Fertility rates have declined across the Western world over the past 150 years. Culling a historical perspective of how and why these trends have developed can help improve our understanding of the way in which our society is shaped, as well as aiding the design of policies which are better able to influence fertility. The study has relevance to the major issues of the long-term impact of fertility decline on population health, social security and welfare. ‘We feel that our project will contribute to knowledge about current and future fertility decline in other parts of the world,’ explains Reid.

Dr Alice Reid at the University of Cambridge, UK, and Dr Eilidh Garrett at the University of Essex, UK, are working on an Atlas of Victorian Fertility Decline in England and Wales to understand how patterns of fertility changed geographically as a result of social changes. The project makes use of full-count census data at the national, regional and local levels from 1851 to 1911, available from the Integrated Census Microdata (I-CeM) project, along with the published annual and quarterly returns of the Registrar General covering the same period. The collated data have been used in spatial analyses to compare birth and death rates across different socioeconomic groups. ‘This allows the researchers to address questions concerning how factors such as age, occupation and marital status affect fertility and to chart geographical fluctuations in births, marriages and infant mortality.

The Atlas of Victorian Fertility Decline project is undertaking the mapping of human fertility and its decline during the Victorian period, in order to better understand the geographical and socioeconomic factors that affect birth rates.

**Fundraising efforts**

FUNDING

Economic & Social Research Council (ESRC) • Isaac Newton Trust

**CONTACT**

Alice Reid

Team Leader

T: +44 1223766395

E: alice.reid@geog.cam.ac.uk

W: https://www.geog.cam.ac.uk/people/reid/

W: https://www.geog.cam.ac.uk/research/projects/victorianfertilitycollapse/

W: https://www.populationspast.org

The Fertility Atlas project provides the first opportunity to calculate age-specific fertility rates across Britain during the fertility decline, and the results offer a challenge to the orthodox view on the way that fertility fell. ‘It has long been assumed that fertility fell is achieved through ‘stopping’ behaviour, whereby couples “desire” a particular number of children from the outset of their union and stop reproducing when they reach that number. This may represent a reasonable scenario today when reliable contraception is widely available, but may not have held true for couples in the Victorian era. “Our findings do not support an age pattern of fertility decline which would be produced by stopping behaviour (showing up as larger reductions in fertility among older women),” says Garrett. “Instead, women of all ages appear to have been reducing their fertility.” This result is similar to recent patterns of fertility decline in Sub-Saharan Africa, in very different geographical and socioeconomic conditions, and calls into question the assumption that couples start their marriage with a target number of children in mind.

**In many ways our project will raise more questions than it answers. We always suspected that many of the influences on fertility levels and how change happened were local.**
**Impact Objectives**

- Produce an explanation of how and why fertility fell in England and Wales during the Victorian period, highlighting any sub-national variations in levels and trends
- Demonstrate which places and socioeconomic groups of people led the fertility decline and how the trends spread between groups

---

**Mapping Victorian fertility decline**

*Drs Alice Reid and Eilidh Garrett* discuss their work assessing the history of human fertility decline across England and Wales in the late 19th and 20th centuries and identify the factors that can still be considered relevant today

---

**Why is the topic of historical fertility decline of so much interest to you?**

**AR:** By understanding the past, we can inform our understanding of the present and the future. This is because the ways societies are shaped demographically and socially are contingent on past demographic and social trends. For example, ageing societies are mainly a consequence of sustained fertility decline, so the speed of a society’s fertility decline determines the speed at which its population ages and the extent of the ensuing challenges. Demographic processes must follow certain rules and understanding the sorts of factors that may influence a particular decline will enhance our understanding of the process of fertility decline in general. We believe a clearer view of fertility decline in England and Wales, using data drawn over a lengthy timespan and covering a time of tremendous social and economic change, will better equip us to interpret fertility declines in the contemporary world.

---

**What will be the wider benefits or impacts of this work?**

**EG:** Fluctuations in fertility, such as the 19 per cent increase in births in England and Wales between 2001 and 2012, are often unexpected and demonstrate that the reasons why societies and individuals within them decide to change their fertility-related behaviour, and thus the number of children they have, are poorly understood.

**AR:** An improved understanding of the process of fertility decline will help make sense of the course of present and future fertility patterns and trends in Britain and elsewhere around the globe. Scholars and policy makers attempting to find out more about current and future demography often look to other times and places to gain insights into the reasons for demographic change. Such insights can help policy makers to design better policies with which to influence fertility-related behaviour and they can enable those making population projections to improve their assessments of the course of future fertility.

**Can you talk briefly about some of the results you now have? Have you found any trends that are particularly interesting?**

**AR:** Our preliminary results show that even in the middle of the 19th century, there were considerable geographic differences in fertility determined both by the age at which women married and the rate at which married women had children. Such geographic differences remained once the fertility decline was established, although the decline itself was predominantly due to reductions of fertility within marriage. There were also significant social variations in the timing and speed of marital fertility decline. In conjunction with the trends in marital fertility, we looked at trends in fertility inside and outside of marriage, and have found that fertility started to decline earlier outside than inside marriage.