

DATA PAPER

1970 British Cohort Study

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The 1970 British Cohort Study (BCS70) is one of Britain's world famous national longitudinal birth cohort studies, three of which are run by the Centre for Longitudinal Studies at the Institute of Education, University of London.

BCS70 follows the lives of more than 17,000 people born in England, Scotland and Wales in a single week of 1970. Over the course of cohort members lives, the BCS70 has collected information on health, physical, educational and social development, and economic circumstances among other factors.

Since the birth survey in 1970, there have been nine 'sweeps' of all cohort members at ages 5, 10, 16, 26, 30, 34, 38 and most recently at 42.

Data has been collected from a number of different sources (the midwife present at birth, parents of the cohort members, head and class teachers, school health service personnel and the cohort members themselves). The data has been collected in a variety of ways including via paper and electronic questionnaires, clinical records, medical examinations, physical measurements, tests of ability, educational assessments and diaries.

The majority of BCS70 survey data can be accessed by bona fide researchers through the UK Data Service at the University of Essex.

Keywords: longitudinal; cohort; family; housing; relationships; fertility; employment; income; education; cognition; health; well-being; social participation; values; attitudes

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(1) Overview**Introduction**

The 1970 British Birth Cohort Study (BCS70) is an ongoing, multidisciplinary, longitudinal study. It takes as its subjects all those currently living in England, Scotland, and Wales who were born in a single week of 1970.

BCS70 began as the British Births Survey, when information was collected about the births and social circumstances of over 17 000 babies born in England, Scotland, Wales, and Northern Ireland. The study aimed to examine the social and biological characteristics of the mother in relation to neonatal morbidity. Sub-studies were carried out at 22 months and 42 months as part of a project known as the British Births Child Study, 1972-73. This was designed to explore the effects of foetal malnutrition on the development of the child (Chamberlain & Davey 1975, 1976; Chamberlain & Simpson 1977, 1979).

Since 1970 there have been nine further attempts to gather information from the whole cohort. With each successive attempt, the scope of enquiry has broadened from a strictly medical focus at birth, to encompass physical and educational development at the age of five,

physical, educational and social development at the ages of ten and sixteen. In adult sweeps at ages 26, 30, 34, 38 and most recently at 42 the study has focused on the factors central to the formation of adult identity in each of the following domains of life: lifelong learning; relationships, parenting and housing; employment and income; health and health behaviour; citizenship and values.

The information collected forms a high quality data resource for scientific investigations across a full range of domains of individuals' lives and across different points in time in them.

Health information collected by the study is summarised below:

Information from childhood sweeps: Birth circumstances, birth weight, breastfeeding, general health, child development, specific conditions, disabilities/ special needs, hospital admissions, immunisation, medication, accidents, menstruation, diet, eating problems, exercise, sexual activity, smoking, drink and drugs, behavioural problems, mental health, well-being, personality, locus of control, self-esteem, social judgement, sleeping problems, medical assessments (height, weight, head

circumference, audiometry, speech, co-ordination, blood pressure/pulse, vision), cognitive assessments, parental health, parental smoking, parental drinking.

Information from adult sweeps: General health, specific conditions, disability/limitations, menopause, weight, accidents, mental health, well-being, sleep, smoking, alcohol, drug use, diet, exercise, sedentary behaviour, cognition.

Spatial coverage

Description: The 1970 British Cohort Study (BCS70) follows the lives of more than 17,000 people born in England, Scotland and Wales in a single week of 1970.

Temporal coverage

BCS70 began as the British Births Survey, in 1970. BCS70 has followed participants throughout childhood into adulthood and aims to continue to track their lives right through to the end.

Species

Data collection involves human beings (*Homo sapiens*).

(2) Methods

Steps

Since the birth survey there have been nine sweeps of the study at age 5 (1975), age 10 (1980), 16 (1986), 26 (1996) 30 (2000), 34 (2004), 38 (2008) and 42 (2012).

The birth survey involved the use of questionnaires completed by the midwife present at the birth of the study members. In addition, information was extracted from clinical records.

At age 5 and age 10 parents of the children in the study were interviewed by health visitors, and information was gathered from the child's class teacher and head teacher, from the school health service, and from the children themselves via means of questionnaires and assessments.

The age 16 follow-up comprised 16 separate survey instruments, including parental questionnaires, class teacher and head teacher questionnaires, and medical examinations. In addition to completing educational assessments, the cohort members themselves answered questionnaires on a wide range of different topics and were asked to keep two 4 day diaries, one on nutrition and one on general activity.

The age 26 follow-up took the form of a postal survey. Further follow-ups occurred at ages 30, 34, 38 and 42. These all involved computer aided interviews with study members (with the age 38 follow-up being conducted via telephone). At age 34 information was also collected from the children of study members (for 50% of the sample).

More information about each follow-up is provided on the Centre for Longitudinal Studies (CLS) website.

Sampling strategy

The BCS70 follows the lives of all people born in England, Scotland and Wales in one particular week of April 1970. In addition, in advance of the age 5, age 10 and age 16 follow-ups the sample was augmented with immigrants born within the relevant week.

Quality control

Since 2000 the majority of the data has been collected via Computer Aided Interviewing (CAI) which allows the complex routing of the questionnaire instruments to be automatically controlled. Consistency checks are built into the CAI program to minimise the potential for erroneous data entry. The CAI instruments are rigorously checked prior to fieldwork. Pilot studies are conducted prior to commencement of the main stage of data collection in order to fully test the data collection instruments and all fieldwork procedures.

Privacy

Study members have been guaranteed anonymity. Identifiable data is not included in the datasets made available for research. Researchers accessing the data via the UK Data Service must abide by the terms of an End User Licence which forbids any attempt to identify an individual. Datasets judged to have a greater disclosure risk are made available via Special Licence which involve additional access conditions.

Ethics

Over the years, those responsible for the study have been concerned that appropriate procedures for ethical review and consent are followed but the approach has changed significantly. Currently in the UK, probably the most important route for ethical approval for studies like BCS70 is the National Health Service (NHS) Research Ethics Committee (REC) system. NHS Research Ethics Committees (RECs) are appointed by the Strategic Health Authorities in England, their equivalents in Scotland and Wales and the Health and Social Care Business Services Organisation in Northern Ireland. RECs safeguard the rights, safety, dignity and well-being of people participating in research. They review applications for research and give an opinion about the proposed participant involvement and whether the research is ethical. REC ethical approval has been sought for BCS70 follow-ups from 2000 on. Earlier sweeps predated the establishment of the MREC system. Available records suggest that there was only internal ethical review for these surveys.

(3) Dataset description

Object name

GN 33229 – 1970 British Cohort Study – available at the UK Data Service.

Data type

Primary data

Ontologies

N/A

Format names and versions

SPSS, STATA.

Dataset creators

Centre for Longitudinal Studies, Institute of Education

S.No.	Level of Estimate	Households Size	Publication date
7473	1970 British Cohort Study: Forty-Two-Year Follow-Up, 2012	10.5255/UKDA-SN-7473-1	06-Mar-14
6557	1970 British Cohort Study: Thirty-Eight-Year Follow-Up, 2008-2009	10.5255/UKDA-SN-6557-2	27-Aug-10
6941	1970 British Cohort Study: Partnership Histories, 1986-2008	10.5255/UKDA-SN-6941-1	25-Jan-12
6943	1970 British Cohort Study: Activity Histories, 1986-2008	10.5255/UKDA-SN-6943-1	25-Jan-12
5585	1970 British Cohort Study: Thirty-Four-Year Follow-Up, 2004-2005	10.5255/UKDA-SN-5585-2	27-Mar-07
5641	1970 British Cohort Study Response Dataset, 1970-2005	10.5255/UKDA-SN-5641-1	27-Apr-07
5613	1970 British Cohort Study: Employment Histories, 1996-2004	10.5255/UKDA-SN-5613-1	16-Apr-07
5218	1970 British Cohort Study: Partnership Histories, 1986-2000	10.5255/UKDA-SN-5218-1	29-Jul-05
5558	1970 British Cohort Study: Twenty-Nine-Year Follow-Up, 1999-2000	10.5255/UKDA-SN-5558-2	29-Jan-07
3833	1970 British Cohort Study: Twenty-Six-Year Follow-Up, 1996	10.5255/UKDA-SN-3833-2	21-May-98
4715	1970 British Cohort Study: Twenty-One-Year Sample Survey, 1992	10.5255/UKDA-SN-4715-1	10-Sep-03
3535	1970 British Cohort Study: Sixteen-Year Follow-Up, 1986	10.5255/UKDA-SN-3535-2	14-Jun-96
5225	1970 British Cohort Study: Sixteen-Year Head Teacher Questionnaire, 1986	10.5255/UKDA-SN-5225-1	11-Aug-05
6095	1970 British Cohort Study: Sixteen Year Follow-up, Arithmetic Test, 1986	10.5255/UKDA-SN-6095-1	14-Jan-09
3723	1970 British Cohort Study: Ten-Year Follow-Up, 1980	10.5255/UKDA-SN-3723-2	18-Sep-97
7064	1970 British Cohort Study: Ten-Year Special Needs Survey, 1980	10.5255/UKDA-SN-7064-1	04-Sep-12
2699	1970 British Cohort Study: Five-Year Follow-Up, 1975	10.5255/UKDA-SN-2699-2	24-Apr-90
2690	1970 British Cohort Study: 42-Month Subsample, 1973	10.5255/UKDA-SN-2690-1	13-Mar-90
2666	1970 British Cohort Study: Birth and 22-Month Subsample, 1970-1972	10.5255/UKDA-SN-2666-2	28-Nov-89

Table 1: DOI and publication date for each dataset at the UK Data Service.

Language

English

Research metadata, including basic frequencies, is available using NESSTAR at the UK Data Service. The Centre for Longitudinal Studies (CLS) website provides copies of the questionnaires and documentation used in the study. The CLS data dictionary offers further metadata including variables and frequencies.

Programming language

N/A

Licence

UK Data Service End User Licence

Repository location

The core M1 dataset can be found via the following DOI: <http://doi.org/10.3886/ICPSR02760.v8>. However, all MIDUS projects and data can be found on the ICPSR repository website (<http://www.icpsr.umich.edu/>) by using the search term "MIDUS".

Accessibility criteria

The majority of BCS70 survey data can be accessed by bona fide researchers through the UK Data Service at the University of Essex. Anyone wishing to access the data will need to register with the UK Data Service before downloading. Some datasets are only available via Special Licence, or via the UK Data Service Secure Lab. Access arrangements comply with ESRC Research Data Policy.

Publication date

DOI and publication date for each dataset at the UK Data Service are provided on **Table 1**.

(4) Reuse potential

The 1970 British Cohort Study is a resource for research and policy community. The study follows a large sample of individuals born over a limited period of time through the course of their lives, charting the effects of events and circumstances in early life on outcomes and achievements later on. The scope of enquiry is extremely broad and the data is therefore of great potential value to researchers from a wide range of disciplines. The Centre for Longitudinal Studies website contains a searchable bibliography of publications based on data collected by

the study. As of May 2014 there are over 700 publications listed.

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