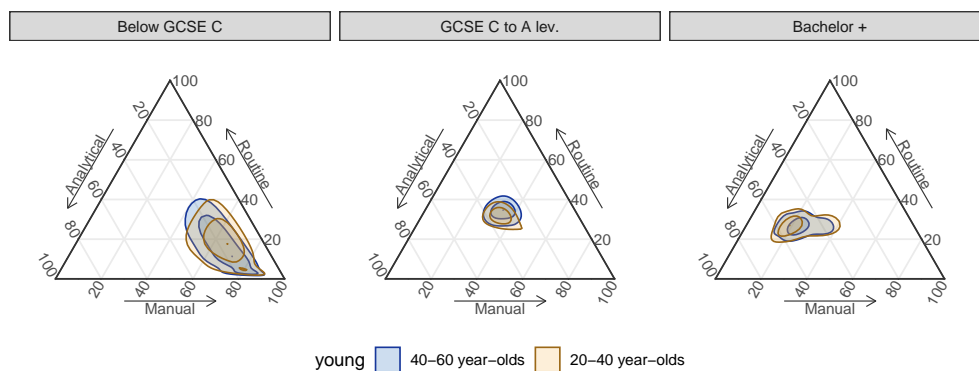


Figure 15: Young versus old workers

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

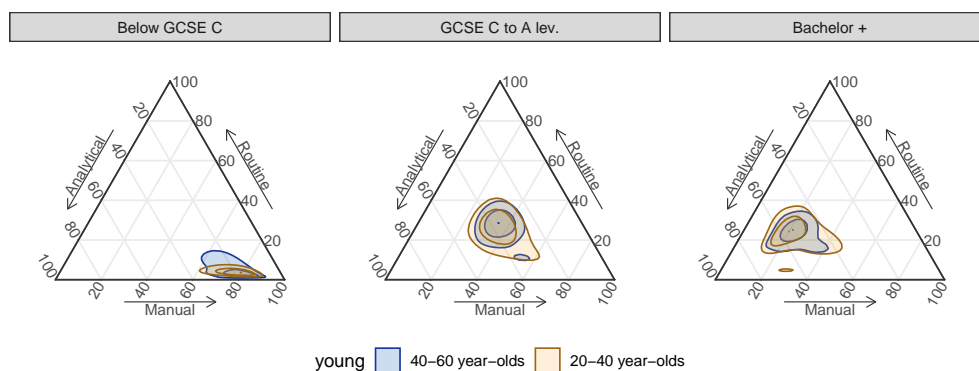
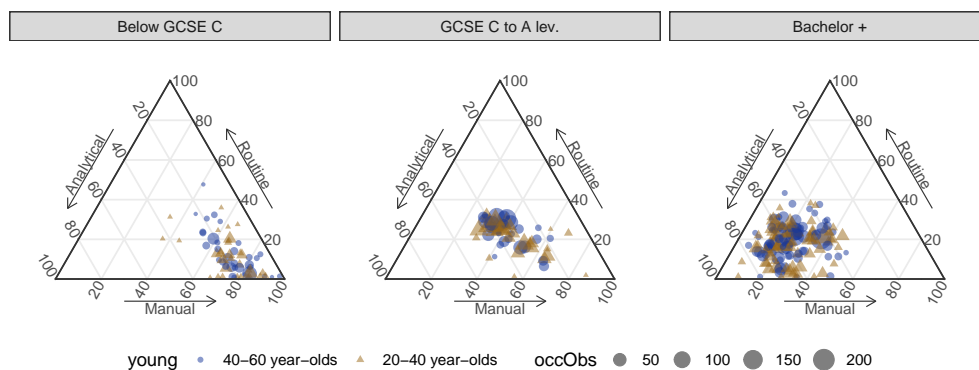
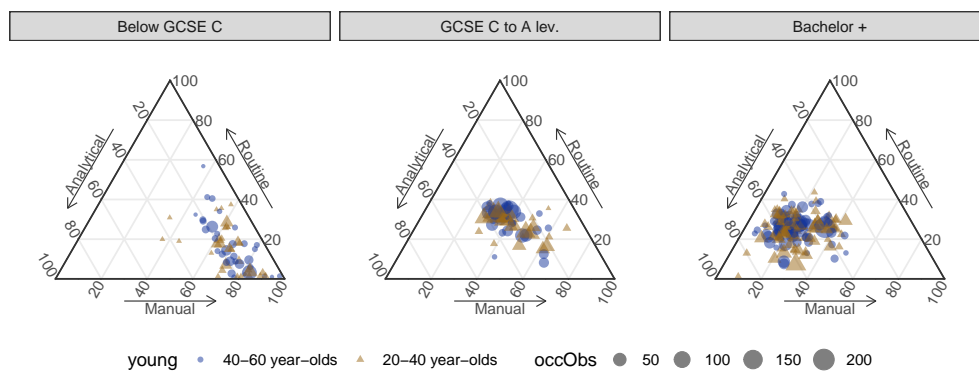


Figure 16: Young versus old workers

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

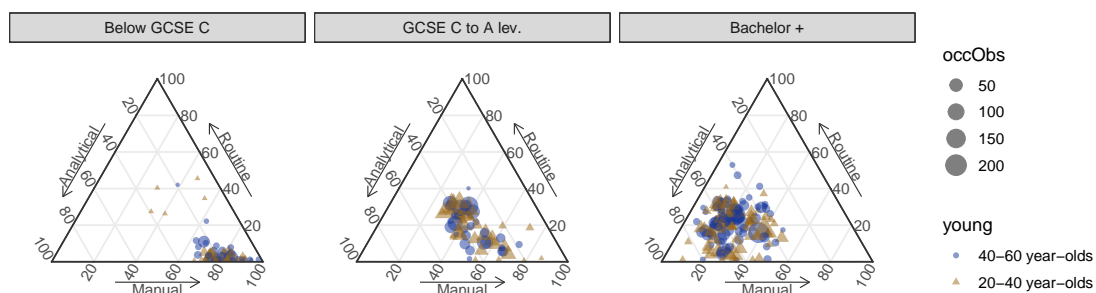
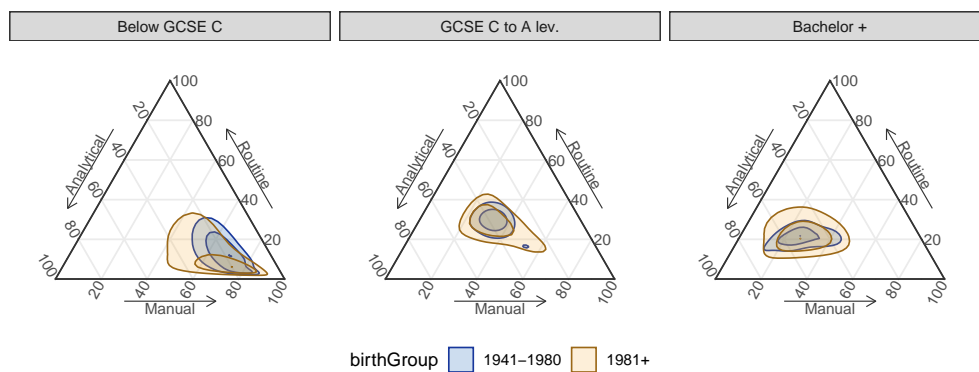
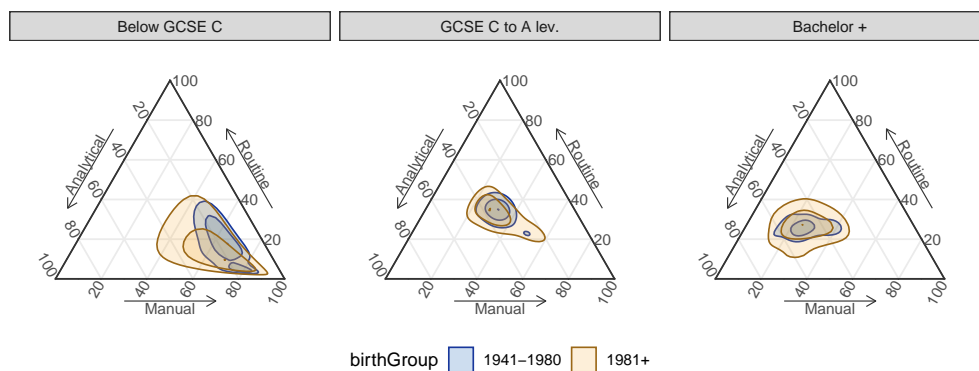


Figure 17: Skill use by birth cohort

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

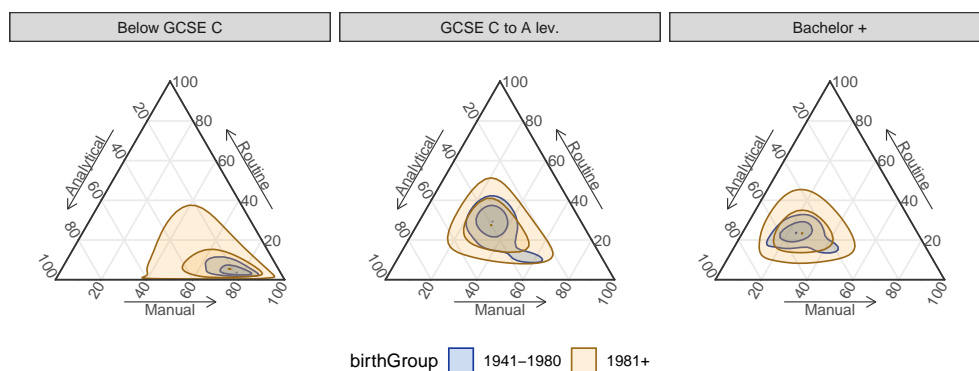
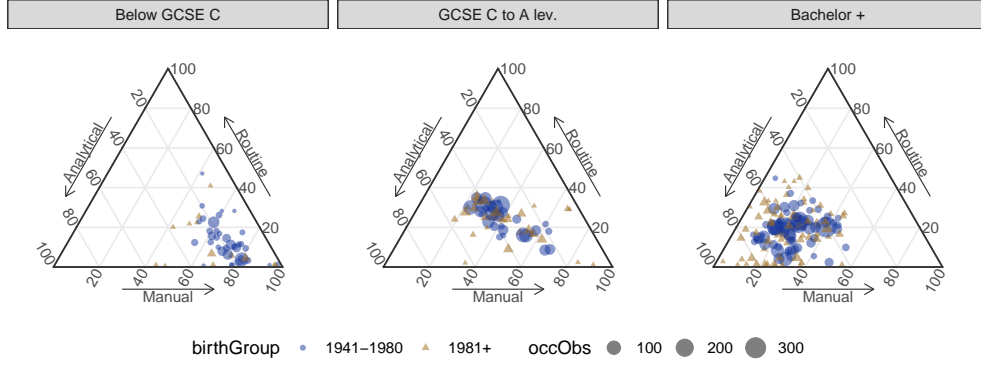
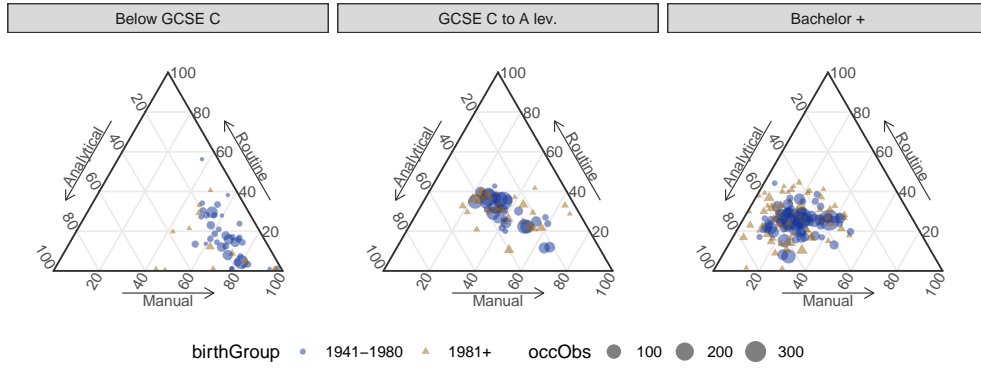


Figure 18: Skill use by birth cohort

(a) Routine PC dummy



(b) Routine PC continuous



(c) Moderate PC use dummy

