



Fertility variations in Scotland: geographical influences

Scotland experiences relatively low fertility rates compared to the other countries in the UK. The rates also vary significantly within Scotland, with the highest fertility in 2003 being recorded in the Shetland Islands and the lowest in Edinburgh. Understanding why fertility varies geographically is important for both academic and policy-related reasons. Low fertility has implications for population ageing, labour supply and the costs of sustaining health and welfare services. Understanding more about the processes underpinning fertility variation is an important step in broadening our understanding of such population dynamics.

This Briefing is the second based on findings from a recently completed research project that investigated the attitudes to fertility of men and women of child-bearing age in Scotland. A module was added to the 2005 Scottish Social Attitudes Survey in order to collect information on, among other things, fertility attitudes and how they relate to peer networks and the local context in which the respondents live. Here we provide some initial results which demonstrate the importance of local contexts to fertility decision-making.

Key points

- Fertility attitudes and expectations vary depending on where people live
 - Most people expect to have two children but men living in more deprived areas and women living in less deprived areas are the most likely to expect to have three or more children, as are both men and women living in rural areas
 - While both men and women living in areas they perceive to be bad for bringing up children are more likely to expect to remain childless than those living elsewhere, there is a stronger effect for men
 - What people regard as the 'ideal' family size varies according to whether or not an individual perceives their local neighbourhood to be good for bringing up children
 - There is a strong link between what people think of their local neighbourhood and how many children (if any) they expect to have
 - Geographical context plays a significant role in fertility decisions and behaviour that is not yet fully understood
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Background

Various explanations have been applied to changing fertility. One interesting dimension is the role of geographical context and local social networks in influencing fertility decision-making. Early research emphasised the role of ‘diffusion’ effects, with varying social norms about fertility becoming established in different places. For example, some studies that focus on the ‘fertility transition’, a period when European fertility rates fell markedly in the nineteenth and early twentieth centuries, show that fertility reduction occurred in local communities, rather than across whole social classes. So people from very different social backgrounds shared changing fertility attitudes and aspirations. The geographical dimension of contemporary fertility variations in Europe has also attracted attention, but usually at a national or large regional scale. Numerous studies compare national fertility trends and associate the variations with differences in welfare regimes, demographic structures and socio-economic conditions, often contrasting Southern Europe with Northern and Western Europe. However, despite the early historical and more recent cross-national research, few studies have considered local, within-nation, variations in fertility in contemporary Europe.

The study

One of the aims of this inter-disciplinary study was to investigate fertility variations in relation to local contexts. Do those whose local social networks are ‘child-rich’ aspire to or have more children than those living in relatively ‘child-poor’ neighbourhoods?

Do perceptions of neighbourhood, or local area of residence, as a place to bring up children influence fertility expectations?

We examined questions of local context using both descriptive techniques and quantitative regression models. In the latter we wished to test whether attitudes to the local area, as well as more objective measures of the urban/rural character of places and their associated deprivation circumstances, influence fertility attitudes and expectations. We explored these issues, controlling for other more traditional factors thought to influence fertility behaviour (such as age, education, economic status and religious beliefs).

The study was based on a sub-sample respondents of childbearing age taken from the 2005 Scottish Social Attitudes (SSA) survey which involves face-to-face interviews and a self-complete questionnaire with a representative sample of over 1500 adults aged 18 or over living in Scotland. The sample included women aged 18-45 and men aged 18-49, thereby including the main years of childbearing for both sexes.

Findings

Expected family size: geographical variations

Respondents were asked how many children they expected to have and we compared the answers, separately for men and women, against the type of area in which they lived.

Figure 1 shows the results of this comparison by deprivation status of the local neighbourhood. We find that the differences are not great, although men in more deprived areas are more likely to want 3 children than men living in less deprived neighbourhoods, while it is women living in the least deprived areas who are more likely to prefer 3 children. This is an interesting gender difference which requires further research.

Figure 1: Expected number of children by gender and deprivation status

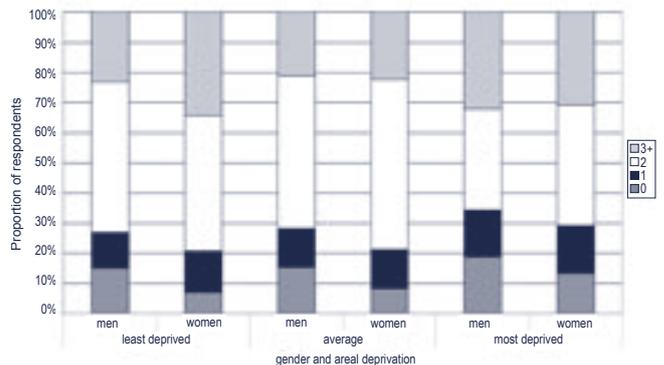


Figure 2 compares fertility expectations by urban / rural areas of residence. We find expected family size is larger in rural areas. More people in the cities expect to have one or no children, compared to those living elsewhere. Around 30% of urban men expect to have one or no children, compared to around 15% of men in rural areas.

Figure 2: Expected number of children by gender and urban / rural status

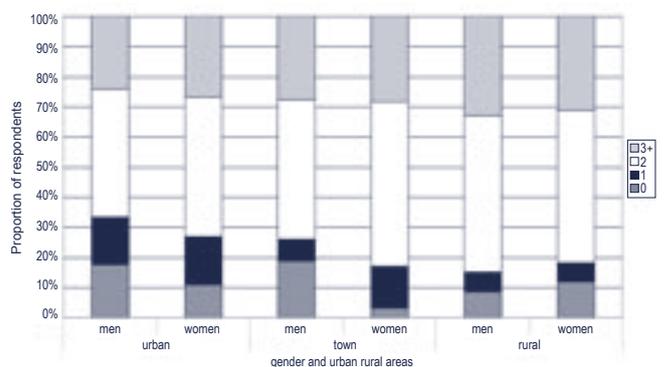
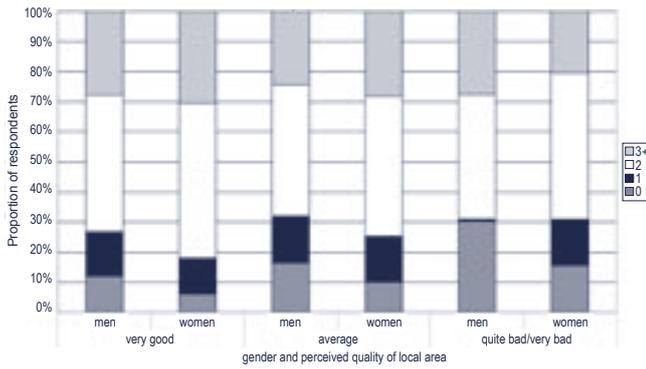


Figure 3 compares fertility expectations by whether people feel that the neighbourhood they live in is good for bringing up children. Both men and women are more likely to expect not to have children if they perceive the area as bad or very bad for bringing up children.

Figure 3: Expected number of children by gender and perceived quality of the local area



Ideal family size: geographical variations

We also looked at geographical variations in what people perceived to be an ‘ideal’ size of family, however many children they expect to have. We might anticipate less geographical variation in this ideal, as we could imagine that views on family size ideals would be influenced by national factors such as the media.

We found that most people identify 2 children as their ideal, but that both men and women expect to have fewer children than they would think ideal. These views are generally consistent regardless of the deprivation status of the local area (Figure 4) or the urban / rural setting (Figure 5), although women living in the most deprived areas are more likely than other groups to think of 0 or 1 child as an ideal family size.

Figure 4: Ideal number of children by gender and deprivation status

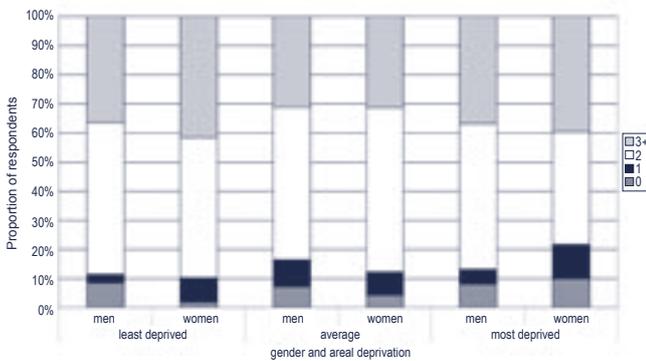
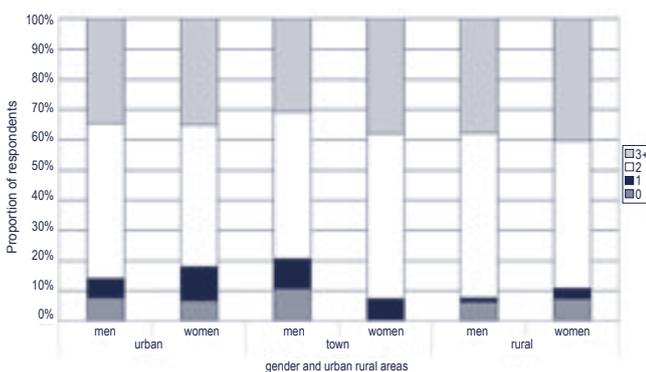
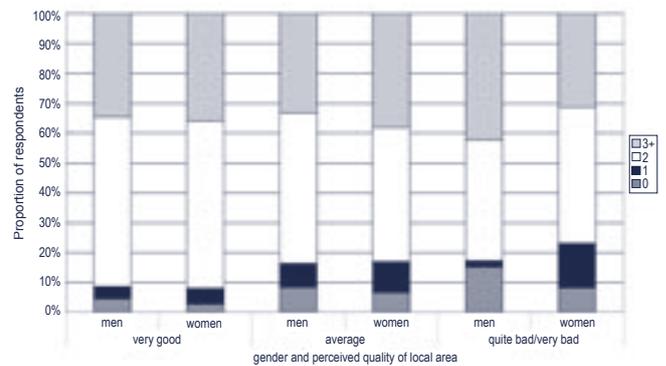


Figure 5: Ideal number of children by gender and urban / rural status



A surprising, but potentially important finding is that views on ideal family size do vary depending on whether the respondent thinks of their local area as suitable for raising children. Both men and women living in areas they described as bad or very bad for bringing up children are more likely to report that their ideal number of children is less than two (around 18% of men and 22% of women).

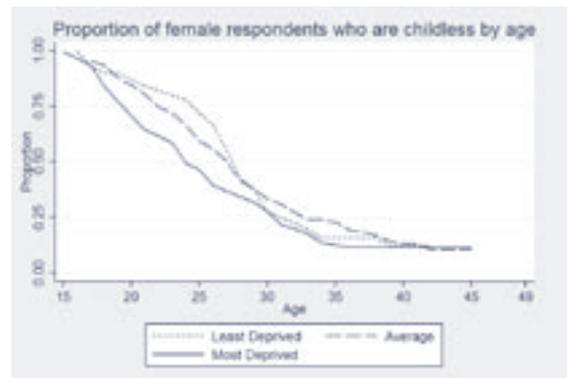
Figure 6: Ideal number of children by gender and perceived quality of the local area



Childlessness: geographical variations

We also calculated the proportion of women, by age, who had remained childless, and we compared these across the three geographical variables described above. Figure 7 indicates that women living in the most deprived areas are less likely to remain childless, and it is well known that teenage pregnancy rates are higher in such areas.

Figure 7: Proportion of childless women by deprivation status



The urban / rural nature of the area of residence also appears to influence childlessness, with those living in rural areas being more likely to remain childless (results not shown). Those in towns are least likely to remain childless and those in larger urban areas fall between the two.

Interestingly, those who feel that their area is bad for rearing children are, in fact, less likely to remain childless until a later age than those who feel their areas are average or good (results not shown). It is

likely that this is influenced by the fact that deprived areas, where fertility rates are higher, are also likely to be those felt to be worse for bringing up children.

Modelling fertility expectations of childless women

These results are interesting as they suggest that geographical context influences views about fertility. However, it is quite possible that the geographical comparisons we have used simply reflect individual level differences in people’s attitudes and behaviour. For example, households in deprived areas are generally poorer than households elsewhere, and it may be income insecurity which influences an individual’s fertility attitudes more than the deprived nature of their surroundings.

We therefore constructed a statistical model which allowed us to consider the association between geographical variables and the fertility expectations of childless women, controlling for other variables expected to influence fertility decisions. Focusing on those who are less likely to want 2 or more children, we find that a number of variables were significant. This group includes: women; single people; the non-religious; the unemployed and those with an ‘other’ economic activity status; those who agreed that the stress of having children might put them off; and those respondents whose own mother did not actively encourage them to have children. In addition those living in areas that they perceive to be average or bad areas for bringing up children are much less likely to want 2+ children. It is particularly interesting that this geographical variable is significant when other factors usually thought to influence fertility, such as income, perceived financial security, the provision of child-care

facilities, how close by parents live and the perceived general state of the economy, were found to have no significant effect.

Conclusion

This analysis shows that there are notable and statistically significant variations in fertility attitudes and expectations depending on geographical context. The influence of local context has attracted relatively little attention in the past and deserves more consideration in future studies.

Our results suggest several directions for extending this research by linking local neighbourhood context with the nature of local social networks. The perceived influence of mothers on their adult children’s fertility expectations, for example, highlights one aspect of social networks, namely intergenerational relationships, which appear to have an impact on attitudes to having children. The influence of peers and neighbours promises to be another fruitful line of investigation.

Policy implications

- What we have demonstrated above is that geographical context plays a significant role that is not yet fully understood.
- We need to understand more about the complex set of inter-relationships that underpin fertility attitudes and behaviour to provide Scottish policy makers with an evidence base that is needed to help address Scotland’s low fertility.
- Improving local areas so that they are perceived as good areas for bringing up children may impact on individual fertility expectations and contribute to raising Scotland’s fertility.

About the study

This study was one of the projects commissioned in the joint ESRC and Scottish Executive initiative on Scottish demography. It investigated the attitudes to fertility of men and women of child-bearing age in Scotland, and is based on a specially commissioned module on fertility in the 2005 Scottish Social Attitudes survey conducted by the Scottish Centre for Social Research. The research aims to contribute to theorising about variations in fertility and contribute to wider public and policy debates about fertility and social change. It was carried out between March 2005 and November 2006 by a team from CRFR (Professor Katherine Backett-Milburn, Dr Ian Dey, Professor Lynn Jamieson and Professor Fran Wasoff) and the University of St. Andrews (Professor Paul Boyle and Dr Elspeth Graham).

The authors

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