sociological science

Supplement to:

Karlson, Kristian Bernt. 2022. "Education and Social Fluidity: A Reweighting Approach." Sociological Science 9: 27-39.

A. Stata Code Snippet for Controlling for Additional Merit Proxies

```
** Variables
 * O: 7-class EGP origins
 * D: 7-class EGP destinations
 * E: 5-level educational variable
 * A: Cognitive ability (standardized)

** Generate IPWs (inverse probability of being "treated")
 // education adjusted
gen ipw = .
gen ps = .
mlogit O i.E
forval l = 1/7 {
 predict p`l', pr outcome(`l')
 replace ipw = 1/p`l' if O == `l'
}

 // + cognitive ability
gen ipwx = .
mlogit O i.E c.A, base(7)
forval l = 1/7 {
 predict px`l', pr outcome(`l')
 replace ipwx = 1/px`l' if O == `l'
}

** Balance checks (using teeffects for this)
teffects ipw (D) (O i.E)
tebalance summarize
teffects ipw (D) (O i.E c.A)
tebalance summarize
tebalance density A, scheme(s2mono) graphregion(color(white)) ytitle("Density") ///
  xtitle("Cognitive Ability") title("")

** Cross tables (to compare with collapsed data)
tab O D                 // gross/unadjusted
tab O D [aw=ipw]        // direct effects/adjusted

** Collapse data
gen cons = 1
collapse (count) cons (sum) ipw ipwx, by(O D)
gen wgt = ipw/7
gen wgtx = ipwx/7
*br

** Define IN1 parameter (semi quasi-perfect mobility)
gen sqpm = O == D
replace sqpm = sqpm +1

** Run analyses using unidiff (Pisati 2001)
gen g = 1
unidiff cons, row(O) col(D) lay(g) effect(add)  pattern(own1) design(sqpm)
unidiff wgt, row(O) col(D) lay(g) effect(add)  pattern(own1) design(sqpm)
unidiff wgtx, row(O) col(D) lay(g) effect(add)  pattern(own1) design(sqpm)
```

B. Balancing Tests

Table B1. Standardized Mean Differences and Variance Ratios. Raw and Inverse Probability Weighted. Reference is I: Higher service class.

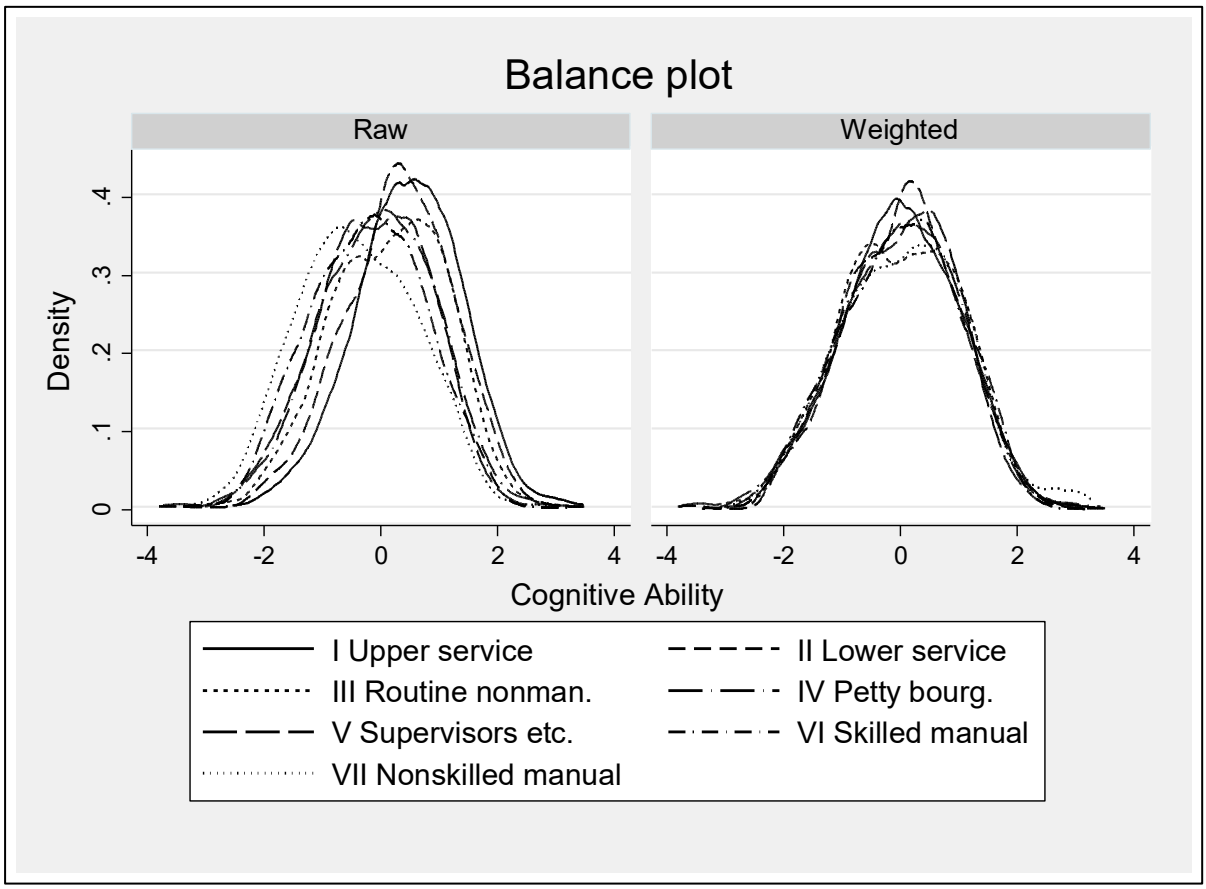
	Standardized Differences		Variance Ratio	
	Raw	Weighted	Raw	Weighted
II: Lower service class				
Education (Ref.: No qual.)				
CSE grade 2-5	0.13	-0.02	1.55	0.95
O-levels	0.17	0.03	1.14	1.01
A-levels	0.02	0.01	1.04	1.01
First degree	-0.06	0.00	0.85	0.99
Higher degree	-0.29	-0.01	0.77	0.99
Cognitive Ability	-0.20	0.00	1.04	0.96
III: Routine nonmanual				
Education (Ref.: No qual.)				
CSE grade 2-5	0.07	-0.02	1.32	0.96
O-levels	0.27	0.01	1.19	1.01
A-levels	0.05	0.00	1.09	1.01
First degree	-0.11	0.00	0.71	0.99
Higher degree	-0.50	0.00	0.56	0.99
Cognitive Ability	-0.35	-0.03	1.15	1.07
IV: Petty bourgeoisie				
Education (Ref.: No qual.)				
CSE grade 2-5	0.33	-0.02	2.62	0.95
O-levels	0.31	0.01	1.21	1.01
A-levels	-0.13	0.01	0.78	1.01
First degree	-0.07	0.00	0.81	0.99
Higher degree	-0.60	-0.01	0.46	0.99
Cognitive Ability	-0.55	-0.02	1.15	1.07

Table ctd. on next page

Table B1 ctd.

V: Supervisors etc.				
Education (Ref.: No qual.)				
CSE grade 2-5	0.36	-0.02	2.77	0.95
O-levels	0.35	0.01	1.22	1.01
A-levels	-0.10	0.00	0.83	1.01
First degree	-0.15	0.00	0.62	1.00
Higher degree	-0.66	0.00	0.39	0.99
Cognitive Ability	-0.63	-0.03	1.11	1.05
VI: Skilled Manual				
Education (Ref.: No qual.)				
CSE grade 2-5	0.26	-0.02	2.23	0.95
O-levels	0.29	0.02	1.20	1.01
A-levels	-0.07	0.00	0.88	1.00
First degree	-0.14	0.00	0.64	1.00
Higher degree	-0.78	-0.01	0.27	0.99
Cognitive Ability	-0.74	-0.02	1.17	1.06
VII: Nonskilled manual				
Education (Ref.: No qual.)				
CSE grade 2-5	0.27	-0.02	2.27	0.95
O-levels	0.26	0.00	1.19	1.00
A-levels	-0.19	0.00	0.68	1.01
First degree	-0.16	0.00	0.58	1.01
Higher degree	-0.85	0.01	0.20	1.02
Cognitive Ability	-0.91	0.03	1.27	1.23

Figure B1. Balance Density Plot for Cognitive Ability Measure.



C. Age Distribution Overlaps by Birth Cohort Groups

Table C1. Age by Birth Cohort. Frequencies.

	Birth Cohort				
Age	1914–29	1930–39	1940–49	1950–62	Total
30	0	0	2,120	4,186	6,306
31	0	0	2,394	3,795	6,189
32	0	0	2,781	3,338	6,119
33	0	0	3,165	2,959	6,124
34	0	354	2,989	2,692	6,035
35	0	691	3,026	2,369	6,086
36	0	1,048	2,773	2,039	5,860
37	0	1,504	2,621	1,771	5,896
38	0	1,437	2,857	1,423	5,717
39	0	1,397	3,085	1,218	5,700
40	0	1,815	3,159	843	5,817
41	0	1,982	2,936	608	5,526
42	0	2,471	2,956	312	5,739
43	0	2,585	2,867	0	5,452
44	363	2,374	2,573	0	5,310
45	820	2,524	2,226	0	5,570
46	1,082	2,132	1,834	0	5,048
47	1,458	2,047	1,625	0	5,130
48	1,409	2,249	1,332	0	4,990
49	1,528	2,437	1,010	0	4,975
50	1,571	274	732	0	2,577
51	1,364	460	450	0	2,274
52	1,616	711	220	0	2,547
53	1,595	1,006	0	0	2,601
54	1,487	993	0	0	2,480
55	1,422	919	0	0	2,341
56	1,272	907	0	0	2,179
57	1,246	964	0	0	2,210
58	1,295	936	0	0	2,231
59	1,332	874	0	0	2,206
Total	20,860	37,091	51,731	27,553	137,235