# 1 Effect of transitioning

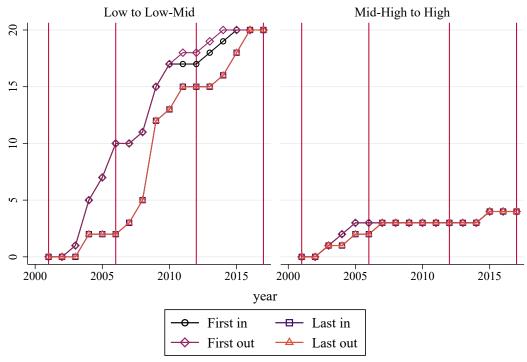
The basic specification is given by:

$$y_{iot} = \lambda_o + \beta_1 e_i + \beta_2 1_{\{t>transition\_time\}} + \beta_3 e_i \times 1_{\{t>transition\_time\}}$$
 (1)

where  $\lambda_o$  denotes occupation fixed-effects,  $e_i$  is an education-level dummy. xpectation:  $\beta_1 \neq 0$ ,  $\beta_2 = \beta_3 = 0$ . I try four different definitions of the transition year:

- First out: first year out of the initial category.
- Last out: last year in initial category + 1.
- First in: first year in final category.
- Last in: latest year of transition into final category + 1.

Figure 1: Number of transitioned occupations by transition type



Graphs by restrictedType

**Note:** Transitions are defined as the union of 3-3-3, 4-2-3 and 2-4-3. Vertical lines indicate years for which I have SES data. Figure generated on 11 Jun 2020 at 15:49:33.

Table 1: Dependent variable: analytical skill

Regressor	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Low to Low-Mid Mid	0.032	0.020	0.039*	0.026	0.032	0.020	0.039*	0.026
First out	(0.019) $0.038$ $(0.021)$	(0.019) $0.002$ $(0.034)$	(0.018)	(0.017)	(0.019)	(0.019)	(0.018)	(0.017)
$\operatorname{Mid} \times \operatorname{First}$ out	-0.003 (0.028)	0.015 $(0.028)$						
Last out			0.021 $(0.023)$	0.077 $(0.047)$				
$Mid \times Last out$			-0.016 $(0.031)$	0.002 $(0.030)$				
First in $Mid \times First$ in					0.038 $(0.021)$ $-0.003$	0.002 $(0.034)$ $0.015$		
Last in					(0.028)	(0.013)	0.021	0.077
$Mid \times Last in$							(0.023) $-0.016$	$(0.047) \\ 0.002$
Occupation FE Year FE	$\checkmark$	✓ ✓	✓	<b>√</b> ✓	✓	✓ ✓	(0.031) ✓	(0.030) ✓
Number of jobs Observations	17 852	17 852	17 852	17 852	17 852	17 852	17 852	17 852
Mid-High to High High	0.052**	0.049**	0.052**	0.050**	0.052**	0.049**	0.052**	0.050**
First out	(0.018) $-0.024$ $(0.020)$	(0.018) $-0.061*$ $(0.029)$	(0.017)	(0.017)	(0.018)	(0.018)	(0.017)	(0.017)
$\mathrm{High} \times \mathrm{First} \ \mathrm{out}$	-0.004 $(0.024)$	-0.002 $(0.024)$						
Last out			-0.023 $(0.020)$	-0.052* $(0.026)$				
High × Last out			-0.006 $(0.023)$	-0.003 $(0.023)$	0.004	0.061*		
First in High $\times$ First in					-0.024 (0.020) -0.004	-0.061* (0.029) -0.002		
Last in					(0.024)	(0.024)	-0.023	-0.052* (0.026)
$High \times Last in$							(0.020) $-0.006$ $(0.023)$	(0.026) $-0.003$ $(0.023)$
Occupation FE Year FE	$\checkmark$	√ √	√ 2	√ √	$\checkmark$	√ √	(0.028) ✓	√ √ √
Number of jobs Observations	4 621	4 621	4 621	4 621	4 621	4 621	4 621	4 621

Note: robust standard errors in parenthesis. The dependent variable ranges from 0 to 1. Columns differ in the fixed effect included and the definition of the transition year. Regressions pool observations from all years, but use observations from transitioning occupations only. I restrict observations to the education levels indicated in the panel subtitle. Table generated on 11 Jun 2020 at 15:49:41.

Table 2: Dependent variable: manual skill

Regressor	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Low to Low-Mid								
Mid	0.011 $(0.019)$	0.009 $(0.019)$	0.004 $(0.017)$	0.001 $(0.017)$	0.011 $(0.019)$	0.009 $(0.019)$	0.004 $(0.017)$	0.001 $(0.017)$
First out	$0.045^{*}$ $(0.021)$	0.033 $(0.034)$	,	,	,	,	,	,
$\operatorname{Mid} \times \operatorname{First}$ out	-0.016 (0.028)	-0.016 (0.028)						
Last out	(0.020)	(0.020)	0.031 $(0.022)$	0.032 $(0.050)$				
$\mathrm{Mid} \times \mathrm{Last}$ out			0.002 $(0.029)$	0.002 $(0.030)$				
First in			(0.029)	(0.030)	0.045* (0.021)	0.033		
$\mathrm{Mid} \times \mathrm{First}$ in					(0.021) $-0.016$ $(0.028)$	(0.034) $-0.016$ $(0.028)$		
Last in					(0.028)	(0.028)	0.031 $(0.022)$	0.032
$\mathrm{Mid} \times \mathrm{Last}$ in							0.002	(0.050) $0.002$
Occupation FE Year FE	✓	√ √	$\checkmark$	√ √	✓	√ √	(0.029) ✓	(0.030) ✓
Number of jobs	17	17	17	17	17	17	17	17
Observations	852	852	852	852	852	852	852	852
Mid-High to High High	-0.091**	-0.090**	-0.087**					-0.086**
First out	(0.028) $0.044$ $(0.033)$	(0.028) $0.040$ $(0.045)$	(0.026)	(0.026)	(0.028)	(0.028)	(0.026)	(0.026)
$\operatorname{High} \times \operatorname{First}$ out	(0.033) $-0.047$ $(0.038)$	-0.050 $(0.038)$						
Last out	(0.030)	(0.030)	0.055 $(0.033)$	0.058 $(0.042)$				
$\operatorname{High} \times \operatorname{Last}$ out			-0.060 $(0.038)$	-0.063 $(0.038)$				
First in			(0.000)	(0.000)	0.044 $(0.033)$	0.040 $(0.045)$		
$\operatorname{High} \times \operatorname{First}$ in					-0.047 $(0.038)$	-0.050 $(0.038)$		
Last in					(0.000)	(0.000)	0.055	0.058
$High \times Last in$							(0.033) $-0.060$	(0.042) $-0.063$
Occupation FE Year FE	✓	<b>√</b> ✓	√ -	√ √	✓	<b>√</b> ✓	(0.038) ✓	(0.038) ✓
Number of jobs	4	4	4 5	4	4	4	4	4
Observations	621	621	621	621	621	621	621	621

Note: robust standard errors in parenthesis. The dependent variable ranges from 0 to 1. Columns differ in the fixed effect included and the definition of the transition year. Regressions pool observations from all years, but use observations from transitioning occupations only. I restrict observations to the education levels indicated in the panel subtitle. Table generated on 11 Jun 2020 at 15:49:41.

Table 3: Dependent variable: routine skill

Regressor	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Low to Low-Mid								
Mid	0.085	0.056	0.089*	0.055	0.085	0.056	0.089*	0.055
First out	(0.045) $0.241**$ $(0.046)$	(0.044) * $0.019$ $(0.079)$	(0.040)	(0.040)	(0.045)	(0.044)	(0.040)	(0.040)
$\operatorname{Mid} \times \operatorname{First}$ out	-0.089 (0.064)	-0.052 $(0.064)$						
Last out	,	,	0.207**					
$\mathrm{Mid} \times \mathrm{Last}$ out			(0.049) $-0.105$ $(0.068)$	(0.114) $-0.064$ $(0.068)$				
First in			()	()	0.241**			
$\mathrm{Mid} \times \mathrm{First}$ in					(0.046) -0.089	(0.079) $-0.052$		
Last in					(0.064)	(0.064)		* -0.042
$\mathrm{Mid} \times \mathrm{Last}$ in							(0.049) $-0.105$ $(0.068)$	(0.114) $-0.064$ $(0.068)$
Occupation FE Year FE	✓	√ √	✓	✓ ✓	✓	✓ ✓	(0.000)	(0.000) ✓
Number of jobs	17	17	17	17	17	17	17	17
Observations	852	852	852	852	852	852	852	852
Mid-High to High High	-0.012	-0.006	-0.042	-0.034	-0.012	-0.006	-0.042	-0.034
First out	(0.059) $0.010$ $(0.063)$	(0.059) $0.088$ $(0.092)$	(0.056)	(0.056)	(0.059)	(0.059)	(0.056)	(0.056)
$\mathrm{High} \times \mathrm{First} \ \mathrm{out}$	-0.162* (0.078)	-0.166* (0.078)						
Last out	,	,	-0.002	0.095				
$\mathrm{High} \times \mathrm{Last} \ \mathrm{out}$			(0.063) $-0.118$ $(0.078)$	(0.086) $-0.125$ $(0.078)$				
First in			(0.0.0)	(0.010)	0.010	0.088		
$\mathrm{High} \times \mathrm{First\ in}$					(0.063) $-0.162*$ $(0.078)$	(0.092) $-0.166*$ $(0.078)$		
Last in					()	()	-0.002	0.095
$High \times Last in$							(0.063) $-0.118$ $(0.078)$	(0.086) $-0.125$ $(0.078)$
Occupation FE Year FE	✓	<b>√</b> ✓	√ 7	✓ ✓	✓	✓ ✓	( (	√ √
Number of jobs Observations	4 621	4 621	4 621	4 621	4 621	4 621	4 621	4 621

Note: robust standard errors in parenthesis. The dependent variable ranges from 0 to 1. Columns differ in the fixed effect included and the definition of the transition year. Regressions pool observations from all years, but use observations from transitioning occupations only. I restrict observations to the education levels indicated in the panel subtitle. Table generated on 11 Jun 2020 at 15:49:42.

Table 4: Intersection between core and transition type definitions

	Years as core					
Core type	17	16	15	14	13	
Below GCSE C	0	0	0	0	1	
GCSE C to A lev.	0	0	0	0	0	
Bachelor +	0	0	0	0	2	
Below GCSE C - GCSE C to A lev.	0	0	0	2	5	
Below GCSE C - Bach+	0	0	0	0	0	
GCSE C to A lev Bach+	0	0	0	1	1	
Total	0	0	0	3	9	

Note: transitioning jobs defined using 3-3-3 definition.. Table generated on 10 Jun 2020 at 09:41:57.

Table 5: Intersection between core and transition type definitions

	Years as core					
Core type	17	16	15	14	13	
Below GCSE C	0	0	0	0	2	
GCSE C to A lev.	0	0	1	1	1	
Bachelor +	0	0	1	1	3	
Below GCSE C - GCSE C to A lev.	0	0	0	3	6	
Below GCSE C - Bach+	0	0	0	0	0	
GCSE C to A lev Bach+	0	0	0	1	1	
Total	0	0	2	6	13	

Note: transitioning jobs are defined as the union of 3-3-3, 2-4-3 and 4-2-3 definitions. Table generated on 10 Jun 2020 at 12:11:10.

Table 6: Number of core jobs by type and time in core threshold

	Years as core				
Core type	17	16	15	14	13
Below GCSE C	2	4	4	5	7
GCSE C to A lev.	10	13	16	17	19
Bachelor +	71	72	75	78	78
Below GCSE C - GCSE C to A lev.	17	24	30	35	37
Below GCSE C - Bach+	0	0	0	0	0
GCSE C to A lev Bach+	0	2	2	4	4
Total	100	115	127	139	145

Note: I force the intersection of the core and 3-3-3 transition definition to be empty. Table generated on 10 Jun 2020 at 09:41:57.

Table 7: Number of core jobs by type and time in core threshold

	Years as core						
Core type	17	16	15	14	13		
Below GCSE C	2	4	4	5	6		
GCSE C to A lev.	10	13	15	16	18		
Bachelor +	71	72	74	77	77		
Below GCSE C - GCSE C to A lev.	17	24	30	34	36		
Below GCSE C - Bach+	0	0	0	0	0		
GCSE C to A lev Bach+	0	2	2	4	4		
Total	100	115	125	136	141		

Note: I force the intersection of the core and 4-2-3 transition definition to be empty. Table generated on 10 Jun 2020 at 12:11:10.

Table 8: Effect of relaxing number of switches constraint

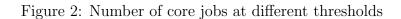
	Definition								
	3-3-1	4-4-3	3-5-3	5-3-3	5-5-7	4-6-7	6-4-7		
Transition type	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Low to Low-Mid	9	14	15	16	18	18	18		
Mid to Low-Mid	1	1	1	1	1	1	2		
Low-Mid to Mid	1	1	1	1	1	1	1		
Mid-High to High	2	2	3	3	3	3	3		
Total	13	18	20	21	23	23	24		

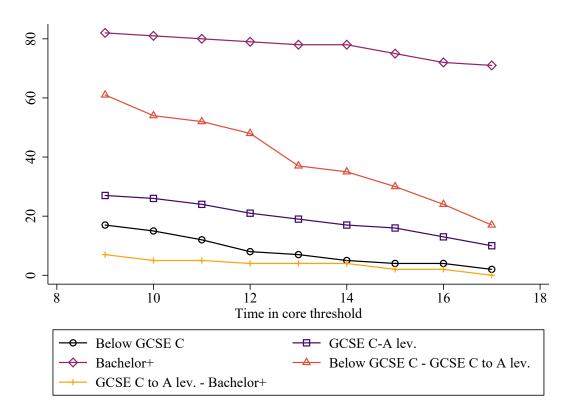
*Note:* each column shows the breakdown by transition type when my definition of a transitioning job is the union all the current and previous columns. For example in column two I define a transition job as the union of 3-3-1 and 4-4-3. Table generated on 10 Jun 2020 at 17:59:46.

Table 9: Effect of relaxing number of switches constraint

	Definition							
	3-3-3	2-4-3	4-2-3	5-5-7	4-6-7	6-4-7		
Transition type	(1)	(2)	(3)	(4)	(5)	(6)		
Low to Low-Mid	17	18	20	22	22	22		
Mid to Low-Mid	1	1	1	1	1	2		
Mid to Mid-High	0	0	1	1	1	1		
Low-Mid to Mid	1	1	1	1	1	1		
Mid-High to High	3	4	4	4	4	4		
Total	22	24	27	29	29	30		

Note: each column shows the breakdown by transition type when my definition of a transitioning job is the union all the current and previous columns. Table generated on 10 Jun 2020 at 17.59:46.

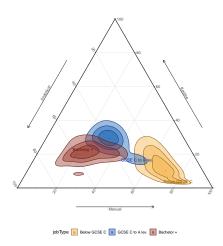


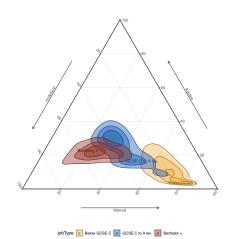


**Note:** core jobs are those which (i) meet the time at core threshold and (ii) are not flagged as transitioning. Figure generated on 5 Jun 2020 at 14:28:01.

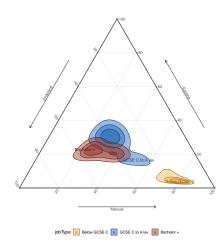
Figure 3: Exploring weighting schemes (density plots)

- (a) Observations in SES education-occupation-job type cell
- (b)  $\sqrt{d_1d_2} \times observations_{LFS}$





- (c)  $\sqrt{d_1d_2} \times observations_{LFS} \times observations_{SES}$
- (d)  $\sqrt{d_1d_2} \times observations_{SES}$



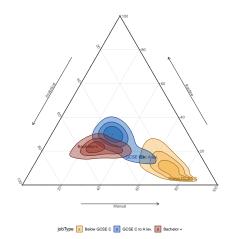
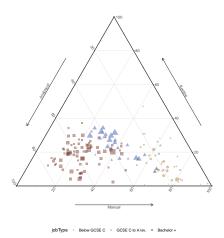
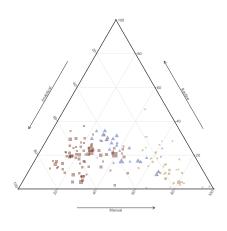


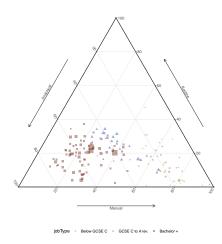
Figure 4: Exploring weighting schemes (scatterplots)

- (a) Observations in SES education-occupation-job type cell
- (b)  $\sqrt{d_1d_2} \times observations_{LFS}$





- (c)  $\sqrt{d_1d_2} \times observations_{LFS} \times observations_{SES}$
- (d)  $\sqrt{d_1d_2} \times observations_{SES}$



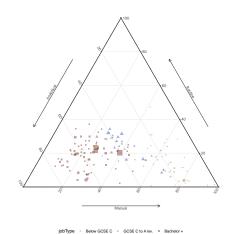
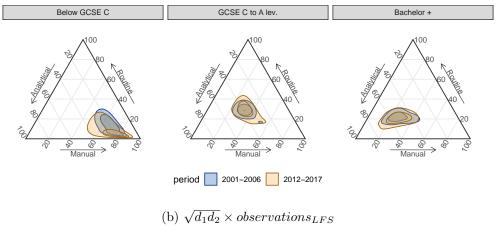
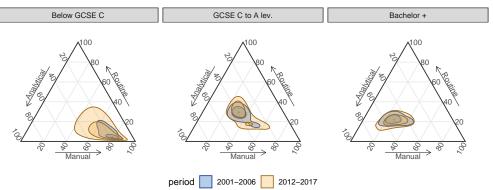


Figure 5: Exploring weighting: time change density plots

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





(c)  $\sqrt{d_1d_2} \times observations_{LFS} \times observations_{SES}$ 

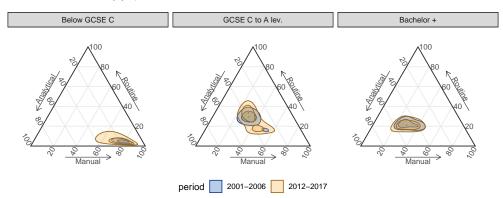
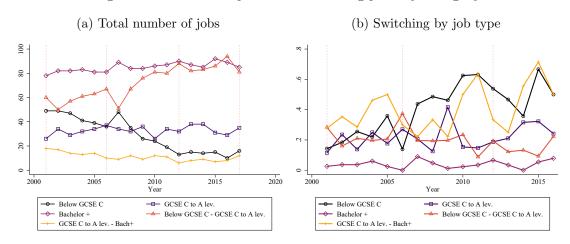


Figure 6: Number of jobs and switching jobs by category



### (c) Share switching in triangle graphs

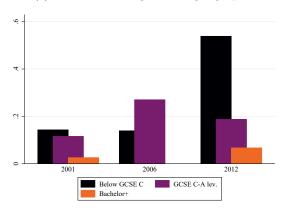


Table 10: Weight of switching vs non-switching jobs

	<b>Low</b> (1)		<b>High</b> (3)		Mid-High (5)
$\sqrt{distance}$	0.751	0.941	0.322	0.871	0.815
$\sqrt{distance} * observations_{LFS}$	0.243	0.187	0.094	0.285	0.345

Figure 7: Number of job-level switches by job type, 2001-2017

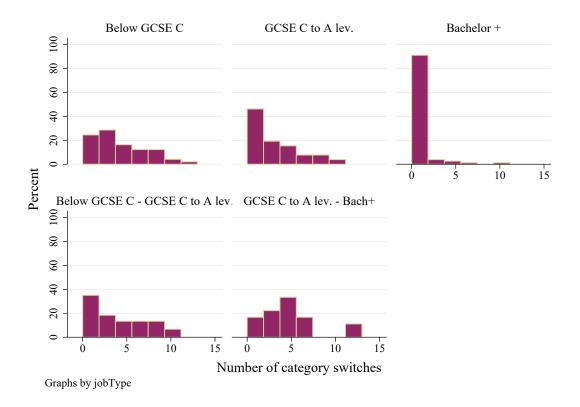


Table 11: Jobs with fixed job classification

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 12: Transition of switching jobs

		Job type in 2017								
Job type in 2001	Mid	High	Low-Mid	Mid-High	Total					
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 13: 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 8: Switching jobs

(a) Position in 2001

(b) Position in 2017

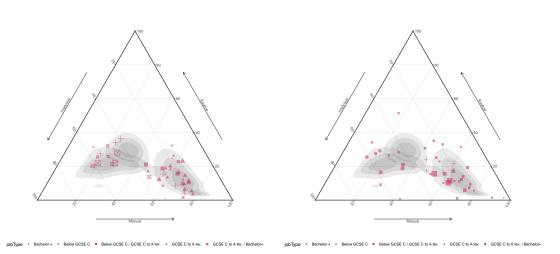


Table 14: Observations by occupation type

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 15: 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.

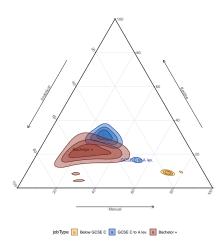
Table 16: Average skill requirents for switching jobs

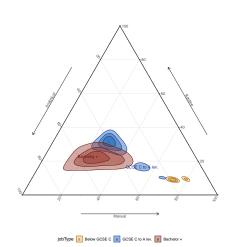
Job classification	Analytical	Manual	Routine
Low to Low-Mid			
Before change	0.444***	0.665***	0.331***
	(0.011)	(0.012)	(0.026)
After change	0.464***	0.670***	0.445***
	(0.013)	(0.015)	(0.032)
Observations	571	571	571
Mid to Low-Mid			
Before change	0.547***	0.821***	0.273***
	(0.020)	(0.016)	(0.045)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

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

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

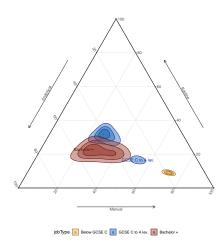
(b)  $\sqrt{d_1d_2} \times observations_{LFS}$ 





(c)  $\sqrt{d_1d_2} \times observations_{LFS} \times observations_{SES}$ 

(d)  $\sqrt{d_1d_2} \times observations_{SES}$ 



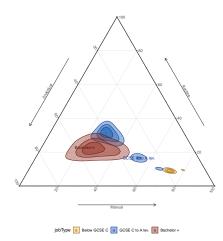
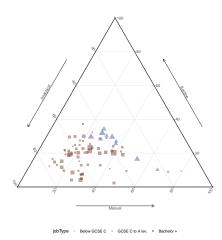
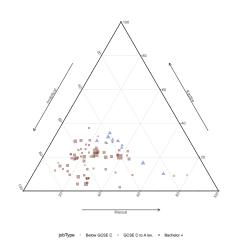


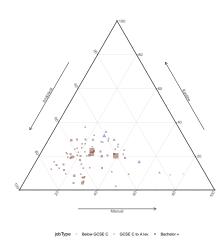
Figure 10: Limiting to jobs that stay in the same type (scatterplots)

- (a) Observations in SES education-occupation-job type cell
- (b)  $\sqrt{d_1d_2} \times observations_{LFS}$





- (c)  $\sqrt{d_1d_2} \times observations_{LFS} \times observations_{SES}$
- (d)  $\sqrt{d_1d_2} \times observations_{SES}$



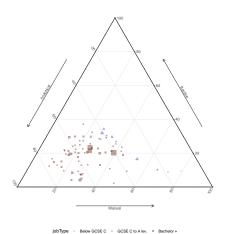


Table 17: Relative skill use in border jobs across education groups (simple average indexes)

	Analytical (1)	Manual (2)	Routine (3)
Below GCSE C / GCSE C-A lev. border			
GCSE C-A levels	0.042***	-0.007	0.066***
	(0.007)	(0.008)	(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
GCSE C to A lev. / Bachelor+ border			
Bachelor+	0.053***	-0.065**	* -0.021
	(0.009)	(0.016)	(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 18: Relative skill use in border jobs across education groups (index with standardized variables)

	Analytical (1)	Manual (2)	Routine (3)
Below GCSE C / GCSE C-A lev. border			
GCSE C-A levels	0.042***	-0.008	0.066***
	(0.007)	(0.008)	(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
GCSE C to A lev. / Bachelor+ border			
Bachelor+	0.050***	-0.065**	* -0.021
	(0.009)	(0.016)	(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. Coefficents 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 19: Relative skill use in border jobs across education groups (simple average indexes)

Base level: Below GCSE C	Analytical (1)	Manual (2)	Routine (3)
Below GCSE C / GCSE C-A lev. border			
GCSE C-A levels	0.042***	-0.005	0.066***
	(0.007)	(0.008)	(0.018)
Bachelor+	0.063***	-0.054***	0.027
	(0.010)	(0.012)	(0.025)
Overall $\mathbb{R}^2$	0.19	0.29	0.09
Observations	3,669	3,669	3,669
GCSE C to A lev. / Bachelor+ border			
GCSE C-A levels	0.050**	-0.096***	-0.096*
	(0.017)	(0.026)	(0.048)
Bachelor+	0.103***	-0.162***	-0.120*
	(0.017)	(0.025)	(0.048)
Overall $R^2$	0.11	0.26	0.05
Observations	1,076	1,076	1,076
Below GCSE C jobs			
GCSE C-A levels	0.022	0.011	0.081**
	(0.014)	(0.013)	(0.030)
Bachelor+	0.078**	-0.023	0.120
	(0.029)	(0.028)	(0.064)
Overall $R^2$	0.17	0.17	0.19
Observations	1,108	1,108	1,108
GCSE C-A lev. jobs			
GCSE C-A levels	0.020*	-0.050***	-0.007
	(0.009)	(0.012)	(0.022)
Bachelor+	0.054***	-0.099***	-0.108***
	(0.010)	(0.013)	(0.025)
Overall $R^2$	0.11	0.40	0.06
Observations	3,695	3,695	3,695
Bachelor+ jobs			
GCSE C-A levels	0.026*	-0.049*	-0.078*
	(0.012)	(0.020)	(0.033)
Bachelor+	0.067***	-0.122***	-0.167***
	(0.011)	(0.019)	(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 20: Relative skill use in border jobs across education groups (index with standardized variables)

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

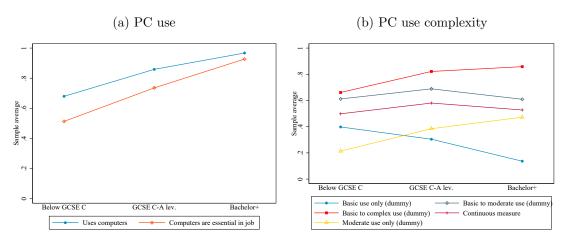
Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. I use dummy of basic to moderate PC use complexity as measure of routineness. I pool data from all years. Regressions include occupation fixed-effects. Effect sizes are computed 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 21: Relative skill use across education groups (simple average indexes)

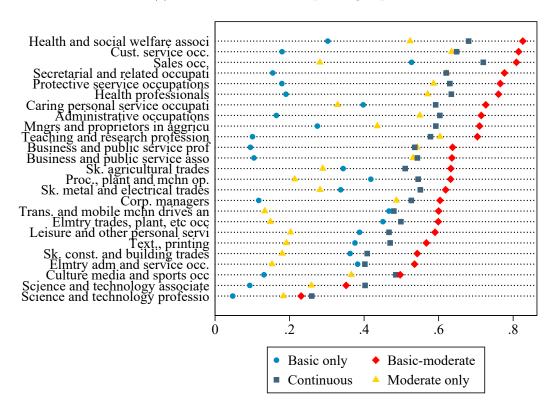
	Analytical (1)	Manual (2)	Routine (3)
GCSE C-A levels	0.034*** (0.005)	-0.018** (0.006)	0.043*** (0.011)
Effect size	0.293	-0.090	0.254
Bachelor+	0.072*** (0.005)	-0.081*** (0.007)	-0.039** (0.013)
Effect size	0.618	-0.409	-0.227
Overall $R^2$ Observations	$0.35 \\ 14,592$	0.44 $14,592$	0.13 $14,592$

Note: all skill indexes range between 0 and 1. Regressions use individual-level data. Robust standard errors in parenthesis. Coefficents 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 11: PC use complexitity across different occupation groups



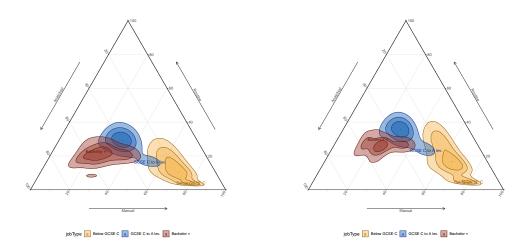
(c) PC use in different occupation groups



**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 12: Comparison of routine measures

## (b) Routine PC continuous



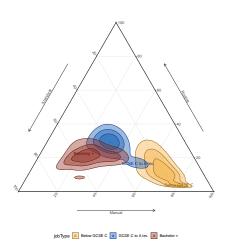
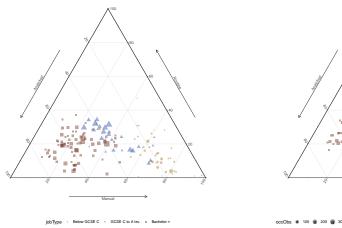
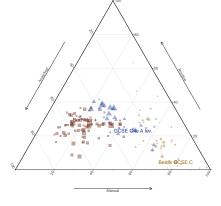


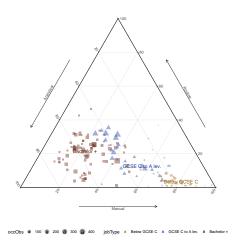
Figure 13: Comparison of routine measures (scatterplots)

## (b) Routine PC continuous



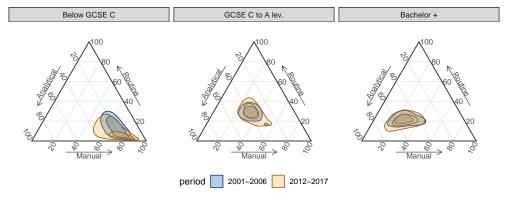


(c) Moderate PC use dummy

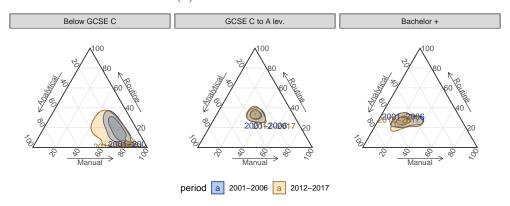


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Figure 14: Change across time - comparison of routine measures  $\,$ 



### (b) Routine PC continuous



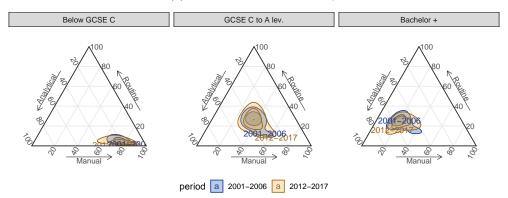
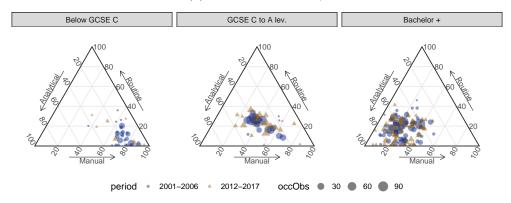
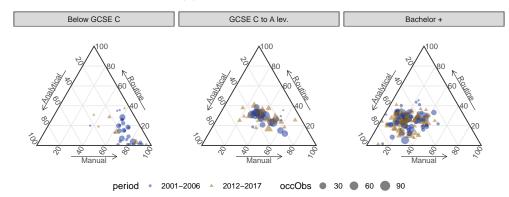


Figure 15: Change across time - comparison of routine measures (scatterplots)



#### (b) Routine PC continuous



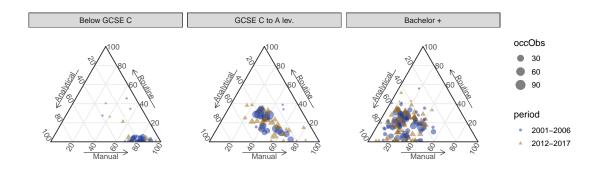
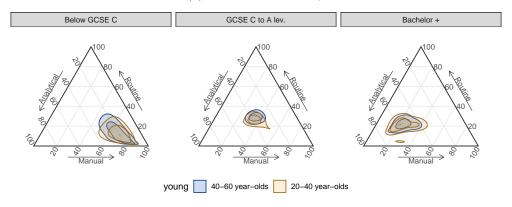
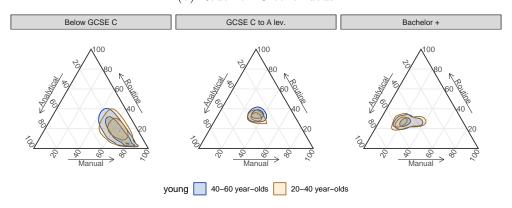


Figure 16: Young versus old workers



### (b) Routine PC continuous



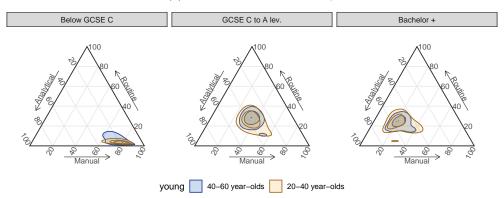
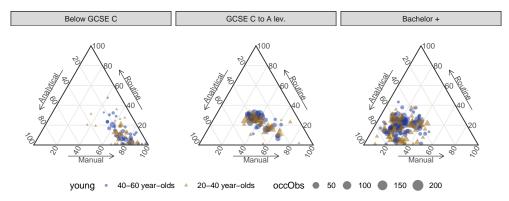
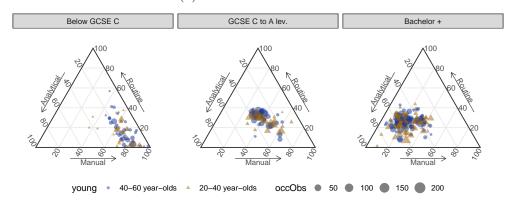


Figure 17: Young versus old workers



#### (b) Routine PC continuous



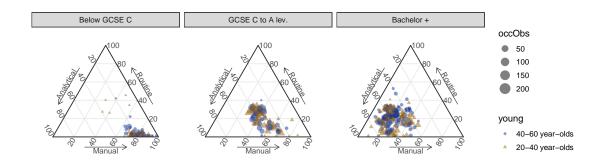
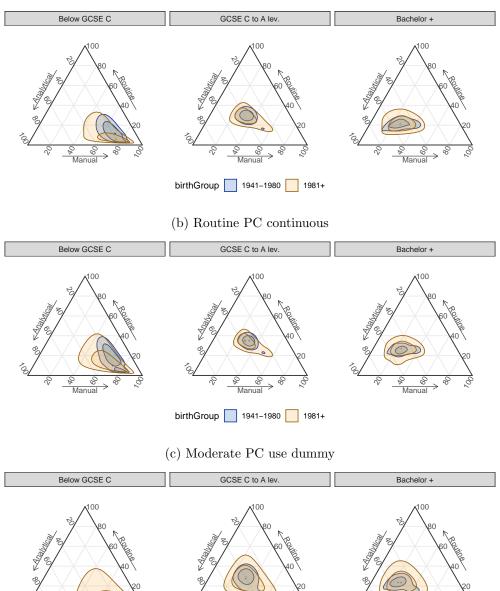
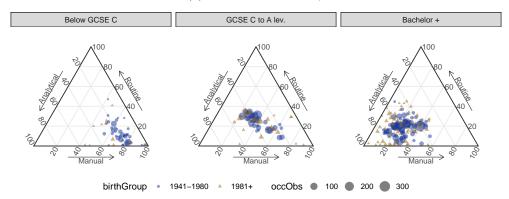


Figure 18: Skill use by birth cohort



birthGroup 1941–1980 1981+

Figure 19: Skill use by birth cohort



### (b) Routine PC continuous

