Social mobility

Suggested teaching exercise using the CLOSER training dataset – including results

Q: How much intergenerational social mobility was there for people born in 1958? Do people tend to end up in the same social class as their parents, or higher/lower? What drives any intergenerational class mobility – is it intelligence, or education, or other factors?

1. Frequencies and basic statistics

First run some frequency counts of Father's social class at (cohort member) age 11, and the cohort member's own social class at ages 33, 42 and 50. Describe the results.

Solution (SPSS syntax and output):

fre n8sc.

1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional etc occupations	207	3.6	4.6	4.6
	Managerial and Technical occupations	971	16.8	21.6	26.2
	Skilled occupations (non-manual)	519	9.0	11.6	37.8
	Skilled occupations (manual)	1833	31.8	40.8	78.6
	Partly-skilled occupations	624	10.8	13.9	92.5
	Unskilled occupations	339	5.9	7.5	100.0
	Total	4493	77.9	100.0	
Missing	System	1272	22.1		
Total		5765	100.0		

CURRENT/LAST JOB: Social Class (1990 scheme) age 33

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional (1.0)	282	4.9	5.2	5.2
	Managerial\tech (2.0)	1762	30.6	32.7	38.0
	Skilled non-man (3.1)	1361	23.6	25.3	63.2
	Skilled manual (3.2)	1041	18.1	19.3	82.5
	Partly skilled (4.0)	745	12.9	13.8	96.4
	Unskilled (5.0)	195	3.4	3.6	100.0
	Total	5386	93.4	100.0	
Missing	Not applicable	144	2.5		
	System	235	4.1		
	Total	379	6.6		
Total		5765	100.0		

(Current Job) Social Class (1990 scheme) (age 42)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I Professional	277	4.8	5.5	5.5
	II Managerial-technical	1951	33.8	38.7	44.1
	IIINM Skilled non-manual	1114	19.3	22.1	66.2
	IIIM Skilled manual	942	16.3	18.7	84.9
	IV Partly skilled	627	10.9	12.4	97.3
	V Unskilled	130	2.3	2.6	99.9
	Others	6	.1	.1	100.0
	Total	5047	87.5	100.0	
Missing	System	718	12.5		
Total		5765	100.0		

Curr Job: Social Class (1990 scheme) (age 50)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	16	.3	.3	.3
	I Professional	305	5.3	6.1	6.4
	II Managerial-technical	2089	36.2	41.9	48.4
	IIINM Skilled non-manual	1038	18.0	20.8	69.2
	IIIM Skilled manual	877	15.2	17.6	86.8
	IV Partly skilled	533	9.2	10.7	97.6
	V Unskilled	121	2.1	2.4	100.0
	Others	1	.0	.0	100.0
	Total	4980	86.4	100.0	
Missing	Don't Know	12	.2		
	Not applicable	773	13.4		
	Total	785	13.6		
Total		5765	100.0		

Looking at the ‘Valid Percent’ and ‘Cumulative Percent’ columns, we see there’s been a general movement towards more people being in the top three classes: 69% are in non-manual occupations in the year 2008 at age 50, compared with 38% in their fathers’ generation in 1969.

This will reflect the general change in the occupational structure of Great Britain resulting from the winding-down of the manufacturing sector during the 1980s/1990s.

2. How does someone's social background as a child predict the type of job they will be in when they are an adult?

Try cross-tabulating Father's social class against cohort member's own social class at age 42, separately for men and women.

Solution (SPSS syntax and output):

```
temporary.
select if (n622=1).
cro n2srgsc by sc/cells=count row.


temporary.
select if (n622=2).
cro n2srgsc by sc/cells=count row.
```

MALES: Father's Social Class 1969 by Social Class age 42 Crosstabulation

			SC (Current Job) Social Class			
			1.0 I Professional	2.0 II Managerial-technical	3.1 IIINM Skilled non-manual	3.2 IIIM manu
N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	1.0 Professional etc occupations	Count	24	55	12	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	23.1%	52.9%	11.5%	
	2.0 Managerial and Technical occupations	Count	41	238	38	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	9.7%	56.1%	9.0%	
	3.1 Skilled occupations (non-manual)	Count	20	126	28	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	7.9%	49.8%	11.1%	
	3.2 Skilled occupations (manual)	Count	45	261	88	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	5.7%	33.2%	11.2%	
	4.0 Partly-skilled occupations	Count	13	91	23	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	5.0%	35.0%	8.8%	
	5.0 Unskilled occupations	Count	10	51	10	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	6.8%	34.9%	6.8%	
Total		Count	153	822	199	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	7.8%	41.6%	10.1%	

FEMALES: Father's Social Class 1969 by Social Class age 42 Crosstabulation

			SC (Current Job) Social Class (a			
			1.0 I Professional	2.0 II Managerial-technical	3.1 IIINM Skilled non-manual	3.2 IIIM S manu
N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	1.0 Professional etc occupations	Count	9	46	15	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	11.0%	56.1%	18.3%	
	2.0 Managerial and Technical occupations	Count	25	188	149	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	5.8%	43.4%	34.4%	
	3.1 Skilled occupations (non-manual)	Count	3	83	76	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	1.4%	39.7%	36.4%	
	3.2 Skilled occupations (manual)	Count	23	266	289	

		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	2.8%	32.2%	35.0%	
	4.0 Partly-skilled occupations	Count	5	88	89	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	1.8%	31.4%	31.8%	
	5.0 Unskilled occupations	Count	1	36	51	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	0.8%	27.1%	38.3%	
Total		Count	66	707	669	
		% within N2SRGSC 1990-Style RGsocial class code (CLOSER-harmonised) for father's occupation 1969 (CM age 11)	3.4%	36.0%	34.1%	

We see that, of the 781 male cohort members whose fathers were in non-manual occupations, 582 (75%) ended up also in non-manual occupations by age 42, as opposed to 199 (25%) in manual occupations.

Of the 1193 male cohort members whose fathers were in manual occupations, 592 (49.6%) were in non-manual occupations by age 42, as opposed to 601 (50.4%) in manual occupations.

For female cohort members, we see of the 724 whose fathers were in non-manual occupations, 594 (82%) ended up also in non-manual occupations by age 42, as opposed to 130 (18%) in manual occupations.

Of the 1239 female cohort members whose fathers were in manual occupations, 848 (68.4%) were in non-manual occupations by age 42, as opposed to 391 (31.6%) in manual occupations.

3. How do social background, cognitive ability and education affect social mobility?

What drives intergenerational class mobility – is it perhaps intelligence (measured by cognitive ability), or education, or other factors? To assess this try recoding each of the two social class variables considered earlier (father's at age 11, own at age 42) into a continuous 'score' variable so that a higher social class had a higher score: 1= social class V; 2=social class IV, 3=class 3.2; 4=class 3.2; 5=class II, 6=social class I.

The do a regression to see the effect size:

- firstly with just father's social class 'score' as predictor of age 42 social class score;
- then adding three additional predictors

Solution (SPSS syntax and output):

```
recode sc (6=sysmis)(5=1)(4=2)(3.2=3)(3.1=4)(2=5)(1=6)into sclass42.
recode N2SRGSC (5=1)(4=2)(3.2=3)(3.1=4)(2=5)(1=6)into fclass11.
fre sclass42 fclass11.

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT sclass42
  /METHOD=ENTER fclass11.

REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT sclass42
  /METHOD=ENTER fclass11 n920 n16gep newghsq.
```

sclass42 – social class score at age 42

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	130	2.3	2.6	2.6
	2	627	10.9	12.4	15.0
	3	942	16.3	18.7	33.7
	4	1114	19.3	22.1	55.8
	5	1951	33.8	38.7	94.5
	6	277	4.8	5.5	100.0
	Total	5041	87.4	100.0	
Missing	System	724	12.6		
Total		5765	100.0		

fclass11 – father's social class score at CM age 11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	339	5.9	7.5	7.5
	2	624	10.8	13.9	21.4
	3	1833	31.8	40.8	62.2
	4	519	9.0	11.6	73.8
	5	971	16.8	21.6	95.4
	6	207	3.6	4.6	100.0
	Total	4493	77.9	100.0	
Missing	System	1272	22.1		
Total		5765	100.0		

Regression Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.265	.055		59.771	.000
	fclass11	.211	.015	.220	14.127	.000

a. Dependent Variable: sclass42

We see that, as expected, father's social class 'score' is a significant predictor of the CM's own social class score at 42, with effect size .211, so that each extra 'point' on the father's social class score predicts 1.211 points on the CM's age 42 score.

Regression Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.991	.114		35.024	.000
	fclass11	.047	.015	.050	3.086	.002
	n920 2T Total score on general ability test, CM age 11	.009	.002	.109	5.664	.000
	n16gep age 16: no of A-C grade OLevel/SCE or CSE grade 1 passes by 1974	.058	.009	.138	6.213	.000
	newghsq 4D 1981 ghs qualif classification-revised	-.086	.006	-.306	-14.614	.000

a. Dependent Variable: sclass42

Adding the other three variables, we see they're all significant predictors, with the effect size of father's social class now down to .047 (standardised Beta= .050). So one could argue that much of the effect of father's social class is mediated by the child's early cognitive scores and subsequent educational qualifications.

The general ability score test at age 11 and number of A-C passes by age 16 have higher standardised effect-sizes than father's social class score. The effect of the qualifications variable at age 23 (newghsq) has the opposite polarity because it's coded from 1=higher degree; 2=degree; … down to … 15=other quals; 16=no quals.