

## Appendix 1: Technical details

**Table 1 List of survey sources, acronyms, & coverage**

Survey	Acronym/ short title	Time coverage (used here)	Geographical coverage	Sample coverage
British Household Panel Survey	BHPS	1994 - 2008	Britain (includes Northern Ireland after 1999)	Youth: ages 11-15 Parents: of those completing the youth survey
Understanding Society	USoc	2009 - 2014	UK	Youth: ages 10-15 Parents: of those completing the youth survey
Citizenship Survey	Citizenship	2003 - 2010	England and Wales	Adults: all those with children in household
Taking Part Survey	TPS	2005 - 2009	England and Wales	Adults: all those with children in household Youth: 11-15
National Child Development Survey	NCDS	1965 and 1969	Britain	(Parents of) 7-year olds and 11-year olds
British Cohort Study	BCS	1975, 1980, 1986	Britain	(Parents of) 5, 10 and 16-year olds
Millennium Cohort Study	MCS	2003, 2007, 2009, 2012	UK	(Parents of) 3, 7, 9 & 11-year olds
Next Steps <sup>1</sup>	Next Steps	2004 and 2013	England	(Parents of) 13 and 14-year olds
British Time Use studies	Time Use data	1975 - 2015	Britain	Parents of under-5s
Smoking, Drinking and Drug Use Among Young People in England	SDD	1999 - 2014	England	11-15 year olds

<sup>1</sup> Also known as the Longitudinal Study of Young People in England (LSYPE)

## Summary of datasets

### British Household Panel Study

The BHPS began in 1991 and panel members were re-interviewed every year for 18 years. The survey was representative of Britain in 1991<sup>2</sup> and includes around 10,000 individuals in 5,000 households. The sample was extended to include Northern Ireland and booster samples were added for Scotland and Wales in 1999. Even after these structural extensions, the sample is subject to year on year changes. Some sample members dropped out, and new members joined as they moved into homes with original sample members, or as children in the household became eligible for the adult questionnaire at age 16. The youth component was added in 1994 and 11-15 year-olds were eligible to complete the youth self-complete questionnaire. Average sample size is 1,000 youths in each wave. Cross-sectional weights are applied in the analysis; these include an adjustment for features predicting survey attrition as well as correcting for the oversampled regions.

### Understanding Society

Understanding Society (officially titled the UK Household Longitudinal Study), is a longitudinal survey of around 40,000 households (at Wave 1) in the United Kingdom. Households recruited are visited each year to collect information on changes to their household and individual circumstances. Data collection for each wave takes place over a 24 month period, but with a new wave of data collection commencing every year. There are five waves available for analysis: 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14. As for BHPS, our analysis is based on the youth sample, for which the average sample size is 3,700 per wave. We apply weights designed for cross-sectional analysis which adjust for unequal selection probabilities, differential nonresponse, and potential sampling error, and well as for the higher sampling fraction in Northern Ireland and for different probabilities of ethnic minorities.

### Citizenship Survey

The Citizenship Survey was intended to provide an evidence base on matters such as civic engagement and community cohesion. It began in 2001 and was repeated in 2003, 2005, 2007-8, 2008-9, 2009-10 and 2010-11 with a sample size of around 10,000 in each. The sample is designed to be representative of the population of adults aged 16 and over living in private residential accommodation in England and Wales. The Ethnic minority boost samples were dropped from the analysis. Weights correct for unequal probabilities of selection and provide some correction for non-response bias.

### Taking Part Survey

The Taking Part Surveys were commissioned by the Department for Culture, Media and Sport with the aim of providing data on participation, engagement and attitudes across many sectors. The sample is representative of England and the Postal Address File was used as the sample frame. In several waves, ethnic minority boosts were added to the random sample, though we drop the boost samples from our analysis. We use the adult surveys from 2006 and 2008 pooled to a single sample of 50,000 from which we derive a subsample of adults with children in the household, N = 15,000. Youth surveys were administered to children in a subset of households from the same years, N = 4,000

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<sup>2</sup> The BHPS sample does not reflect the demographic changes that have occurred since 1991; most notably perhaps, the increasing size of the minority ethnic population.

### **National Child Development Survey**

The National Child Development Study (NCDS) follows the lives of 17,000 people born in Britain in a single week of 1958. Data have been collected in a further nine sweeps including most recently in 2013. However, we are concerned with the second and third rounds from 1965 and 1969 when the children were aged 7 and 11. Interviews were conducted with a parent, which was almost always the mother, as well as public health officials and schools. Our analysis concerns questions answered by the mother. No weights are available.

### **British Cohort Study**

The British Cohort Study surveys 17,000 children who were born in England, Scotland and Wales in a single week in April 1970<sup>3</sup>. It began as a survey of child health and mortality and the first questionnaires were completed by the midwife present at the child's birth. The scope of the study widened in subsequent years to include a range of social, economic and education data. No weights are available in the BCS. Cohort members' parents were interviewed in the early waves and children were first interviewed in 1986 when they were 16 years old.

### **Millennium Cohort Study**

The Millennium Cohort Study is the most recent of the British cohort studies. It follows the lives of 19,000 children born in selected wards in the UK over a year-long period in 2000-02. Households in disadvantaged wards (based on the Child Poverty Index), the smaller countries of the UK and wards with high ethnic minority populations were over-sampled. Survey weights have been applied to adjust for this design. The sample includes children living in private households and non-household situations (for example, women's refuges, hostels, hospitals and prisons). The 'main parent' (almost always the mother) and her partner<sup>4</sup> (if applicable) were interviewed in person at home, and children and teachers were interviewed in later waves, although we do not use these data in this project.

### **Next Steps**

The Next Steps surveys comprise two cohorts of 13-14 year-old pupils attending secondary schools in England in 2004 ( $n=21,000$ ) and 2013 ( $n=18,000$ ). The sample includes pupils in state and independent schools and pupil referral units, and excludes children educated at home, those attending very small schools, boarders and children living in the UK for education only. Schools serving deprived populations (based on the proportion of pupils receiving free school meals) were over-sampled, as were ethnic minority groups within sampled schools. Survey weights have been applied to adjust for this design. Pupils and their parents were interviewed in person at home.

### **British Time Use studies**

The Time Use Surveys use a "time diary methodology". Unlike survey questionnaires, there are no questions, but respondents instead contemporaneously describe their day in their own words without being prompted about specific activities. The diaries are divided into half hour time slots covering main activity and limited secondary activity and diarists were asked to note which activities are at home, outside, and not at home. The samples for these surveys were designed to be representative of the UK population and were based on electoral registers in the early years and the postal address file in later years. Weights correct for non-response and to balance the distribution of diaries across the

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<sup>3</sup> Elliott, J. & Shepherd, S. (2006) Cohort Profile: 1970 British Birth Cohort (BCS70), *International Journal of Epidemiology*, 35:836–843.

<sup>4</sup> The partner was defined as the person the main parent lives with, who is not necessarily the child's biological father. Fathers living elsewhere are not interviewed.

days of the week and season of the year. The names of each of the Time Use Surveys and overall sample sizes are as follows:

1. The Use of Time in Great Britain Survey of 1961. Number of diarists = 2,363.
2. The People's Activities and Use of Time 1974-75. Number of diarists = 3,545.
3. SCPR Time Use Study Data 1983-84. Number of diarists = 1,601.
4. The National Survey of Time Use 2000-2001. Number of diarists = 11,667
5. United Kingdom Time Use Survey 2014-15. Note that we use the first release of data which is incomplete and additional weights account for sample imbalances.

We restrict our samples to men and women between the age of 20 and 55 with at least one child under the age of 5.

### **Smoking, Drinking and Drug Use among Young People in England**

These are repeated cross-sectional surveys of 11-15 year-old secondary school pupils in England. The sample includes pupils in state and independent school, and excludes children attending special schools and pupil referral units. Several revisions have been made to the sampling strategy; weights have therefore been applied to calibrate estimates to the school population by region, school year and sex. Self-completion questionnaires were used in a classroom setting overseen by researchers, not teachers, and parents were not surveyed.

## Social class

**Table 2 Summary of social class measures**

Analytic class	Example occupations	Notes
Higher managerial, administrative and professional occupations	Chief Executive, Doctor, Barrister, Dentist	
Lower managerial, administrative and professional occupations	Nurse, Actor, Journalist, Teacher	
Intermediate occupations	Fireman, Photographer, Airline Cabin Crew	
Small employers and own account workers	Builder, Hairdresser, Fisherman, Taxi driver	
Lower supervisory and technical occupations	Train Driver, Plumber, Electrician	
Semi-routine occupations	Postman, Care Assistant, Shop Assistant	
Routine occupations	Bus Driver, Refuse Collector, Waitress, Cleaner	
Not working		This includes those who are stay at home parents, students, retired, or unemployed

### Coding NS-SEC social class in the NCDS and BCS

The NCDS and BCS contain social class coded using the Registrar-General's Social Classes, while the later surveys contain operational categories of social class coded using the NS-SEC. These two classifications systems do not map onto one another so there is no clear way to translate between them. A project was undertaken to translate information on Registrar-General's Social Classes contained in the NCDS in waves 1 and 2 (1965 and 1969) and BCS in wave 3 (1980) into NS-SEC social class categorisations for families that were present in these waves<sup>5</sup>. This technique allows social class comparisons to be made between the NCDS and BCS and later datasets. It does however have some limitations: in wave 3 of the BCS, employment status codes are not available so NS-SEC operational categories were derived using the 'simplified' method, which reduces data quality. This information is also only available for wave 3 of the BCS, so analyses of outcomes by social class at wave 2 are restricted to families that are also present and supply social class information five years later, which assumes that social class and household composition is stable over this period. Missing data is also high and there is no separate 'not working' category.

<sup>5</sup> University of Bristol (2012) Occupational coding (SOC2000) NCDS and BCS70. Available at [http://doc.ukdataservice.ac.uk/doc/7023/mrdoc/pdf/ncds\\_bcs\\_occupation\\_coding.pdf](http://doc.ukdataservice.ac.uk/doc/7023/mrdoc/pdf/ncds_bcs_occupation_coding.pdf)

### Identifying class and education: The 'household dominance' approach

We take a 'household dominance' approach<sup>6</sup> to coding both social class and educational attainment. In two-parent households, the highest occupational class of either parent is assigned as *household class*, and the highest educational qualification is taken as the *household educational level*. This has the advantage that we treat the SES positions of mothers and fathers equally, and we are able to derive a single measure relating to the household in which the child is being raised. On the other hand, this coding approach means that a household where both parents are employed in higher professional positions, and a household in which one parent is higher professional while the other is in a routine job are treated as equal. This may not be the case; there may be a particular advantage to having two well-educated, or two professional parents rather than just one. A second example concerns the meaning of the "Not working" category, which captures parents who are unemployed, looking after the family, retired, students, or not working for another reason. This category might have variable consequences depending on the household configuration and circumstances; a household with both parents unemployed is likely to have quite different consequences to a household with a single stay-at-home parent<sup>7</sup>.

### Class and income

The social class schema in the British context does not correlate perfectly with earnings. It is possible for example that a school teacher (NS-SEC2: professional class) earns less than an electrician (NS-SEC 3: intermediate class). However, the teacher's position is salaried with regular predictable payments every month, the contract is likely to be permanent, and the risk of unemployment very low. Further, one in a professional career such as teaching has greater chances to 'progress' up the ladder, taking on new roles and responsibilities, each associated with incremental increases in earnings. The electrician, on the other hand, is possibly self-employed with no sick pay and little chance for promotion, with irregular earnings, and with greater risk during economic downturns. In short, though class is not an exact proxy for earnings, it has a strong economic basis and may well be a better measure of long-term access to economic resources than is current income on its own<sup>8</sup>.

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<sup>6</sup> Erikson, Robert. "Social class of men, women and families." *Sociology* (1984) 18. However, our coding does not take into account the relative earnings within the marital or cohabiting couple.

<sup>7</sup> See *State of the Nation 2015: Social Mobility and Child Poverty in Great Britain* Chapter 5 on the consequences for poverty, for example.

<sup>8</sup> Goldthorpe, John H., and Abigail McKnight. (2006) "The Economic Basis of Social Class." in *Mobility and Inequality: Frontiers of Research in Sociology and Economics*. Stanford University Press, California.

## Educational qualifications

**Table 3 Summary of education qualifications**

Qualification level	Academic qualifications	Vocational qualifications
Degree or equivalent	Doctorate, Bachelor's degree, Master's degree, postgraduate certificate, post-graduate diploma	Professional qualifications at degree level
Other Higher Education below degree	Foundation degree; Diploma in higher education	NVQ 4, NVQ 5, HNC, HND, Higher Level BTEC/RSA Higher Diploma
GCE A/AS levels and equivalent	Scottish Highers, Scottish Advanced Highers, AS-levels, A-levels, international baccalaureate, Welsh Advanced Baccalaureate, Scottish Certificate of Sixth Year Studies	NVQ 3, SVQ 3, GSVQ 3, GNVQ Advanced, GSVQ Level 3, OND, ONCM BTEC National, SCOTVEC National Certificate, City & Guilds advanced craft, Part III/RSA Advanced Diploma
GCSEs/O levels 5 at grades A*-C and equivalent	GCSEs/O levels - 5 at grade a*-c, SCE Standard grades, Ordinary grades 1-3, Junior Certificate grade A-C, Intermediate Welsh Baccalaureate	NVQ 2, SVQ 2, GSVQ 2, GNVQ Intermediate, Trade Apprenticeship, Modern Apprenticeship, BTEC, SCOTVEC first or general diploma, City & Guilds Craft or Part II/RSA Diploma
Lower grade GCSEs, no qualifications, 'other' including foreign qualifications	GCSEs/O levels below 5 a*-c; CSEs below grade 1, Junior Certificate below grade C, other 'low' qualifications; no qualifications; 'other' qualifications; foreign qualifications	NVQ 1, SVQ 1, GSVQ 1, GNVQ Foundation Level, BTEC, SCOTVEC first or general certificate, SCOTVEC modules, City & Guilds part 1/RSA Stage I,II,III/Junior certificate

## Interpreting risk ratios

The social class gradients for children's behavioural problems are represented using risk ratios. The bars for each social class group in Figures 26, 27 and 28 indicate risk ratios for each of our three cohorts. Risk ratios tell us how many times more likely it is that an event occurs (e.g. a child has a high degree of conduct problems) in one group compared with another group. In each case, the comparison (of how likely a child from that social class is to have a high degree of conduct problems) is between the social class group indicated, and the most advantaged group (higher managerial or professional). If the risk ratio is close to 1, this indicates that the risk is similar for the two groups. But if the risk of developing these problems is different for different classes, we will see high risk ratios reflecting this inequality. For example, a risk ratio of 2 means that an event is twice as likely to occur in this group as in the comparison group. By looking at the three different years in each case, we can see how inequalities have changed or stayed the same over time.

## Exceptions and proxy measures

In some surveys, we are unable to apply the standard measurements of occupation and education. In the earliest of the cohort studies, the NCDS, mothers' class is not recorded reflecting the norm of the time for mothers not to work. We therefore use father's class, rather than 'household' class. Further, in the early waves father's economic activity status is not recorded, so we are unable to distinguish the category of "Not working".

Educational attainment is also not available in the 1965 wave. Occupational class is not available in the Time Use Surveys, where we use parents' education instead. However, education was not consistently coded so we derive a variable based roughly on the most educated third and the least educated third. Other exceptions to the dominance approach include measures from the Taking Part Survey and the Citizenship Survey for which educational attainment is available only for the survey respondent (which can be either the mother or father), not the respondent's partner.

Finally, in the survey of Smoking, drinking and drug use among young people in England (SDD), we use a single proxy measure for social status: Free School meals (FSM)

FSM status is a proxy measure of poverty used in school-based surveys where more detailed measures of socioeconomic status are not available. Free school meals are available for school-age children in full-time education who are living in low-income families claiming selected benefits<sup>9</sup>. In 2015, 13.9 per cent of pupils at state-funded secondary schools in England claimed free school meals<sup>10</sup>. While FSM status broadly captures children living the lowest-income households, this measure has several limitations. FSM status is an imperfect proxy for children living in poverty: although median household incomes of children receiving FSM are substantially lower (£209 per week in 2004/5) than children not taking up FSM (£319 per week), the incomes of these two groups overlaps considerably. The concentration of FSM in workless families<sup>11</sup> means that relying on FSM status may underestimate levels of disadvantage among children in working households. Second, an estimated 11 per cent of eligible children do not claim FSM, weakening our ability to detect differences in FSM and non-FSM children.

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<sup>9</sup> Income Support, income-based Jobseekers Allowance, income-related Employment and Support Allowance, Child Tax Credit (subject to conditions), Working Tax Credit run-on, the guaranteed element of State Pension Credit, Universal Credit, or support under Part VI of the Immigration and Asylum Act 1999.

<sup>10</sup> Schools, Pupils and their Characteristics, DfE, 2015

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/433680/SFR16\\_2015\\_Main\\_Text.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/433680/SFR16_2015_Main_Text.pdf)

<sup>11</sup> Hobbs, G. & Vignoles, A. (2010) Is children's free school meal 'eligibility' a good proxy for family income? *British Educational Research Journal*, 36(4), 673-690. doi: 10.1080/01411920903083111



Finally, eligibility for FSM changes alongside wider changes to benefits, and although the proportion of pupils at state-funded secondary schools in England claiming free school meals was fairly stable through the study period (13-16 per cent of children), the composition of this group will change, so FSM status may not provide a comparable measure of material disadvantage over time.

## List of indicators

**Table 4 Indicators used in the British Household Panel Survey**

Indicator	Question text	Respondent	Child's age	Date
Families eating together	In the past 7 days how many times have you eaten an evening meal together with your family?	Child	11-15	1994-2008
Emotional support from parents	How often do you talk to your mother about things that matter to you?	Child	11-15	1994-2008
Emotional support from parents	How often do you talk to your father about things that matter to you?	Child	11-15	1994-2008
Parental monitoring	In the past month, how many times have you stayed out after 9.00pm at night without your parents knowing where you were?	Child	11-15	1994-2008
Friends' illegal drug use	Do any of your friends ever use illegal drugs, such as smoking cannabis, or taking ecstasy, cocaine, or crack?	Child	11-15	1994-2008
Monitoring homework	Some parents keep an eye on their children's schoolwork on a regular basis, some on an occasional basis, while some parents prefer to leave children to work on their own. Which do you do?	Adult (mothers and fathers separately)	All	1994-1998
Civic participation	Do you join in the activities of any of the organisations on this card on a regular basis? (All and Parents'/School Association)	Adult	All	1994-2008

**Table 5 Indicators used in Understanding Society**

Indicator	Question text	Respondent	Child's age	Date
Families eating together	In the past 7 days how many times have you eaten an evening meal together with the rest of your family who live with you?	Child	11-15	2009-2014
Emotional support from parents	How often do you talk to your mother about things that matter to you?	Child	11-15	2009-2014
Emotional support from parents	How often do you talk to your father about things that matter to you?	Child	11-15	2009-2014
Parental monitoring	In the past month, how many times have you stayed out after 9.00pm at night without your parents knowing where you were?	Child	11-15	2009-2014
Helping with homework	How often do you help your child/children with his/her/their homework? Do you help...	Adult (mothers and fathers (separately))	All	2009, 2011, 2013
Civic participation	Whether you are a member or not, do you join in the activities of any of these organisations on a regular basis? (All and Parents'/School Association)	Adult	All	2012
Neighbourhood trust	People in this neighbourhood can be trusted. 1 Strongly agree 2 Agree 3 Neither agree nor disagree 4 Disagree 5 Strongly disagree	Adult	All	2012

**Table 6 Indicators used in the Citizenship Survey**

Indicator	Question text	Respondent	Child's age	Date
Receiving advice on parenting	I am going to show you a list of people who can give advice about bringing up children. Have any of these given you advice about your child(ren) in the last 12 months? GP/ Health visitor/Nurse/ Midwife/ Social worker/ Religious org/ School College/ Parenting group/ Pre-school group etc. / Parentline Plus/ Other helplines/ Voluntary/ Community orgs/ National Family and Parenting Institute/ Youth Offending Team/ Child and Adolescent Mental Health Services	Adult (either parent)	All	2003
Would like parenting advice	What topics would you like advice or information about? Education provision (nursery, school, college) (2) Career development, jobs (3) Childcare (4) Parenting skills /child development (5) Drugs (6) Other health issues (feeding, diet, smoking, drinking, sex) (7) Bullying /being bullied (8) Anti-social behaviour (9) Other behaviour problems (tantrums, truanting)	Adult (either parent)	All	2003
Parents' social networks	What proportion of your friends have similar incomes to you?	Adult (either parent)	All	2005, 2007, 2008-9, 2009-10

**Table 7 Indicators used in the Taking Part Survey**

Indicator	Question text	Respondent	Child's age	Date
Parents' social networks	On this screen is a list of jobs. Please tell me whether you happen to know anyone socially who has any of these jobs? Please include friends and relatives. 1. Secretary 2. Solicitor 3. Clerical officer in national or local government 4. Bus or coach driver 5. Bank or building society manager 6. Factory worker 7. University/ college lecturer 8. Electrician 9. Nurse 10. Sales or shop assistant 11. Postal worker 12. None of these	Adult (either parent)	All	2006-7, 2007-8
Doing sport	During the last four weeks, have you done any sports activities? Which ones have you done out of school lessons? This includes break time, lunchtime, after school, at the weekend and during school holidays. Include any activities organised by the school out of school lessons.	Child	11-15	2006, 2008
Going to museums/ galleries	In the last year, have you been to a museum or gallery out of school lessons?	Child	11-15	2006, 2008
Visiting historical places	In the last year, have you visited any of these places? 1. A city or town with historic character 2. A historic building open to the public 3. A historic park, garden or landscape open to the public 4. A place connected with industrial history 5. A historic place of worship attended as a visitor 6. A monument such as a castle, fort or ruin 7. A site of archaeological interest 8. A site connected with sports heritage	Child	11-15	2006, 2008
Arts attendance	In the last year, have you been to any of these events? 1. Film at a cinema or other venue 2. Exhibition or collection of art, photography etc. 3. Craft exhibition 4. Street arts 5. Circus 6. Carnival etc. 7. Theatre 8. Musical performance	Child	11-15	2006, 2008
Would like to do activities (sport/ library/ museums/ historical places/ arts)	You said that you had not [done any sports activities/ visited a library/ museum/ historical places/ attended an arts event] out of school lessons in the last year, would you like to do any?	Child	11-15	2006, 2008
Barriers to participation	What is stopping you from doing any of these activities?	Child	11-15	2006, 2008

**Table 8 Indicators used in the National Child Development Study**

Indicator	Question text	Respondent	Child's age	Date
Reading with child	Does either parent read to, or read with, the child? (answered separately for mothers and fathers)	Adult (usually mother)	7	1965
Walks and outings with child	Enquire if either parent goes out with the child for walks, picnics, visits. (answered separately for mothers and fathers)	Adult (usually mother)	11	1969
Library visits	Excluding holidays away from home, are the following available and has child used them in his/her spare time over the last 12 months? A public library	Adult (usually mother)	11	1969
Going swimming	Excluding holidays away from home, are the following available and has child used them in his/her spare time over the last 12 months? A swimming or paddling place.	Adult (usually mother)	11	1969
Cinema trips	Excluding holidays away from home, are the following available and has child used them in his/her spare time over the last 12 months? A cinema or other place to watch films	Adult (usually mother)	11	1969
Behavioural problems	Rutter behaviour scales	Adult (usually mother)	11	1969

**Table 9 Indicators used in the British Cohort Study**

Indicator	Question text	Respondent	Child's age	Date
Walks	As a family how often do you do any of the following with your child: Go out for walks together	Mother	10	1980
Outings	As a family how often do you do any of the following with your child: Go for outings together	Mother	10	1980
Reading	On how many days has [child] been read to at home in the past 7 days?	Mother	5	1975 <sup>12</sup>
Behavioural problems	Rutter behaviour scales	Mother	10	1980

<sup>12</sup> Wave 2 used social class information from wave 3 because this is only available for wave 3. Analyses therefore exclude children who were included in the survey at wave 2 but not wave 3 as social class information is not available for these children.

**Table 10 Indicators used in the Millennium Cohort Study**

Indicator	Question text	Respondent	Child's age	Date
Library visits	Over the past 12 months, that is since [date], how often has [child] been to a library (not a school library)?	Main respondent	11	2012
Reading to children	How often do you read to [child]?	Main respondent; partner	6	2006
Attending plays	Over the past 12 months, that is since [date], which, if any, of the places on this card has [child] been to? Play, pantomime, music concert, circus or other live show	Main respondent	6, 8	2006, 2008
Gallery visits	Over the past 12 months, that is since [date], which, if any, of the places on this card has [child] been to? Art gallery, museum or historical site	Main respondent	6, 8	2006, 2008
Zoo visits	Over the past 12 months, that is since [date], which, if any, of the places on this card has [child] been to? Zoo, aquarium, wildlife reserve or farm	Main respondent	6, 8	2006, 2008
Funfair visits	Over the past 12 months, that is since [date], which, if any, of the places on this card has [child] been to? Theme park or funfair	Main respondent	6, 8	2006, 2008
Cinema visits	Over the past 12 months, that is since [date], which, if any, of the places on this card has [child] been to? Cinema	Main respondent	6, 8	2006, 2008
Attending sporting events	Over the past 12 months, that is since [date], which, if any, of the places on this card has [child] been to? Professional sporting event as a spectator	Main respondent	6, 8	2006, 2008
Sports and exercise	Now some questions about things that [child] might do outside school lessons, but including at lunchtimes, breakfast and after-school clubs as well as at other times. How many days a week does [Cohort child's name] usually go to a club or class to do sport or any other physical activity like swimming, gymnastics, football, dancing etc.?	Main respondent	6, 8, 11	2006, 2008, 2012
Barriers to participation <sup>13</sup>	Do you feel that [child] doesn't go to these kinds of clubs or classes more often for any of these reasons?		8	2008

<sup>13</sup> Asked if parents stated that their child attended clubs or classes for sports or physical activity less than once a week or not at all.

Mother's interest in child's education	How interested would you say this child's parents or parent figures appear to be in his or her education?	Child's teacher	11	2012
Father's interest in child's education	How interested would you say this child's parents or parent figures appear to be in his or her education?	Child's teacher	11	2012
Parents' interest in child's education	How often do your parents take an interest in your school work?	Child	11	2012
Behavioural problems	Strengths and Difficulties Questionnaire	Main respondent	11	2012

**Table 11 Indicators used in Next Steps**

Indicator	Question text	Respondent	Child's age	Date
Truancy	In the last 12 months, have you ever played truant, that is missed school without permission, even if it was only for a half day or a single lesson?	Young person	13-14	2004, 2013
School exclusions	Has [young person] ever been temporarily excluded, that is suspended, from a school for a time?	Main respondent	13-14	2004, 2013
Talking with parents about school	How often would you say that your parents <sup>14</sup> talk to you about the day's events at school?	Young person	13-14	2004, 2013
Parents knowing where children are	How often do your parents know where you are when you go out in the evening? <sup>15</sup>	Young person	13-14	2004, 2013
Help with homework	Does anyone here at home help you with your homework, even if it's only occasionally?	Young person	13-14	2004, 2013
Homework checking	Does anyone at home make sure that you do your homework? <sup>16</sup>	Young person	13-14	2004, 2013
Parents evening attendance	Thinking about the last 12 months, have you (or your husband/or your wife/or your partner/ex-partner) gone to any parents' evenings or similar events at [child]s school?	Main respondent	13-14	2004, 2013

<sup>14</sup> In 2013 this read 'parents/guardians'

<sup>15</sup> In 2013 this read 'parents/guardians'

<sup>16</sup> In 2013 this was phrased 'How often does anyone at home make sure that you do your homework?'



**Table 12 Indicators used in the British Time Use studies**

Indicator	Question text	Respondent	Child's age	Date
Developmental childcare	Developmental childcare refers to the total minutes spent in childcare activities that are particularly salient for children's social and cognitive skills development such as reading or talking to children, teaching, and playing with children	Mothers and fathers with a child under the age 5	Child is under the age of five	1961, 1974-75, 1983-85, 2000-01 and 2014-15

**Table 13 Indicators used in Smoking, Drinking and Drug Use Among Young People in England**

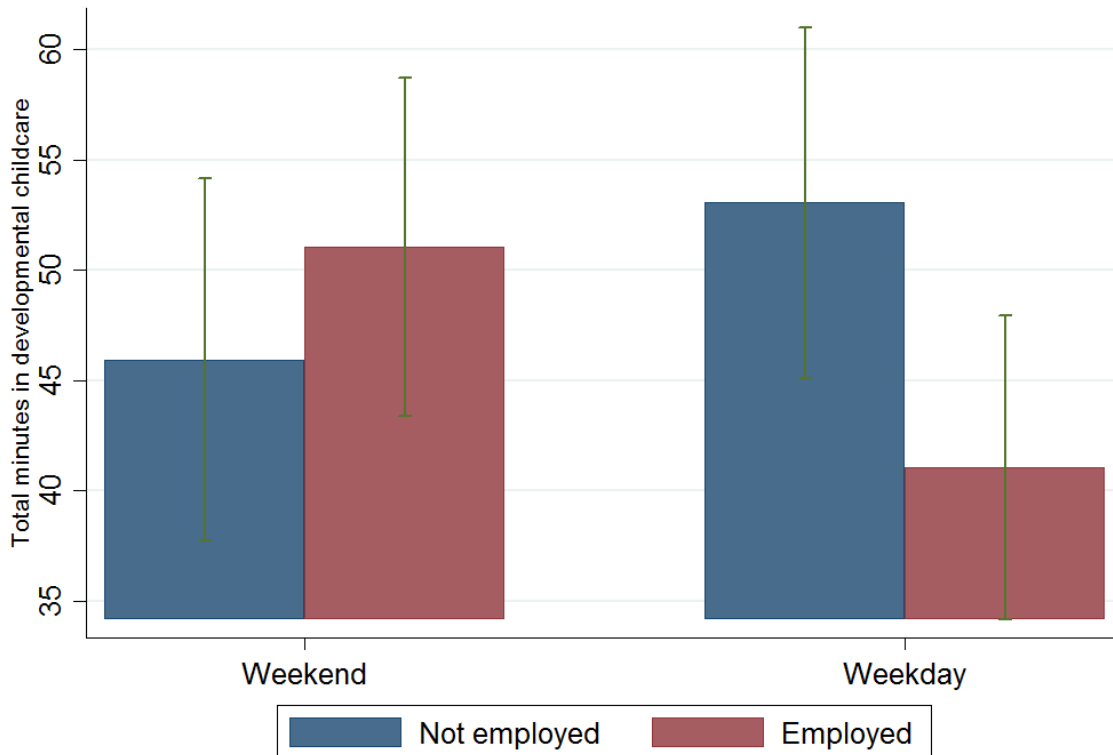
Indicator	Question text	Respondent	Child's age	Date
Truancy	Have you ever stayed away from school without permission (truanted/bunked off)?	Child	11-15	1999-2014
School exclusions	Have you ever been excluded from school?	Child	11-15	1999-2014
Smoking	Derived from description of smoking status where 'regular' smoking means usually smoking at least one cigarette per week, and 'occasional' smoking means usually smoking less than one cigarette per week	Child	11-15	1999-2014
Drinking alcohol in the past month <sup>17</sup>	When did you <b>last</b> have an alcoholic drink? [identified those who drank in the last month]	Child	11-15	2001-2014
Use of illegal drugs <sup>18</sup>	Have you ever tried amphetamines, cannabis, cocaine, crack, ecstasy, heroin, ketamine, LSD, magic mushrooms, mephedrone, methadone, poppers (e.g. amyl nitrite), tranquillisers, volatile substances such as gas, glue, aerosols and other solvents, and 'other' drugs (not obtained from a doctor or chemist) (even if only once)?	Child	11-15	2001-2014
Being offered illegal drugs	Have you ever been offered amphetamines, cannabis, cocaine, crack, ecstasy, heroin, ketamine, LSD, magic mushrooms, mephedrone, methadone, poppers (e.g. amyl nitrite), tranquillisers, volatile substances such as gas, glue, aerosols and other solvents, and 'other' drugs (not obtained from a doctor or chemist)	Child	11-15	2001-2014

<sup>17</sup> Available from 1999 onwards but the response options in 1999 and 2000 are different to those from 2001 onwards, making the time series incomparable

<sup>18</sup> Questions on drug taking are available from 2000 onwards but the 2000 data have an unconvincingly low prevalence of drug taking which seems unreliable.

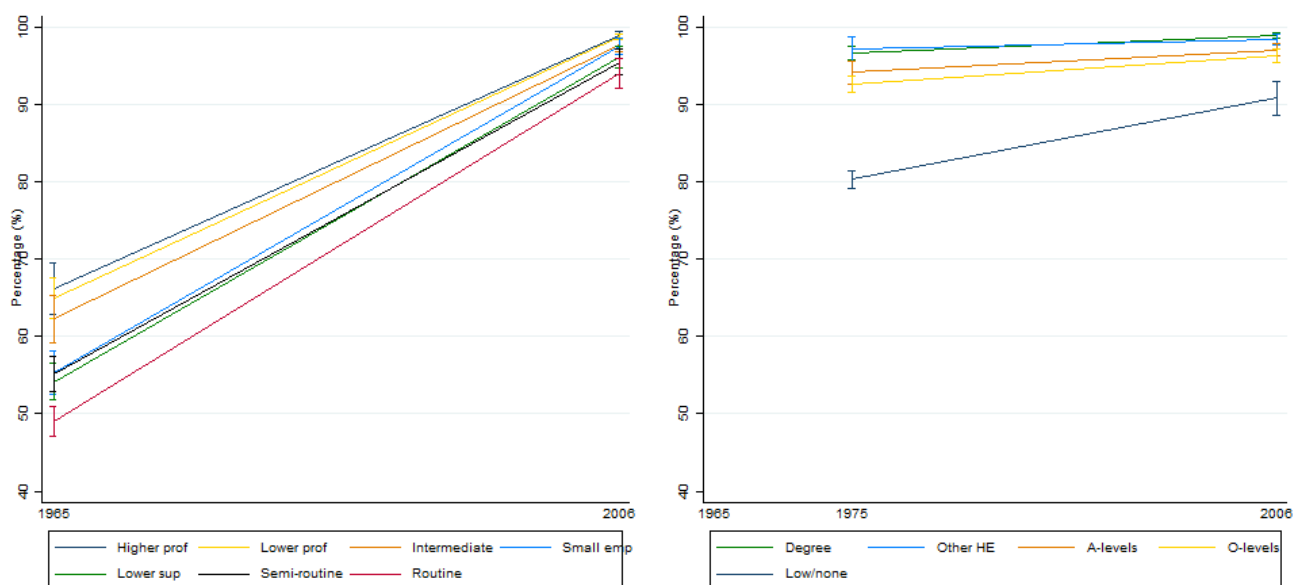
## Appendix 2: Further analyses of parental engagement: cognitive behaviours

**Figure 1: Time spent on developmental childcare in 2015 did not vary significantly by mothers' employment status**



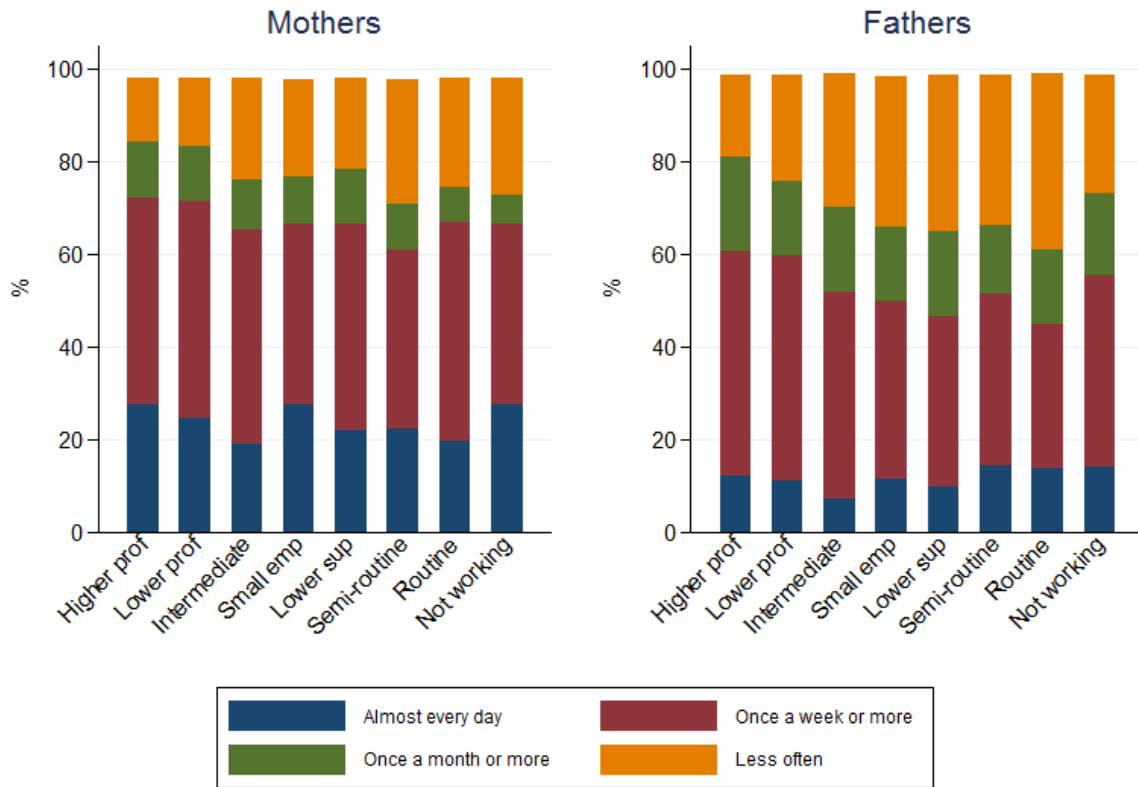
Source: British Time Use Study, 2014-15, Britain

**Figure 2: Reading to children increased and socioeconomic gradients in reading have narrowed**



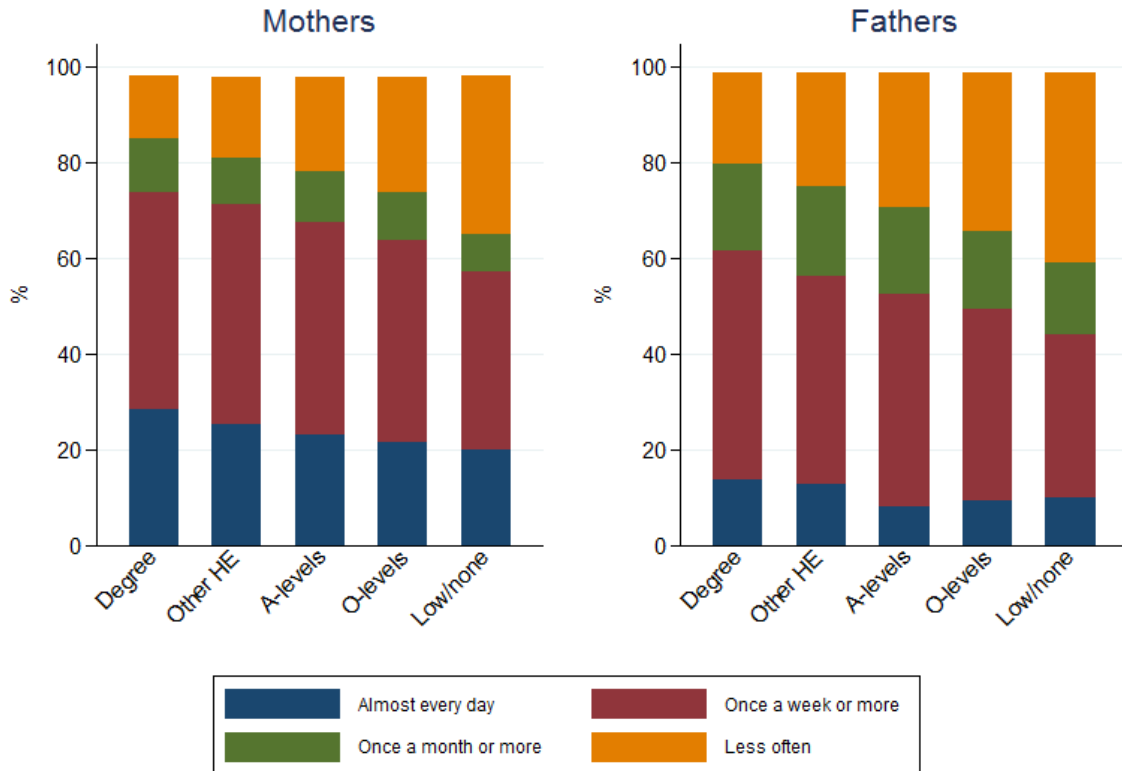
Sources: NCDS, 1965, Britain; BCS, 1975, Britain; MCS, 2006, UK

**Figure 3 Mothers and fathers helping with homework follow social class gradients**



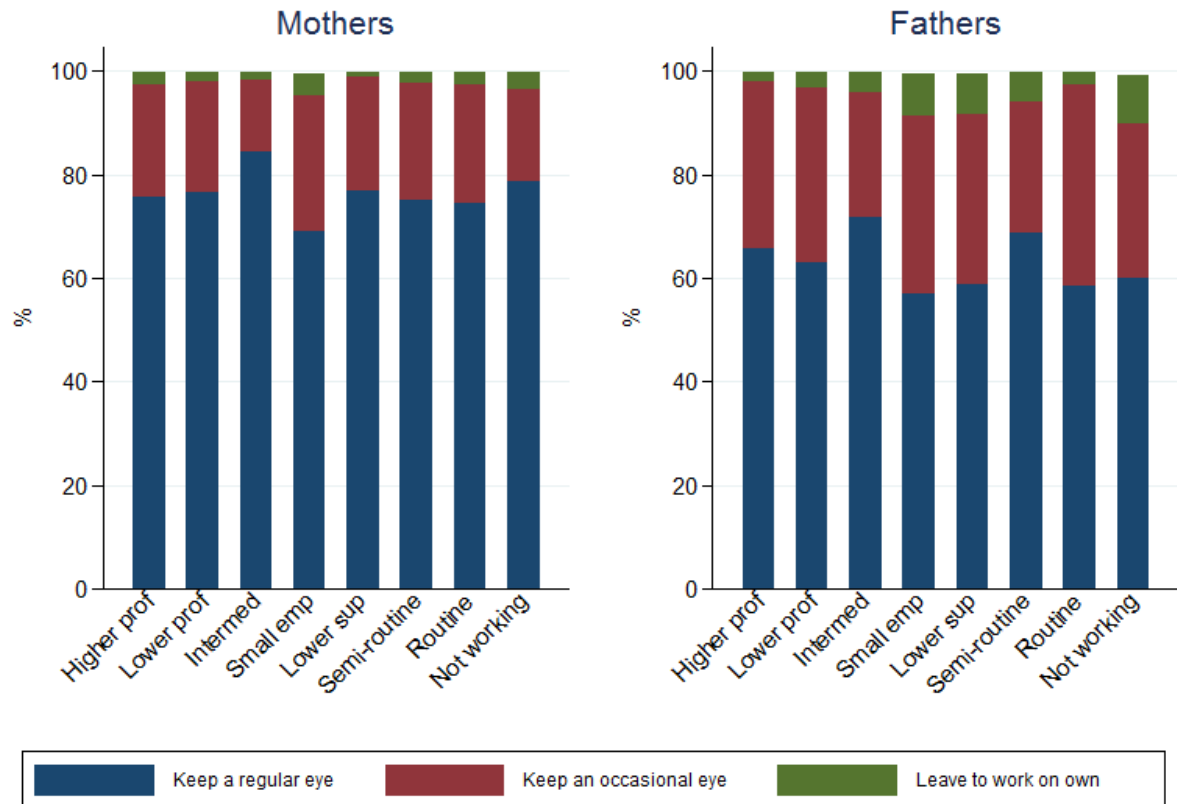
Source: USoc, 2009-2013, UK

**Figure 4 Mothers and fathers helping with homework follow education gradients**



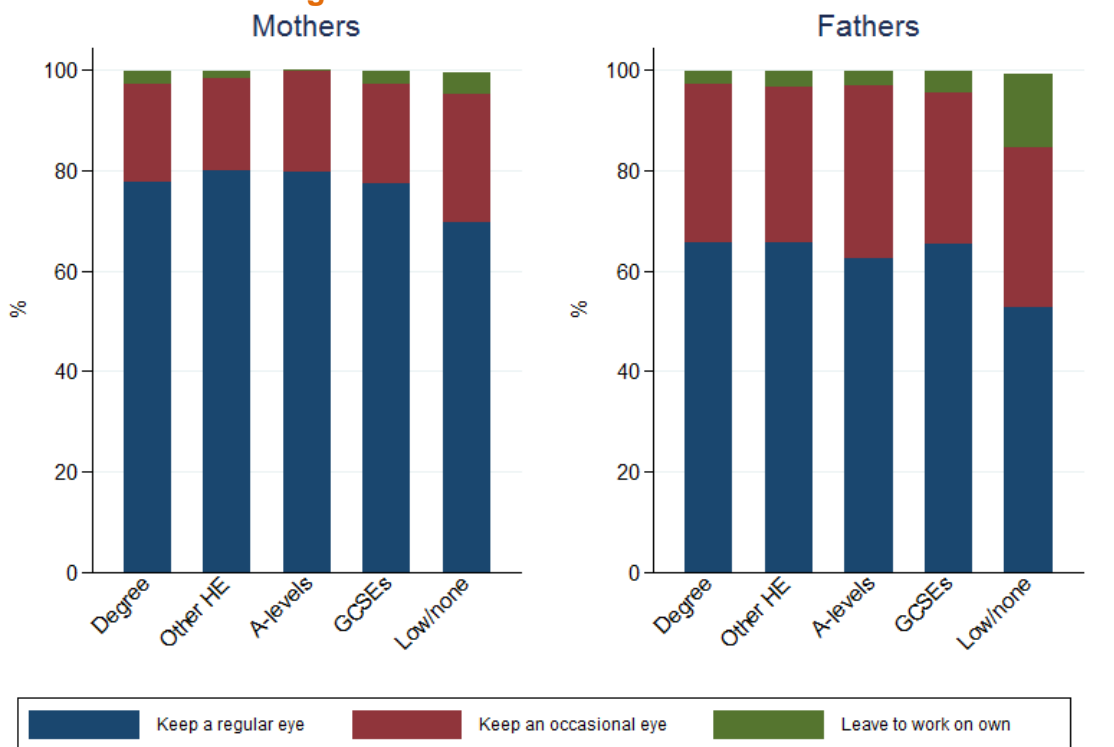
Source: USoc, 2009-2013, UK

**Figure 5: Mothers and fathers monitoring children's homework did not follow a clear social class gradient in the mid-1990s**



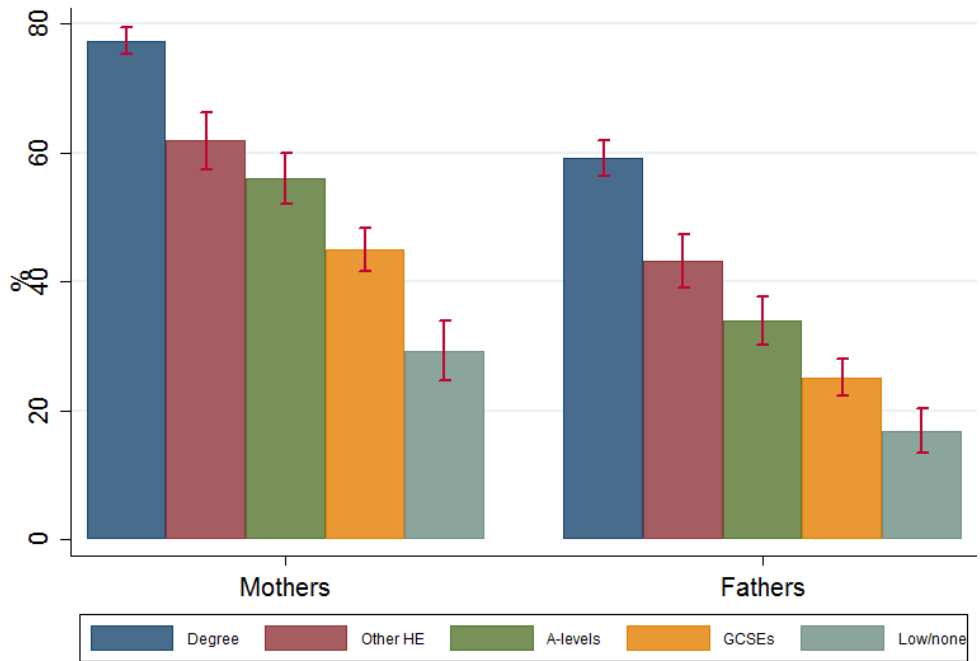
Source: BHPS, 1995-1998, UK

**Figure 6: Mothers and fathers monitoring children's homework followed a weak education gradient in the mid-1990s**



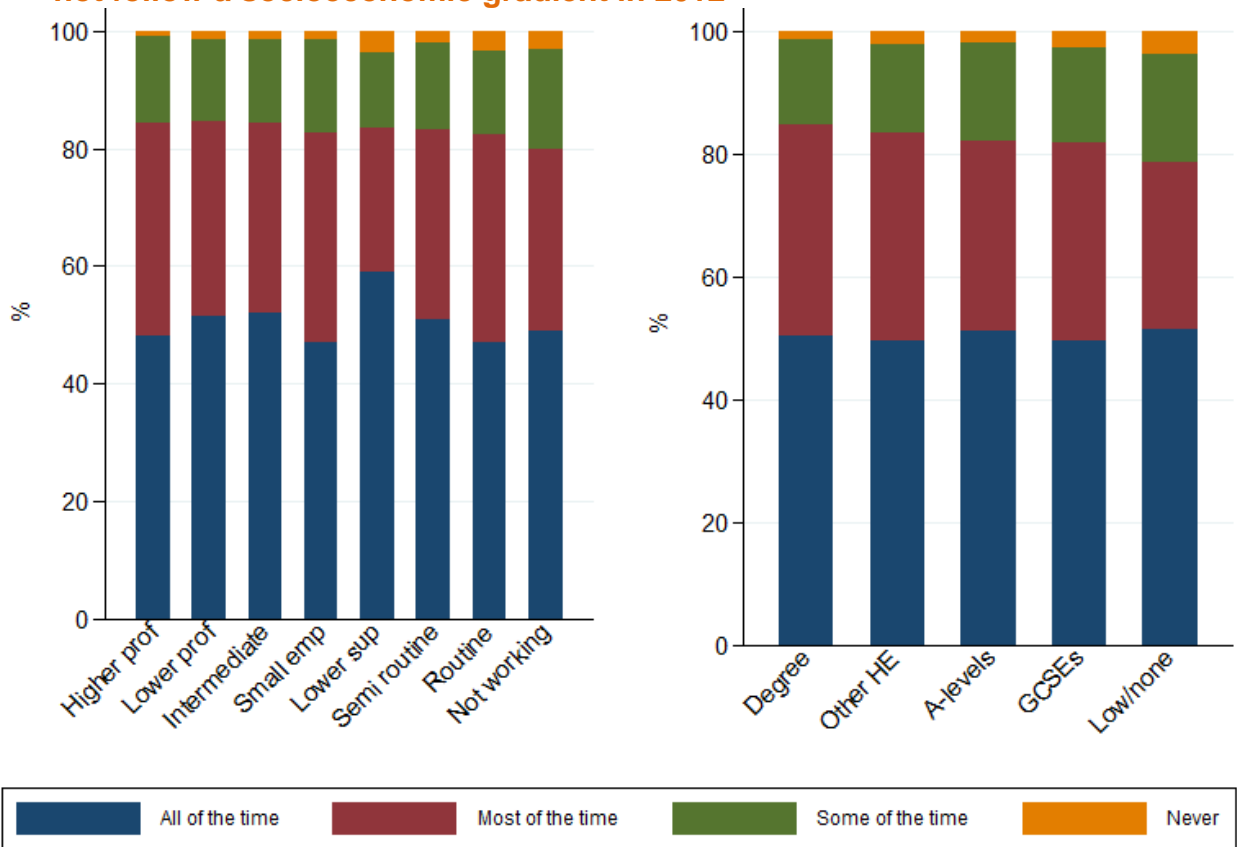
Source: BHPS, 1995-1998, UK

**Figure 7: Teachers' ratings of parents' interest in their children's education follows an education gradient in 2012**



Source: MCS, 2012, UK

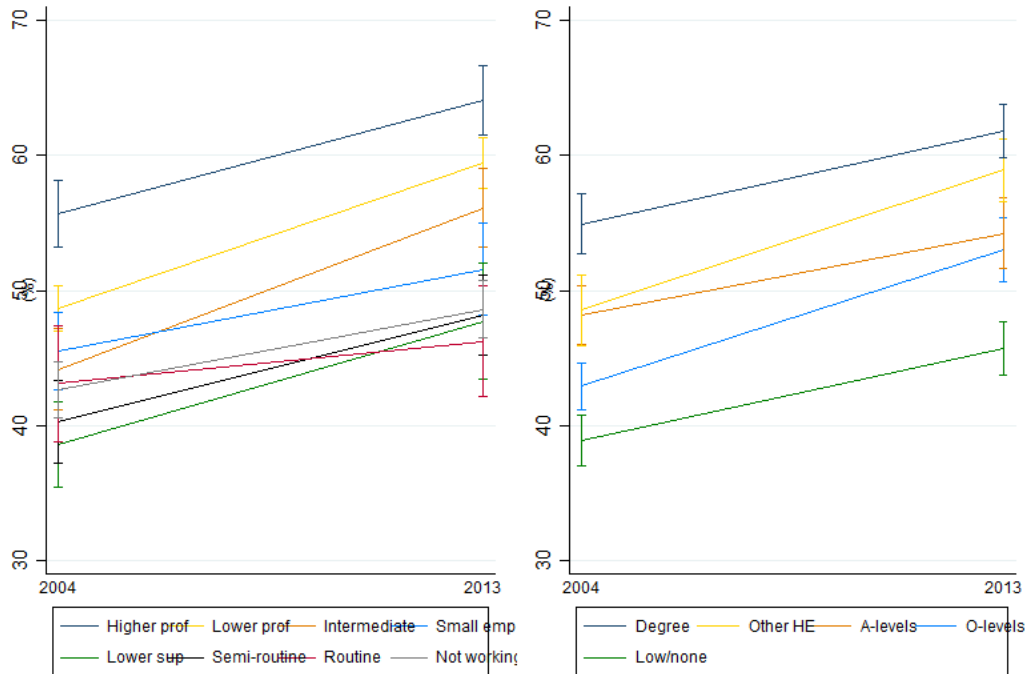
**Figure 8: Children's ratings of parents' interest in their own education does not follow a socioeconomic gradient in 2012**



Source: MCS, 2012, UK

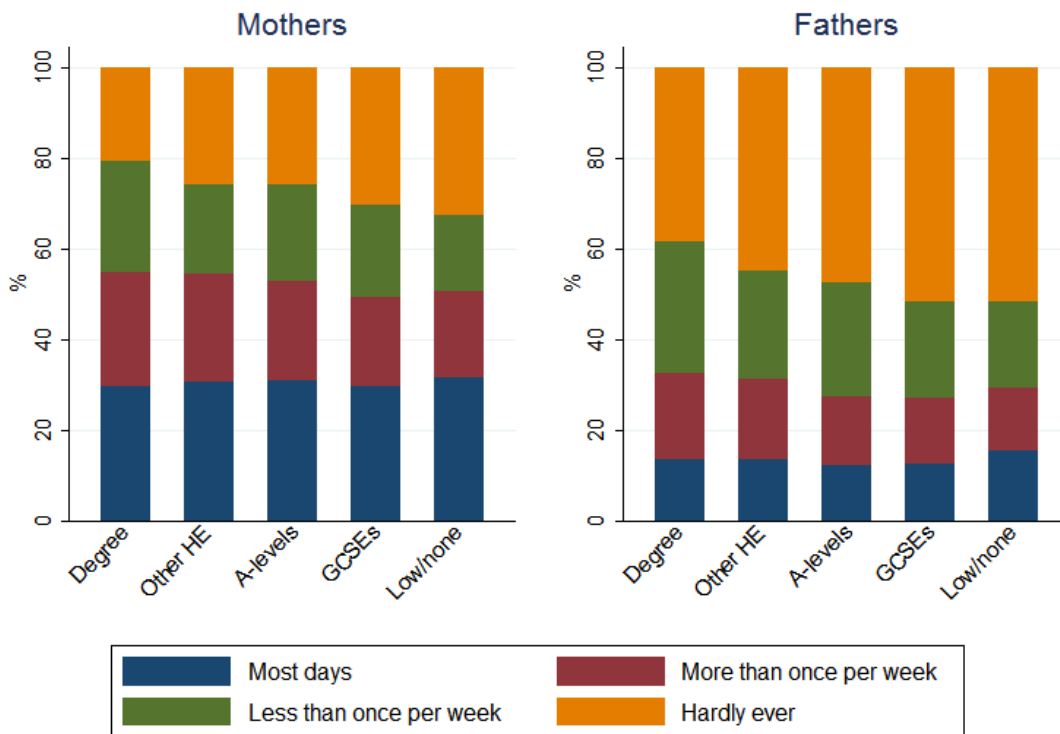
## Appendix 3: Further analyses of parental engagement: communication

**Figure 9 Levels of 13-14 year-old children “often” talking to parents about their day at school increased, and weak socioeconomic gradients in talking to parents persisted between 2004 and 2013**



Source: Next Steps, 2004 and 2013, England

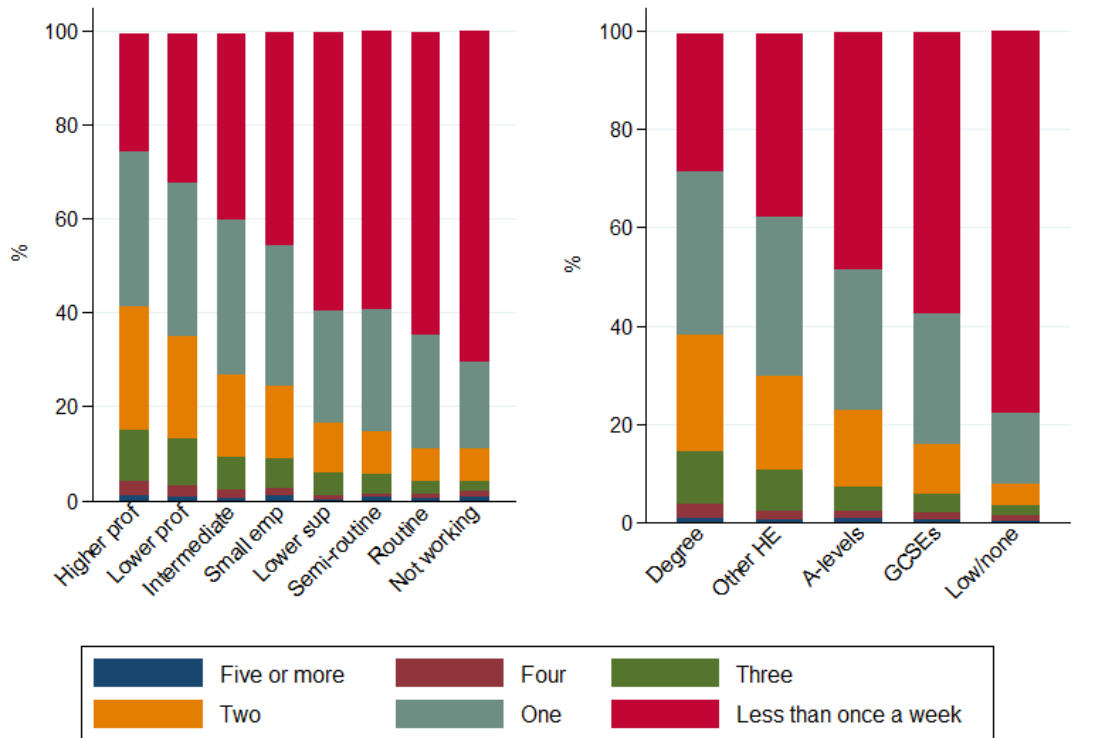
**Figure 10 There is an education gradient in 11-15 year-old children “hardly ever” talking to their parents about things that matter**



Source: BHPS, 1991-2008, UK

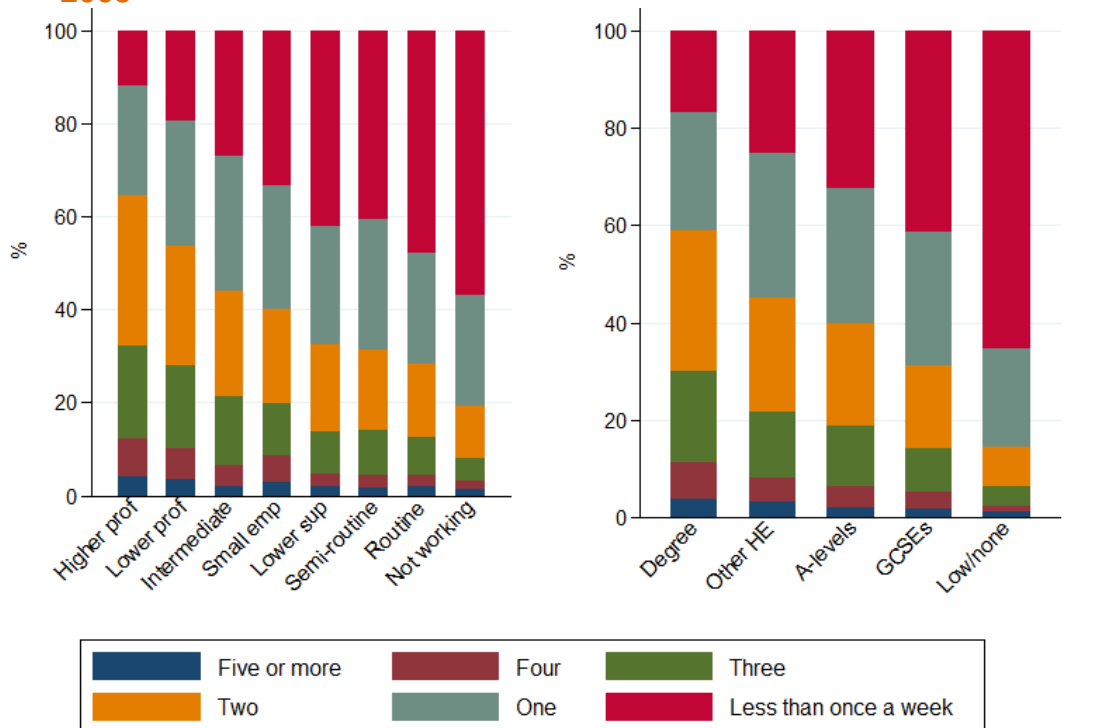
## Appendix 4: Further analyses of parental engagement: physical activity

**Figure 11: 6-year-olds playing sport followed socioeconomic gradients in 2006**



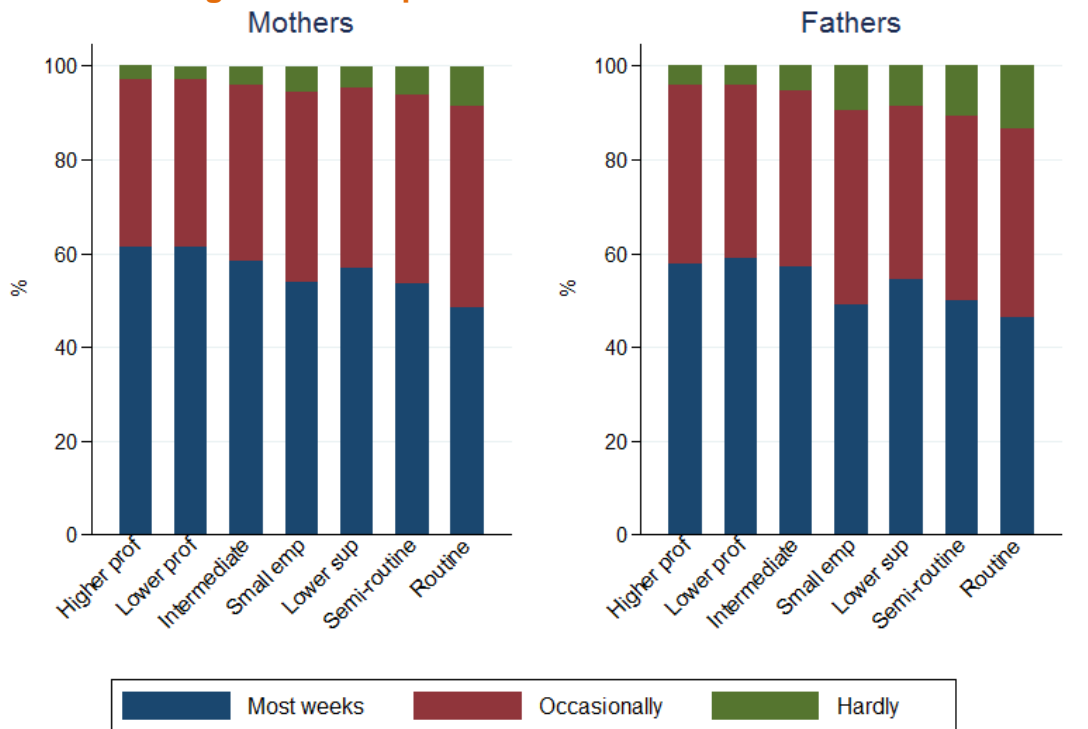
Source: MCS, 2006, UK

**Figure 12: 8-year-olds playing sport followed socioeconomic gradients in 2008**



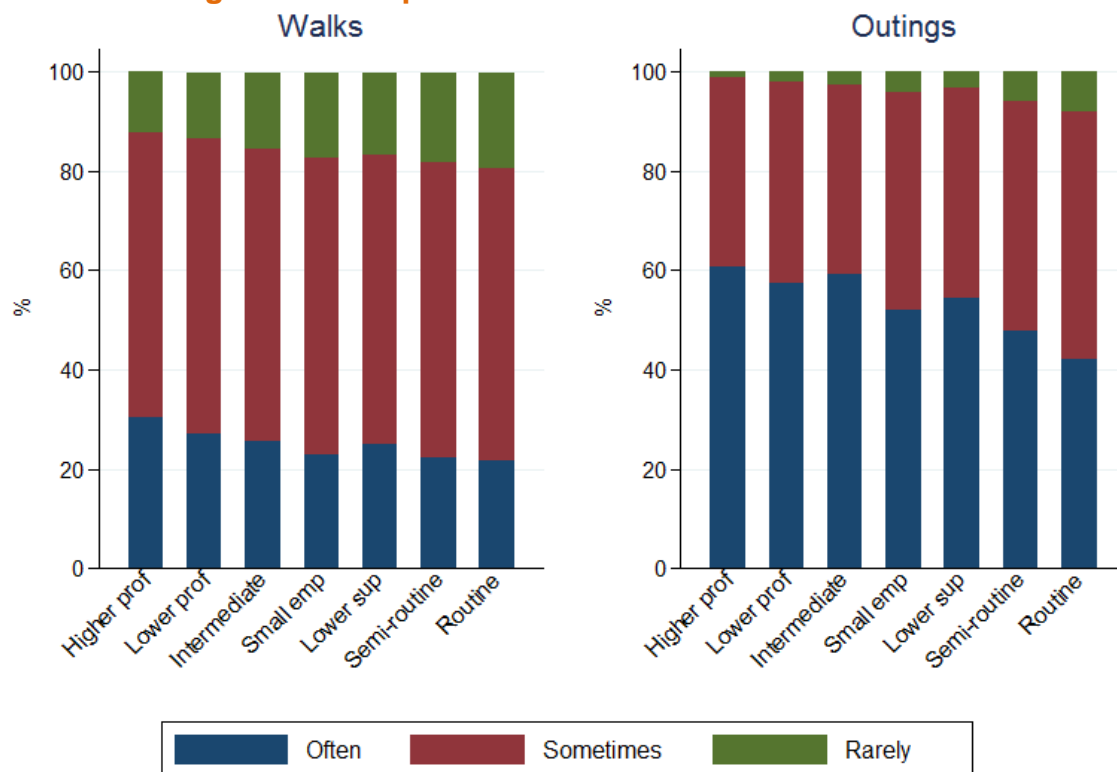
Source: MCS, 2008, UK

**Figure 13: There is a socioeconomic gradient in 11-year-old children's walks and outings with their parents in 1969**



Source: NCDS, 1969, Britain

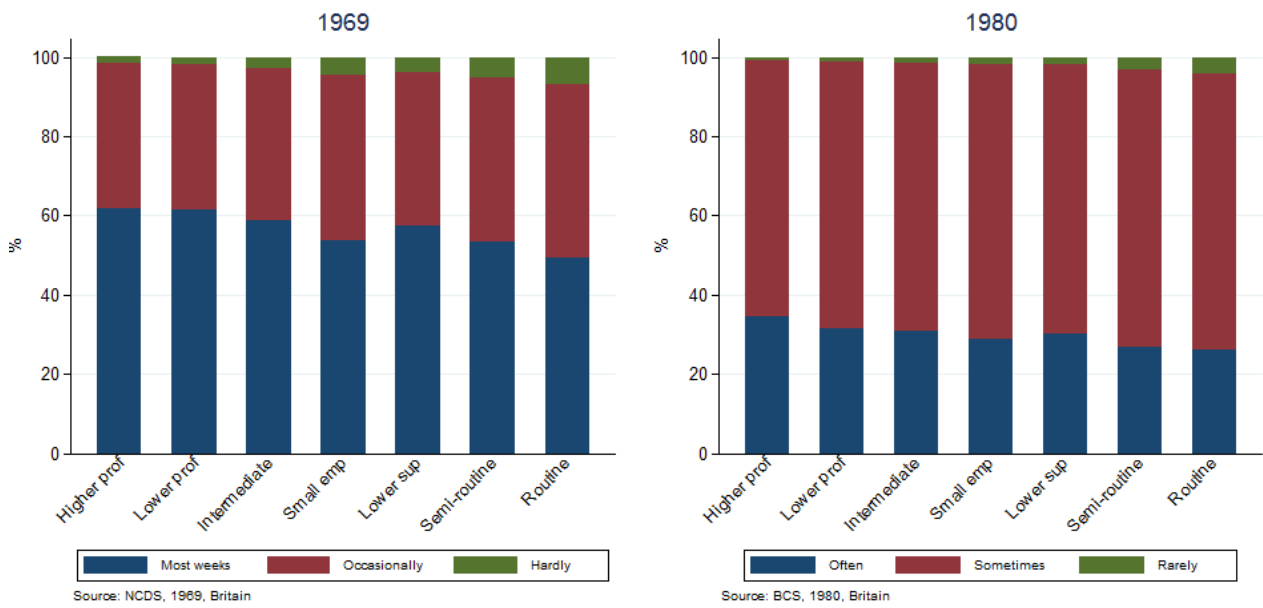
**Figure 14: There is a socioeconomic gradient in 10-year-old children's walks and outings with their parents in 1980**



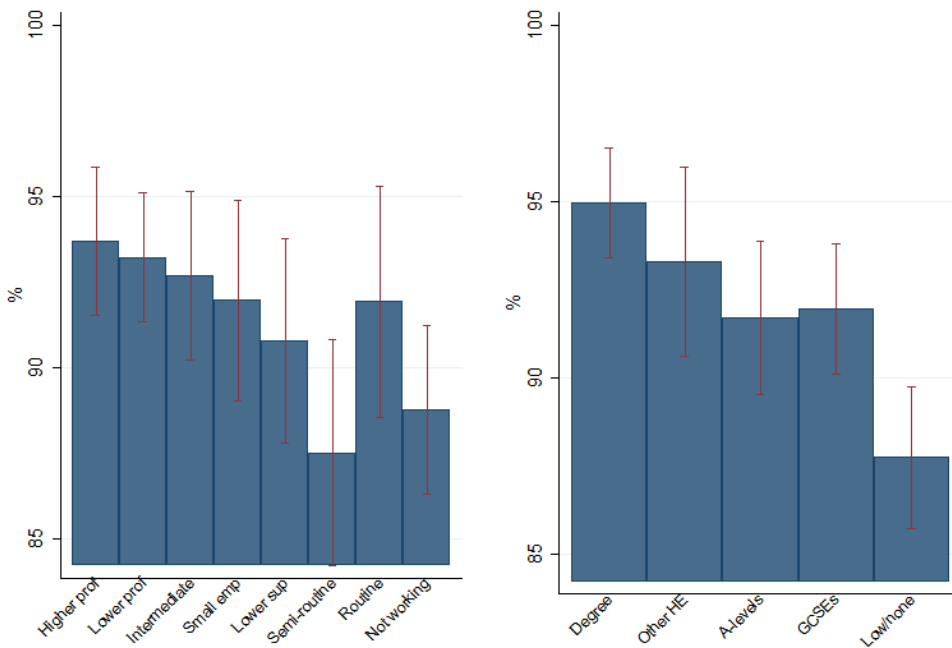
Source: BCS, 1980, Britain



**Figure 15: The socioeconomic gradient in children's walks, visits, and outings with their parents widened between 1969 and 1980**

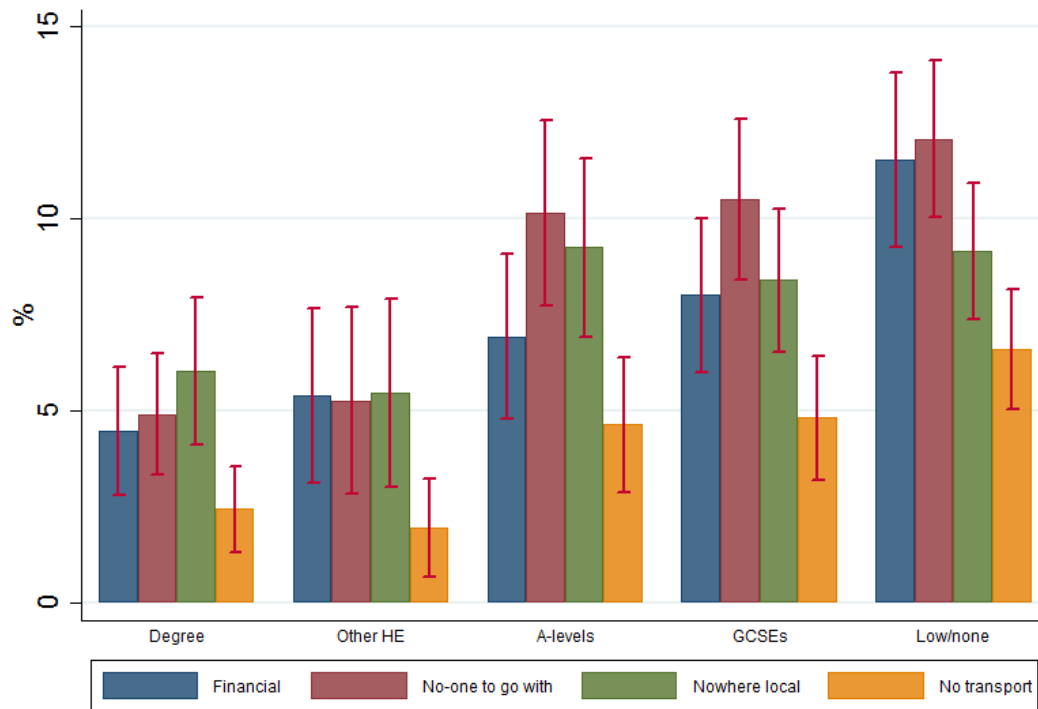


**Figure 16: Playing sport among 11-15 year-olds follow socioeconomic gradients**



Source: Taking Part Survey youth sample, 2006 and 2008, England

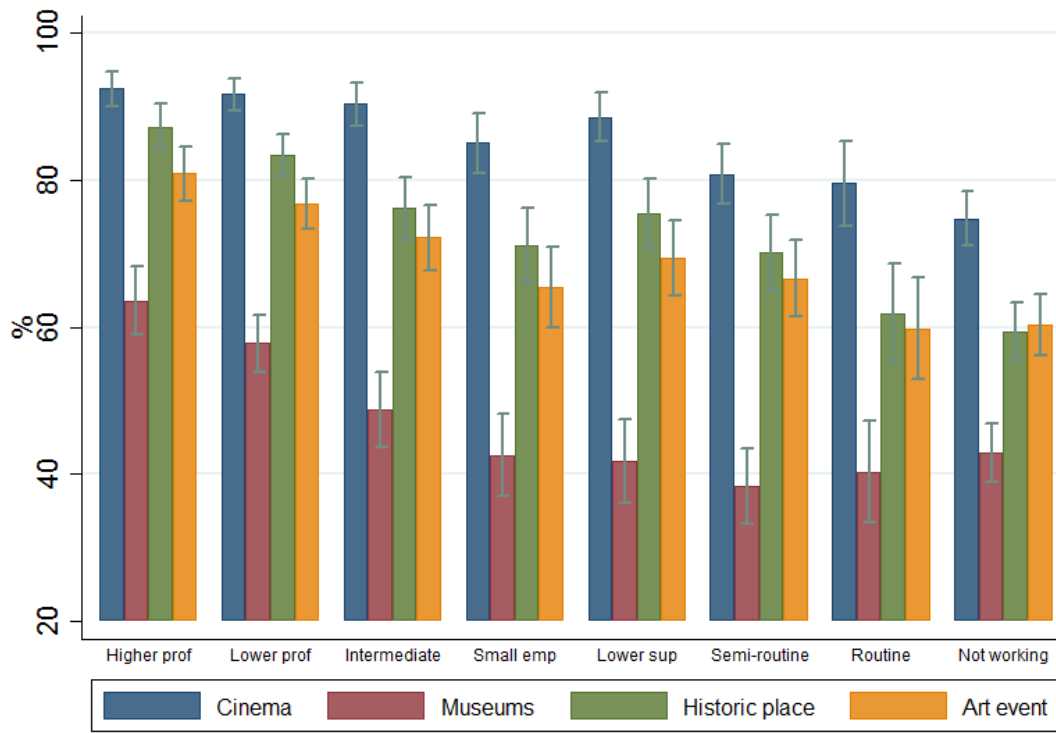
**Figure 17: Barriers to extra-curricular participation among 11-15-year-olds follow an education gradient**



Source: Taking Part Survey youth sample, 2006 and 2008, England

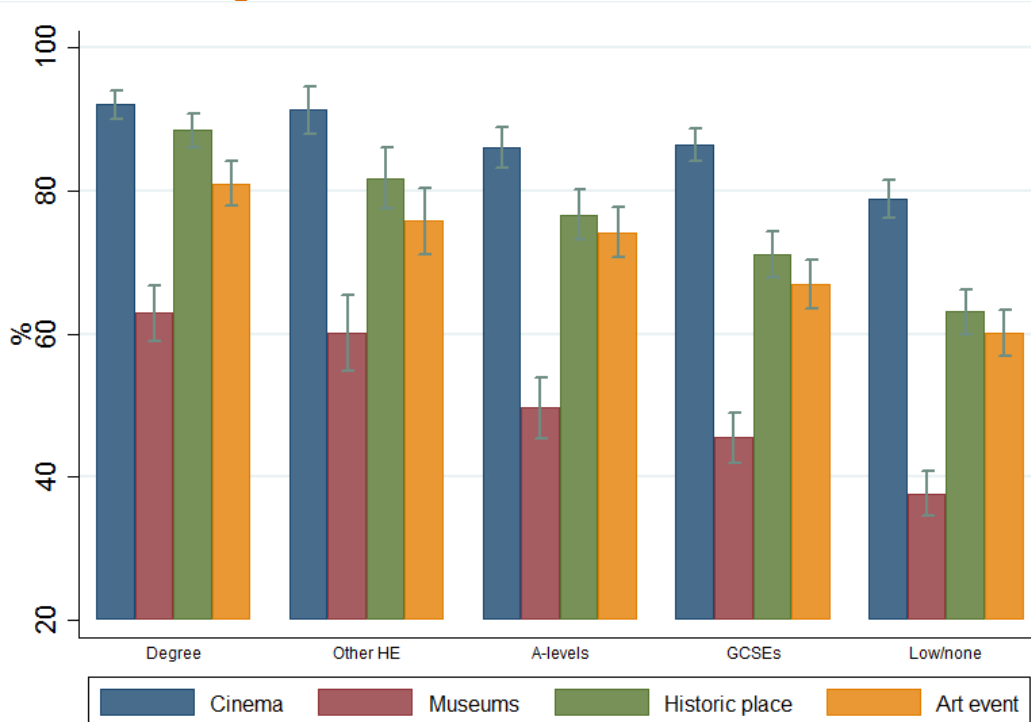
## Appendix 5: Further analyses of parental engagement: cultural activities

**Figure 18: Participation in cultural activities at ages 11-15 follows a social class gradient**



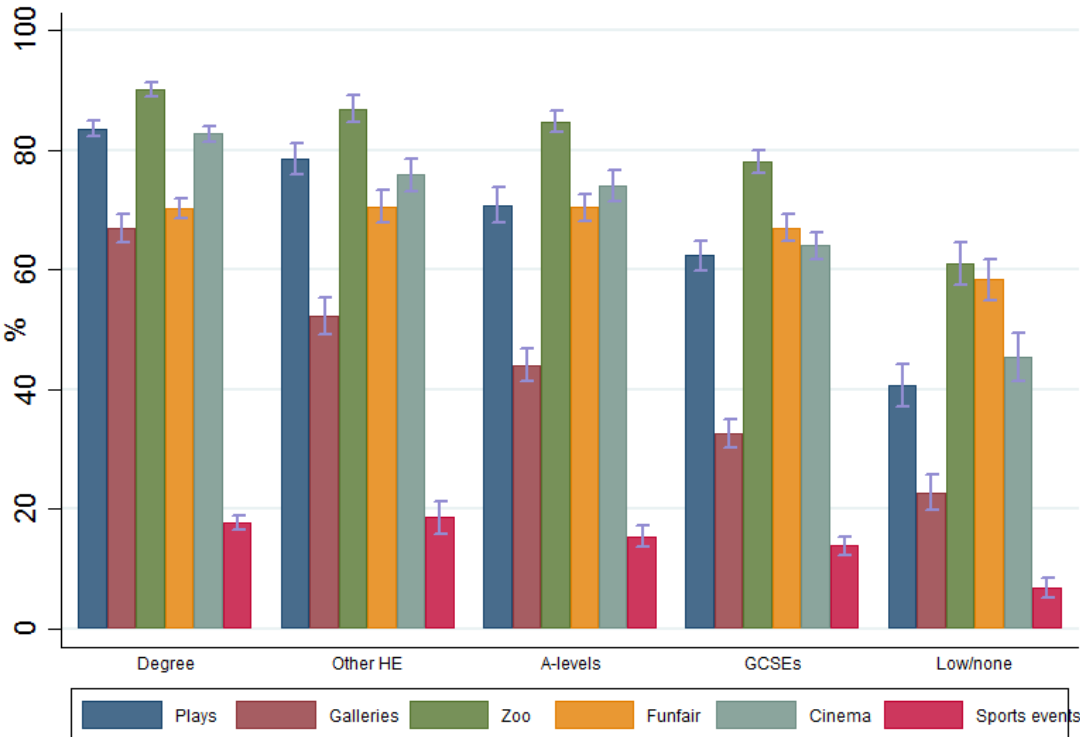
Source: Taking Part Survey youth sample, 2006 and 2008, England

**Figure 19: Participation in cultural activities at ages 11-15 follows an education gradient**



Source: Taking Part Survey youth sample, 2006 and 2008, England

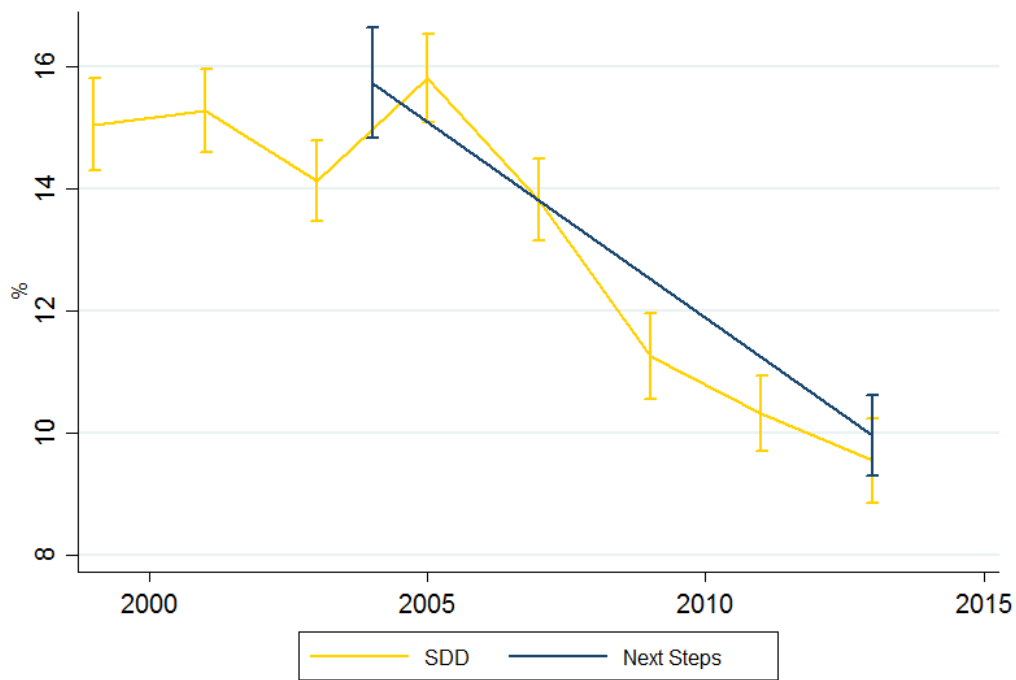
**Figure 20: Participation in cultural activities at age 8 follows an education gradient**



Source: MCS, 2006, UK

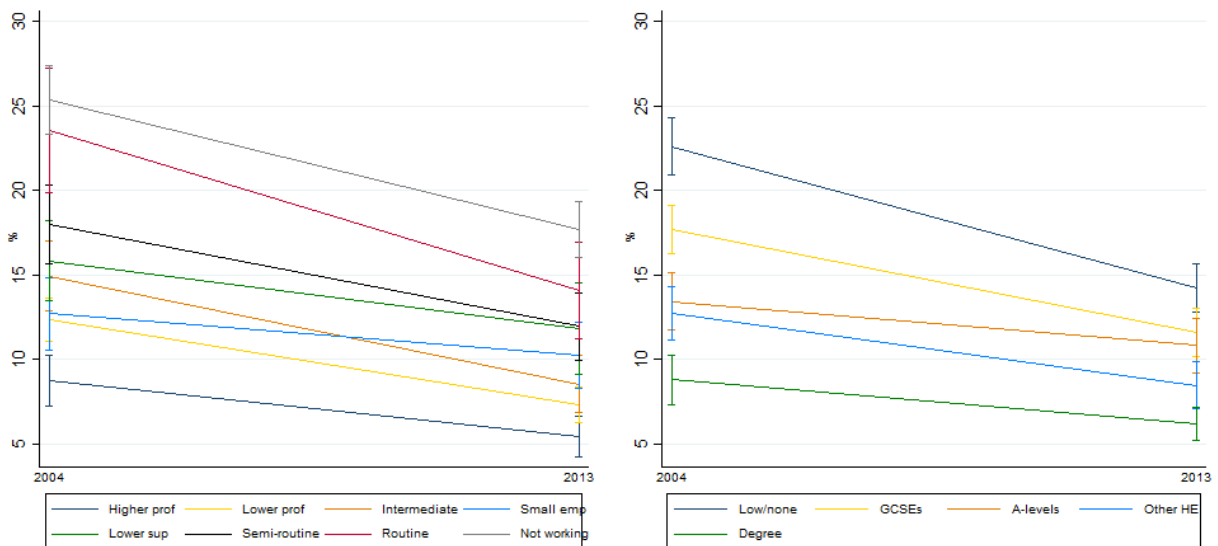
# Appendix 6: Further analyses of violation of norms and rules

**Figure 21 Truancy declined between 1999 and 2014**



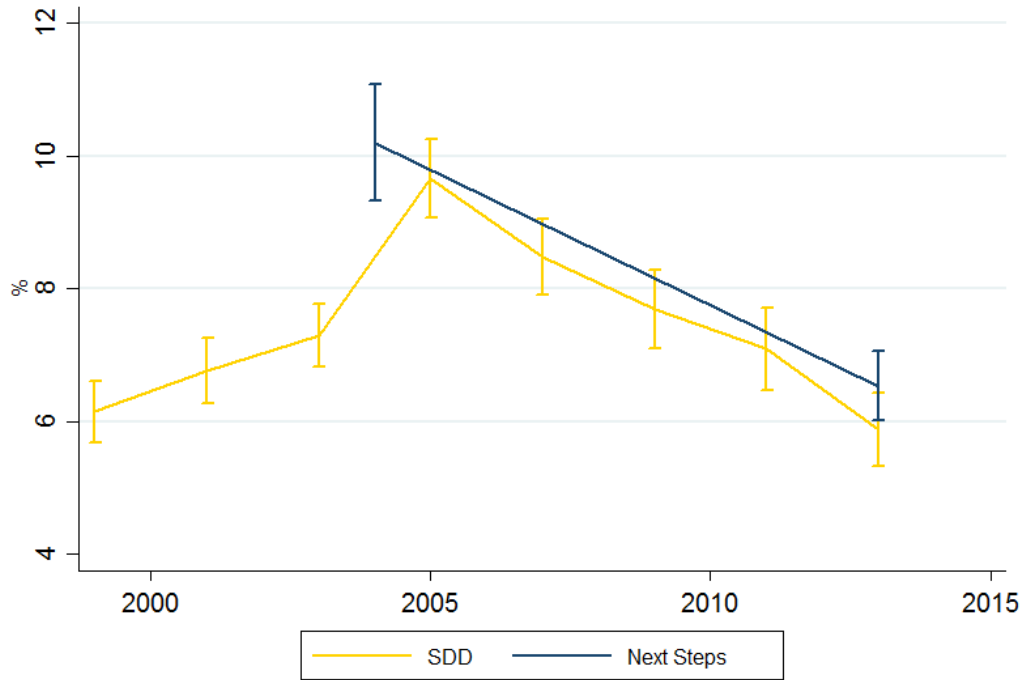
Sources: SDD, 1999-2014, England; Next Steps, 2004 and 2013, England

**Figure 22 Truancy declined and socioeconomic gradients in truancy narrowed between 2004 and 2013**



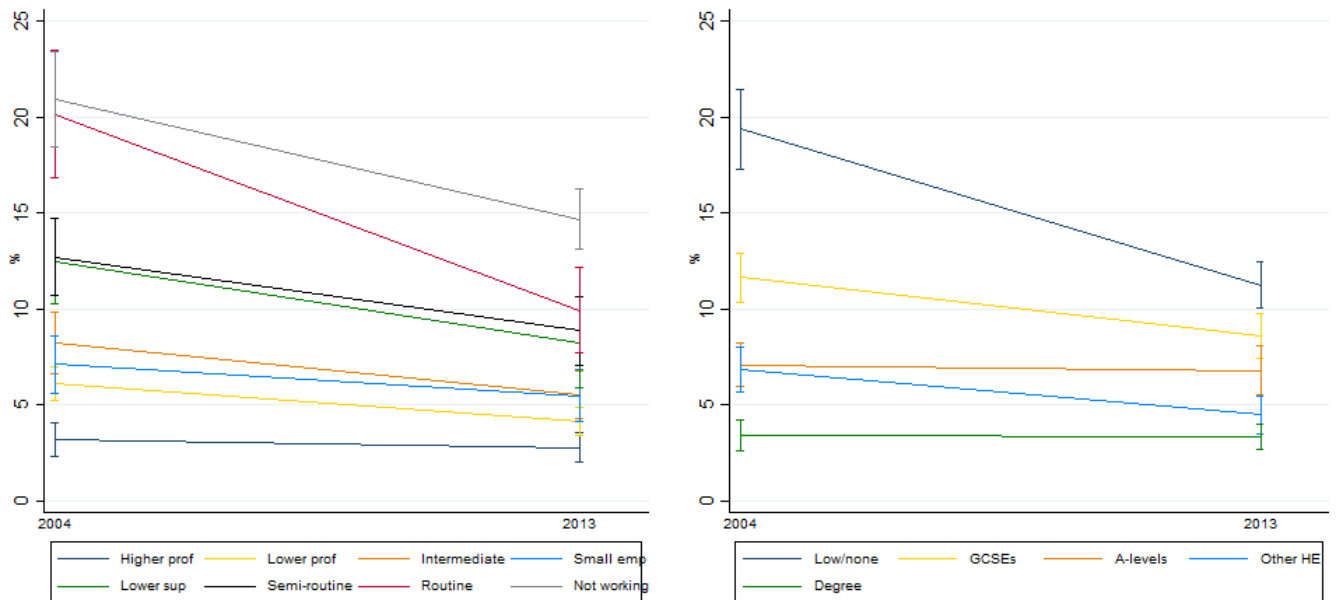
Source: Next Steps, 2004 and 2013, England

**Figure 23 School exclusions did not improve between 1999 and 2014**



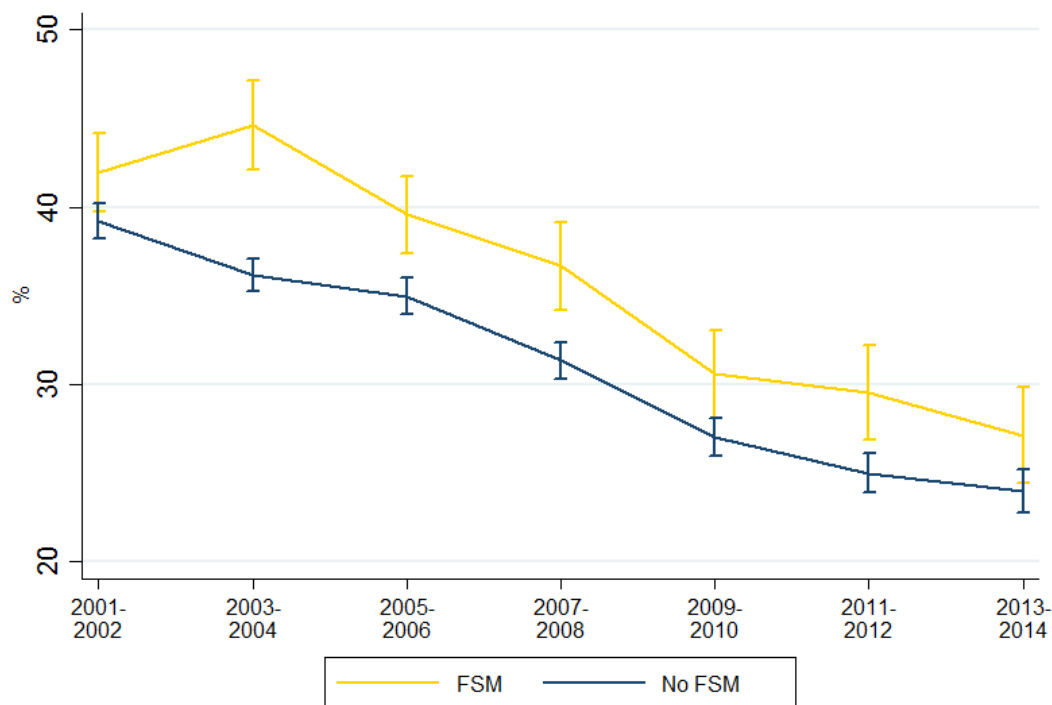
Sources: SDD, 1999-2014, England; Next Steps, 2004 and 2013, England

**Figure 24 School exclusions declined and socioeconomic gradients in exclusions narrowed between 2004 and 2013**



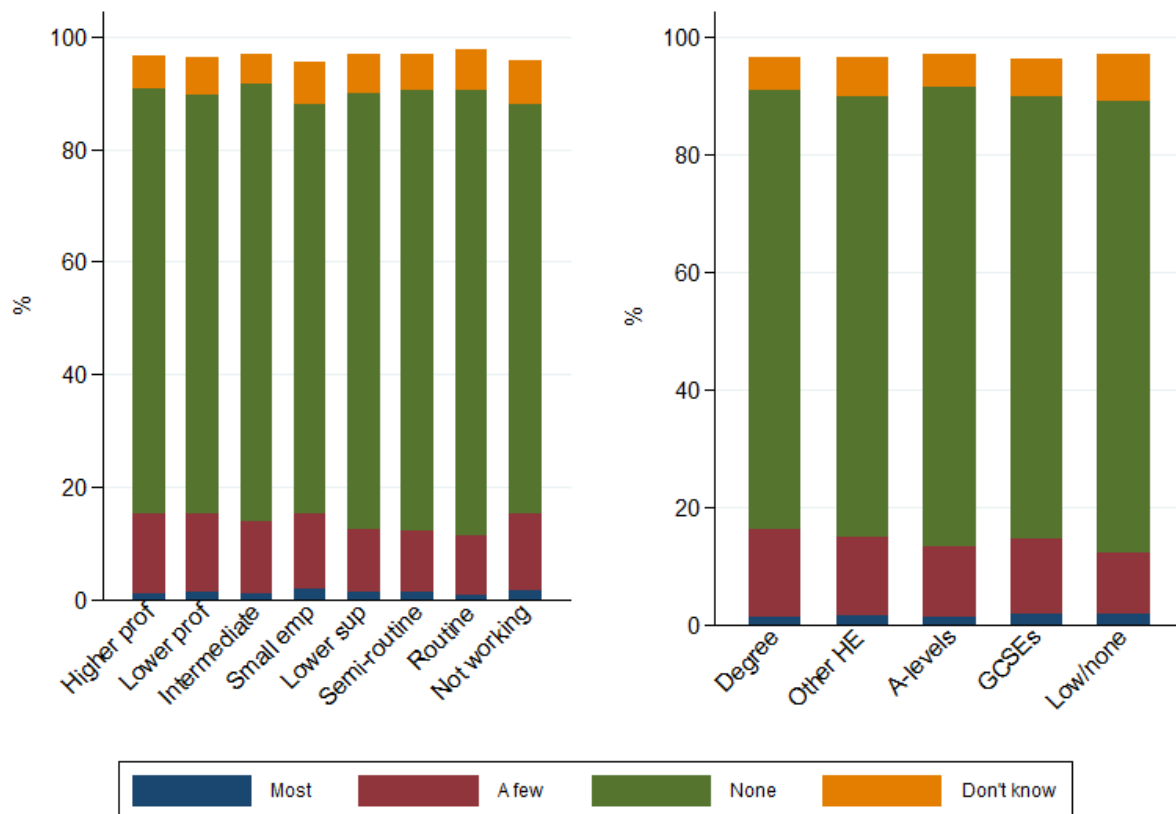
Source: Next Steps, 2004 and 2013, England

**Figure 25 Being offered drugs has declined but socioeconomic differences persisted between 2001 and 2014**



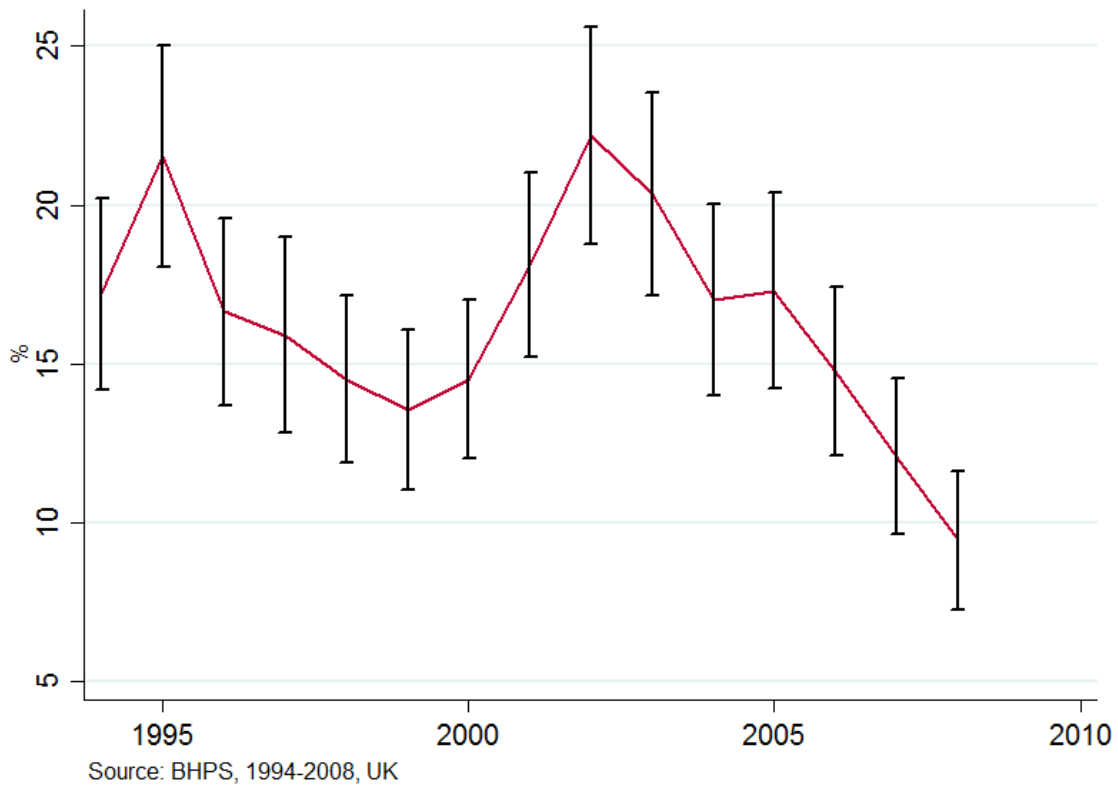
Source: SDD, 2001-2014, England

**Figure 26 Friends' drug use does not follow a socioeconomic gradient**



Source: BHPS, 1994-2008, UK

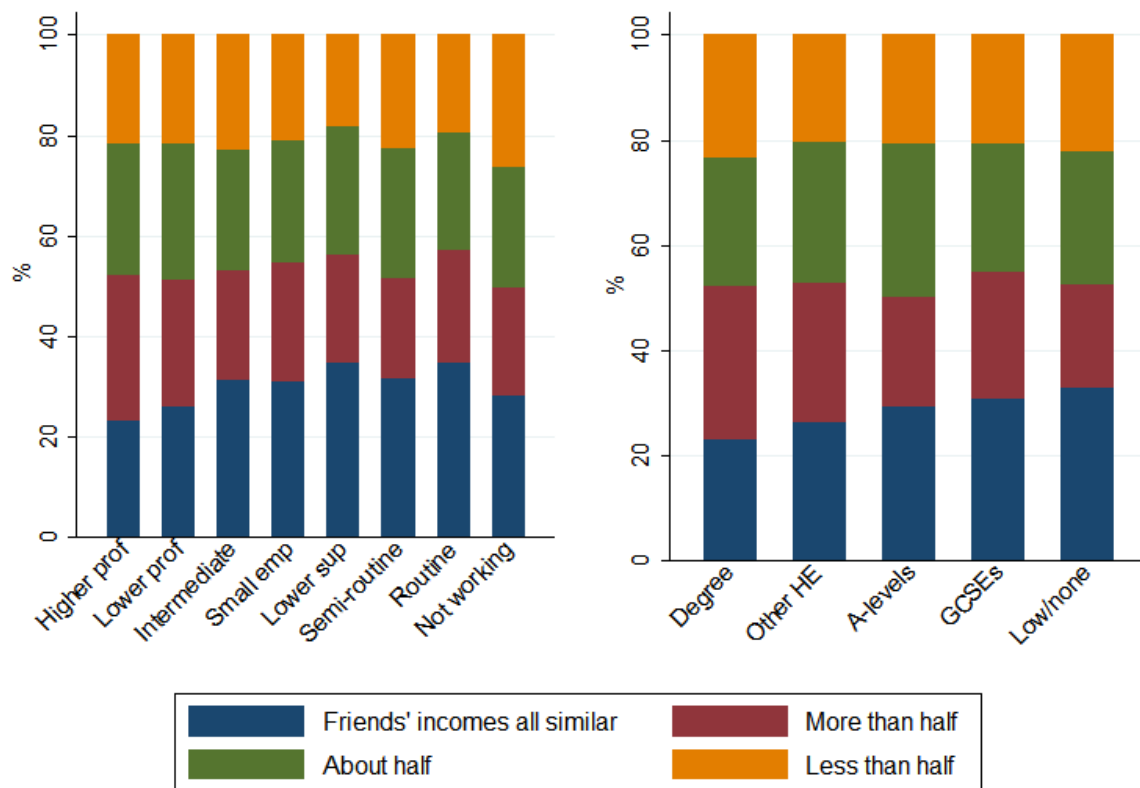
**Figure 27: Friends' use of illegal drugs declined between 2002 and 2008**





## Appendix 7: Further analyses of parental social capital

**Figure 28 Friends having a similar income level follows a social class gradient**



Source: Citizenship, 2005-2010, England and Wales