

# The Millennium Cohort Study (MCS) and Research on Ethnicity

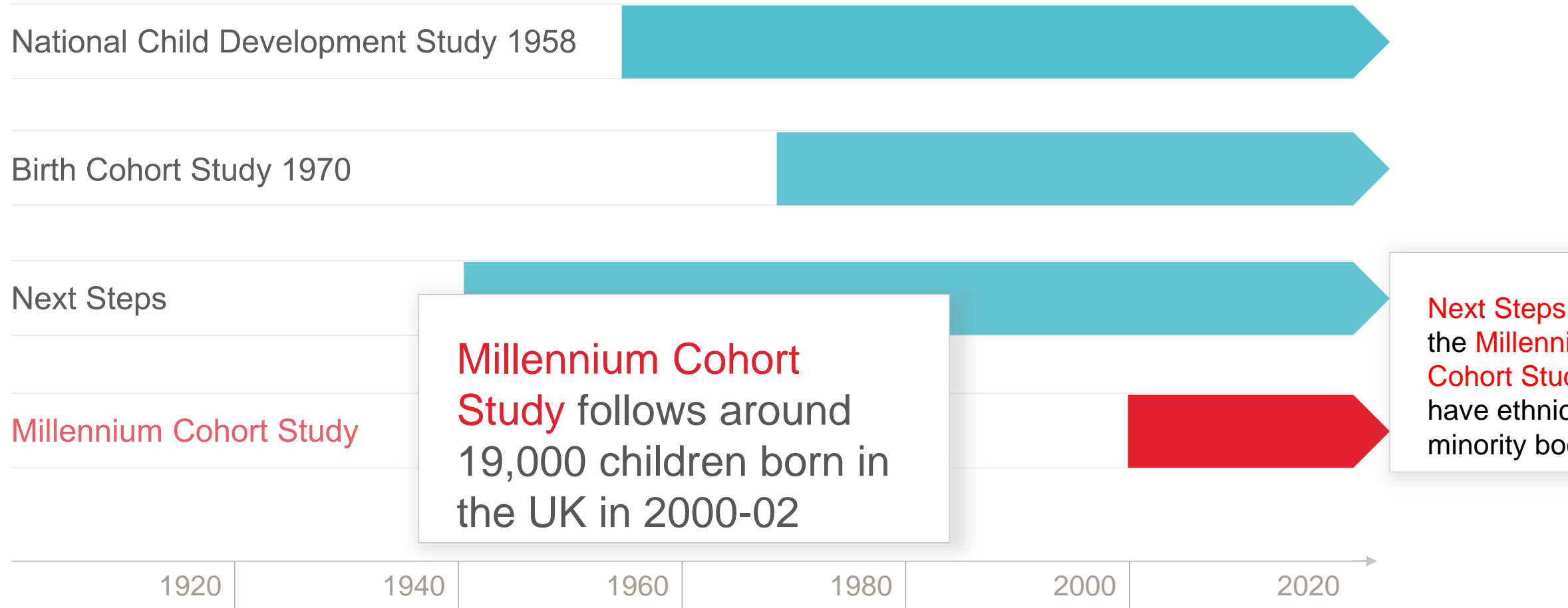
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19 March 2019

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# Centre for Longitudinal Studies: we follow people across life



# The MCS population

All children born between

1/11/2000 and 31/8/2001 (England and Wales)

23/11/2000 and 11/1/2002 (Scotland and Northern Ireland)

AND

alive and living in the UK at age 9 months, and eligible to receive Child Benefit at that age

# The MCS population

## Includes:

1. Children living in non-household situations (women's refuges, hostels, hospitals, prisons etc.) at age nine months in principle
2. Children not born in the UK but established as resident in the UK at age 9 months

## Excludes:

1. Children who died before age 9 months
2. UK-born children who emigrated from the UK before 9 months
3. Children not established as resident in the UK at age 9 months - e.g. children of foreign diplomats, asylum seekers etc.

# The MCS sample

**Designed to over sample families from minority ethnic groups**

→ to provide sufficient samples of the UK's main ethnic minority groups to carry out analyses by ethnic identity

# Stratification

Population stratified by country - England, Wales, Scotland, NI.

Further stratification within country:

- 1) **(England only)** '*Ethnic minority*' stratum: children living in wards which, in the 1991 Census, had an ethnic minority indicator of at least 30%, i.e. at least 30% of their total population fell into the two categories 'Black' (Black Caribbean, Black African and Black Other) or 'Asian' (Indian, Pakistani and Bangladeshi)
- 2) '*Disadvantaged*' stratum: children living in wards, other than those in stratum (1), which fell into the upper quartile (poorest 25% of wards) of the ward-based Child Poverty Index (CPI) for England and Wales
- 3) '*Advantaged*' stratum: children living in wards, other than those falling into stratum (1), which were not in the top quartile of the CPI

# Clustering

Primary sampling unit: electoral ward

Within wards, aim to recruit 100% of children born in the eligible period

Total of 398 wards: 200 of these in England, of which **19** were from ethnic minority stratum

- figure of **19** was calculated in order to provide sufficient N for ethnic minority sub-sample analysis (taking into account expected response rates within ward)

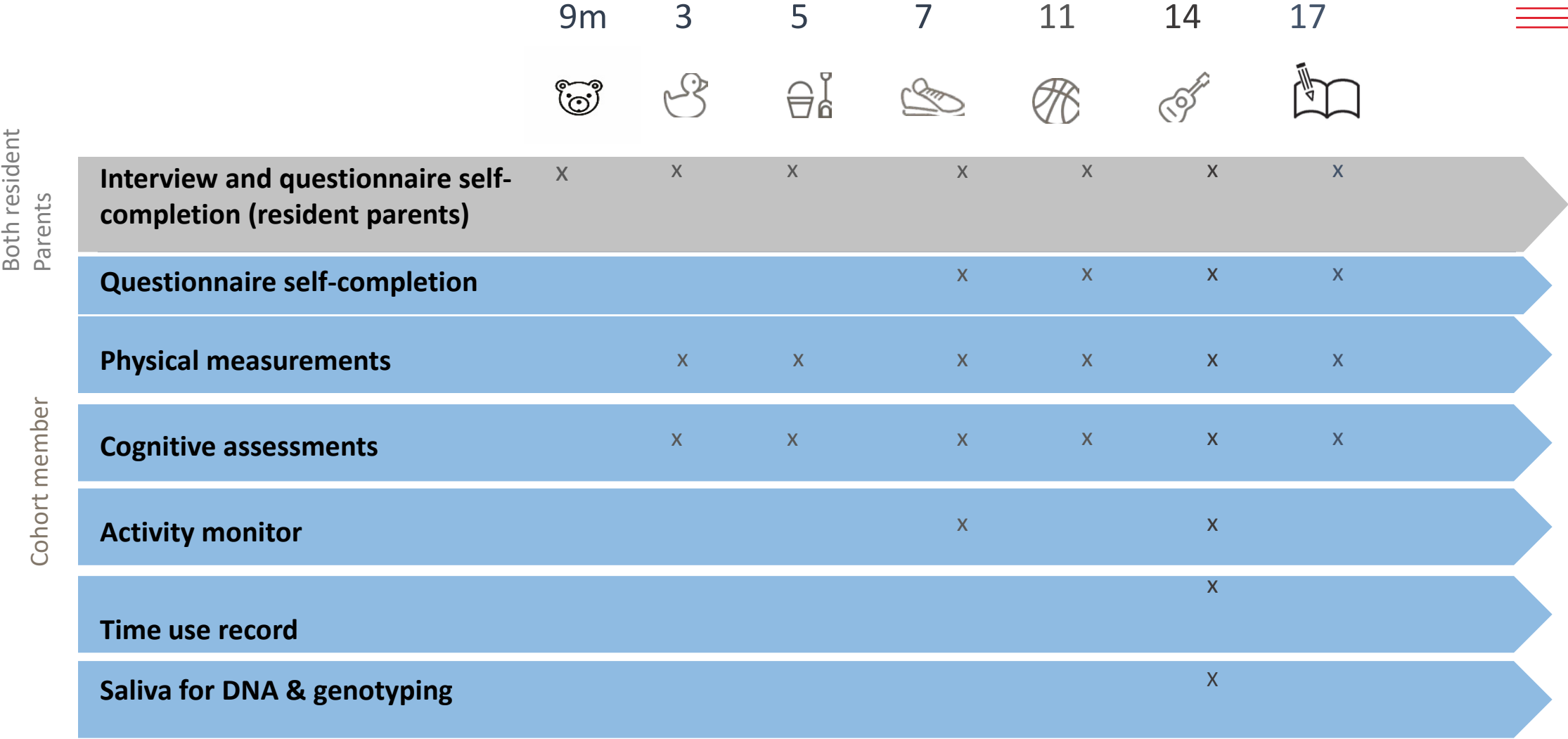
# Ethnicity at baseline

Ethnicity	Proportion (%)
White	82.0
Indian	2.5
Pakistani	4.8
Bangladeshi	2.0
Black Caribbean	1.3
Black African	2.0
Mixed ethnicity	3.0
Other	2.0
N	18,827

→ Oversampling resulted in 18% of baseline MCS sample non-White, compared to ~10% for UK as a whole



# Overview of MCS timeline and content



Also: consent to link administrative health records (to age 14); education records (to age 16); parents' economic records

# Overview of topics

## Origin

Grandparents' country of birth; mother and father country of birth, and year moved to UK (where relevant)

## Parental information

Detailed data at every survey from both mother and resident father/mother's partner →

Employment, economic circumstances, education, housing, physical and mental health, healthy behaviours, family structure and changes, language(s) spoken at home, religion, parenting, identity, relationship quality...

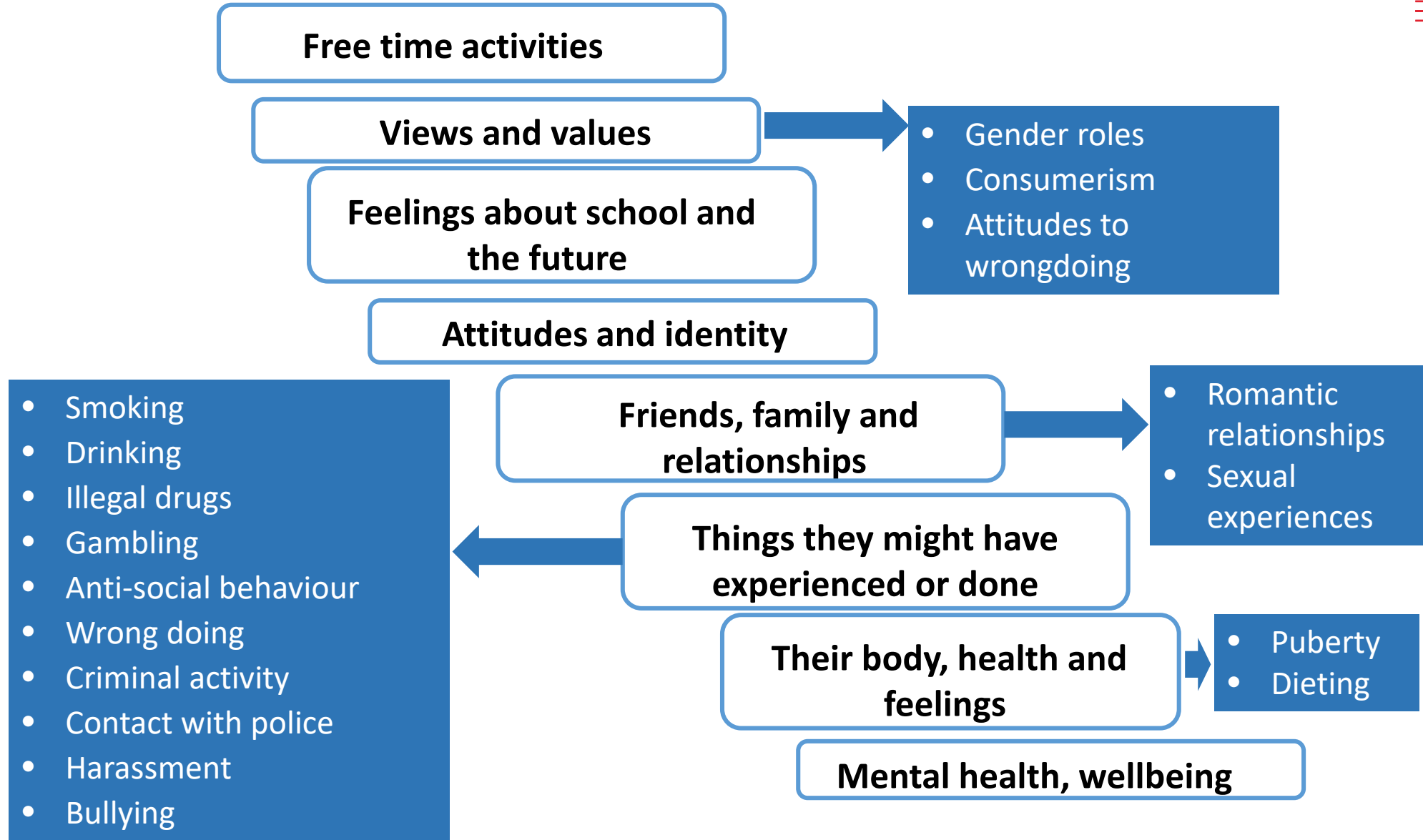
## Cohort member

Interviews with cohort members since age 7, increasingly extensive information, e.g. →

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# Age 14 young person questionnaire content:



# Analysis – dealing with sample design

# Weighting

Analysis should take into account

(a) stratification and clustering sample design features – otherwise standard errors will likely be underestimated and resulting significance tests invalid

- **Stratification variable**

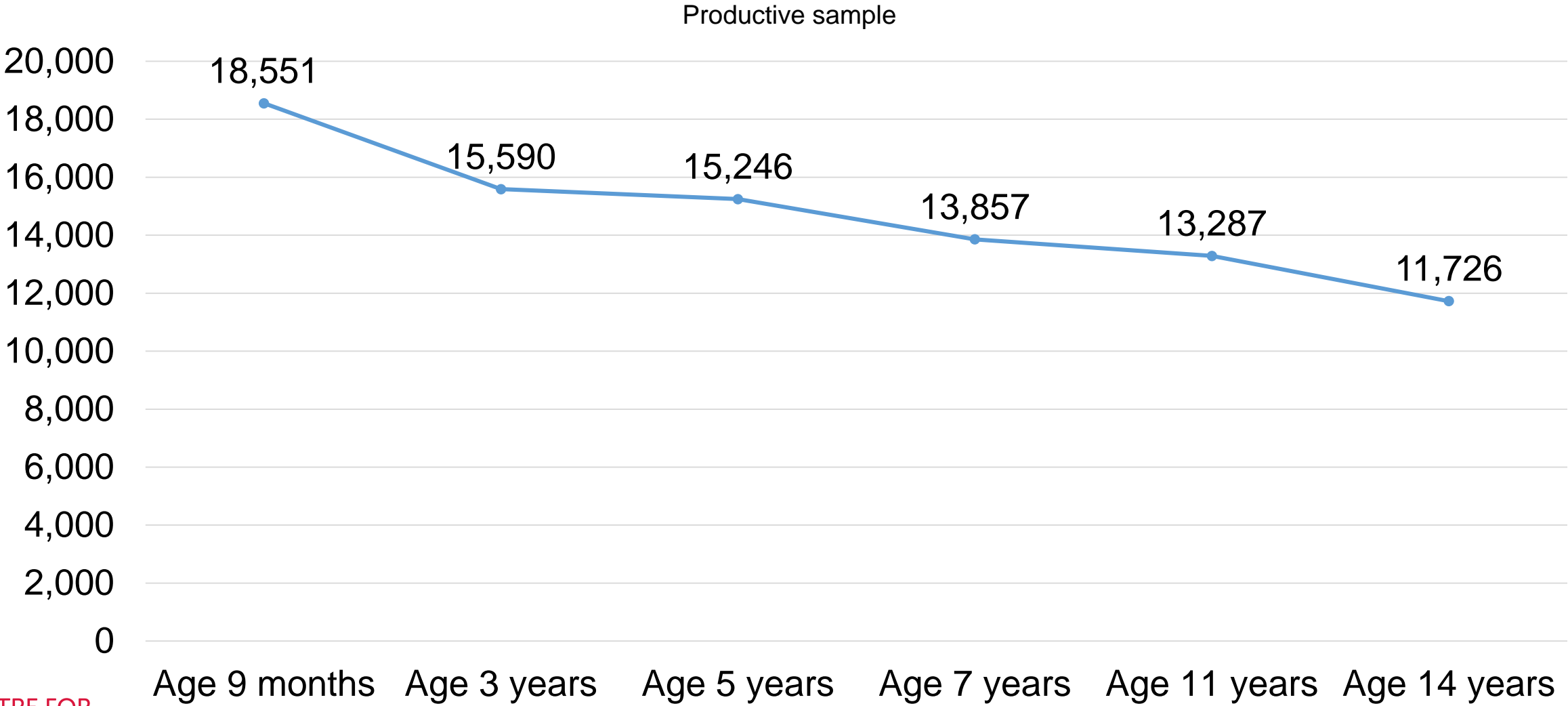
9 different strata - stratum variable is **pttype2**

- **Clustering variable**

398 wards were the primary sampling unit - ward variable is **sptn00**

(b) Attrition and non-response

# Productive sample over time



# Weighting

Example using variables from MCS6:

```
svyset sptn00 [pweight=fovwt2], strata(pttype2) fpc(nh2)
```

- sptn00: Electoral ward ID
- fovwt2: overall weight (= sampling weight x attrition weight) in MCS6 for whole of UK analysis
- pttype2: Stratum ID
- nh2: finite population coefficient

# Research Examples



# Ethnic differences in birth outcomes

Dearden, Mesnard and Shaw (2006) look at ethnic differences in gestation and birthweight in England, given association with cognitive and social outcomes later in life

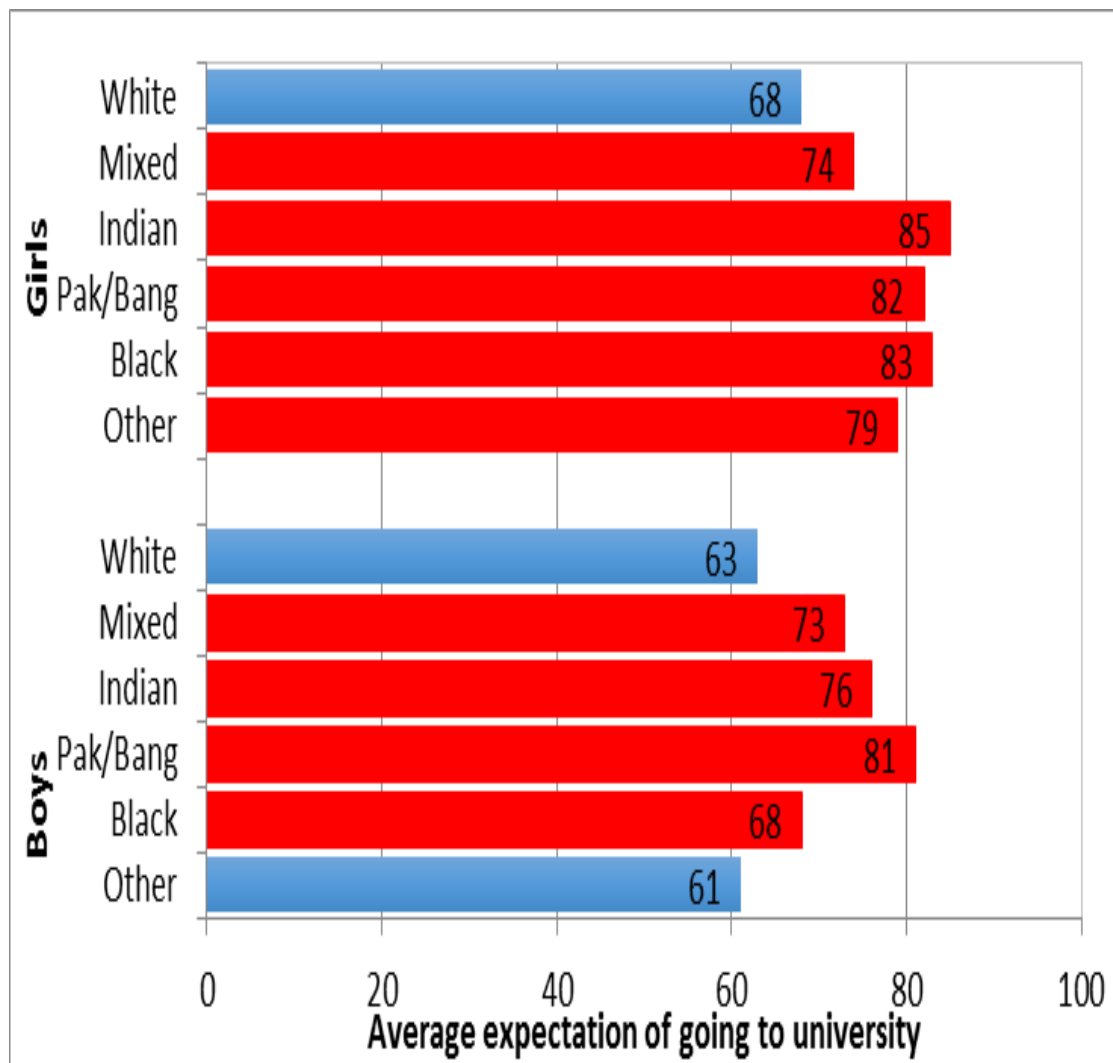
Even after controlling for background characteristics, there remain unexplained differences in both gestation and birthweight outcomes across broad ethnic groups:

- Asian babies are around 6 percentage points more likely to be of low birthweight than White babies
- Black babies are around 5 percentage points more likely to be of low birthweight than White babies

# Ethnic differences in birth outcomes

- The following factors have a *positive* impact on children's birthweight and *negative* impact on incidence of low weight babies:
  - Parental height, and good long term health condition of the mother
  - Mother not smoking before and during pregnancy
  - Mother not being underweight or obese
  - Not having a multiple birth
  - Relatively high parental educational qualifications
  
- → And there is considerable variation in these factors across ethnic groups

# University expectations at age 14 by gender & ethnicity

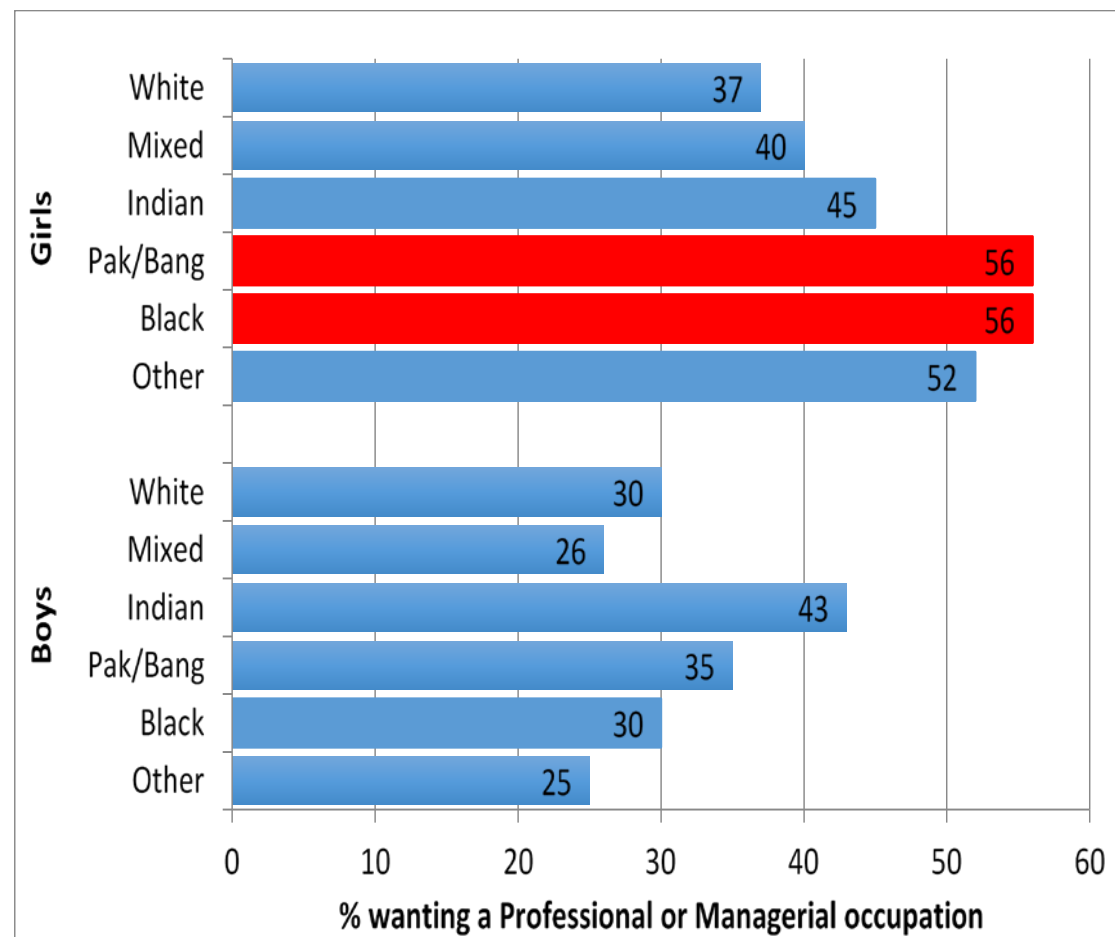


Platt and Parsons  
(2018)

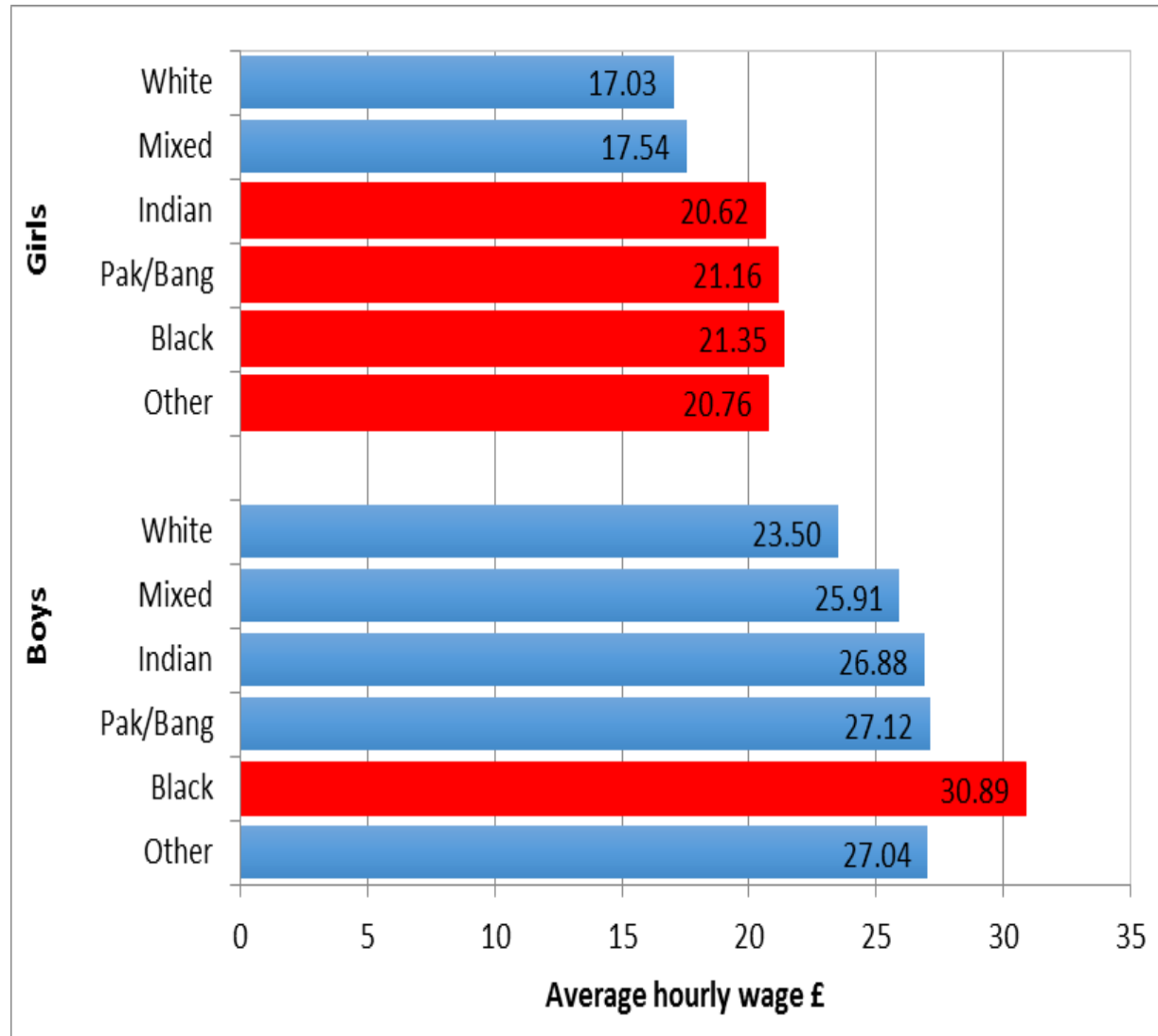
<https://lucindaplatt.com/2018/11/22/realising-aspirations-gender-ethnicity-and-job-inequalities/>

# Professional or Managerial occupation aspirations

Platt and Parsons  
(2018)



# Ethnicity & average hourly wage



Platt and Parsons  
(2018)

# Can these differences be explained by other family and personal characteristics?

	University	Prof/ Man	Wages	% Women
Girl	More likely	More likely	Lower	More
Ethnicity (ref: White)				
Mixed	More likely			
Pakistani/Bangladeshi	More likely			
Indian	More likely		Higher	
Black/British	More likely		Higher	

Note: summary of results from multivariate regression models



# Millennium Cohort Study

On this page: [Introduction](#) [Sweeps](#) [Sub-studies](#) [Latest from MCS](#) [Recent publications](#) [Study features](#) [Popular documentation](#) [Data access](#) [Principal Investigator](#) [More related content](#)



## CHILD OF THE NEW CENTURY

The Millennium Cohort Study (MCS), known as 'Child of the New Century' to cohort members and their families, is following the lives of around 19,000 young people born across England, Scotland, Wales and Northern Ireland in 2000-01. The study began with an original sample of 18,818 cohort members.

[+ more](#)

Find out more about  
MCS at [cls.ucl.ac.uk](https://cls.ucl.ac.uk)

## MCS sweeps

We have completed six MCS sweeps to date. The most recent sweep was when cohort members were 14 years old. We are currently surveying them again, at age 17. Click on a sweep below to learn more about the information collected.

Year	2001	2004	2006	2008	2012	2015	2018
Age	9	3	5	7	11	14	17
	months						

## Special features of this study

### Sample design

Unlike the previous three national birth cohorts, which all share the same birth week, MCS cohort members were born over a 17 month period (September 2000-January 2002). This allows researchers to investigate season of birth effects in children's outcomes and trajectories.

[+ more](#)

### Cognitive assessments

The MCS has been carrying out cognitive assessments with cohort members since the age of three, using leading standardised age-appropriate assessments such as the British Ability Scales.

[+ more](#)

### Biomedical data

Objective physical measurements have been taken since the age of 3. They include height, weight, waist measurement and body fat. At ages 7 and 14, activity monitors were worn in order to measure physical activity and sedentary behaviour.

[+ more](#)

### Information from fathers

Data has been collected from resident fathers, including step-fathers, as well as from mothers at all sweeps. This was an innovation for a national cohort, and reflected strong scientific interest in the role of fathers and the increasing diversity of family life in the UK.

Find out more about  
MCS at [cls.ucl.ac.uk](https://cls.ucl.ac.uk)

Each study page features  
information on:

- Study sweeps
- Sub-studies
- Latest news
- Recent publications
- Study features
- Popular documentation
- Data access
- Principal Investigator



# Accessing cohort data and documentation

# MCS, Understanding Society and other data freely available to researchers, government analysts and third sector

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[ukdataservice.ac.uk](http://ukdataservice.ac.uk)



# Find the data at UK Data Archive

## <https://data-archive.ac.uk/find>



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## MILLENNIUM COHORT STUDY

<https://discover.ukdataservice.ac.uk//series/?sn=2000031>

## UNDERSTANDING SOCIETY

<https://discover.ukdataservice.ac.uk//series/?sn=2000053>

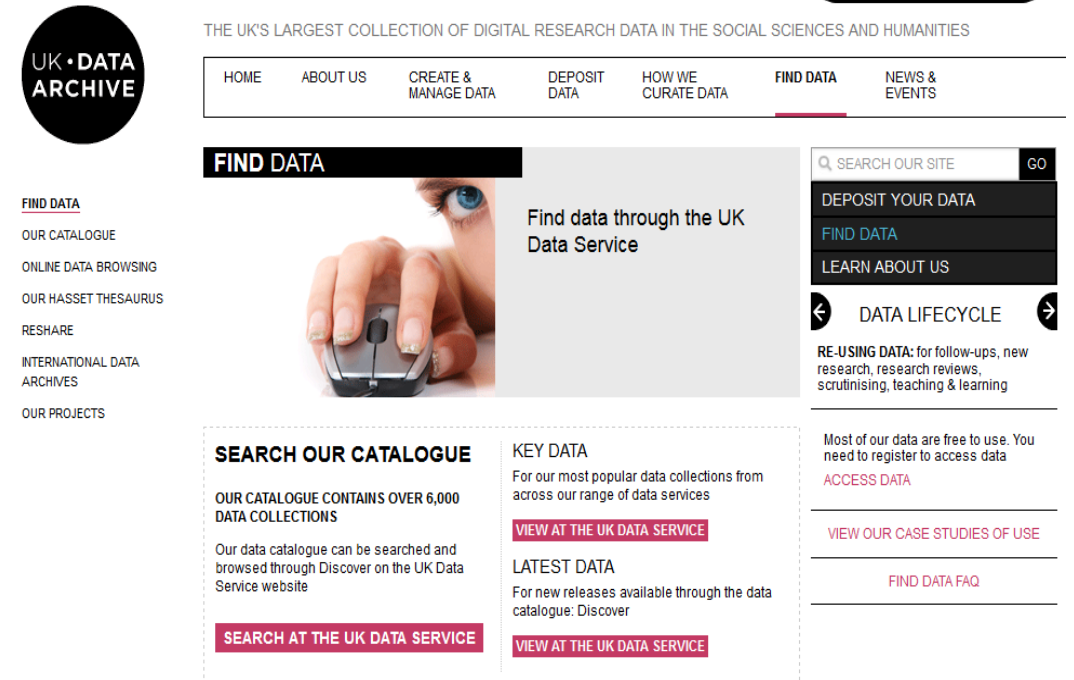
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# To download the data you will have to follow these steps....

1. Need to create an account
2. Login and register the project
3. State the purpose of the project
4. Find datasets of interest
5. Agree to data security and other policies
6. Download the data and related supporting documents!

*(in SPSS or STATA)*



# ESRC Data and Methods Services:

## supporting research and providing training

The ESRC funds a range of data and methods services to support research and study. It provides resources needed to access high quality socio-economic data and to develop research skills. These services are:



**Administrative Data  
Research Network**

[www.adrn.ac.uk](http://www.adrn.ac.uk)



**Census &  
Administrative Data  
Longitudinal Studies  
Hub**

[www.calls.ac.uk](http://www.calls.ac.uk)



**Centre for  
Longitudinal  
Studies**

[www.cls.ucl.ac.uk](http://www.cls.ucl.ac.uk)



**Consumer Data  
Research Centre**

[www.cdrc.ac.uk](http://www.cdrc.ac.uk)



**CLOSER**

[www.closer.ac.uk](http://www.closer.ac.uk)



**ESRC Business and  
Local Government Data  
Research Centre**

[www.blgdataresearch.org](http://www.blgdataresearch.org)



**National Centre of  
Research Methods**

[www.ncrm.ac.uk](http://www.ncrm.ac.uk)



**UK Data Service**

[www.ukdataservice.ac.uk](http://www.ukdataservice.ac.uk)



**Understanding Society**

[www.understandingsociety.ac.uk](http://www.understandingsociety.ac.uk)



**Urban Big Data  
Centre**

[www.ubdc.ac.uk](http://www.ubdc.ac.uk)

Thank you  
Any questions?