### Historical demography abstracts

Strand organisers: Dr. Alice Reid, Dr. Hanna Jaadla (University of Cambridge)

#### 2.00pm Tuesday 14 September: Historical demography: Fertility

Female migrants, motherhood and labour force participation in Great Britain, 1881–1911, a comparative study

Hannaliis Jaadla<sup>1</sup>, Kevin Schürer<sup>1</sup>, Alice Reid<sup>1</sup> and Eilidh Garrett<sup>2</sup>; <sup>1</sup>University of Cambridge, <sup>2</sup>University of Edinburgh

In this paper we will use individual-level data from the 1881–1911 censuses of England, Wales and Scotland from the Integrated Census Microdata database to compare and contrast the experiences of paid work and motherhood amongst women arriving from Eastern Europe with those of migrants born in mainland Western Europe and the 'British-born' population. At each census in our study period every person was asked to record their birthplace. Those born outside Great Britain were asked to state the country of their birth. It is thus possible to identify the 'foreign born' and to observe where and with whom they were living on census night. Information on each person's occupation allows us to explore the ways in which migrants made a living, and how they adapted to local labour markets. We will use maps to explore the spatial distribution of women living in Britain who had arrived from elsewhere in Europe in order to compare and contrast the dimensions of the migration flows seen over our 30 year study period. In 1911 the census asked all married women how long they had been married, how many children they had had and how many of the children had died. This will allow us to compare family life of women coming to Great Britain from Eastern Europe with the experiences of those coming from Western Europe and the resident population. Women's ability to work in the late Victorian era was closely tied to marriage and motherhood and we will examine how migrant groups navigated this relationship.

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The causal effect of education on female age at marriage and marital fertility: Evidence from compulsory schooling reforms in England

**Neil Cummins; Economic History, London School of Economics** 

The negative association of female education and fertility, over time and between countries, is a central pillar of demography yet we have scant empirical evidence for whether this consistently observed correlation represents a causal effect. Using the universe of vital registration index data from England, 1912 to 2007, I first show that it is possible, using rare names, to construct a representative sample of women, and their first marriage and fertility. I then exploit the natural experiment of sharp discontinuities in who was affected by compulsory schooling law changes in 1947 and 1972, which exogenously raised the minimum school leaving age, to identify the causal effect of education on age at marriage and marital fertility. I find evidence that education raises age at marriage in 1972. However, I find no evidence for any causal effect of education on fertility.

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Socioeconomic and cultural determinants of German families in Southern Transdanubia (Hungary), 19th Century

Gábor Koloh; University of Szeged

The study of the period before the demographic transition is one of the central themes of historical demography in Hungary, too. In my research, using previous literature and my own findings in Southern Transdanubia, I focus on the diversity of family planning in families living in the pre-transition period. The communities I studied are Lutheran Germans (2240 Families) in the Völgység and the Catholic Germans (4169 Families) in the Hegyhát region, in Southern Transdanubia. In their comparison, in addition to socioeconomic properties, I focused on the cultural complexity derived from religious and ethnic characteristics. As regards family planning, I put special emphasis on the change in childbirth intervals, the role of infant and child mortality, as well as remarriage

customs. The geographical proximity of the studied communities also allows to explore the directions of cultural diffusion. Based on findings so far, it can be established that we can already reckon with the birth control practices of the German community in Völgység as early as the first half of the 19th century (but it did not become so prevalent among them as among the Hungarians in Ormánság). The changes in the farming system of Hungary in the late 18th century and mid-19th century (fixing the area of landholdings, then introducing private land ownership) and the resulting transitional crises coincide with the most conspicuous fluctuations of fertility rates. I also interpret the results based on descriptive statistics in the context of European as well as global trends.

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Spinners, weavers and leaders in the first demographic transition: Female textile workers and small family sizes 1851–1901

Eilidh Garrett<sup>1</sup>, Alice Reid<sup>2</sup>, Hanna Jaadla<sup>2</sup> & Lee Williamson<sup>1</sup>; <sup>1</sup>University of Edinburgh, <sup>2</sup>University of Cambridge

This paper will report on preliminary results of a study considering the path of fertility decline across Great Britain during the first demographic transition. Our data will from full count, individual level data from the ICeM database which includes the populations of England, Wales and Scotland from 1851–1901. Using child/woman ratios as a measure of fertility we will focus, in particular, on the textile districts of Lancashire and West Yorkshire in England, and Renfrewshire and Forfar in Scotland, where high proportions of women worked in factories. These areas are known to have been centres of marital fertility decline and textile workers of both sexes are recognised as the earliest working -class group to experience falling fertility. Did textile workers 'lead' the fertility transition, consciously adapting their behaviour so that they could work in a factory? Or did they find their fertility fall because the demands of factory work as they were, after all, one of the first groups to experience the changes in work and home life wrought by the industrial revolution? We will combine data on marital fertility derived from ICeM with information contained in the reports of the Registrars General to examine how nuptiality and extra-marital fertility patterns amongst women in textile towns may also have been affected by factory employment practices, and may have helped drive fertility downwards earlier and more speedily than elsewhere.

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#### 10.30am Wednesday 15 September: Historical demography: Mortality & illegitimacy

Fatal places? A re-analysis of child mortality from the 1911 census of England and Wales Alice Reid<sup>1</sup>, Eilidh Garrett<sup>2</sup> & Hannaliis Jaadla<sup>1</sup>; <sup>1</sup>Cambridge University, <sup>2</sup>Edinburgh University

In Fatal Years (1991), Preston and Haines offered a comprehensive analysis of individual level data on infant mortality from the 1900 census. They also provided a comparative analysis of the English and Welsh census of 1911, concluding that social class was to the UK what race was to the US. However there was, at that time, no individual level data available for England and Wales, so they were constrained to use aggregate data, and this both limited the influences they were able to explore and prevented them from investigating the combined influence of different influences. Later, we were able to analyse the individual level data for a small selection of places and found that the while there were strong class differences, these were the product of the sorting of social classes into different places. The type of place had a stronger effect on mortality than class when both were controlled. However, our analysis was necessarily partial due to the limited coverage and selected nature of the places in the dataset. Now the full-count individual data for the 1911 census of England and Wales are available, and this paper will not only investigate the whole country but will use more sophisticated and appropriate methods than our early study, including multilevel and spatial techniques.

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# The effect of nutritional status on historical infectious disease morbidity: Evidence from the London Foundling Hospital, 1892–1915

**Eric Schneider; London School of Economics** 

There is a complex inter-relationship between nutrition and morbidity in human health. Many diseases reduce nutritional status, but on the other hand, having low nutritional status is also known to make individuals more susceptible to certain diseases and to experience more serious illness. Modern evidence on these relation-ships, determined after the introduction of antibiotics and vaccines, may not be applicable to historical settings before these medical technologies were available. Thus, this paper uses historical data from the London Foundling Hospital to determine the causal effect of nutritional status of children proxied by weight and height-for-age Zscores on the odds of contracting five infectious diseases (measles, mumps, rubella, chicken pox and whooping cough) and on sickness duration from these diseases. I identify a causal effect by exploiting the randomisation of environmental conditions as foundling children were removed from their original home, then fostered with families in counties nearby London and later returned to the Foundling Hospital's main site in London. I find no effect of nutritional status on the odds of contracting the five diseases, but I do find a historically important and statistically significant effect of nutritional status on sickness duration for measles and mumps but not for the other diseases. These findings confirm the importance of underlying nutritional status for measles morbidity, provide new evidence of an effect for mumps, but challenge earlier assertions that whooping cough morbidity was related to nutritional status. These results suggest that improving nutritional status in the late nineteenth and twentieth centuries would have reduced the severity (and perhaps case fatality rate) of measles and mumps infections, whereas the decline in pertussis mortality before vaccination was likely caused by other factors.

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### Maternal mortality in eighteenth century London Romola Davenport; Cambridge Group for the History of Population and Social Structure, University of Cambridge

This paper uses a very unusual source of evidence for maternal mortality patterns, the admissions and discharge books of the workhouse of St. Martin in the Fields, to investigate maternal mortality in eighteenth century London. Maternal mortality improved very markedly in England across the eighteenth century, and this improvement was matched by falls in neonatal and possibly also foetal mortality. In London maternal mortality has been measured from 'Childbed' burials in the London bills of mortality, and appears to have followed national patterns very closely with respect to levels and trends. This correspondence is surprising, because outside London maternal mortality was higher in towns compared with rural areas. The workhouse records of St. Martin's allow us to compare measures of maternal mortality based on cause of death ('Childbed') with time-based measures (deaths following delivery). These indicate that the descriptor 'Childbed' referred mainly to maternal deaths that occurred fairly close to delivery and omitted a high proportion of maternal deaths that occurred later in the post-partum period. Maternal deaths in the workhouse peaked in the second week after delivery, with a temporal pattern that was characteristic of puerperal fever. I discuss the implications of this research for our understanding of maternal mortality trends in London, and for competing theories regarding the causes of declines in maternal (and neonatal) mortality in this period.

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# Illegitimacy in Lithuania: Vilnius and Samogitia dioceses during XVIII century: reconstruction of regional trends

Ugnė Jonaitytė; Lithuanian Institute of History

While Western historians have produced many studies focused on illegitimacy in the past, this phenomenon received little attention in Lithuanian literature. This paper is one of the first attempts to explore illegitimacy and its sociodemographic patterns in early modern Lithuania by paying attention to two main dioceses, mostly inhabited by ethnic Lithuanians during this time – Vilnius and Samogitia. The paper mainly deals with two research questions: the illegitimacy ratio and the seasonality of illegitimate baptisms (conceptions), and their regional variations. The data, collected from 20 parishes, provides an opportunity for historical demographic

analysis of the general scale of illegitimacy and bridal pregnancy. The methodology of this research includes illegitimacy ratio calculation, nominal linkage while exploring bridal pregnancy statistics and investigation of possible under-registration. Preliminary results of this research indicate regional variations in bridal pregnancy. In the Samogitia region conceptions within 8 months before marriage contained ~6 % of all marriages while in Vilnius this number was lower and contained ~0.5 %. Potential applications: research findings let us question to what extent Lithuania differs in the European context. Likewise, this research can fill a small gap in a framework of illegitimacy patterns firstly in Eastern Europe and then in the whole Western world during the eighteenth century.

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