

*Strand 3 Modelling changing values and preferences*

# Introduction to the Youth Cohort Study of England and Wales (YCS)

Professor Vernon Gayle  
(Stirling University / ISER Essex University)

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## *Strand 3 Modelling changing values and preferences*

- Introduce the YCS
- Structure of the datasets
- Attrition (drop out)
- Item non-response
- Ordered categorical outcomes

# Youth Cohort Study of England & Wales (YCS)

- Major Longitudinal Study
- Began in the Mid 1980s
- Designed to monitor behaviour of young people as they reach the minimum school leaving age and either stay on in education or enter the labour market

# YCS Collects Information on

- Experiences of Education (qualifications)
- Employment
- Training
- Aspirations
- Family
- Personal characteristic & circumstances

# YCS Strengths

- Nationally representative
- Large sample size
- Detailed measures (e.g. qualifications)
- Panel data (albeit short)
- Possible to compare cohorts (trends over time)

# YCS Strengths

- Growing up in the 1990s
- Partly fills the gap left by the missing 198(2) birth cohort

# YCS Structure

Study contacts a sample from an academic year group (cohort) in the spring following completion of compulsory education

The sample is designed to be representative of all Year 11 pupils in England & Wales

Sample are tracked for 3 (sometimes 4) waves (called Sweeps) of data collection

# YCS Data Available – UK Data Archive

SN	Study Description
6024	<a href="#">Youth Cohort Study: Cohort Thirteen, Sweep One</a>
5830	<a href="#">Youth Cohort Study of England and Wales, 2004-2007; Cohort Twelve, Sweep One to Four</a>
5452	<a href="#">Youth Cohort Study of England and Wales, 2002-2005; Cohort Eleven, Sweep One to Four</a>
4571	<a href="#">Youth Cohort Study of England and Wales, 2000-2002; Cohort Ten, Sweep One, Two and Three</a>
4009	<a href="#">Youth Cohort Study of England and Wales, 1998-2000; Cohort Nine, Sweep One to Four</a>
3805	<a href="#">Youth Cohort Study of England and Wales, 1996-2000; Cohort Eight, Sweep One to Three</a>
3533	<a href="#">Youth Cohort Study of England and Wales, 1994-1996; Cohort Seven, Sweep One and Two</a>
3532	<a href="#">Youth Cohort Study of England and Wales, 1992-1994; Cohort Six, Sweep One to Three</a>
3531	<a href="#">Youth Cohort Study of England and Wales, 1991-1993; Cohort Five, Sweep One to Three</a>
3107	<a href="#">Youth Cohort Study of England and Wales, 1989-1991; Cohort Four, Sweep One to Three</a>
3012	<a href="#">Youth Cohort Study of England and Wales, 1987-1994; Cohort Three, Sweep One to Four</a>
3094	<a href="#">Youth Cohort Study of England and Wales, 1986-1988; Cohort Two, Sweep One to Three</a>
3093	<a href="#">Youth Cohort Study of England and Wales, 1985-1987; Cohort One, Sweep One to Three</a>

**SN 5765 Title:** Youth Cohort Time Series for England, Wales and Scotland, 1984-2002

**Depositor(s):**

Croxford, L., University of Edinburgh. Centre for Educational Sociology

**Principal Investigator(s):**

Croxford, L., University of Edinburgh. Centre for Educational Sociology  
 Iannelli, C., University of Edinburgh. Centre for Educational Sociology  
 Shapira, M., University of Edinburgh. Centre for Educational Sociology

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# YCS Cohort Structure

	Year of Survey										
	85	86	87	88	89	90	91	92	93	94	95
<b>COHORT</b>											
1	1	2	3								
2		1	2	3							
3			1	2	3					4	
4					1	2	3				
5							1	2	3		
6								1	2	3/4(A)	

	94	95	96	97	98	99	00	01	02	03	04
<b>COHORT</b>											
7	1		2								
8			1		2		3(A)				
9					1	2	3/4(A)				
10							1/2(A)		3		
11									1	2	3

	04	05	06	07	08	09	10	11	12	13	14
<b>COHORT</b>											
12	1	2	3								
13				1	2	3	4				
14						1	2	3	4		
<b>LSYPE</b>	1	2	3	4	5	6	7	8	9	10	11

(A) Autumn sweeps

Black = Harmonised Cohort

Pink = Not Harmonised (i.e. YCS Cohort not included in the dataset SN5765)

Blue = Recent Cohorts

# Working with the YCS

- Documentation is very poor especially in the older cohorts – usually handwritten annotation on questionnaires (pdf)

*(Compare this with the BHPS for example)*

- Changes in qualifications, educational policy etc adds data complications
- Changes in questions, measures, coding, timing etc, all add to the general confusion

# Working with the YCS

We have had some success...

**Gayle, V.**, Berridge, D. and Davies, R.B. (2003) *Econometric Analysis of the Demand for Higher Educations*, RR472, Department for Education and Skills Research Series.

**Gayle, V.** Berridge, D. and Davies, R.B. (2002) 'Young People's Entry To Higher Education: Quantifying Influential Factors', *Oxford Review of Education*, 28, 1, pp.5-20.

**Gayle, V.** Berridge, D. and Davies, R.B. (2000) 'Young People's Routes To Higher Education: Exploring Social Processes With Longitudinal Data', *Higher Education Review*, 33, 1, pp.47-64.

# YCS Cohort Sample Attrition

	<i>n</i> Response			<i>Rate</i> %		
	Age 16/17 (t1)	Age 17/18 (t2)	Age 18/19 (t3)	t1->t2	t1->t3	t2->t3
<b>COHORT</b>						
ycs1	8,064	6,075	5,061	75	63	83
ycs3	16,208	12,319	9,328	76	58	76
ycs4	14,116	10,464	8,189	74	58	78
ycs5	14,511	10,951	8,396	75	58	77
ycs7	18,021	-	8,199	-	45	-
ycs8	15,899	-	10,130	-	64	-
ycs9	14,662	9,710	6,304	66	43	65
ycs10	13,698	-	7,238		53	-

YCS Cohort included in the dataset SN5765

# YCS Cohort Sample Attrition – Some descriptive thoughts

	GCSEs Year 11 (%)	
<i>Time point</i>	Less than 5	5+ A*-C
t1	43	57
t2	33	67
t2	29	71

	Gender (%)	
<i>Time point</i>	Male	Females
t1	47	53
t2	43	57
t3	41	59

# YCS Cohort Sample Attrition – Some descriptive thoughts

	Time Point	
	t2	t3
<i>Ethnicity</i>		
<b>All</b>	<b>66</b>	<b>43</b>
White	66	44
Black	62	34
Indian	73	47
Pakistani	50	20
Bangladeshi	68	39
Asian (other)	77	45
Others	68	42

# Item non-response

- Parental Social Class is a very important factor in attainment and progression...
- Remember... young people aged 17 being asked about their parents
- Registrar General S.C. between 12% and 14% missing data in 1990s cohorts
- Promising results from a paper at RC33 Nobel *et al.* 2008 reported an experiment with LSYPE cohort testing pupils with YCS question and interviewing their parents

# Item non-response

- *Over 60% of young people correctly reported their parents' occupation at 4 digit OUG (disappointingly only approx. 74% get it at 1 digit level)*
  - Major group 2 Professional occupations
  - Sub major group 21 Science and engineering professionals
  - Minor group 211 Natural scientists
  - Unit group 2111 Chemists
- *No significant social class pattern to the errors (using NS-SEC)!*



# Ordered Categorical Outcomes

## Qualifications

GCSEs

A\*

A Upper tier

B exams

C

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D

E Lower tier

F exams

G

AS / A2 (A'Level)

(A\* 2010)

A

B

C

D

E

## The NQF and the FHEQ

National Qualifications Framework (NQF)		Framework for Higher Education Qualifications (FHEQ)
Previous levels (and examples)	Current levels (and examples)	
<b>5</b> Level 5 NVQ in Construction Management † Level 5 Diploma in Translation	<b>8</b> Specialist awards	<b>D (doctoral)</b> Doctorates
	<b>7</b> Level 7 Diploma in Translation	<b>M (masters)</b> Masters degrees, postgraduate certificates and diplomas
<b>4</b> Level 4 NVQ in Advice and Guidance † Level 4 National Diploma in Professional Production Skills Level 4 BTEC Higher National Diploma in 3D Design Level 4 Certificate in Early Years	<b>6</b> Level 6 National Diploma in Professional Production Skills	<b>H (honours)</b> Bachelor degrees, graduate certificates and diplomas
	<b>5</b> Level 5 BTEC Higher National Diploma in 3D Design	<b>I (intermediate)</b> Diplomas of higher education and further education, foundation degrees and higher national diplomas
	<b>4</b> Level 4 Certificate in Early Years	<b>C (certificate)</b> Certificates of higher education
<b>3</b> Level 3 Certificate in Small Animal Care Level 3 NVQ in Aeronautical Engineering A levels		
<b>2</b> Level 2 Diploma for Beauty Specialists Level 2 NVQ in Agricultural Crop Production GCSEs Grades A*-C		
<b>1</b> Level 1 Certificate in Motor Vehicle Studies Level 1 NVQ in Bakery GCSEs Grades D-G		
<b>Entry</b> Entry Level Certificate in Adult Literacy		

## Main Activity October Following Year 11 by YCS Cohort (%)

	1984	1986	1988	1990	1993	1995	1997	1999
Education	42	43	51	61	75	74	73	74
Unemployment	8	7	2	4	4	3	4	3
Training	28	28	24	14	9	9	9	9
Employment	17	19	22	18	7	9	11	10
Other Activity	1	1	1	1	2	1	1	2
Missing	3	1	1	2	3	3	1	2
<i>n</i>	8,064	16,208	14,116	14,511	18,021	15,899	14,662	13,698

Note: Weighted percentages.

# Conclusion

The overall goal is to develop practicable approaches to handling drop-out (attrition) when modelling ordered categorical outcomes