Correspondence

Dear Sir,

Mac Boot's paper in *Local Population Studies* (*LPS*) 98 discussed evidence concerning the as yet not fully understood decline in marital fertility in Victorian England.[1] It reminded me of a study reported recently by the United Kingdom Office for National Statistics for the Department of Health which may contain some relevant information and to which I should like to draw *LPS* readers' attention. [2] The study explored the current ratio of births of male and female babies in England and Wales in order to establish whether there was evidence of pre-natal sex selection because of possible tendencies of some people from some cultural backgrounds to prefer one sex of baby over the other. The study did not find such evidence.

The method used was to compare the numbers of male and female babies born since the start of the Civil Registration period in the 1830s. It is well known that there is a natural difference of around 105 births of males for every 100 births of females and the study found that this ratio had obtained on average over the course of the period of the study. But there have been variations in the ratio over time. There was a marked peak in 1919 immediately after the return of men from the First World War, and a smaller peak in 1946 following the Second World War. There was also a sustained decline in the ratio from close to 105 male babies per 100 female babies in the middle of the nineteenth century to 103.5 males per 100 females around 1900, which was followed by a gradual increase to 106 males per 100 females by 1940, after which the underlying ratio remained roughly constant at 106 males per 100 females until 1970.[3]

Although several factors have been suggested as influencing the sex of a child, including paternal and maternal age, coital rates and the number and sex of previous children, a study by Jacobsen *et al.* published in 1999 concluded that paternal age was of particular importance.[4] They found that the sex ratio (male births per female birth) decreased with increasing paternal age, and discussed the possibility this was due to both behavioural and physiological factors: decreasing coital frequency with age and changes with age in a male hormone level. If these influences are valid it seems plausible that the former may have

1 H.M. Boot, 'Using census returns and the own-children method to measure marital fertility in Rawtenstall, 1851–1901', *Local Population Studies*, 98 (2017), pp. 54–74.

2 Department of Health, *Birth Ratios in England and Wales: a Report on Gender Ratios at Birth in England and Wales* (London, 2014) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/313559/Sex_Selection_in_England_and_Wales_analysis_April_2014_NM_comments.pdf [accessed 10 November 2017].

3 Department of Health, *Birth ratios in England and Wales*, p. 7.

4 R. Jacobsen, H. Moller A. Mouritsen, 'Natural variations in the human sex ratio', *Human Reproduction*, 14 (1999), pp. 3,120–5

been a cause of the relatively high numbers of male babies born immediately after the two World Wars.

It is much less clear how to relate this to the changing sex ratio at birth in the nineteenth century. The change may not be real but be a quirk of the data. Its timing and the decline in marital fertility in later nineteenth century England may simply be a coincidence. But it seems potentially to be of interest. Maybe it suggests that the female age at marriage which has already been identified by Wrigley as a factor in the decline in fertility was also associated with the male age at marriage?[5] I do not have the expertise to interpret this properly, so wonder if others consider it may conceivably be of relevance.

Yours faithfully

Sue Jones

5 See Boot, 'Using census returns', p. 72.