



## Sources of UK historical statistics

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This note gives details of online sources of historical statistics across all subject areas other than the economy. These sources are either long-term time series or snapshots of a range of data from a specific point in the past. The time series data are continuous or near continuous runs up to the present that show patterns/trends and what happened when. They allow comparisons between the present day and the start of data collection and any intervening period and give an understanding of patterns –have trends been smooth, random, cyclical etc? Snapshots cover a wider range of data and help us make more general comparisons between ‘then’ and ‘now’.

What do we mean by historical statistics? Most of the series go back to around the 1920s or earlier. The series or snapshots are nearly all for the UK (as constituted at the time) rather than sub-national, although a few links include some local level data. This note does not include links to economic data or anything to do with family history.

There are only a small proportion of current published statistics that have been collected and produced back to the early 20<sup>th</sup> century. Therefore while readers may not find exactly the statistics they are after, there are long-term trends across all the major subject areas, so proxy data might be available. Moreover, when taken together these historical statistics can provide a picture of change over time, plus the snapshot gives more scope for a general understanding and an elementary comparison between ‘then’ and ‘now’ on a wider range of indicators.

Online sources present both challenges and opportunities for historical statistics. Much online content focuses on the now with relatively little focus on how this connects to anything beyond the immediate past. There is a risk that older pre-digital data and long time series could simply be forgotten. However, developments such as the digitisation of older volumes, the ease of distribution of digital datasets and simple user interfaces all have a great potential to improve the scale, availability and accessibility of historical statistics. Some of this potential has already been realised, developments including the National Digital Archive of Datasets are specific to statistics, others, including House of Commons Parliamentary Papers Online and Google books are not, but have started to improve access to historical statistics.<sup>1</sup>

The most consistent long runs of data tend to be on what were the easiest and most important areas to measure in the past. These include population, vital statistics (births, deaths and marriages), agriculture and physical/scientific (rather than social) measurements.

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<sup>1</sup> For example parts of Michael G Mulhall's classic *The Dictionary of Statistics* are available at: <http://books.google.com/books?id=L5PA4CITuRgC>

What might currently be viewed as core social priority areas are much less well served. The welfare state is a relatively modern entity. Its scale and priorities have changed over time and its measurement is much more complex and liable to change and revision.

The Social & General Statistics Section of the Library has extensive hardcopy resources on a wider range of historical statistics on specific subject areas and some compilations. Readers are welcome to view these sources by calling x5510 or contacting the named subject [statistician](#).

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## A. General

[A Century of Change: Trends in UK statistics since 1900](#) –A Library research paper to mark the millennium that presented a summary of social and economic trends of the 20th century. The Library research paper [Inflation: The value of the pound 1750-2005](#) gives an index of inflation back to 1750 alongside some guidance on how to make comparisons over time.

The [National Digital Archive of Datasets](#) (part of the [National Archives](#)) provides access to public records that are held as datasets. While many of the datasets are relatively recent it contains very long time series on population and mortality. It also contains much background information on the scope and purpose of the data collection, some methodological background and a guide to when the data collection started (even where the available datasets do not go back that far).

[House of Commons Parliamentary Papers online](#) has digitised copies of these publications back to the early 18<sup>th</sup> century. Again the majority are not statistical, but they do include some key statistical documents, largely snapshots of the time in question. Users can search for specific text or 19<sup>th</sup> century documents can be browsed using the [subject catalogue](#). The 'Population and demography; statistics' heading contains most of the exclusively statistical titles including statistical abstracts, Census reports, population data, births, deaths and marriages, judicial statistics and annual reports on mortality by cause. Some of the more notable ones include:

- The first ever [Statistical Abstract for the United Kingdom](#) which was published in 1854
- The [First Annual Report of the Registrar-General of Births, Deaths and Marriages in England and Wales](#) (1839)
- Results from the [1801 Census](#), the first Census in the UK.
- Results from the [1841 Census](#), widely regarded as the first modern Census in the UK.

The website [A Vision of Britain Through Time](#) gives access to historical local area data from Censuses back to 1801. It also includes Census reports and some historical maps. [Histpop](#) -The Online Historical Population Reports Project, includes a more comprehensive collection of census and Registrar Generals' reports.

The Office for National Statistics (ONS) produced special pages to mark the bicentenary of the Census in 2001. [200 Years of The Census](#) includes some background on the history of the census plus area profiles which give historical census data on a variety of topics for 38 areas (largely counties) of England and Wales.

Together the two volumes [Digest of Welsh Historical Statistics 1700-1974](#) and [Digest of Welsh Historical Statistics 1974 to 1996](#) give trends on a wide range of subjects from population to agriculture, the economy and religion. The length of these time series varies, but most go back to the early 20<sup>th</sup> century at least.

## B. Population, health and vital statistics

The ONS publication [Social Trends](#) contains some long term series on population, births, life expectancy. Many of these are given in greater detail from the links below. A Social Trends dataset is also available that gives [population back to 1901](#) and components of change (births, deaths, and net migration).

The ONS and its predecessor bodies have published a number of reference volumes that include long runs of data for certain series and/or have been collated in historical series of datasets. Most cover England and Wales only. These are set out below:

[Mortality statistics -general](#) (DH1): Table 3 gives deaths, death rates, perinatal mortality rates and live birth rates back to 1841. Table 4 breaks down deaths rates by age and sex, Table 5 gives absolute numbers for the same data, Table 11 gives the number of deaths by quarter, and table 23 gives life expectancy by age and sex, all go back to 1841. All these tables can be downloaded to a spreadsheet from the document. More detailed data is given in the [DH \(Historical Series\)](#) datasets.

[Birth Statistics: Births and patterns of family building England and Wales](#) (FM1) largely focuses on the past 10 years, but the cohort tables in chapter 10 give trends in fertility rates, average number of children, births outside marriage and the distribution of women by number of children. All go back to 1920 (birth cohort). A very large number of datasets (including total live births, births inside and outside marriage and by age of mother) some going back to the mid 19<sup>th</sup> century, are collated at [FM1 \(historical series\)](#).

Marriage, divorce and adoption statistics (FM2) also concentrates on the past 10 years. Again the [historical series](#) datasets bring together the longer term information. These include the total number of marriages and divorces back to the mid-19<sup>th</sup> century, age and previous marital status at marriage, widows and widowers.

## C. Agriculture

Agriculture lends itself to long runs of data and consistent statistics on UK agriculture have been collected for a longer period of time than for many other industries or subject areas. Many series go back to the mid/late 19<sup>th</sup> century with very few breaks. The most important series for the UK are summarised in the standard note [Agriculture –Historical Statistics](#).

[County profiles](#) giving summary statistics from the agricultural census for English counties are available on the Defra website for 10 year intervals back to 1900.

## D. Crime and justice

The Library standard note on the [Prison population](#) gives the total prison population and a breakdown by sex back to 1900.

The home office has produced a series of [recorded crime back to 1898](#) by type of offence.

## E. Education

While statistics on various aspects of education have been collected and published back to the early 20<sup>th</sup> century and earlier, the organisation of every stage of public education had undergone so many changes that consistent historical series are very rare. The Library standard note [Education: Historical Statistics](#) summarises data on a number of aspects of education back to the early 20<sup>th</sup> century and gives notes on how to interpret the numerous breaks in these series.

## F. Elections

The Library Research Paper [Election Statistics: UK 1918-2007](#) summarises the results of UK general and by-election and characteristics of MPs. The [Vision of Britain Through Time election pages](#) includes results of individual elections and election maps back to 1833.

## G. Environment and energy

Weather records provide some of the longest consistent statistical series collected in the UK or anywhere in the world. Online data are collated on the Met Office [Hadley Centre](#) datasets site. This includes very long run and daily series on [Central England Temperature](#) and [England and Wales precipitation](#). The Met Office also has online [historic station data](#) which gives monthly temperature, rainfall, frost and sunshine data for individual stations in some cases back to the late 19<sup>th</sup> century.

Long term trends in temperature (Central England and globally) are illustrated on the [climate change pages](#) of Defra's e-digest of environmental statistics. This publication also includes data on [sea level change](#), [seasonal rainfall](#), and [length of the growing season](#).

The then Department for Trade and Industry produced a series of historical energy data spreadsheets alongside their [Energy Trends](#) publication. These have been retained and updated by its successor department DECC. The length, type and detail of the data varies by fuel type. More detail is given below

- [Coal](#): Production, supply, consumption, employment and number of mines back to 1913 and 10 year averages back to the mid/late 19<sup>th</sup> century.
- [Gas](#): Consumption by type, consumers, and type/fuel input back to 1920.
- [Electricity](#): Generation, supply, consumption, fuel input, and prices back to 1920. Capacity back to 1895
- [Oil](#): Imports of oil and oil products back to 1920 and imports by country back to the late 19<sup>th</sup> century. A [further spreadsheet](#) gives imports, exports back to 1890 and production back to 1920.

## H. Transport

Changes in mass transportation over the last century have meant that much of the data collected over that period on transport is not in consistent long-term series. The exceptions are the number of motor vehicles licensed from 1909 onwards which is published in the

Department for Transport's [Vehicle Licensing Statistics](#) (Table 4a) and the number of [road traffic fatalities](#) back to 1926 and [all road accident casualties](#) back to 1930 (Table 2) both of which are based on data from The DfT's *Road Casualties Great Britain: 2008*.

## **I. Other**

The Department for Communities and Local Government publishes tables on the [stock of housing](#) in Great Britain back to 1801 using Census data for data before the 1970s

## J. Appendix –examples of long-term series







