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**Exploring the 'Middle': School GCSE
Attainment and Ordinary Young People**

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ABSTRACT

In Britain educational qualifications gained at school continue to play an important and central role in young people's educational and employment trajectories. Recently there has been a growing interest in documenting the lives of ordinary young people. In this paper we analyse the Youth Cohort Study of England and Wales in order to better document the experiences of those with 'middle', or moderate, levels of school GCSE attainment.

We find that the overall pattern of school GCSE attainment is one of increasing levels of performance over time. In general girls performed better than boys, and there were some marked differences in attainment for pupils from the main minority ethnic groups. A striking result is the impact of parental socio-economic positions and other variables associated with the young person's home background.

We conclude that sociologists of youth should study 'ordinary' young people and moderate, or unspectacular, levels of educational attainment. The analyses suggest that school GCSE attainment is best understood as a continuum. There was no persuasive evidence that there is a distinctive 'middle' group of young people with moderate levels of school GCSE attainment. This concurs with our earlier analysis of data from the British Household Panel Survey.

KEYWORDS

Youth transitions; sociology of youth; educational attainment; GCSE; missing middle; Youth Cohort Study of England and Wales.

EDITORIAL NOTE

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**EXPLORING THE ‘MIDDLE’: SCHOOL GCSE ATTAINMENT
AND ORDINARY YOUNG PEOPLE**

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1. INTRODUCTION

The idea of a ‘marginalised mainstream’ or ‘missing middle’ is currently popular within the sociology of youth, and has received special attention in a recent volume of *Sociological Research Online*¹. Brown (1987) colourfully describes this group as ordinary pupils who neither leave their names engraved on the school honours board, nor gouge them into their desktops. Roberts and MacDonald (2013) indicate that the notion of ‘ordinary kids’ is far from novel and is employed in earlier youth studies (for example, Brown 1987; Jenkins 1983; Pye 1988; France 2007). Similarly Roberts (2013) suggests that youth researchers are making a habit of overlooking then rediscovering a missing middle.

In two earlier papers Roberts (2011; 2012) makes an appeal to youth researchers to concentrate more analytical attention on ordinary young people. He also petitions researchers to better document the experiences of this group through the secondary analysis of large-scale datasets to establish their social characteristics and how well qualified they might be (2011, p.22).

Educational qualifications gained at school continue to be a motor that propels young people along alternative pathways. Indeed Noah and Eckstein (1992) state that while particular examinations have come and gone during the past forty years, the underlying social and educational significance of school examinations has been conserved.

Over the last two decades, British young people have grown up in changing educational and economic circumstances (Furlong and Cartmel 2007). The 1988 Education Reform Act brought dramatic changes to the organisation and management of schools and introduced a revised system of school level qualifications. Given these structural changes it is plausible that a distinctive ‘middle’ group of young people who have moderate levels of educational attainment has emerged. There is also the anecdotal suggestion that this group of ‘ordinary’ young people, who are neither well qualified nor unqualified, is growing.

We are mindful of the methodological prescription issued by Merton (1987) which cautions that before sociologists proceed to explain or to interpret a phenomenon, it is advisable to establish that the phenomenon actually exists, and that it is enough of a regularity to require and to allow explanation. Therefore in this paper we address the

¹ Sociological Research Online, 2013, Volume 18.

more rudimentary question, ‘is there a ‘middle’ group of ordinary young people that can be characterised by their educational attainment at school?’

In a recent paper we began by exploring the mid-ground between what can broadly be termed as the educationally successful and the unsuccessful (Connelly, Murray and Gayle 2013). We undertook secondary analyses of the British Household Panel Survey (BHPS) to characterise members of this ‘middle’ group. The BHPS is a major longitudinal data resource which tracks young people within households and facilitates analyses of educational attainment, and activities in young adult life. We identified a group which might reasonably be called a ‘middle’ group and examined their activities in early adulthood. We compared their education and economic activities with the activities of their more and less educationally accomplished peers. The ‘middle’ group differed in their economic activities in early adulthood compared with the other two groups. Notably the ‘middle’ group made the transition from education into employment earlier. Overall our results indicated that there was not a clearly defined ‘middle’ group and we were therefore cautious of making extended claims about this group without further exploration.

The young people within the BHPS are drawn from a representative sample of British households, and this means that the overall coverage of young people is smaller than it would be in a dedicated youth survey. Therefore in this current paper we present secondary analysis of the Youth Cohort Study of England and Wales (YCS) which is especially suitable because it is a large-scale nationally representative youth dataset. The YCS also contains more detailed measures of educational qualifications. The present results should be considered as a replication study and the analyses are organised so that they are comparable. Our overall goal is to augment, and therefore extend, our previous work with a detailed secondary analysis of school attainment using specialist youth data.

2. YOUTH COHORT STUDY OF ENGLAND AND WALES

The Youth Cohort Study of England and Wales (YCS) is a suitable choice of dataset, and has been successfully used to explore educational attainment (Drew *et al.* 1992; Drew 1995; Demack *et al.* 2000; Gayle *et al.* 2003; Connolly 2006; Gayle *et al.* 2009; Sullivan *et al.* 2011). The YCS is a major longitudinal study that began in the mid - 1980s. It is a large-scale nationally representative survey funded by the government. The YCS is designed to monitor the behaviour of young people as they reach the

minimum school leaving age and either remain in education or enter the labour market. The survey collects detailed information on the young person's experiences of education and their qualifications, as well as information on employment and training. A limited amount of information is collected on the young person's personal characteristics, their family and circumstances at home, and their aspirations.

The YCS sample is nationally representative of year 11 pupils in England and Wales. A large sample from an academic year group (a cohort) is contacted in the spring following year 11. The young people are usually age 16-17 when they are first contacted. The main data collection instrument is a postal questionnaire. The cohorts are usually re-contacted on at least two occasions.

The YCS is primarily a monitoring tool although over its life-course it has been analysed in social science research. The survey is organised by school leaving cohorts and although cross-cohort comparisons are feasible, in practice there are a number of practical challenges. Over the lifespan of the YCS there have been a number of major changes in education. These changes include amendments to qualifications and the curriculum, and alterations to the structure, organisation, management and financing of schools. These changes add substantially to the complexity of comparing YCS cohorts. The survey has also been collected by different survey agencies and, at a more practical level, there have been changes to questions within the surveys and changes in measurements and coding. Over the life-cycle of the YCS different government departments have been in charge of the survey and the structure and timings of data collection have varied between cohorts. A further obstacle is that the documentation of the curated YCS data is poor, especially for early cohorts.

Croxford *et al.* (2007) have recently deposited a harmonized dataset that comprises YCS cohorts from 1984-2002 (UK Data Archive Study Number SN5765). The new data resource better facilitates cross-cohort comparative research. In this work we analyse five YCS cohorts (cohorts 5, 7, 8, 9 and 10). These are pupils who reached the end of year 11 (and therefore were eligible to leave school) in 1990, 1993, 1995, 1997 and 1999 respectively. Young people in earlier YCS cohorts either did not undertake GCSE examinations or did not have appropriate parental occupational information collected for comparable measures to be derived. We confine the analyses to young people who attended comprehensive schools in year 11. These pupils were at non-fee paying State funded schools that were non-selective. We undertake single-level

analyses because there are no school-level or Local Authority-level indicators deposited with the SN5765 dataset. The characteristics of the sample are reported in Table 1.

Introduced by the Education Reform Act 1988, the General Certificate of Secondary Education (GCSE) is the standard qualification undertaken by pupils in England and Wales at the end of year 11 (age 15-16) (Department of Education 1985; Mobley *et al.* 1986; North 1987). We argue that GCSE attainment is worthy of sociological attention because they are public examinations and mark the first major branching point in a young person's educational career. Because of the progressive structure of the British education system poor GCSE attainment is a considerable obstacle which often precludes young people from pursuing more advanced educational courses. GCSEs are the first step in providing access to a range of careers or further study and are used as a benchmark to judge pupil's abilities².

GCSE attainment is strongly related to participation in post-compulsory education (Payne 1995; 2000; 2001; 2003). Leckie and Goldstein (2009) remind us that for young people who choose to leave education at the minimum age, their GCSEs are often their only educational qualifications. Rice (1999) observes a clear relationship between poor school GCSE performance, unemployment and participation in further education. Babb (2005) concludes that young people's experiences at school and their attainment at GCSE level are strong determinants of their future success in both education and employment. Through the detailed examination of panel data, Murray (2011) reports that the negative effects of poor GCSE attainment follow young people into early adulthood. Jones *et al.* (2003) clearly illustrate that overall workers with poor school level qualification (e.g. GCSEs) generally have less favourable labour market outcomes.

GCSEs are usually a mixture of assessed coursework and examinations (Ashford, Gray and Tranmer 1993). Generally each subject is assessed separately and a subject specific GCSE is awarded. It is usual for pupils to study for about nine subjects, which will include core subjects (e.g. English, Maths and Science) and non-core subjects. GCSEs are graded into discrete ordered categories, historically the highest being A, and the lowest G. From 1994 a higher grade of A* was introduced (Yang and Woodhouse 2001).

² This point is made clearly on the Edexcel website; <http://www.edexcel.com/i-am-a/student/qualifications/Pages/GCSEs.aspx>.

	n	Proportion (weighted)
Overall Sample	54,236	
YCS cohort		
1990	10,268	0.19
1993	12,788	0.23
1995	10,977	0.21
1997	10,909	0.20
1999	9,294	0.17
Gender		
Female	24,915	0.50
Male	29,321	0.50
Ethnicity		
White	50,317	0.93
Black	738	0.01
Indian	1,279	0.02
Pakistani	694	0.01
Bangladeshi	215	0.00
Other Asian	513	0.01
Other	480	0.01
Housing Tenure		
Owned / Mortgage	45,114	0.81
Renters	8,341	0.18
Others	781	0.01
Household Type		
Mother and Father	45,600	0.83
Mother Only	6,128	0.12
Father Only	1,497	0.03
Other Household	1,011	0.02
Parental Education		
Non-graduates	43,503	0.82
Graduates	10,733	0.18
Parents' Social Classification (NS-SEC)		
1.1 Large Employers and Higher Managerial Occupations	3,312	0.06
1.2 Higher Professional Occupations	4,957	0.08
2 Lower Managerial and Professional Occupations	13,306	0.23
3 Intermediate Occupations	9,560	0.17
4 Small Employers and Own Account Workers	9,170	0.18
5 Lower Supervisory and Technical Occupations	3,594	0.07
6 Semi-routine Occupations	6,434	0.13
7 Routine Occupations	3,903	0.08

Table 1: Summary Information Youth Cohort Study of England and Wales Data

The question of how to measure education and qualifications, or indeed what ‘measure’ means, raises interesting issues since there is no agreed standard way of categorising educational qualifications (Prandy *et al.* 2004). The problem of measuring GCSE attainment can be put simply. Pupils study many subjects and the GCSE award is for the individual subject studied. The GCSE for each subject is given an alphabetical rather than a numerical grade, and therefore there is no clear and simple method of aggregation. This means that there is no single, or agreed measure of GCSE attainment. Consequently there is no obvious indicator of ordinary, or moderate, levels of qualification.

The attainment of five or more GCSEs at grades A*-C is a standard benchmark, for example it is used in school performance league tables (see Leckie and Goldstein 2009). This measure is routinely employed in a wide variety of social science applications (e.g. Gayle *et al.* 2003; Connolly 2006; Tunstall *et al.* 2011; Sullivan *et al.* 2011). In order to operationalise the analysis we begin by constructing a measure of GCSE attainment with a ‘middle’ group of moderately qualified young people. This ‘middle’ group are neither well qualified nor completely unqualified. They have obtained some (i.e. 1- 4) GCSEs at grades A*-C, but have not achieved the standard benchmark of five or more GCSEs at grades A*-C.

3. EXPLORING ‘MIDDLE’ GROUP GCSE ATTAINMENT

Summary information for the three category year 11 GCSE attainment measure is provided in Table 2. The YCS survey (weighted) proportions are in line with national figures for the benchmark of 5+ GCSEs at grades A*-C for the time period (see DfES 2007). We restrict our analyses to a set of established explanatory variables that are implicated in previous studies of educational attainment (for example Drew *et al.* 1992; Drew 1995; Demack *et al.* 2000; Gayle *et al.* 2003; Connolly 2006; Gayle *et al.* 2009; Sullivan *et al.* 2011).

	n	Proportion (weighted)
Zero GCSEs at Grades A*-C	9,374	0.27
1-4 GCSEs at Grades A*-C	15,494	0.30
5+ GCSEs at Grades A*-C	29,368	0.43

Table 2: Summary Measures GCSE Attainment Year 11

Figure 1 depicts main activity at age 18-19 by year 11 GCSE attainment. Overall 46% of young people were in education, 43% were in employment or training and 11% could be classified as being Not in Education Employment or Training (NEET). Only 17% of young people who achieved no GCSEs in year 11 at grades A*-C were in education at age 18-19, compared with 33% of those with 1-4 GCSEs and 64% of those with 5+ GCSEs. Ten per cent fewer young people with 1-4 GCSEs at grades A*-C were NEET compared with those without any GCSEs at these grades.

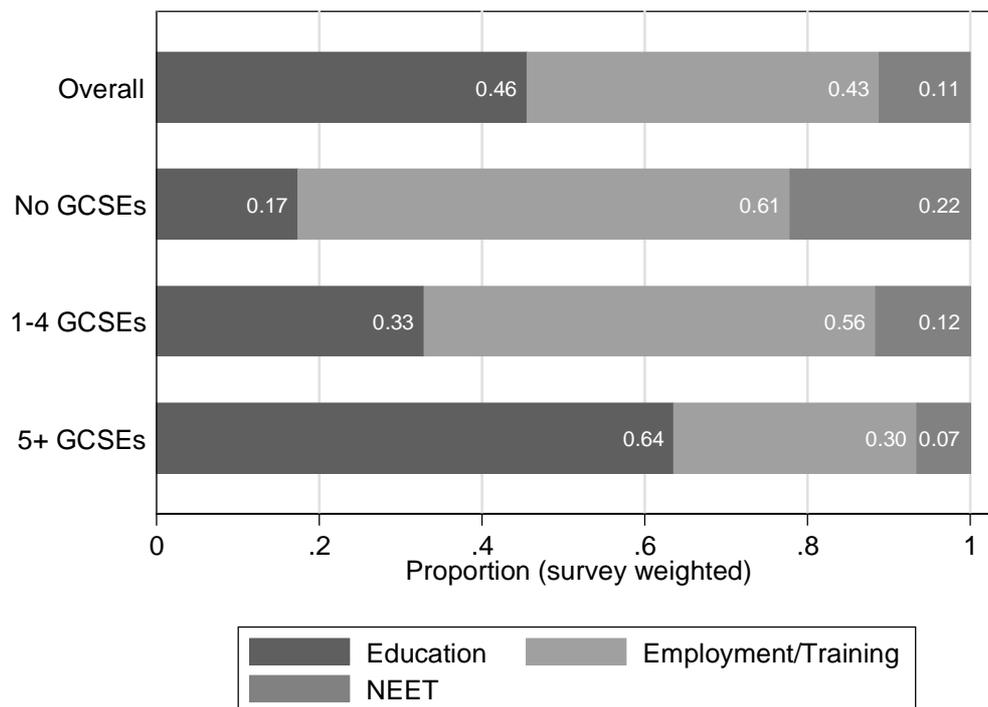


Figure 1: Main Activity, Age 18-19 by GCSE Attainment in Year 11
Note: n=29,033

There is a clear relationship between year 11 GCSE attainment and participation in post-compulsory education both at age 16-17 and at age 18-19. Figure 2 reports the composition of young people in education by year 11 GCSE attainment. Only a small percentage of those participating in post-compulsory education at age 16-17 did not achieve any GCSEs at grades A*-C. Those that achieved the benchmark of five or more GCSEs at grades A*-C made up over half of those participating in education at age 16-17 and two thirds of those participating in education at age 18-19. The ‘middle’ group (young people with 1-4 GCSEs at grades A*-C) had higher levels of participation than

counterparts without any GCSEs but their level of participation was markedly lower than their counterparts that achieved five or more GCSEs.

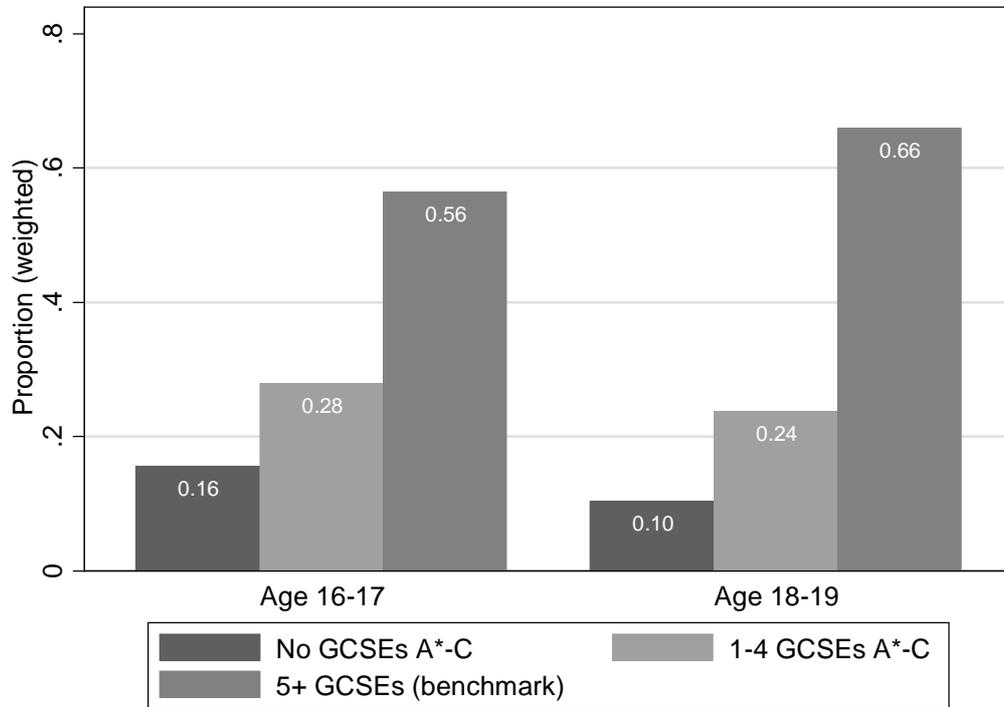


Figure 2: Participation in Education at age 16-19, by GCSE Attainment in Year 11
Note: Age 16-17 n=54,236; Age 18-19 n=29,033

	Zero A*-C	1-4 A*-C	5+ A*-C
YCS Cohort			
1990	0.32	0.35	0.33
1993	0.27	0.31	0.41
1995	0.27	0.29	0.44
1997	0.28	0.27	0.45
1999	0.22	0.28	0.50
Gender			
Female	0.22	0.31	0.48
Male	0.33	0.30	0.38
Ethnicity			
White	0.27	0.30	0.43
Black	0.31	0.38	0.32
Indian	0.22	0.30	0.48
Pakistani	0.32	0.39	0.29
Bangladeshi	0.25	0.38	0.38
Other Asian	0.14	0.27	0.59
Other	0.21	0.32	0.47
Housing Tenure			
Owned / Mortgage	0.23	0.29	0.48
Renters	0.46	0.34	0.20
Others	0.34	0.32	0.34
Household Type			
Mother and Father	0.26	0.30	0.44
Mother Only	0.32	0.31	0.37
Father Only	0.35	0.32	0.33
Other Household	0.48	0.33	0.19
Parental Education			
Non-graduates	0.30	0.32	0.38
Graduates	0.15	0.22	0.63
Parents' Social Classification (NS-SEC)			
1.1 Large Employers and Higher Managerial Occupations	0.13	0.24	0.62
1.2 Higher Professional Occupations	0.10	0.20	0.71
2 Lower Managerial and Professional Occupations	0.18	0.27	0.56
3 Intermediate Occupations	0.23	0.31	0.46
4 Small Employers and Own Account Workers	0.33	0.34	0.33
5 Lower Supervisory and Technical Occupations	0.35	0.35	0.30
6 Semi-routine Occupations	0.41	0.35	0.24
7 Routine Occupations	0.49	0.33	0.19

Table 3: GCSE Attainment Year 11 by Respondent's Characteristics (Survey Weighted Proportions)

Overall, Table 3 indicates that moderate levels of GCSE attainment are stratified by gender, ethnicity, housing tenure, household composition, parental education and family socioeconomic classification. In summary, females outperformed males in relation to achieving the benchmark of 5+ GCSEs at grades A*-C. Although about the same proportion of males and females fell into the middle category. Thirty per cent of white young people were in the middle category. The same proportion of young people of Indian origin achieved the middle level of GCSE attainment, but a lower proportion of those classified as other Asians were in this category. Conversely a higher proportion of young people from black, Pakistani, Bangladeshi and other minority ethnic backgrounds were in the middle category. There were some GCSE attainment differences between young people from families with different housing tenure, and of different household compositions. A larger proportion of young people with more qualified parents achieved the benchmark of 5+ GCSEs at grades A*-C, and ten per cent fewer achieved 1-4 grades.

Table 4 outlines the exploratory (bivariate) relationships between the outcome variable i.e. the three category GCSE measure, and each of the explanatory variables. All of the explanatory variables are significant ($p < .05$). We next explore year 11 GCSE attainment in a multivariate context.

Table 5 reports the results of a (survey weighted) multinomial logistic regression model of GCSE attainment in year 11. In this model we highlight membership of the 'middle' category of GCSE attainment. The first partition is zero GCSEs at grades A*-C compared with 1-4 GCSEs at grades A*-C. The second partition is 5+ GCSEs at grades A*-C compared with 1-4 GCSEs at grades A*-C.

After controlling for YCS Cohort, gender was significant net of the other variables included in the model. Males were more likely to have zero GCSEs than to have 1-4 GCSEs (i.e. to be in the middle group) and were less likely to gain 5+ GCSEs at grades A*-C. This result chimes with other analyses of gender and educational attainment for this period (for example Warrington and Younger 2000; Gayle *et al.* 2003; Burgess *et al.* 2004; Younger and Warrington 2005; Connolly 2006).

The results for ethnicity show a familiar mixed pattern. It is well observed that there are differing levels of participation in post-compulsory education across ethnic groups (see Drew *et al.* 1992; Drew 1995; Biggart and Furlong 1996; Demack *et al.* 2000; Gillborn and Mirza 2000; Bhattacharyyal *et al.* 2003; Wilson *et al.* 2006). Young people of black and Pakistani origin were not significantly different to whites in the

attainment of zero GCSEs rather than 1-4 GCSEs (i.e. the middle group). Young people from all of the other minority ethnic groups were less likely than their white counterparts to achieve zero GCSEs, than to be located within the middle GCSE attainment group (1-4 at grades A*-C).

Models	BIC Statistic	Change in Deviance	Change in d.f.
Null	107788		
Null + YCS Cohort	106531	1344	8
Null + Gender	107353	457	2
Null + Ethnicity	107730	188	12
Null + Housing Tenure	104947	2885	4
Null + Household Type	107272	581	6
Null + Parental Education	105691	2118	2
Null + Parents' Social Classification (NS-SEC)	102033	5907	14

Table 4: Model Estimation Information Multinomial Logistic Regression Models GCSE Attainment Year 11

Notes: Outcome variable 3 categories; 0 GCSEs at grades A*-C, 1-4 GCSEs at grades A*-C, 5+ GCSEs at grades A*-C. Bayesian Information Criterion (BIC Statistic) and change in deviance derived from unweighted multinomial logistic regression models

Zero GCSEs / 1-4 GCEs YCS Cohort	Beta	linearized S.E	t	p	95%	CI
1990	0.00					
1993	-0.02	0.04	-0.43	0.67	-0.1	0.06
1995	0.01	0.04	0.21	0.84	-0.07	0.09
1997	0.14	0.04	3.28	<.01	0.06	0.22
1999	-0.14	0.05	-2.81	0.01	-0.23	-0.04
Gender						
Female	0.00					
Male	0.49	0.03	17.23	<.01	0.43	0.54
Ethnicity						
White	0.00					
Black	-0.19	0.12	-1.67	0.10	-0.42	0.03
Indian	-0.31	0.10	-3.03	<.01	-0.51	-0.11
Pakistani	-0.21	0.11	-1.83	0.07	-0.43	0.01
Bangladeshi	-0.62	0.22	-2.78	0.01	-1.06	-0.18
Other Asian	-0.67	0.20	-3.37	<.01	-1.07	-0.28
Other	-0.43	0.17	-2.49	0.01	-0.78	-0.09
Housing Tenure						
Owned / Mortgage	0.00					
Renters	0.39	0.04	11.15	<.01	0.32	0.46
Others	0.13	0.11	1.19	0.23	-0.09	0.35
Household Type						
Mother and Father	0.00					
Mother Only	0.06	0.04	1.39	0.16	-0.02	0.15
Father Only	0.15	0.08	2.02	0.04	0.00	0.31
Other Household	0.38	0.09	4.38	<.01	0.21	0.55
Parental Education						
Non-graduates	0.00					
Graduates	-0.11	0.05	-2.19	0.03	-0.2	-0.01
Parents' Social Classification (NS-SEC)						
1.1 Large Employers and Higher Managerial Occupations	-0.24	0.09	-2.8	0.01	-0.41	-0.07
1.2 Higher Professional Occupations	-0.35	0.09	-4.02	<.01	-0.52	-0.18
2 Lower Managerial and Professional Occupations	-0.09	0.05	-1.85	0.07	-0.19	0.01
3 Intermediate Occupations	0.00					
4 Small Employers and Own Account Workers	0.26	0.05	5.56	<.01	0.17	0.35
5 Lower Supervisory and Technical Occupations	0.29	0.06	4.83	<.01	0.17	0.40
6 Semi-routine Occupations	0.41	0.05	8.28	<.01	0.31	0.50
7 Routine Occupations	0.61	0.05	11.12	<.01	0.50	0.72
Constant	-0.64	0.05	13.95	<.01	-0.73	-0.55

Table 5: Multinomial Logistic (Survey Weighted) Regression Model GCSE Attainment Year 11

5+ GCSEs / 1-4 GCEs YCS Cohort	Beta	linearized S.E	t	p	95%	CI
1990	0.00					
1993	0.35	0.03	10.50	<.01	0.29	0.42
1995	0.48	0.03	14.14	<.01	0.42	0.55
1997	0.61	0.03	17.79	<.01	0.54	0.68
1999	0.67	0.04	18.85	<.01	0.60	0.74
Gender						
Female	0.00					
Male	-0.31	0.02	-14.06	<.01	-0.35	-0.26
Ethnicity						
White	0.00					
Black	-0.53	0.10	-5.43	<.01	-0.72	-0.34
Indian	0.21	0.07	2.90	<.01	0.07	0.35
Pakistani	-0.41	0.09	-4.47	<.01	-0.60	-0.23
Bangladeshi	0.18	0.17	1.06	0.29	-0.15	0.52
Other Asian	0.61	0.12	5.04	<.01	0.37	0.84
Other	-0.01	0.12	-0.07	0.94	-0.24	0.22
Housing Tenure						
Owned / Mortgage	0.00					
Renters	-0.69	0.03	-20.77	<.01	-0.76	-0.63
Others	-0.22	0.09	-2.36	0.02	-0.4	-0.04
Household Type						
Mother and Father						
Mother Only	-0.06	0.04	-1.76	0.08	-0.13	0.01
Father Only	-0.27	0.07	-4.01	<.01	-0.40	-0.14
Other Household	-0.60	0.09	-6.53	<.01	-0.78	-0.42
Parental Education						
Non-graduates	0.00					
Graduates	0.46	0.03	14.82	<.01	0.40	0.52
Parents' Social Classification (NS-SEC)						
1.1 Large Employers and Higher Managerial Occupations				<.01		
	0.40	0.05	7.64		0.30	0.50
1.2 Higher Professional Occupations	0.64	0.05	12.79	<.01	0.54	0.73
2 Lower Managerial and Professional Occupations	0.25	0.03	7.33	<.01	0.18	0.31
3 Intermediate Occupations	0.00					
4 Small Employers and Own Account Workers	-0.41	0.04	-11.31	<.01	-0.48	-0.34
5 Lower Supervisory and Technical Occupations	-0.48	0.05	-9.91	<.01	-0.57	-0.38
6 Semi-routine Occupations	-0.66	0.04	-16.26	<.01	-0.74	-0.58
7 Routine Occupations	-0.75	0.05	-14.9	<.01	-0.85	-0.65
Constant	0.17	0.03	4.96	<.01	0.10	0.24
	n=54,236					
Log likelihood (unweighted model)	-49001					
Pseudo R Squared (unweighted model)	0.09					
BIC (unweighted model)	98547					

Table 5 (Continued): Multinomial Logistic (Survey Weighted) Regression Model GCSE Attainment Year 11
Notes: Test of multicollinearity 1/VIF – Gender=.99; Ethnicity=.99; Housing Tenure=.87; Household Type=.92; Parental Education=.88; Parents' Social Classification=.83

Young people of black and Pakistani origin were significantly less likely than their white counterparts to gain 5+ GCSEs rather than to be in the 'middle' group (1-4 GCSEs at grades A*-C). Bangladeshi pupils are not significantly different to white young people in the attainment of the benchmark of 5+ GCSEs at grades A*-C. Overall young people of Indian origin performed significantly better than their white counterparts, as did pupils from other Asian backgrounds.

Housing tenure and household composition are also associated with year 11 GCSE attainment. The offspring of renters were more likely than the offspring of home owners to gain zero GCSEs at grades A*-C rather than 1-4 grades. The children of renters were less likely than counterparts whose parents were home owners to gain 5+ GCSEs. Household composition was significant overall. Young people in mother only households were not significantly different to their counterparts living in households with both parents. Those in father only, and in other households, performed less well at GCSE. These findings are consistent with early YCS based results (see Drew *et al.* 1991; Gayle *et al.* 2003). The offspring of more educated parents had significantly better levels of year 11 GCSE attainment. This result is consistent with other studies and earlier YCS results (Drew *et al.* 1992; Drew 1995; Gayle *et al.* 2003). Taken together these results point towards the overall effect of living in a more advantaged home background on year 11 GCSE attainment.

Parental socioeconomic classifications, which are measured through parental occupations, are central to explaining patterns of year 11 GCSE attainment. Compared with young people who have parents in Intermediate Occupations (NS-SEC 3), those with parents who are either Large Employers or Higher Managers (NS-SEC 1.1), or Higher Professionals (NS-SEC 1.2) are less likely to gain zero GCSEs at grades A*-C. Those young people with parents who are Lower Managers and Professionals (NS-SEC 2) are not significantly different to those with parents in Intermediate Occupations (NS-SEC 3). Young people with parents in NS-SEC 1.1, 1.2 and 2 are all more likely to gain 5+ GCSEs than to attain 1-4 GCSEs at grades A*-C. Young people with parents in NS-SEC categories 4, 5, 6 and 7 are all more likely to gain no GCSEs than 1-4 GCSEs at grades A*-C. They are also less likely to gain the benchmark 5+ GCSEs at grades A*-C than to be in the middle category (1-4 GCSEs at grades A*-C). The relationship between parental occupations and GCSE attainment accords with the well documented view that those from more occupationally advantaged backgrounds perform better

(Drew *et al.* 1992; Drew 1995; Demack *et al.* 2000; Gayle *et al.* 2003; Connolly 2006; Gayle *et al.* 2009).

These initial results intimate that there is a 'middle' group of young people with moderate levels of GCSE attainment. These young people are not unqualified, they have some GCSEs at the higher grades (A*-C), but they have not reached the benchmark of five or more GCSEs. This 'middle' group are more likely to be male, and be from a lower attaining minority ethnic group. It is less likely that their parents are homeowners or graduates and they are more likely to come from less occupationally advantaged families. These initial findings lend support to the conception of a 'middle' group of ordinary young people with moderate levels of GCSE attainment.

3.1. THE GROWING 'MIDDLE' GROUP?

The rising levels of GCSE attainment over the course of the 1990s are documented in official figures (see DfES 2001). We are aware that there have been some informal comments that there may have been an expansion in the 'middle' category. Expressed another way, the suggestion is that there is a growing proportion of young people with mediocre levels of GCSE attainment. Levels of attainment did increase over the decade, and a higher proportion of young people achieved five or more GCSEs at grades A*-C. Figure 3 does not indicate any evidence of a growth in the size of the middle category of moderately qualified young people however.

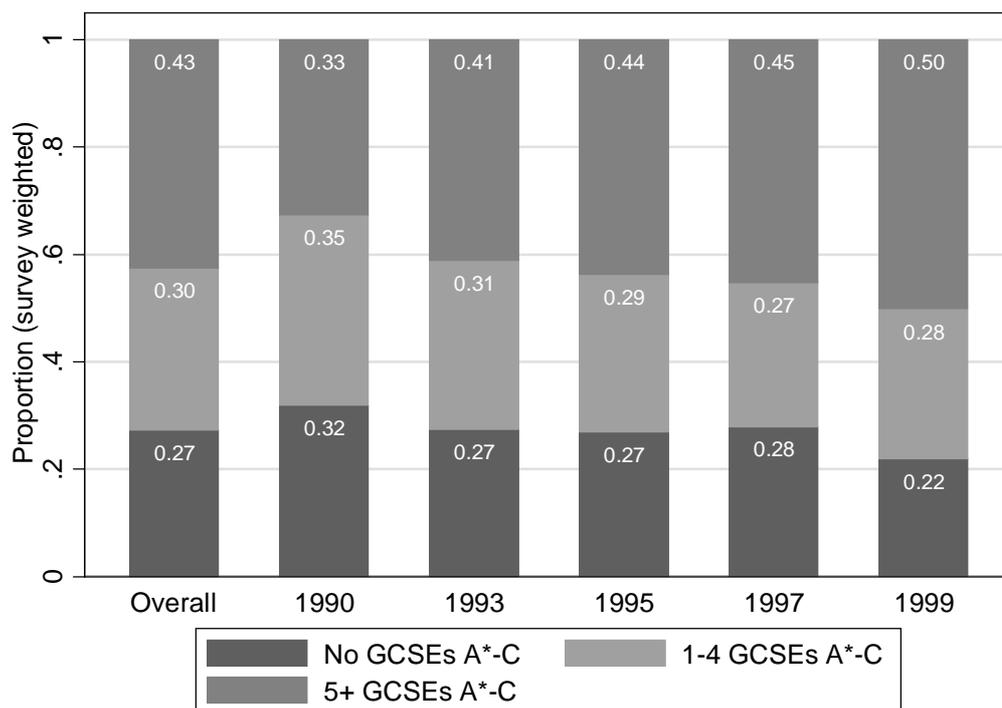


Figure 3: GCSE Attainment in Year 11 by YCS Cohort
Note: n=54,236

3.2. FURTHER EXPLORING THE ‘MIDDLE’ GROUP

In the remainder of the paper we intend to go beyond these initial results and provide more comprehensive exploratory data analyses of ‘middle’ levels of school GCSE attainment. The benchmark of 5+ GCSEs at grades A*-C is widely recognised but is largely an administrative yardstick. In order to operationalise the analysis we chose 1-4 GCSEs at grades A*-C as a measure of moderate attainment. This appears to be a justifiable classification of ‘middle’ level attainment, as these pupils are neither well qualified nor unqualified. In the spirit of exploratory analysis we are keen to undertake some sensitivity analyses in an attempt to investigate moderate levels of GCSE attainment more fully.

Year 11 GCSE attainment is central to participation in education at age 16-17. To a lesser extent year 11 GCSE attainment also plays a significant role in relation to a young person’s main activity at age 18-19. In Table 6 we report overall summaries of a series of logistic regression models of participation in education at age 16-17. These models include alternative formulations of the ‘middle’ category. When the middle category is 1-2 GCSEs the Pseudo $R^2 = 0.15$, compared with a Pseudo $R^2 = 0.18$ when the ‘middle’ category is 1-4 GCSEs at grades A*-C. When the ‘middle’ category is

extended to include 5 or 6 GCSEs at grades A*-C there is no overall improvement in the explanation of participation in education at age 16-17. The results are similar for the multinomial logistic regression models of main activity at age 18-19. The emerging message is that 1-4 GCSEs at grades A*-C is a plausible construction for the ‘middle’ category of moderately qualified young people.

Measure of Middle Category	Logistic regression model, in education age 16-17 Pseudo R²	Multinomial logistic regression model, main activity age 18-19 Pseudo R²
1-2 GCSEs at Grades A*-C	0.15	0.06
1-3 GCSEs at Grades A*-C	0.17	0.07
1-4 GCSEs at Grades A*-C	0.18	0.08
1-5 GCSEs at Grades A*-C	0.18	0.08
1-6 GCSEs at Grades A*-C	0.18	0.08
1-7 GCSEs at Grades A*-C	0.17	0.08

Table 6: Alternative Measures of ‘Middle’ Category GCSE Attainment Year 11

Note: Unweighted models that include the 3 category GCSE Year 11 attainment variable only

Figure 4 illustrates quite clearly that there has been improvement in GCSE performance over the decade. A smaller proportion of young people failed to achieve any GCSEs at grades A*-C in more recent years. At the other end of the continuum we also see improved performance by pupils in more recent YCS cohorts. Both the median and the mean number of GCSEs at grades A*-C rose over the decade. From a synoptic examination of Figure 4 it is not noticeable that there are clear clusters of GCSE attainment (at grades A*-C), with the exception of the spike at zero. This leads us to further question the validity of the theoretical idea of a ‘middle’, or moderate, level of attainment.

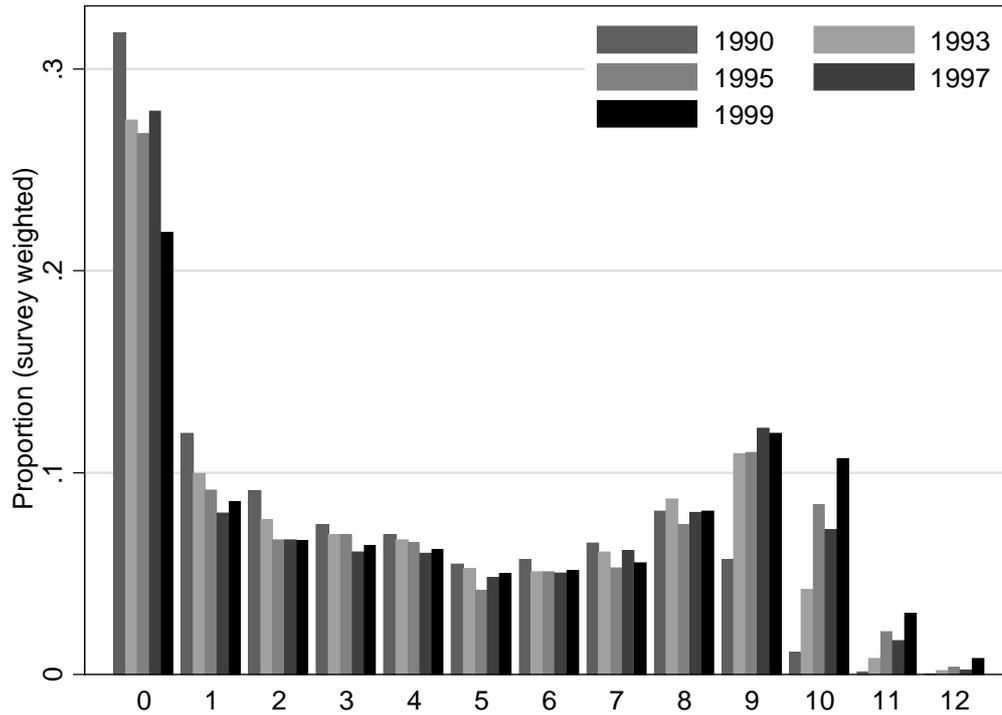


Figure 4: Number of GCSEs A* - C in Year 11 by YCS Cohort
Note: n=54,236

To explore this issue further Figure 5 reports the proportion of young people in education at age 16-17 by the number of A*-C grade GCSEs that they obtained in year 11. There was a positive relationship between the number of GCSEs at grades A*-C and participation in education at age 16-17. Those with no GCSEs had lower levels of participation, and this appears to be a distinctive group of young people. The ‘middle’ group with 1-4 GCSEs (marked with a Δ) do not appear to be tightly bunched and it is not obvious that they form a distinctive educational cluster.

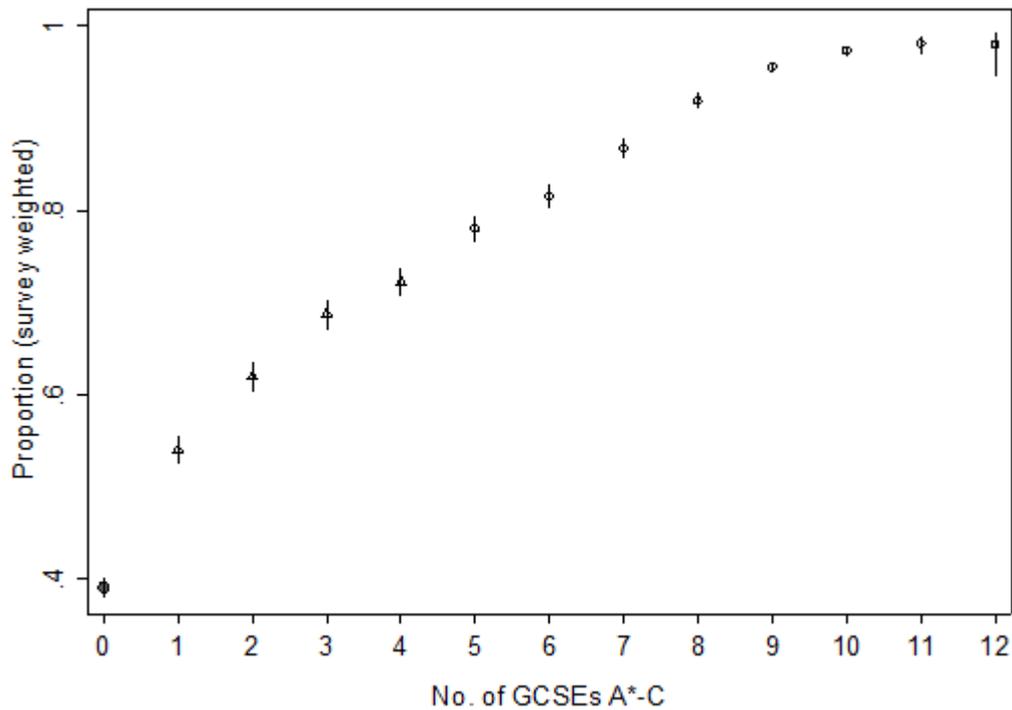


Figure 5: Proportion in Education Age 16-17 by Number of GCSEs A* - C in Year 11
Note: n=54,236; All YCS cohorts; Svy based confidence intervals

To formally investigate the ordinality of GCSE attainment we estimated a stereotype logistic regression model (see Anderson 1984; Lunt 2001)³. A model with the number of GCSEs at grades A*-C as the outcome was estimated which included YCS cohort, gender, ethnicity, housing tenure, household type, parental education and parental social classification as explanatory variables. This can be considered as a formal test of whether the linear predictor best discriminates the outcomes of the dependent variable. A parameter ϕ_k provides a measure of the distinguishability of categories in relation to the predictors. If the ϕ parameters for two categories are similar it is likely that the categories are indistinguishable (see Lunt 2001). The results from the model show a monotonic decline in ϕ for each additional GCSE at grades A*-C, and this is definite evidence of ordinality. We formally tested adjacent levels of GCSE attainment (i.e. the number at grades A*-C). The adjacent levels of attainment were all significantly different, with the exception of 4 GCSEs and 5 GCSEs at grades A*-C. We therefore conclude that the number of year 11 GCSEs attained at grades A*-C is

³ We do not report the full output of this model, which contains identical explanatory variables to the multinomial logistic regression models reported above. The full output is available from the authors by request.

appropriately considered as being ordinal, and there is no evidence of any clear clusters of attainment.

An obvious next stage is to consider year 11 GCSE attainment as being located on a continuum. Overall summary statistics of the number of GCSEs at grades A*-C and a measure of GCSE points score (which will be explained further below) are reported in Table 7.

The descriptive statistics reported in both Table 7 and Table 8 persuade us that it is worth examining the relationships between the explanatory variables and these two GCSE measures within a modelling framework. We will begin by modelling the number of GCSEs at grades A*-C. Standard linear regression analysis is not suitable for count data (Cameron and Trivedi 1998). Poisson regression models are routinely used but, as we have indicated there is an over-representation of zero counts (i.e. over 9,000 pupils with no GCSEs at grades A*-C). This limitation of a poisson approach is elaborated upon by Long (1997). The zero inflated poisson (ZIP) model overcomes this obstacle by modelling a two-state process (see Lambert 1992). In the present context this involves a logistic model which estimates the attainment of no GCSEs at grades A*-C, followed by a poisson model of the number of GCSEs at grades A*-C.

The zero inflated poisson model, Figure 9, indicates a pattern of inequality in year 11 GCSE attainment. Boys are more likely to gain zero GCSEs, there are some ethnic differences, and young people from more advantaged home backgrounds are less likely to have zero GCSEs at grades A*-C.

	Mean (Weighted)	S.E (Linearized)	95% Confidence Interval	
			lower	upper
Number of GCSEs at Grades A*-C	4.09	0.02	4.05	4.12
GCSE Points Score	35.19	0.08	35.03	35.36

Table 7: Summary Measures GCSE Attainment Year 11 (Number of GCSEs A*-C; GCSE Point Score)

	Mean Number of GCSEs Grades A*-C	Mean GCSE Point Score
YCS Cohort		
1990	3.17	28.60
1993	3.94	33.92
1995	4.28	37.11
1997	4.28	36.35
1999	4.83	40.49
Gender		
Female	4.56	37.42
Male	3.62	33.01
Ethnicity		
White	4.09	35.20
Black	3.20	30.91
Indian	4.51	37.86
Pakistani	3.08	30.63
Bangladeshi	3.74	32.95
Other Asian	5.37	41.11
Other	4.41	37.02
Housing Tenure		
Owned / Mortgage	4.51	37.41
Renters	2.22	25.44
Others	3.30	30.39
Household Type		
Mother and Father		
Mother Only	4.24	36.04
Father Only	3.58	32.44
Other Household	3.28	31.23
Parental Education		
Non-graduates	3.69	33.25
Graduates	5.90	44.11
Parents' Social Classification (NS-SEC)		
1.1 Large Employers and Higher Managerial Occupations	5.77	43.29
1.2 Higher Professional Occupations	6.45	46.48
2 Lower Managerial and Professional Occupations	5.16	40.42
3 Intermediate Occupations	4.33	36.71
4 Small Employers and Own Account Workers	3.33	31.50
5 Lower Supervisory and Technical Occupations	3.05	30.47
6 Semi-routine Occupations	2.59	28.12
7 Routine Occupations	2.06	24.43

Table 8: Mean GCSE Attainment Year 11 (Number of GCSEs A*-C; GCSE Point Score) by Respondent's Characteristics (Survey Weighted Means)

Given that a young person obtains some GCSEs at grades A*-C, the model suggests that the factors we have identified are important predictors of the number of GCSEs at grades A*-C achieved. Females perform better than males and there is an ethnicity related pattern to achievement. Pupils from more advantaged home backgrounds and those with more educated parents, perform better in year 11. Parental occupational position is important and pupils with parents in more advantaged occupations gain more GCSEs.

The model reported a significant Vuong test, and we therefore have solid grounds for favouring the zero inflated poisson model over a standard poisson model (see Vuong 1989). The modelling results persuade us that year 11 GCSE attainment is reasonably considered as being located on a continuum. We are progressively dissuaded that there are clear clusters or groups of GCSE attainment. Therefore we are increasingly sceptical that there is a 'middle' level of attainment that is characteristically different.

In the next stage of the analysis we further explore the idea of attainment being better understood as a location along a continuum. There are an infinite number of possible scores that could be assigned to the alphabetical grades ascribed to the levels of GCSE attainment. The point score deposited in the dataset summarizes overall GCSE attainment at the end of year 11. It was calculated by allocating 7 points for an A*/A, 6 points for a B, 5 points for a C, 4 points for a D, 3 points for an E, 2 points for a F, and 1 point for a G (Croxford *et al.* 2007 p.52). This scoring was in line with the Qualifications and Curriculum Authority (QCA) approach when the cross-cohort dataset was constructed. Because the A* grade was introduced midway through the data series, a grade A and a grade A* are awarded the same score. Yang and Woodhouse (2001) adopt the same strategy to splice GCSE data spanning the introduction of the A* grade.

Zero (inflated)	Beta	linearized S.E	t	p	95%	CI
YCS Cohort						
1990	0.00					
1993	-0.15	0.04	-3.99	<.01	-0.23	-0.08
1995	-0.19	0.04	-4.85	<.01	-0.26	-0.11
1997	-0.12	0.04	-3.19	<.01	-0.2	-0.05
1999	-0.43	0.05	-9.3	<.01	-0.52	-0.34
Gender						
Female	0.00					
Male	0.64	0.03	24.53	<.01	0.59	0.69
Ethnicity						
White	0.00					
Black	0.02	0.12	0.19	0.85	-0.21	0.25
Indian	-0.41	0.09	-4.33	<.01	-0.59	-0.22
Pakistani	-0.04	0.11	-0.36	0.72	-0.26	0.18
Bangladeshi	-0.71	0.22	-3.22	<.01	-1.15	-0.28
Other Asian	-0.99	0.19	-5.17	<.01	-1.36	-0.61
Other	-0.43	0.17	-2.55	0.01	-0.76	-0.10
Housing Tenure						
Owned / Mortgage	0.00					
Renters	0.67	0.03	19.84	<.01	0.60	0.74
Others	0.25	0.11	2.34	0.02	0.04	0.46
Household Type						
Mother and Father	0.00					
Mother Only	0.09	0.04	2.31	0.02	0.01	0.17
Father Only	0.28	0.07	3.83	<.01	0.14	0.42
Other Household	0.60	0.09	7.03	<.01	0.43	0.77
Parental Education						
Non-graduates	0.00					
Graduates	-0.39	0.04	-8.82	<.01	-0.48	-0.3
Parents' Social Classification (NS-SEC)						
1.1 Large Employers and Higher Managerial Occupations	-0.50	0.08	-6.36	<.01	-0.65	-0.35
1.2 Higher Professional Occupations	-0.79	0.08	-9.84	<.01	-0.95	-0.63
2 Lower Managerial and Professional Occupations	-0.24	0.05	-5.3	<.01	-0.33	-0.15
3 Intermediate Occupations	0.00					
4 Small Employers and Own Account Workers	0.47	0.04	10.84	<.01	0.38	0.55
5 Lower Supervisory and Technical Occupations	0.52	0.05	9.47	<.01	0.41	0.63
6 Semi-routine Occupations	0.71	0.05	15.46	<.01	0.62	0.79
7 Routine Occupations	0.93	0.05	18.03	<.01	0.83	1.03
Constant	-1.49	0.04	-34.71	<.01	-1.58	-1.41

Table 9: Zero Inflated Poisson Regression Model (Survey Weighted) GCSE Attainment Year 11 (Number of GCSEs at Grades A*-C)

Count GCSE(A*-C)	Beta	linearized S.E	t	p	95%	CI
YCS Cohort						
1990	0.00					
1993	0.16	0.01	17.02	<.01	0.14	0.17
1995	0.23	0.01	24.93	<.01	0.21	0.25
1997	0.24	0.01	27.02	<.01	0.22	0.26
1999	0.28	0.01	31.16	<.01	0.27	0.30
Gender						
Female	0.00					
Male	-0.10	0.01	-19.08	<.01	-0.11	-0.09
Ethnicity						
White	0.00					
Black	-0.17	0.03	-6.02	<.01	-0.22	-0.11
Indian	0.05	0.02	3.01	<.01	0.02	0.08
Pakistani	-0.12	0.03	-3.96	<.01	-0.18	-0.06
Bangladeshi	0.06	0.05	1.22	0.22	-0.04	0.16
Other Asian	0.15	0.02	6.32	<.01	0.11	0.20
Other	-0.02	0.03	-0.60	0.55	-0.07	0.04
Housing Tenure						
Owned / Mortgage	0.00					
Renters	-0.25	0.01	-22.23	<.01	-0.27	-0.23
Others	-0.07	0.03	-2.72	0.01	-0.12	-0.02
Household Type						
Mother and Father	0.00					
Mother Only	-0.02	0.01	-1.74	0.08	-0.03	0.00
Father Only	-0.08	0.02	-4.56	<.01	-0.12	-0.05
Other Household	-0.22	0.03	-7.34	<.01	-0.28	-0.16
Parental Education						
Non-graduates	0.00					
Graduates	0.13	0.01	20.47	<.01	0.12	0.14
Parents' Social Classification (NS-SEC)						
1.1 Large Employers and Higher Managerial Occupations	0.12	0.01	11.19	<.01	0.10	0.14
1.2 Higher Professional Occupations	0.16	0.01	16.42	<.01	0.14	0.18
2 Lower Managerial and Professional Occupations	0.07	0.01	9.14	<.01	0.06	0.09
3 Intermediate Occupations	0.00					
4 Small Employers and Own Account Workers	-0.12	0.01	-11.66	<.01	-0.14	-0.10
5 Lower Supervisory and Technical Occupations	-0.15	0.01	-10.59	<.01	-0.18	-0.12
6 Semi-routine Occupations	-0.22	0.01	-17.45	<.01	-0.24	-0.19
7 Routine Occupations	-0.28	0.02	-16.26	<.01	-0.31	-0.24
Constant	1.60	0.01	170.34	0.00	1.58	1.62

Table 9 (Continued): Zero Inflated Poisson Regression Model (Survey Weighted) GCSE Attainment Year 11 (Number of GCSEs at Grades A*-C)

Total number of observations	54,236
Non zero observations	44,862
Zero observations	9,374
Log likelihood (unweighted model)	-135485
Vuong test (unweighted model)	$z=73.6$; $p<.001$
BIC (unweighted model)	-15992

Table 9 (Continued): Zero Inflated Poisson Regression Model (Survey Weighted) GCSE Attainment Year 11 (Number of GCSEs at Grades A*-C)

We use a measure of GCSE attainment capped at 84 points (i.e. the equivalent of twelve GCSEs at grade A*/A). We chose this approach to limit the effects of pupils achieving higher scores simply as a function of having taken more GCSEs. Webber and Butler (2007) used a similar approach on the advice of DfES officials.

The Qualifications and Curriculum Authority have more recently developed a scoring system which awards an A* 58 points, an A 52 points, a B 46 points, a C 40 points, a D 34 points, an E 28 points, a F 22 points, and a G 16 points⁴. It is not possible to recode the GCSE scores in the SN5765 dataset onto the new QCA scale. We suspect that because the new and old scores for each GCSE grade are similarly spaced, the overall substantive interpretations of analyses that use the new scoring system will not be dramatically altered⁵.

The overall mean GCSE points score was 35.19 (see Table 7). There was not an extreme spike at zero points, and this is because many of the pupils that fail to achieve any GCSEs at grades A*-C are awarded points for subjects for which they gain awards at grades D-G. The linear regression model results are reported in Table 10. The overall pattern was one of increasing levels of attainment over the decade, however the now familiar, and dispiriting, pattern of educational inequality emerges. There was a significant gender gap and a mixed pattern of achievement across the minority ethnic groups. Young people with more educated parents scored higher on average, and pupils

⁴See: http://www.education.gov.uk/schools/performance/secondary_11/PointsScoreAllocation2011.pdf.

⁵ More recently some official statistics are capped at the level to the best eight GCSEs. Other alternative approaches have been employed for example Haque and Bell (2001) convert GCSE attainment into numerical scores (A*=8, A=7...U=0) and calculate a mean GCSE score for each pupil. They chose this approach because they believe that this helps to prevent discrimination against pupils who have taken fewer GCSEs as a result of their school's internal policy. Similarly we can envisage the use of other summary measures of overall attainment, for example median scores. Ideally, we would pursue sensitivity analyses of additional alternative GCSE attainment measures, but such measures cannot be derived from data within the SN5765 dataset.

from more advantaged home backgrounds also performed better. The effect of parental occupational positions was dramatic and those pupils with parents in less advantaged occupations performed significantly less well, *ceteris paribus*.

	Beta	linearized S.E.	t	p	95%	CI
YCS Cohort						
1990	0.00					
1993	4.78	0.22	21.78	<.01	4.35	5.21
1995	7.95	0.23	35.03	<.01	7.50	8.39
1997	7.21	0.23	31.68	<.01	6.76	7.65
1999	10.88	0.24	45.81	<.01	10.42	11.35
Gender						
Female	0.00					
Male	-4.73	0.15	-31.91	<.01	-5.02	-4.44
Ethnicity						
White	0.00					
Black	-3.43	0.65	-5.30	<.01	-4.71	-2.16
Indian	3.00	0.49	6.08	<.01	2.03	3.96
Pakistani	-2.01	0.64	-3.15	<.01	-3.27	-0.76
Bangladeshi	3.28	1.28	2.56	0.01	0.77	5.78
Other Asian	6.46	0.89	7.28	<.01	4.72	8.20
Other	0.84	0.81	1.04	0.30	-0.74	2.42
Housing Tenure						
Owned / Mortgage	0.00					
Renters	-7.37	0.21	-34.34	<.01	-7.79	-6.95
Others	-2.67	0.64	-4.19	<.01	-3.92	-1.42
Household Type						
Mother and Father	0.00					
Mother Only	-1.19	0.24	-4.93	<.01	-1.66	-0.72
Father Only	-2.94	0.44	-6.63	<.01	-3.80	-2.07
Other Household	-7.98	0.54	-14.84	<.01	-9.03	-6.92
Parental Education						
Non-graduates	0.00					
Graduates	4.95	0.22	22.56	<.01	4.52	5.38
Parents' Social Classification (NS-SEC)						
1.1 Large Employers and Higher Managerial Occupations	4.53	0.36	12.41	<.01	3.81	5.24
1.2 Higher Professional Occupations	6.44	0.33	19.50	<.01	5.80	7.09
2 Lower Managerial and Professional Occupations	2.43	0.24	9.97	<.01	1.95	2.90
3 Intermediate Occupations	0.00					
4 Small Employers and Own Account Workers	-4.72	0.26	-18.37	<.01	-5.22	-4.21
5 Lower Supervisory and Technical Occupations	-5.09	0.33	-15.47	<.01	-5.73	-4.44
6 Semi-routine Occupations	-6.96	0.28	-25.31	<.01	-7.50	-6.42
7 Routine Occupations	-9.14	0.32	-28.47	<.01	-9.77	-8.51
Constant	33.83	0.24	143.86	<.01	33.37	34.29

Table 10: Linear Regression Model (Survey Weighted) GCSE Attainment year 11 (GCSEs Point Score)

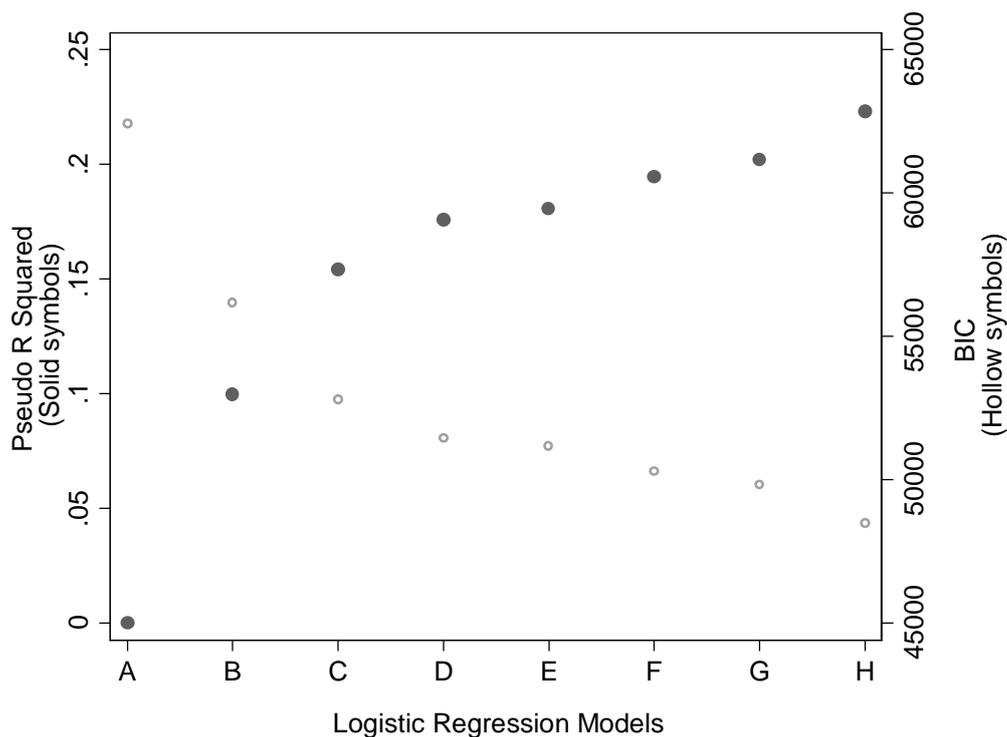
Total number of observations	54,236
R Squared (weighted model)	0.24
Log likelihood (unweighted model)	-223408
BIC (unweighted model)	-14762

Table 10 (Continued): Linear Regression Model (Survey Weighted) GCSE Attainment year 11 (GCSEs Point Score)

The results from the linear regression model of year 11 GCSE points score, additionally influences our view that GCSE attainment is better understood as a continuum. We would not wish to fall into the trap of naively comparing non-nested models with different functional forms. We do note that the R^2 value for the linear regression model was 0.24, and this is much higher than the Pseudo R^2 for the multinomial logistic regression model for the three categories of GCSE attainment and, for both the poisson and the zero inflated poisson model of the number of GCSEs at grades A*-C. Although these measures are not directly comparable they are nevertheless insightful.

As a final exploratory analysis we examine the relative explanatory power of some alternative measures of year 11 GCSE attainment for participation in education at age 16-17. Figure 6 reports the Pseudo R^2 values and BIC statistic (as a measure of parsimony) for six measures of GCSE attainment. The models with relatively crude binary measures, model B and model C, perform less well than model D which has three categories of GCSE attainment including the middle category of 1-4 GCSEs at grades A*-C.

In recent analysis Playford (2011) identifies two groups of pupils that have moderate levels of GCSE attainment. As a very initial exploration of this idea we also estimated model E which included two categories of moderate year 11 attainment, 1-3 GCSEs and 4-7 GCSEs at grades A*-C. Model E is an improvement on model D and is more parsimonious. Model F and Model G indicate the explanatory power of measures that locate GCSE attainment on a continuum, and the improved parsimony of these models is especially attractive.



Key to Logistic Regression Models;

Model A Null Model

Model B One or more GCSEs at grades A*-C (two category measure)

Model C Five or more GCSEs at grades A*-C (two category measure)

Model D Zero GCSEs at grades A*-C, 1-4 GCSEs at grades A*-C, 5+ GCSEs at grades A*-C (three category measure)

Model E Zero GCSEs at grades A*-C, 1-3 GCSEs at grades A*-C, 4-7 GCSEs at grades A*-C, 8+ GCSEs at grades A*-C (four category measure)

Model F Number of GCSEs at grades A*-C (continuous measure)

Model G GCSE points score (continuous measure)

Figure 6: GCSE Attainment Measures (Year 11) Participation in Education Age 16-17

4. CONCLUSION

School attainment plays a central and critical role in young people’s educational and employment trajectories. The 1990s are an important period that followed structural changes in the British secondary school system, including the introduction of GCSEs in England and Wales. This paper has set out the results of a series of explanatory analyses of year 11 GCSE attainment in the 1990s.

Official figures demonstrate that levels of school examination performance have increased (see DfES 2001). These improvements in performance were mirrored in the YCS data, but overall, GCSE attainment remained highly stratified. On average girls performed better than boys and there were some marked differences in

attainment for pupils from the main minority ethnic groups. A striking result is the impact of parental socio-economic positions and the other variables associated with the young person's home background. This is particularly important as much of the popular discourse associated with differences in school attainment focus on gender differences rather than differences between pupils from dissimilar social backgrounds. The overall message of educational inequality that persists in school GCSE attainment in the 1990s is particularly dismal.

We began the analysis with an open mind and, following Merton (1987), we have attempted to establish whether or not there is a distinctive middle level of school GCSE attainment, but our explorations leave us unconvinced. The evidence explored here persuades us that there were no crisp boundaries that demark a 'middle' category of moderate GCSE attainment. A sizeable proportion of young people failed to gain any GCSEs at grades A*-C however. This is obviously far short of the benchmark target and is consequential because those without school level qualifications usually have fewer choices and chances than their better qualified counterparts. Those that had no GCSEs at grades A*-C had lower levels of participation in post-compulsory education and a larger proportion were subsequently not in education, employment or training (NEET). There was a general pattern of disadvantage associated with these unqualified young people. This group consisted of more boys than girls, but more strikingly those from less advantaged home backgrounds were over-represented.

We did not detect any evidence that supported the idea that there was a burgeoning 'middle' group, despite improvements in GCSE attainment. We are persuaded that GCSE attainment is situated on a continuum. Whether measured by the number of GCSEs gained at grades A*-C or by a GCSE score, attainment was similarly stratified. With the exception of the sharp spike of young people that were unsuccessful in gaining any awards at grades A*-C, we fail to observe the presence of any clusters that indicate clear cohesive GCSE attainment groups. Therefore we suggest that researchers exercise a suitable degree of caution before making additional claims about the GCSE attainment of 'ordinary' young people.

Roberts (2011) calls for analyses of intermediate (or ordinary) groups that fall between the dualism of the successful and the unsuccessful groups. Our analysis convinces us that there are clear benefits to understanding school attainment on a continuum, and that measures which reflect the heterogeneity of GCSE performance as fully as possible (e.g. the number of GCSEs gained at grades A*-C, or a GCSE

score) should be preferred. In many social surveys only crude measures of educational attainment are available. For many analyses a categorical measure of GCSE school attainment will be adequate and functional. In such circumstances we recommend that categorical GCSE attainment measures should be understood as being more coarse groupings of a finer scale, rather than discrete substantively meaningful categories.

In conclusion, and on wider reflection, we believe that sociologists of youth should study 'ordinary' young people and moderate, or unspectacular, levels of educational attainment. There is much to be gained by understanding the educational experiences, characteristics and qualifications of young people across the full spectrum. Theoretically the conception of a 'middle' group of ordinary young people was initially intellectually attractive. Replicating our previous analysis using YCS data has been insightful and has allowed us to further investigate the concept of 'middle' levels of educational achievement with a larger dataset with more detailed information on GCSE attainment. The idea that school GCSE attainment is best understood as a continuum rather than three discrete clusters also emerges from our earlier analysis of the BHPS. The consistent finding leads us to believe that this is an 'empirical regularity' (see Goldthorpe 2000). Therefore we conclude that there is no persuasive evidence that there is a distinctive 'middle' level of school GCSE attainment.

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