Introduction to the 1970 British Cohort Study

October 18th 2022

13.00 - 14.15

CENTRE FOR LONGITUDINAL STUDIES

Economic and Social Research Council

Housekeeping

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- Please keep your cameras off and mics muted at all times – recording session
- If you have a question, please use the chat function, and please note your question will be visible to all attendees
- Technical issues – please email us: ioe.clsevents@ucl.ac.uk
- We would be grateful for your feedback. Please follow the link in the chat at the end of the event for the short survey

Thank you for joining us today

Plan for today

- About CLS
- Overview of BCS70
- Examples of research
- Data, by theme
- Data enhancements and innovations
- Available resources and data access
- Outline of current sweep in the field
- Q&A to the panel*

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Introductions

- Vanessa Moulton, Senior Researcher
- Morag Henderson, Associate Professor

- George Ploubidis, Director BCS70
- Matt Brown, Senior Survey Manager
- Andrew Peters, Research Data Manager
- Sam Parsons, Research Fellow

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About CLS

- The Centre for Longitudinal Studies is home to four* national longitudinal cohort studies, which follow the lives of tens of thousands of people
- Each of our four studies follows large, nationally representative groups of people born in a given time period (week, year etc)
- By collecting information from the same people over time, as they live their lives, our studies are powerful resources for answering important research questions

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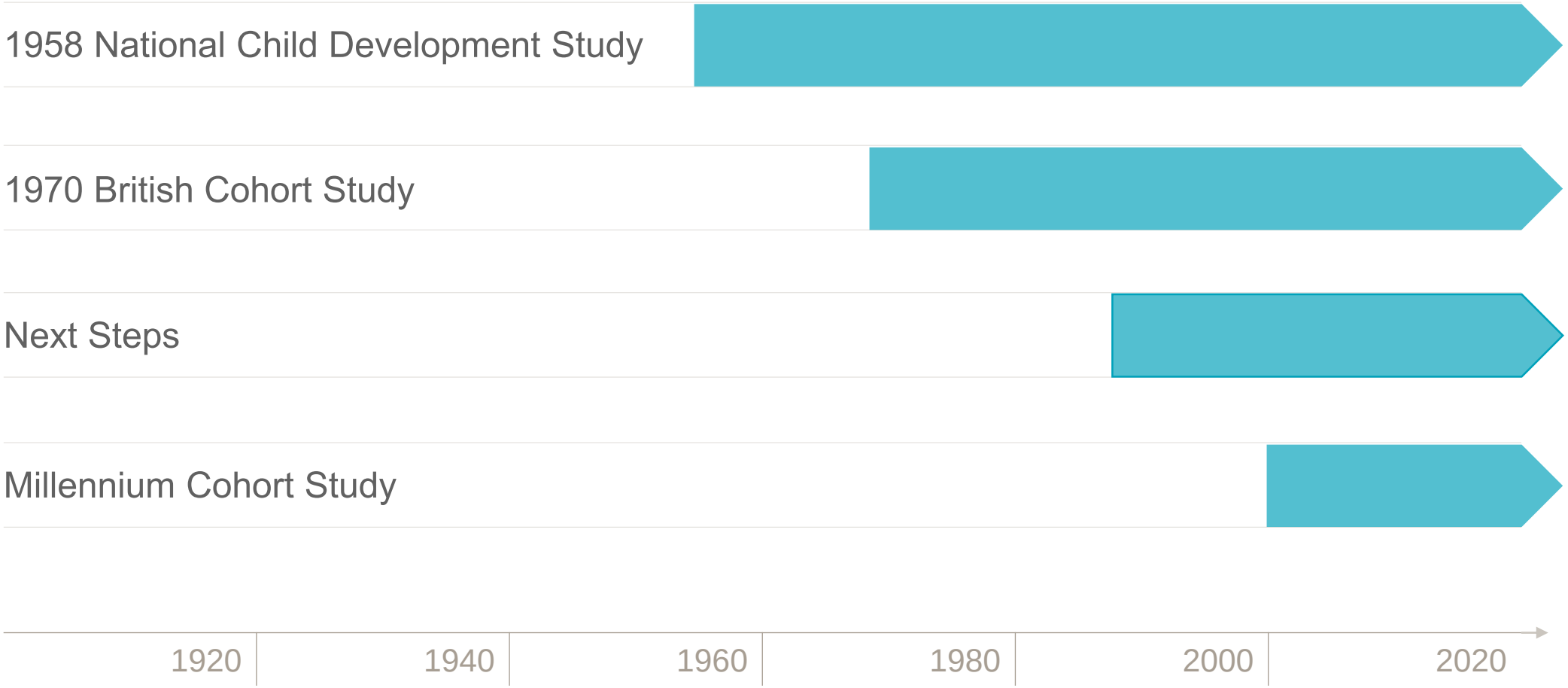
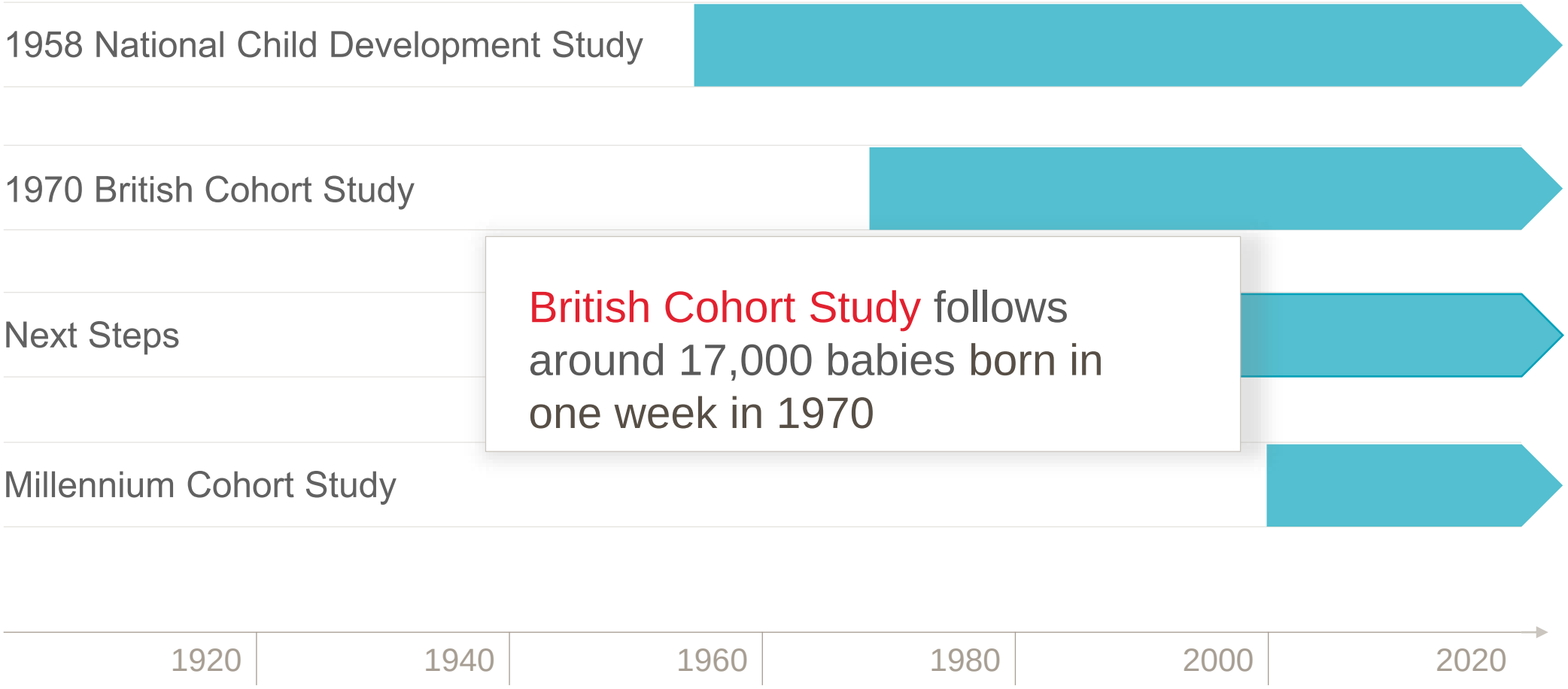
Timeline of the studies



Timeline of the studies



COVID-19 surveys

Wave	Dates	Context	Mode
Wave 1	May 2020	First national lockdown	Web
Wave 2	Sept/Oct 2020	Eased restrictions	Web
Wave 3	Feb/Mar 2021	Third national lockdown	Web → Telephone

Study	Age in 2020
MCS	19
Next Steps	30
BCS70	50
NCDS	62

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https://cls.ucl.ac.uk/covid-19-survey/

Other CLS-Affiliated Studies

Early Life Cohort Feasibility Study

- A two-year ESRC funded project which started in April 2021 that will test the feasibility of a new UK-wide birth cohort study

Children of the 2020s Study

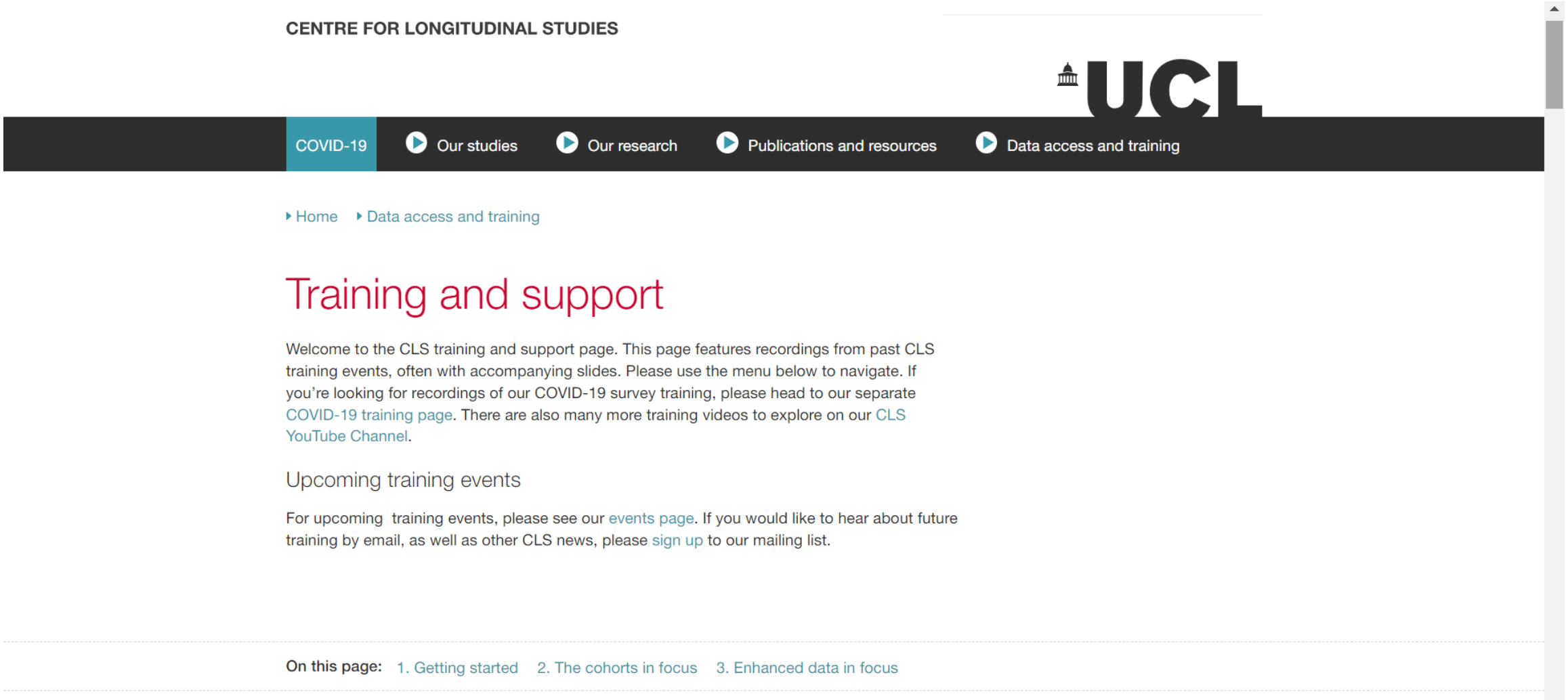
- A new nationally representative birth cohort study of babies in England which has been commissioned by the Department for Education (DfE)
- It will include babies born September - November 2021, and seeks to recruit over 8,500 families in mid 2022

COVID Social Mobility and Opportunities (COSMO) study

- The study began in 2021 with a representative sample of young people in Year 11 across England
- UKRI funded, led by researchers from the UCL Centre for Education Policy and Equalising Opportunities and the Sutton Trust, in collaboration with CLS

Training and Support

- https://cls.ucl.ac.uk/data-access-training/training-and-support-2/



About the 1970 British Cohort Study (BCS70)

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About the 1970 British Cohort Study (BCS70)

- BCS70 is multi-purpose and multi-disciplinary study collecting detailed information on different aspects of cohort members lives (economic, social and health)

- Began as British Births Survey (BBS)

- Data collected about births and families of just over 17,000 babies born in England, Wales, Scotland and Northern Ireland* in one week in 1970

*Northern Ireland not followed up

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About the 1970 British Cohort Study (BCS70)

- Early focus was medical but with each sweep the scope has broadened:

  - Childhood sweeps: educational, social and physical development
  - Transitions into adult life: Family formation, employment etc.
  - Formation and maintenance of adult identity
  - Precursors of beneficial and adverse circumstances in mid-life

Elliott J, Shepherd P (2006) Cohort profile: 1970 British birth cohort (BCS70). *International journal of epidemiology* 35: 836-43. https://doi.org/10.1093/ije/dyl174

Sullivan A, Brown M, Hamer M, Ploubidis GB (2022). Cohort Profile Update: The 1970 British Cohort Study (BCS70), *International Journal of Epidemiology*. https://doi.org/10.1093/ije/dyac148

BCS70 - Overview of timeline and main survey

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	Birth	5	10	16	26	30	34	38	42	46
Respondents	Parent	Parent	Parent School	Parent School Cohort member	Cohort member	Cohort member	Cohort member Children (1 in 2)	Cohort member	Cohort member	Cohort member
Instruments	Medical	Tests Medical	Tests Medical	Diaries Tests Medical					Test(s)	Diaries Tests Medical
	1970	1975	1980	1986	1996	2000	2004	2008	2012	2018

Overview of BCS70 (CM) data

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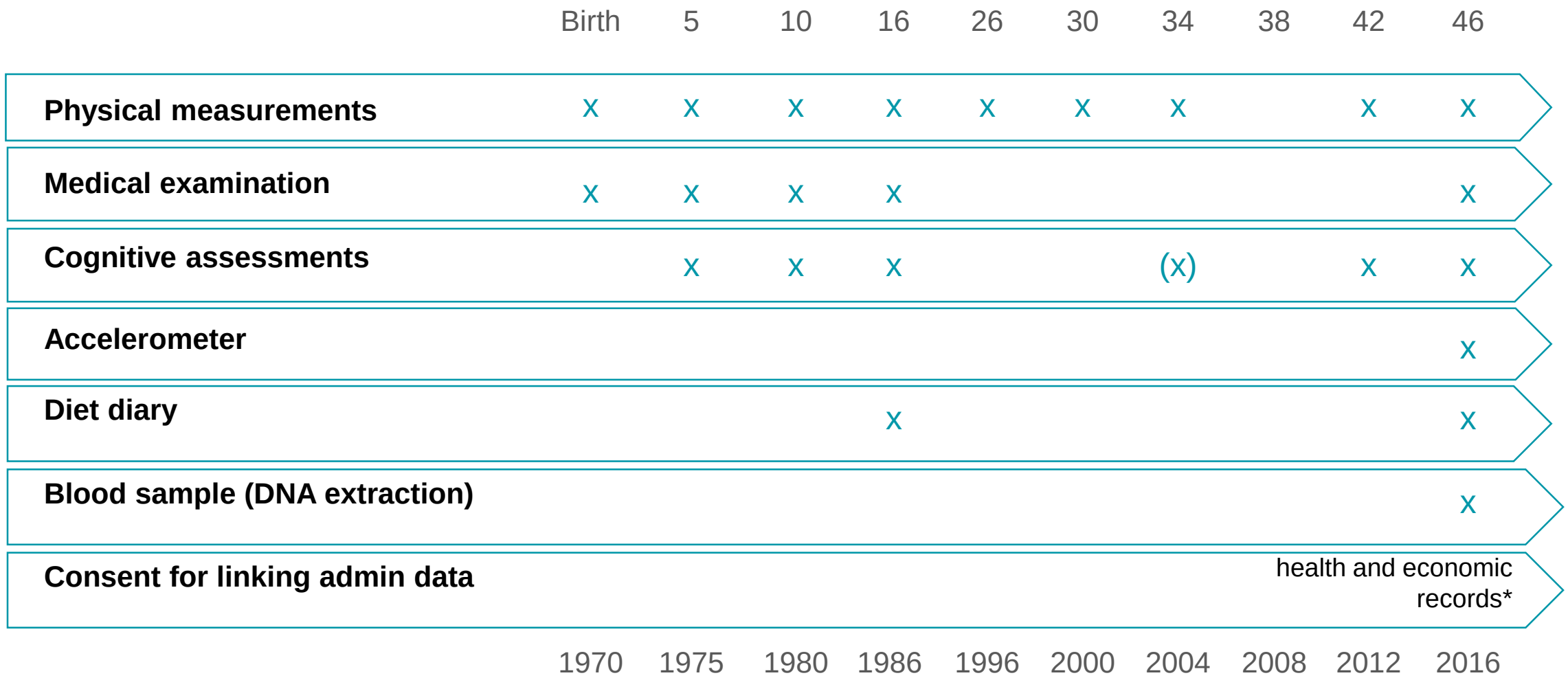

*National Health Service, Dept for Work & Pensions, Her Majesty's Revenue & Customs

BCS70 Sub-studies

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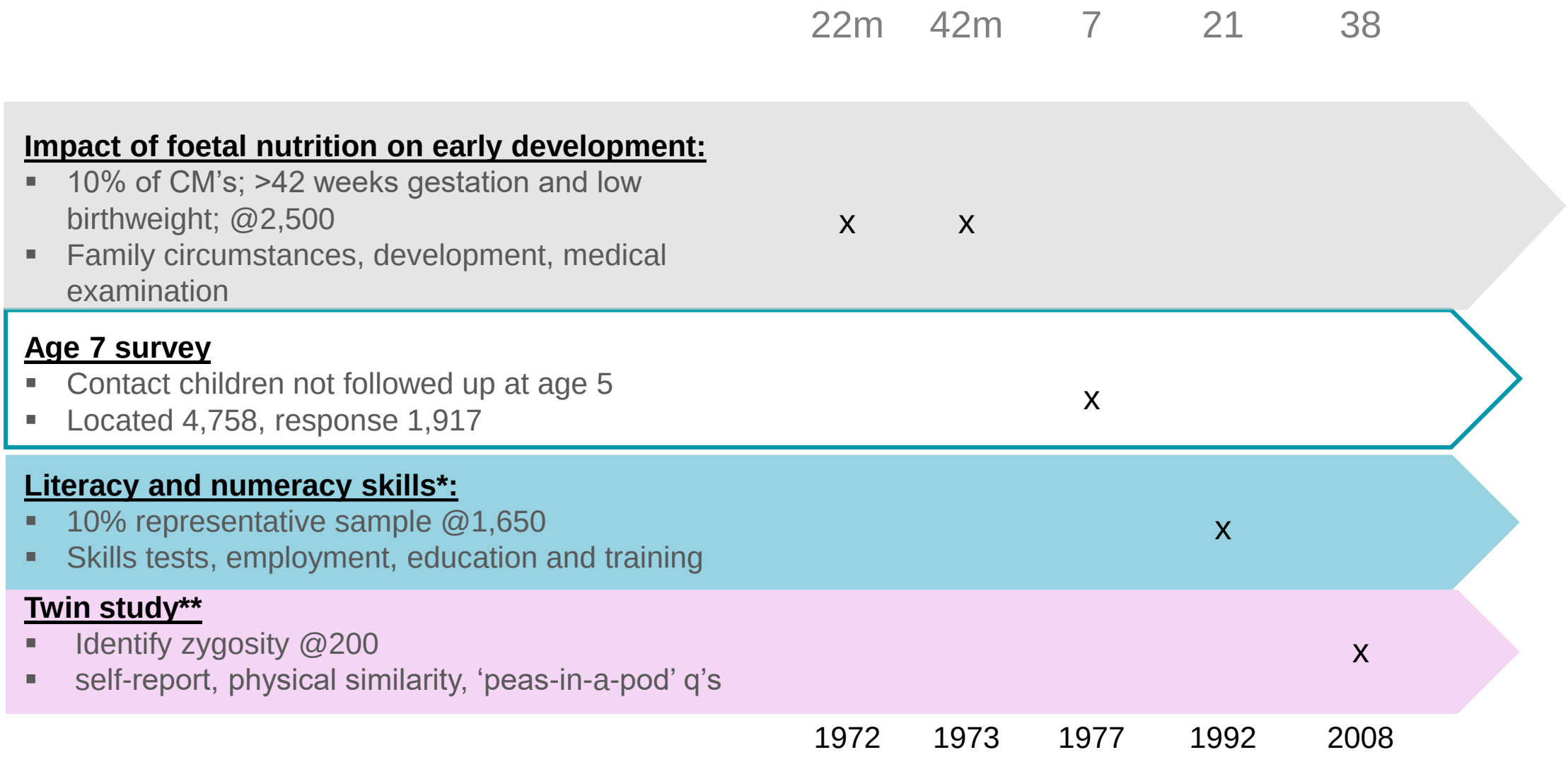
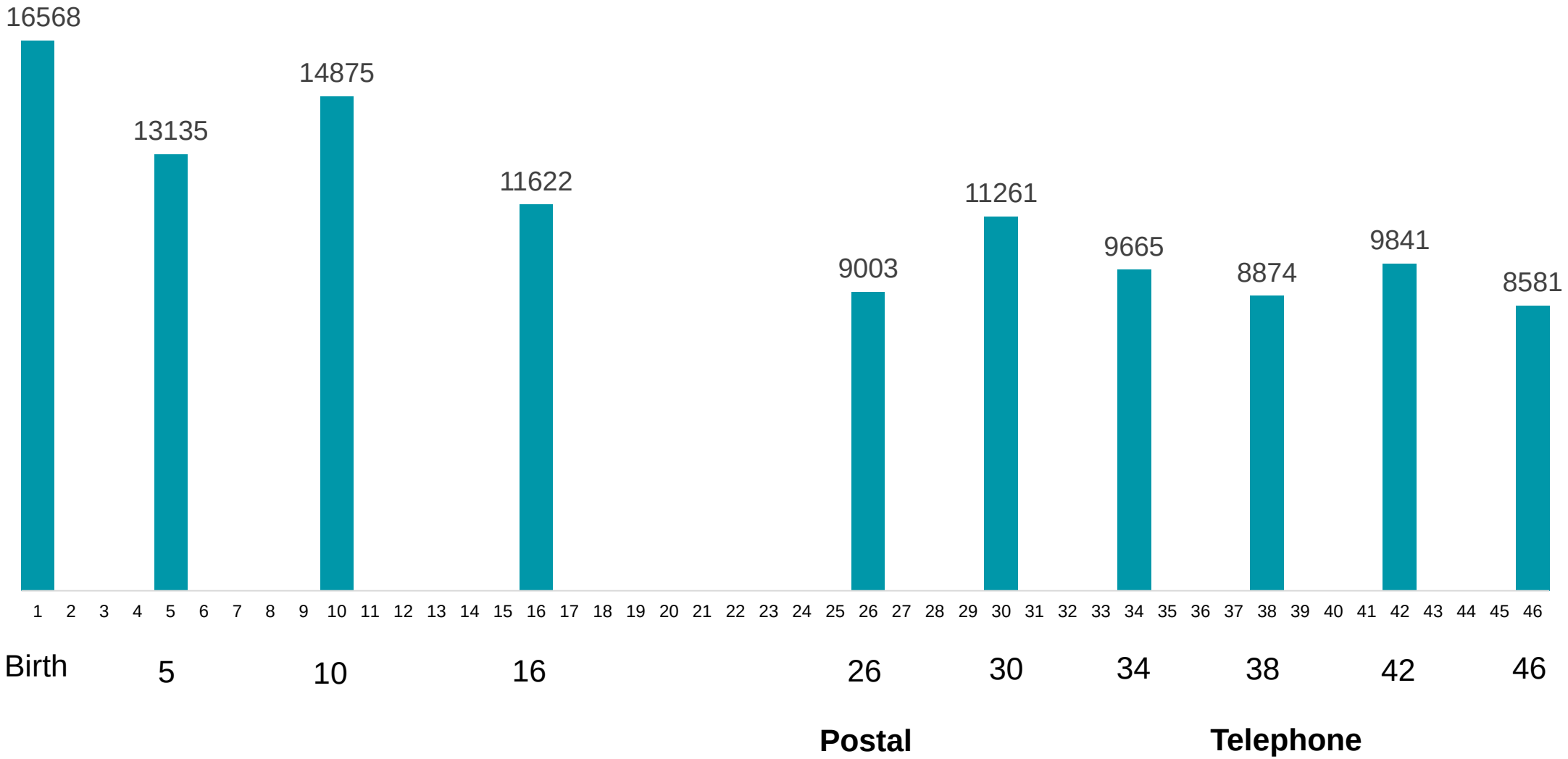


*Comparison with NCDS age 23 survey
**also conducted in NCDS

Participation / response in BCS70



Examples of research using BCS70

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THE LANCET
Volume 319, Issue 8283, 29 May 1982, Pages 1227-1229

Hospital Practice

BREAST-FEEDING, BRONCHITIS, AND ADMISSIONS FOR LOWER-RESPIRATORY ILLNESS AND GASTROENTERITIS DURING THE FIRST FIVE YEARS

Brent Taylor, Jean Golding, Jane Wadsworth, Neville Butler

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https://doi.org/10.1016/S0140-6736(82)92347-9

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Abstract

The possible influence of breast-feeding on reported bronchitis and on admissions to hospital for lower-respiratory illness and gastroenteritis during the first five years was assessed in a longitudinal national British study of 13 135 children. Breast-feeding was found to have no significant association with rates of bronchitis or admission to hospital with lower-respiratory illness after allowance was made for influences associated with both lower-respiratory illness and likelihood of breast-feeding (maternal smoking, family social status, and birthweight). Admissions to hospital for gastroenteritis in the first year were marginally less likely in breast-fed

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Growth in utero, blood pressure in childhood and adult life, and mortality from cardiovascular disease.

British Medical Journal 1989 ; 298 doi: https://doi.org/10.1136/bmj.298.6673.564 (Published 04 March 1989)
Cite this as: *British Medical Journal* 1989;298:564

Article | Related content | Metrics | Responses | Peer review

D. J. Barker, C. Osmond, J. Golding, D. Kuh, M. E. Wadsworth

Author affiliations

Abstract

In national samples of 9921 10 year olds and 3259 adults in Britain systolic blood pressure was inversely related to birth weight. The association was independent of gestational age and may therefore be attributed to reduced fetal growth. This suggests that the intrauterine environment influences blood pressure during adult life. It is further evidence that the geographical differences in average blood pressure and mortality from cardiovascular disease in Britain partly reflect past differences in the intrauterine environment. Within England and Wales 10 year olds living in areas with high cardiovascular mortality were shorter and had higher resting pulse rates than those living in other areas. Their mothers were also shorter and had higher diastolic blood pressures. This suggests that there are persisting geographical differences in the childhood environment that predispose to differences in cardiovascular mortality.

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THE ECONOMIC JOURNAL

JOURNAL ARTICLE

Accounting for Intergenerational Income Persistence: Noncognitive Skills, Ability and Education

Jo Blanden, Paul Gregg, Lindsey Macmillan Author Notes

The Economic Journal, Volume 117, Issue 519, March 2007, Pages C43–C60,
https://doi.org/10.1111/j.1468-0297.2007.02034.x
Published: 16 April 2007 **Article history** ▾

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Abstract

We analyse in detail the factors that lead to intergenerational persistence among sons, where this is measured as the association between childhood family income and later adult earnings. We seek to account for the level of income persistence in the 1970 BCS cohort and also to explore the decline in mobility in the UK between the 1958 NCDS cohort and the 1970 cohort. The mediating factors considered are cognitive skills, non-cognitive traits, educational attainment and labour market attachment. Changes in the relationships between these variables, parental income and earnings are able to explain over 80% of the rise in intergenerational persistence across the cohorts.

Issue Section: CONFERENCE PAPERS

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BERJ British Educational Research Journal | BERA

Original Article | Open Access

Elite universities, fields of study and top salaries: Which degree will make you rich?

Alice Sullivan, Samantha Parsons, Francis Green, Richard D. Wiggins, George Ploubidis

First published: 11 August 2018 | https://doi.org/10.1002/berj.3453 | Citations: 15

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Abstract

This article assesses the chances of entering the top 5% of earners for a British co currently in their 40s. We assess the difference made by a university degree from (Russell Group) or non-elite university, and from different undergraduate fields o Our study uses rich longitudinal data from the 1970 British Cohort Study (BCS70). allows us to control for an unusually large range of potential confounding factors including childhood socio-economic circumstances, cognitive scores, secondary schooling and prior qualifications. We find that large raw differences in the chances of achieving a top salary are strongly attenuated by our controls, but substantial differences between degree subject areas remain. The large gap between men and women in the chance of gaining a top salary is not explained by the type of degree achieved, and we found no evidence of gender differences in the gains from institutional prestige or particular fields of study.

Fiscal Studies The Journal of Applied Public Economics | IFS Institute for Fiscal Studies

Free Access

Educational inequality: the widening socio-economic gap

Stephen Machin, Anna Vignoles

Abstract

In this paper, we consider research on links between higher education and family background, focusing particularly on the experiences of two cohorts of individuals born in 1958 and 1970. The findings point to a rise in educational inequality during the period relevant to these two cohorts. Specifically, links between educational achievement and parental income / social class strengthened during this period. Furthermore, a person's actual (measured) ability became a poorer predictor of whether they would get a degree than was previously the case. The expansion of higher education in the UK during this

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The Guardian

A third of middle-aged UK adults have at least two chronic health issues - study

Childhood poverty and health issues before adulthood all factors in decline in mid-life wellbeing

BMJ Journals

Journal of Epidemiology & Community Health

Original research

Changes in the behavioural determinants of health during the COVID-19 pandemic: gender, socioeconomic and ethnic inequalities in five British cohort studies

David Bann [1], Aase Villadsen [1], Jane Maddock [2], Alun Hughes [2], George B. Ploubidis [1], Richard Silverwood [1], Praveetha Patalay [1, 2]

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The British Journal of Psychiatry

Pre-pandemic mental health and disruptions to healthcare, economic and housing outcomes during the COVID-19 pandemic: evidence from 12 UK longitudinal studies

Published online by Cambridge University Press: **30 September 2021**

Giorgio Di Gessa, Jane Maddock, Michael J. Green, Ellen J. Thompson, Eoin McElroy, Helena L. Davies, Jessica Mundy, Anna J. Stevenson, Alex S. F. Kwong and Gareth J. Griffith ...Show all authors

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nature communications

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Article | Open Access | Published: 28 June 2022

Long COVID burden and risk factors in 10 UK longitudinal studies and electronic health records

Ellen J. Thompson, Dylan M. Williams, Alex J. Walker, Ruth E. Mitchell, Claire L. Niedzwiedz, Tiffany C. Yang, Charlotte F. Huggins, Alex S. F. Kwong, Richard J. Silverwood, Giorgio Di Gessa, Ruth C. E. Bowyer, Kate Northstone, Bo Hou, Michael J. Green, Brian Dodgeon, Katie J. Doores, Emma L. Duncan, Frances M. K. Williams, OpenSAFELY Collaborative, Andrew Steptoe, David J. Porteous, Rosemary R. C. McEachan, Laurie Tomlinson, Ben Goldacre, ... Claire J. Steves + Show authors

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Research article | Open Access | Published: 21 September 2022

The UK Coronavirus Job Retention Scheme and smoking, alcohol consumption and vaping during the COVID-19 pandemic: evidence from eight longitudinal population surveys

Michael J. Green, Jane Maddock, Giorgio Di Gessa, Bożena Wielgoszewska, Sam Parsons, Gareth J. Griffith, Jazz Croft, Anna J. Stevenson, Charlotte F. Huggins, Charlotte Booth, Jacques Wels, Richard J. Silverwood, Praveetha Patalay, Alun D. Hughes, Nishi Chaturvedi, Laura D. Howe, Emla Fitzsimons, Srinivasa Vittal Katikireddi & George B. Ploubidis

BMC Medicine **20**, Article number: 345 (2022) | Cite this article

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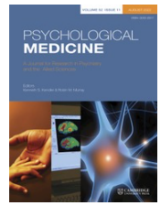

Psychological Medicine

Mental health in relation to changes in sleep, exercise, alcohol and diet during the COVID-19 pandemic: examination of four UK cohort studies

Published online by Cambridge University Press: **02 November 2021**

Aase Villadsen, Praveetha Patalay and David Bann

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Article | Supplementary materials | Metrics

Data, by theme

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Themes

- Family and relationships
- Education and cognition
- Physical health
- Mental health and well-being
- Behaviours, attitudes and identity

…but there are many more

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Family and Relationships

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Family and relationships

- Household composition
- Relationship to cohort member

Childhood

- Biological, step, adoptive parents
- Family context, e.g. marital status and partnership formation / dissolution
- Mothers' pregnancy (history), labour and delivery
- Child care
- Socio-economic context of family e.g. parents' employment, social class, income, housing
- Family life
- Friends and socialising

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Family and relationships

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Partner	Family	Other
Partnership Histories dataset (1986-2016) Socio-economic status of CM and partner Economic activity status Employment current / history Cohabiting and non-cohabiting relationships (38,42,46) Relationship satisfaction (30, 42,46)	Children (26, 30, 38,42,46) ▪ Number; own, adopted, partners' ▪ Parental demands (30) ▪ Absent (living, contact etc) (42) ▪ Older (SES, educ, marital status, fertility) (42) Family activities (30, 34) CM's parents ▪ Alive, age of death (26, 30, 38, 42, 46) ▪ Relationship with parents (30) Care provision (38, 42, 46) Grandchildren (46)	Support family and friends (30) Social contact and support (42,46)

Education and cognitive measures

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Educational attainment and skills

- Parental education (5,10)
- Early education provision (5)
- Teacher assessment (10,16)
  - Learning problems, abilities, educational environment
- Special educational needs (10,16)
- Study intentions (16)
  - Higher education, vocational and employment
- Qualifications and training (26,30,34,38,42,46)
  - Academic, technical, vocational
- Partner's highest education (38)
- CM'S children's highest education (42)

BCS70 Cognitive Assessments/Skills

Domain	Test	Age
Developmental milestones*		22 & 42 months
Verbal skills	Schonell Reading Test English Picture Vocabulary Test Edinburgh Reading Test (ERT-SV) Pictorial Language Comprehension Test BAS Word Definitions APU Vocabulary Test	5 5 10, 16 10 10 16, 42
Verbal reasoning	BAS Word Similarities	10
Non-verbal reasoning	BAS Matrices	10, 16
Mathematics and numeracy	Friendly Maths Test APU Arithmetic Test	10 16
Visual/spatial processing	Copying Designs Test Human Figure Drawing Complete a Profile Test	5 5 5
Memory	BAS Recall of Digits Immediate and delayed Word list recall	10 46
Cognitive function	Timed Letter search/cancellation (processing speed) Animal Naming Test (verbal fluency)	46 46

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- sub-sample

BAS (British Ability Scales)
APU (Applied Psychology Unit)

BCS70 Cognitive Assessments/Skills

Adult Basic Skills	
Literacy and numeracy (ALBSU)	21*, 34
Literacy and numeracy (Skills for Life)	34

Children of the cohort members (age 34)	Age appropriate tests
BAS Naming Vocabulary BAS Early Number Concepts	Age 3 – 5 yrs 11 months
BAS Word Reading BAS Number Skills BAS Spelling	Age 6 – 16 yrs 11 months

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- sub-sample

ALBSU (Adult Literacy and Basic Skills
BAS (British Ability Scales)

Physical Health

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Medical history

- Birth
  - Antenatal care, abnormalities in pregnancy and labour, analgesia and anaesthesia, infant (weight, progress, management and outcome), obstetric history
- Immunisation /vaccinations (5,10,16)
- Accidents (5, 10, 16, 26, 30, 34)
- Use of health services (5,10,16)
- Hospital admissions (5,10,16, 30, 34)
- Medication (10, 16, 46)

- Linked administrative health records
  - England and Scotland (UKDS secure access)
- Death (1970-2015) UKDS secure access

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Physical Health in BCS70 – measurements

- Anthropometrics:
  - Height*, Weight and BMI (5*,10**, 16, 26, 30, 34, 42, 46)
  - Head circumference (5,10,16)
  - Hip and waist circumference (46)
  - Body fat (46)
- Measurements (medical examination)
  - Blood pressure (10, 16, 46)
  - Pulse (10)
  - Vision (10, 16, 30)
  - Audiometry (10,16, 26, 30, 34)
  - Laterality (10,16)
  - Co-ordination (10, 16)
  - Speech (10)
  - Maximal grip strength (46)
  - Leg-raise/balance (46)

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* Height only
** also parents height and weight

Physical Health in BCS70 – measurements and samples

- Blood samples (46):
  - Total / HDL cholesterol*
  - Glycated haemoglobin*
  - Triglycerides
  - C-reactive protein
  - Insuline-like-growth-factor
  - Ferritin
  - Cytomegalovirus
  - Red blood cell count
  - DNA currently being extracted
- Accelerometer (46)
  - Sedentary time

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Assessment of Physical Health

- Parent/self-assessment of CM's general health (16, 26, 30, 34, 38, 42, 46)
  - (SF-36) General health (46)
- Medical conditions/Long standing illness (5, 10,16, 26, 30, 34, 38, 42, 46)
- Disability and chronic illness (10,16, 30, 34, 38)
- Reproductive health
  - Menstruation and symptoms (16); Contraception (0,16,46)
  - Pregnancy history (30,34,38,42); Infertility (30,42)
  - Gynaecological problems (42); Hysterectomies/Oophorectomies (42)
  - Menopause (42, 46); HRT (42)
- Dental health (46)

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- Family health (5, 10, 16)
  - Mothers Health: Cornell Health Inventory (10)
- CM's child's physical health* (34)

Health behaviours

Cohort member (CM)

- Physical activity (16, 30, 34, 42, 46)
- Diet (10, 16, 30, 34, 42, 46)
- Smoking (10, 16, 26, 30, 34, 38, 42, 46)
- Drinking (16, 26, 30, 34, 42, 46)
- Drug use (16,30)
- Sleep (16, 42, 46)
- Sexual (16)

CM's parent

- Maternal smoking during pregnancy (0)
- Maternal drinking during pregnancy (10)
- Parents smoke (5,10)
- Parents drinking (16)
- Parents exercise (16)

CM's child

- CM's health related behaviour during pregnancy* (34)
- CM's children (age 10-16) smoking, drinking and drug use* (34)

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* sub-sample 1 in 2 children

Mental health and well-being

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Mental Health measure	Age
Rutter Behaviour Scales	5, 10, 16
Conners Hyperactivity Rating Scale	10, 16
Child Development Scale*	10
Malaise Inventory: Psychological distress	$5_{m,}$ 16_{m}, 16, 26, 30, 34, 42, 46
GHQ-12: Psychological distress	16, 30
Kessler (4) Psychological distress	34
Warwick-Edinburgh Mental Wellbeing Scale (WEMBS)	42, 46
36 Item Short Form Survey (SF-36) – health incl. general mental health	46
Life satisfaction	26, 30, 34, 42, 46

Parent, teacher and self-report

Maternal mental health

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*items from Rutter, Conners and Swansea Assessment Battery

Behaviours, attitudes and identity

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Behaviours

- Eysenck Personality Inventory (10)
- Social Judgement Scale (10)
- Locus of Control Scale (Caraloc) (10)
- Self-esteem Scale (Lawseq) (10,16)
- Self-efficacy ((26), 30, 34, 42)

- Risky and antisocial behaviour (16)
  - Stealing, fighting, criminality, contact with police
- Bullying, victimisation (16)

Attitudes, values and identity

- Identity
  - Religion (26,30,34,42)
  - Class identity (42)
  - Sexuality (42)
- Political
  - Voting (26, 30, 42, 46)
  - Political participation (42)
- Trust (42)
- Law and order (16, 26)
- Membership of organisations (30, 34, 42, 46)

- Activities and interests
  - Occupational interests (16)
  - Leisure activities (16, 42)
  - Sporting activities (16, 42)
  - Reading (16, 42, 46)
  - Screen time/computer use (42, 46)
- Attitudes
  - School (10)
  - Leaving home (16)
  - Religion (16, 42)
  - Politics (26, 30, 34)
  - Sex equality (26)
  - Traditional marital values (26)
  - Work ethic (26)
- Range of attitudes and values (30, 42)

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Data enhancements and innovations

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Access to different types of data

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Access to data held by the UK Data Service varies depending on how the data is classified:

Tier 1: End User Licence (EUL) for access to data with a low level of sensitivity and disclosivity.

- Most of our data are available under this licence.
- Your application is authorised directly by the UK Data Service, and you can download the data directly from there.

Tier 2a: Special Licence (SL) for access to moderately sensitive or disclosive data. Access through the UK Data Service and application approved by CLS before you can download the data.

Tier 2b: Secure Access Licence (SA) for access to the most sensitive and/or potentially disclosive data. Access through the UK Data Service and attend a specialised training course.

https://cls.ucl.ac.uk/data-access-training/data-access/

CLS record linkage programme – available data in BCS70

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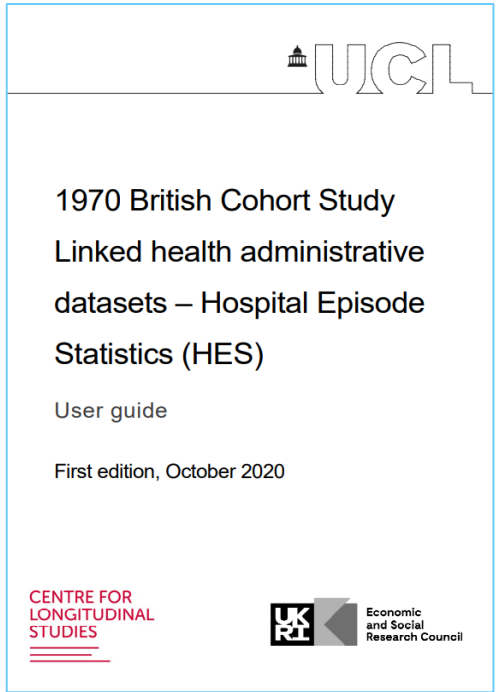
Domain	Country	Data set / information	Access
Health	England	• Hospital Episodes Statistics (HES)	via the UKDS (SA)
	Scotland	• Inpatient, Outpatient, Birth Records, Immunisation, Prescribing Information, Child Health Review	via the UKDS (SA)



SA (UKDS Secure Access)

Geographical data enhancements

Available via the UKDS

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Domain	Country	BCS70 sweep / year	Data set / information	Access
Neighbourhood	Great Britain	3 to 10	• Geographical identifiers • Ward, Lower and Middle Layer Super Output Area, LA district, Parliamentary Constituency, IMD	via the UKDS (SA)
	Great Britain	3 to 9	• Counties • Based on digitised 1981 boundary files	via the UKDS (SL)

	Great Britain	1971-2011	• Townsend Index of Deprivation
			• Population, persons per hectare, urban-rural indicator
			• Townsend Deprivation Score and Quintile:
			  • Unemployed % of economically active
			  • Non-home ownership % households
			  • Non-car ownership % households
				via the UKDS (SA)

Harmonised data sets (in BCS70 and across other British cohorts)

Available via the UKDS (EUL)

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Domain	BCS70 age	Data set / information
Socio-Economic	age 10 age 42	• Highest parental social class (RG 1990 version) • CM's social class (RG 1990 version)
Body Mass Index (BMI)	10,16,26,34,42 5,10,16,30,34,42	• Weight • Height
Mental health	3 (age 10)	• Four domains: emotional, peer problems, behavioural and attention / hyperactivity problems
Child environment	Various	• Crowding, Sole use of amenities, Housing tenure, Teen mother and/or father • Child rearing and parenting • Family instability (divorce, separation, moves • Parental and child health • Well-being

BCS70 COVID-19 and serology surveys

Available via the UKDS (EUL)

https://cls.ucl.ac.uk/covid-19-survey/

COVID-19 surveys response	
Wave 1	4,223
Wave 2	5,320
Wave 3	5,578

Serology survey response	
Invited	6,594
Consented	3,741
Blood sample returned	2,547

Serology Survey:

- Participants who took part in one of three COVID-19 Surveys were invited to provide a finger-prick blood sample
- Two antibody tests conducted - N-assay and S-assay
  - N-assay more likely to identify naturally occurring antibodies through exposure to virus
  - S-assay more likely to identify antibodies occurring following vaccination

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https://cls.ucl.ac.uk/covid-19-survey/covid-19-antibody-testing/

Accelerometer (age 46)

Available via the UKDS (EUL)

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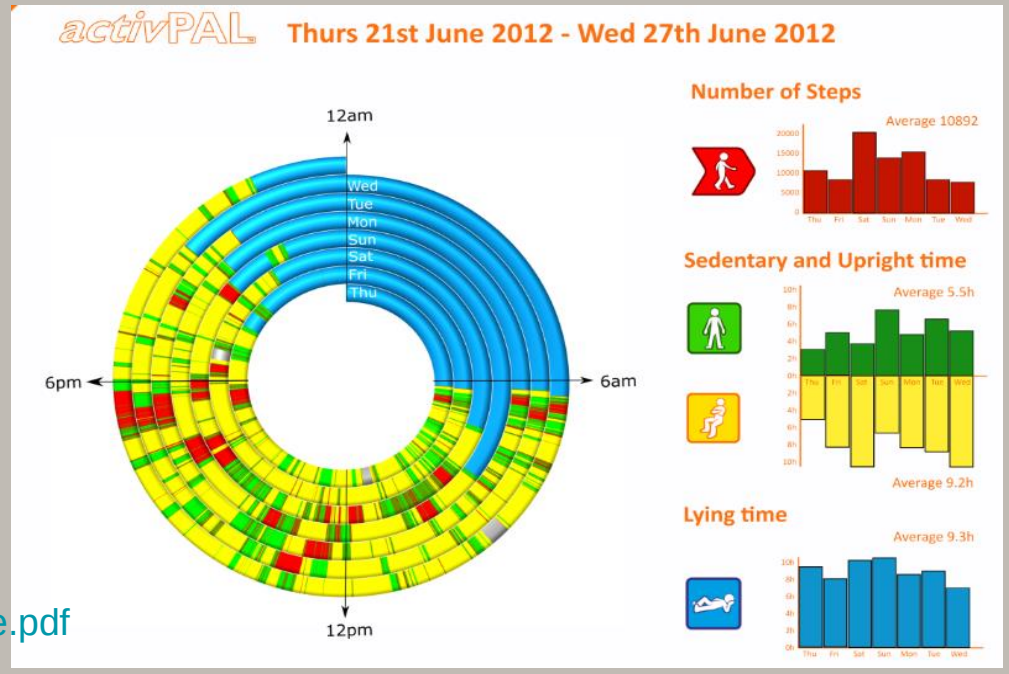
- Thigh worn ActivPal device worn for 7 days
- Accelerometer and also measures postural allocation to accurately distinguish between different types of sedentary activity (standing, sitting, sleeping) and transitions between



https://cls.ucl.ac.uk/wp-content/uploads/2020/02/BCS70_Accelerometry_User_Guide.pdf

Dietary diary and questionnaire

Available via the UKDS (EUL)

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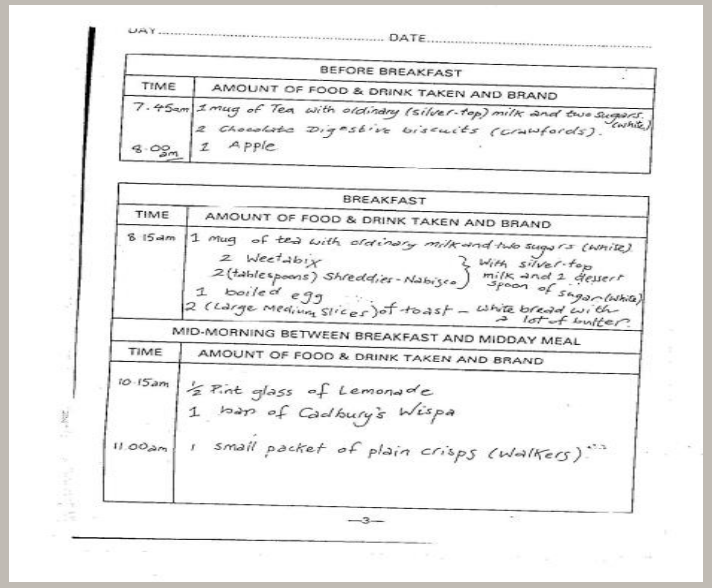
Age 16: Dietary diary

- Diet questionnaire over 4 days (Fri-Mon)



DAY ..... DATE .....

BEFORE BREAKFAST	
TIME	AMOUNT OF FOOD & DRINK TAKEN AND BRAND
7.45am	1 mug of Tea with ordinary (silver-top) milk and two sugars (white)
8.00am	2 Chocolate Digestive biscuits (Crawfords). 1 Apple

BREAKFAST	
TIME	AMOUNT OF FOOD & DRINK TAKEN AND BRAND
8.15am	1 mug of tea with ordinary milk and two sugars (white) 2 Weetabix 2 (tablespoons) Shreddies - Nabisco } with silver-top milk and 1 dessert spoon of sugar (white) 1 boiled egg 2 (Large Medium sliced) of toast – white bread with a lot of butter.
MID-MORNING BETWEEN BREAKFAST AND MIDDAY MEAL	
TIME	AMOUNT OF FOOD & DRINK TAKEN AND BRAND
10.15am	½ Pint glass of Lemonade 1 bar of Cadbury's Wispa
11.00am	1 small packet of plain crisps (Walkers).

—3—

- Dietary food group categories
- Diet nutrient categories

https://cls.ucl.ac.uk/wp-content/uploads/2020/05/BCS70-Age-16-Dietary-Diaries-User-Guide.pdf

Age 46: Online diet questionnaire

- Oxford WebQ – developed and hosted by CEU, Oxford
- Inventory of food and drink consumed on previous day
- Completed on 2 of 7 days following home visit
- Nutrient intake calculated e.g. energy (kJ), protein (g), total fat (g) etc

Parent and Child survey (age 34)

Available via the UKDS (EUL)

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- Random sample of one in two CM's.
- Information was collected directly from over 5000 children of CMs < age 17
- Age-specific questions to parent on child's:
  - Development, relationships, behaviour, discipline, school absence/exclusion, reading and schoolwork
- Child:
  - Age-specific (3<17) cognitive assessments
  - Age 10-16: leisure time, relationships with parents, attitudes to school, aspirations for the future, crime, self-esteem

https://cls.ucl.ac.uk/wp-content/uploads/2017/07/BCS70-2004-User-Guide-2020-update.pdf

Twins Survey 2008 (also conducted in NCDS)

Available via the UKDS (EUL)

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- Data on zygosity of twins
- 202 BCS70 twins (data imputed if only one twin pair responded)

- Three measures of zygosity:
  - Self-report
  - Based on 5 standardised questions: Teachers, parents, siblings, close friends, strangers telling them apart and ‘Peas in a pod’ question
  - Physical similarity (eye colour, height, weight, hair colour & texture)
- 25-35% zygotic

https://cls.ucl.ac.uk/wp-content/uploads/2018/06/NCDS_BCS_Twins_data_note2.pdf

Dealing with attrition

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Attrition and non-response

- Attrition is the discontinued participation of some individuals in a longitudinal survey for reasons that are unknown and/or beyond the control of the researcher
- Unit/wave non-response (attrition) as opposed to item non-response (both types of missing data)
- Types of unit/wave non-response:
  - Non-contact
  - Refusal
  - Inability
- Non-response on the increase in all surveys
- Non-response may not be permanent
- Non-response/attrition can have some important implications

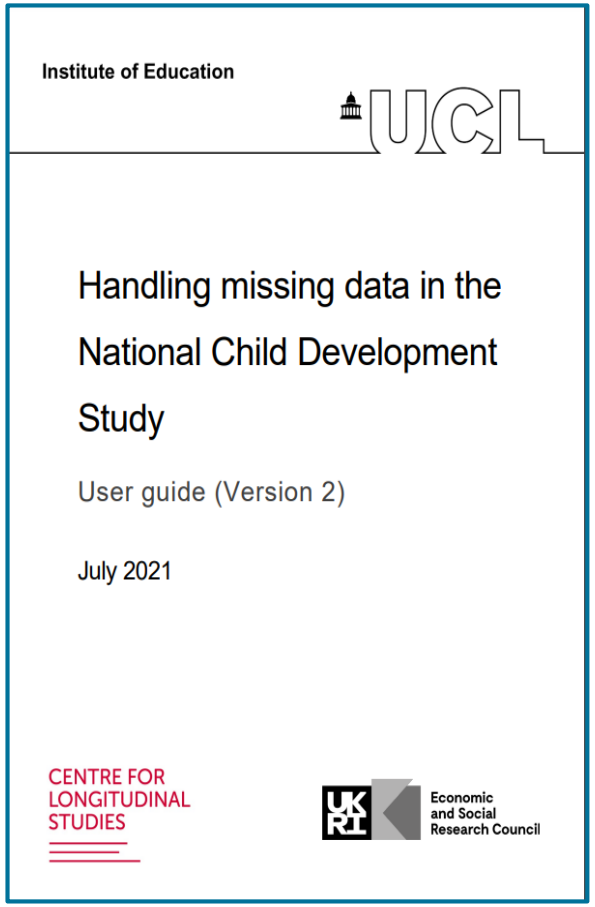
Dealing with unit non-response in BCS70

- Case-wise deletion i.e. ignoring non-response (unless missing completely at random)
  - Any individual in a data set is deleted from an analysis if they're missing data on any variable in the analysis
  - Straightforward, but doesn’t deal with any non-response bias
- Non-response weights
  - Adjust the sample composition to take account of the loss of particular type of respondents.
  - Inverse probability weighting (IPW)
- Other more advanced methods e.g.multiple imputation
  - MI involves the generation of multiple copies of the dataset in each of which missing values are replaced by imputed values sampled from their posterior predictive distribution given the observed

Dealing with unit non-response in BCS70

- No attrition weights in BCS70 dataset* – cohort specific ‘Missing Data Guide’ for BCS70 will be available in 2023
- Relevant examples and useful references in ‘Handling missing data in the NCDS’ and other papers

*with exception COVID-19 surveys



CENTRE FOR LONGITUDINAL STUDIES

Mostafa, T., Narayanan, M., Pongiglione, B., Dodgeon, B., Goodman, A., Silverwood, R. J., & Ploubidis, G. B. (2021). Missing at random assumption made more plausible: evidence from the 1958 British birth cohort. *Journal of Clinical Epidemiology*, *136*, 44-54.

Silverwood, R. J., Calderwood, L., Sakshaug, J. W. & Ploubidis, G. B (2020). A data driven approach to understanding and handling non-response in the Next Steps cohort CLS working paper number 2020/5. London: UCL Centre for Longitudinal Studies.

Resources and data access

CENTRE FOR LONGITUDINAL STUDIES

Economic and Social Research Council

https://cls.ucl.ac.uk/cls-studies/1970-british-cohort-study/

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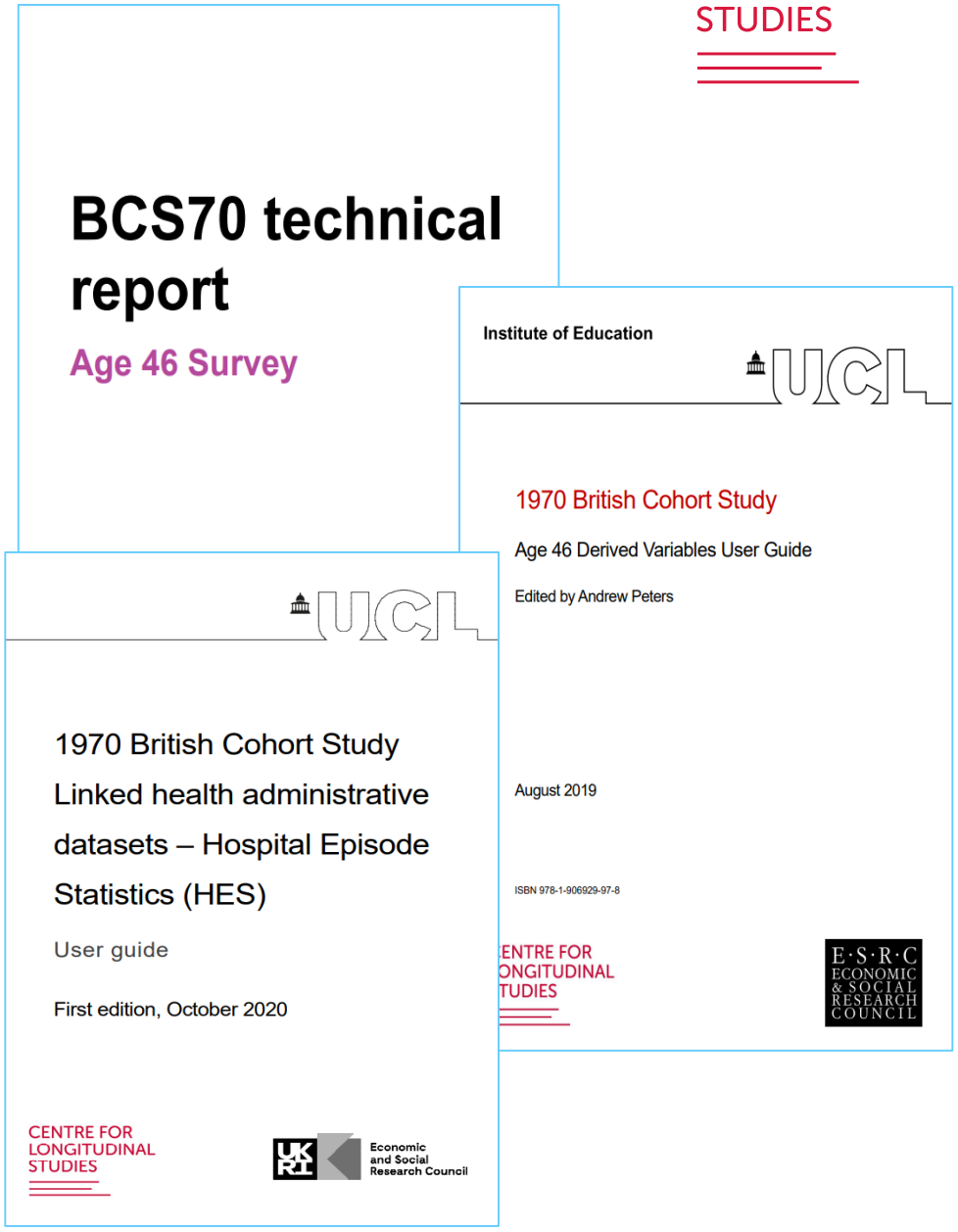
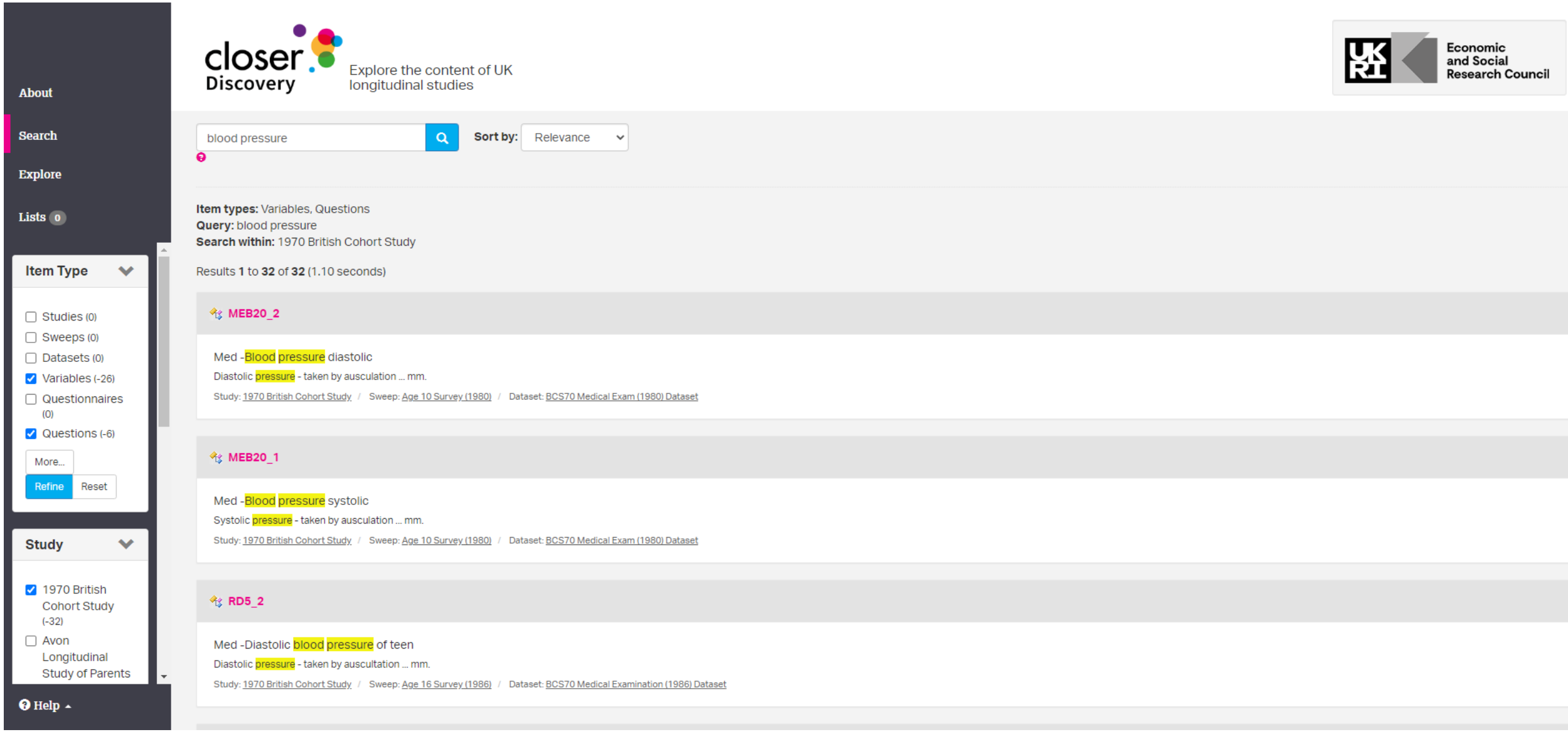


Available resources

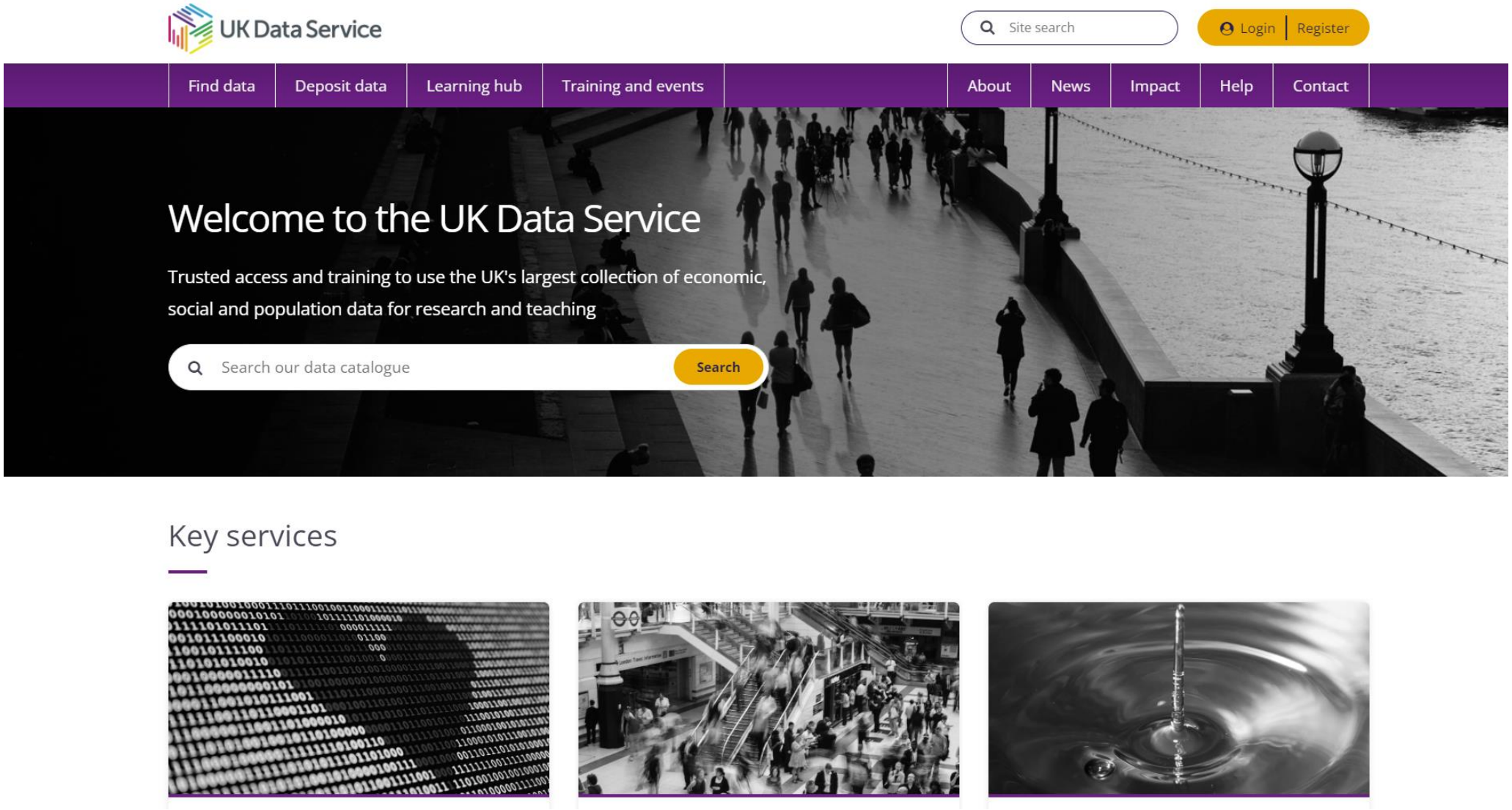
CENTRE FOR LONGITUDINAL STUDIES

- User guides
  - Overview of measures; Response and weights
- Questionnaires
  - Exact question wording; Question routing; Variable names
- Data documentation
  - Data notes; Coding frames; Variables lists, including derived variables
- Technical reports
  - Sample and questionnaire design, development
  - Fieldwork, response, ethics
  - Coding, editing
- Data dictionaries
- Previous journal publications https://cls.ucl.ac.uk/publications-and-resources/

SEARCH Closer Discovery (discovery.closer.ac.uk/)



Data freely available to researchers, government analysts and third sector workers: https://ukdataservice.ac.uk/



CENTRE FOR LONGITUDINAL STUDIES

Available Resources: UK Data Service

1970 British Cohort Study: Age 46, Sweep 10, 2016-2018

Details | Documentation | Resources | Access data

Documentation

Title	File name	Size (MB)
1970 British Cohort Study - Age 46 Derived Variables User Guide	bcs70_age_46_derived_variables_user_guide.pdf	0.3
1970 British Cohort Study - Age 46 Survey User Guide	bcs70_age_46_survey_user_guide.pdf	0.7
1971 British Cohort Study - Variable Lookup Table	bcs_2016_variable_lookup_table.xlsx	0.11
UK Data Archive Citation File for Study 8547	UKDA_Study_8547_Information.htm	0
UK Data Archive Data Dictionaries	ukda_data_dictionaries.zip	0.29
UK Data Archive ReadMe File for Study 8547	read8547.htm	0

1970 British Cohort Study Response Dataset, 1970-2016

Details | Documentation | Resources | Access data

Documentation

Title	File name	Size (MB)
A Guide to Longitudinal Linkage of BCS Data	bcs_longitudinal_linkage.pdf	0.18
Changes in the NCDS and BCS70 Populations and Samples Over Time	ncds_and_bcs70_response.pdf	0.15
CLS Confidentiality and Data Security Review	cls_confidentiality_and_data_security_review.pdf	0.02
Realignment of BCS70 identifiers	realignment_of_bcs70_identifiers_documentation.pdf	0.5
UK Data Archive Citation File for Study 5641	UKDA_Study_5641_Information.htm	0
UK Data Archive Data Dictionaries	ukda_data_dictionaries.zip	0.01
UK Data Archive ReadMe File for Study 5641	read5641.htm	0
User Guide to the Response and Deaths Datasets	bcs70_responses_and_deaths_user_guide.pdf	0.36

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http://discover.ukdataservice.ac.uk/series/?sn=200001

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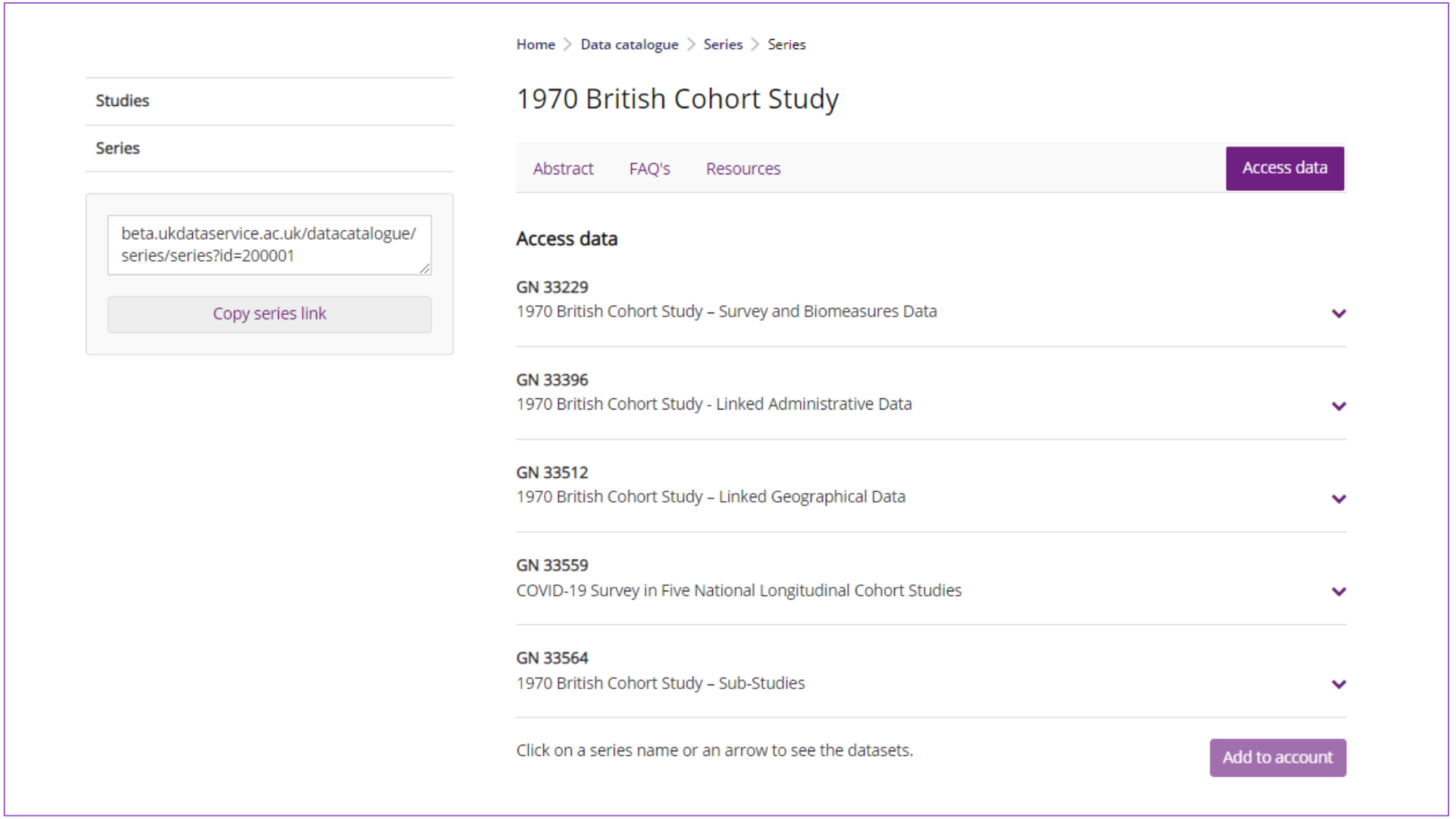

BCS70 ‘Survey and Biomeasures Data’

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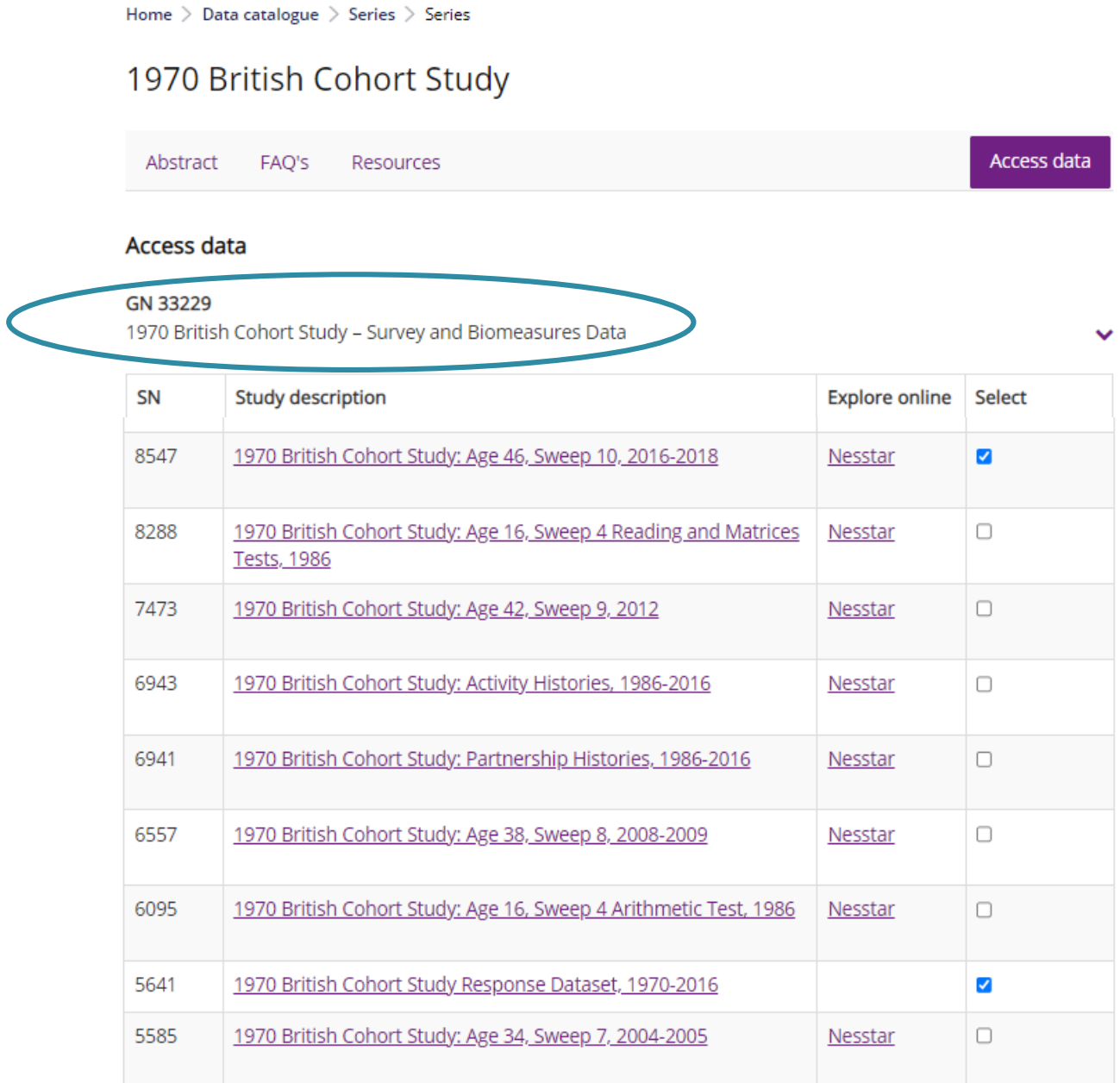

Home > Data catalogue > Series > Series

1970 British Cohort Study

Abstract FAQ's Resources Access data

Access data

GN 33229
1970 British Cohort Study – Survey and Biomeasures Data

SN	Study description	Explore online	Select
8547	1970 British Cohort Study: Age 46, Sweep 10, 2016-2018	Nesstar	☑
8288	1970 British Cohort Study: Age 16, Sweep 4 Reading and Matrices Tests, 1986	Nesstar	☐
7473	1970 British Cohort Study: Age 42, Sweep 9, 2012	Nesstar	☐
6943	1970 British Cohort Study: Activity Histories, 1986-2016	Nesstar	☐
6941	1970 British Cohort Study: Partnership Histories, 1986-2016	Nesstar	☐
6557	1970 British Cohort Study: Age 38, Sweep 8, 2008-2009	Nesstar	☐
6095	1970 British Cohort Study: Age 16, Sweep 4 Arithmetic Test, 1986	Nesstar	☐
5641	1970 British Cohort Study Response Dataset, 1970-2016		☑
5585	1970 British Cohort Study: Age 34, Sweep 7, 2004-2005	Nesstar	☐

Accessing the data

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- Register and set up an account at the UK Data Service
- Search for the data using the ‘find data’ tab
  - BCS70
- Before downloading the data
  - Click on ‘Request Access’
  - Click on ‘Complete Actions’
  - Agree to standard ‘End User Licence’
  - Read and agree extra conditions
  - Choose data format and download zip file
    - SPSS
    - STATA
    - TAB (tab-delimited file)

Looking ahead

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Looking ahead

- Age 51 survey
  - Currently in the field
    - 75 minute face to face interview*
    - Paper self-completion
    - Online diet questionnaire
  - Data deposit at UKDS ~ 2023

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Age 51 content (not exhaustive)

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Employment and income

Occupation

Income

Partner's employment and income

Impact of COVID-19

Benefits

Penions

Debts

Intergerational transfers

Physical health and health behaviours

General

Longstanding

Health conditions

COVID tests, symptoms, long COVID

Height/Weight

Exercise

Diet

Drinking and smoking

Cognitive skills and processes:

Immediate and delayed recall

Animal naming

Letter cancellation

National Audit Reading Test (NART)

Mental health and well-being

Psychological distress

Mental well-being

Life satisfaction

Family and relationships

Grandchildren

CM's and partners parents – caring responsibilities

Social contact

Quality of relationships

Menstruation

Fertility

Activities, attitudes and values

We've covered

CENTRE FOR LONGITUDINAL STUDIES

- A brief overview of CLS and the BCS70
- Examples of the types of research
- Data in the BCS70 by themes
- Enhancements and innovations
- Resources available and data access
- Q&A to the panel

UCL

Q&A to the panel

Please complete the feedback form

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UKRI Economic and Social Research Council

Questions to the panel

BCS70 team

- George Ploubidis, Director BCS70
- Matt Brown, Senior Survey Manager
- Andrew Peters, Research Data Manager
- Sam Parsons, Research Fellow

- Vanessa Moulton, Senior Researcher and
- Morag Henderson, Associate Professor

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IOE.CLS Data User Support

clsfeedback@ucl.ac.uk

Thanks!

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