

# **Birth Strike? How are environmental concerns associated with young adults' fertility intentions?**

**Ann Berrington, University of Southampton & Centre for Population Change**

## **Background**

In the UK environmental concerns have risen rapidly in popular consciousness and the political agenda. It is often young people that have led the call for greater action against environmental destruction and climate change. Almost half of 18- to 24-year-olds chose environmental issues as one of the nation's three most pressing concerns, compared with 27% of the general population (You Gov, 2019). Greta Thurnburg's school climate strike has become a global movement. Having one less child has been identified by academic researchers as a key mitigation strategy against climate change (Wynes & Nicholas, 2017). Such findings have been taken up by lobby groups and the popular press in their claims regarding population growth and consumption as key drivers of environmental sustainability (Conley, 2016; Population Matters, 2019). At the same time, birth rates to young adults have plummeted, raising the possibility that the two could be inter-linked (Carrington, 2019). For the small number of activists engaged in the Birth Strike movement (Hamson, 2019) the two are clearly related, with individuals declaring that they will remain childfree until the 'climate emergency' has been resolved. What we do not know is whether in the general population, increasing concerns about climate change and sustainability are influencing intended family size. Evidence from the 20th century suggests that there is likely to be an effect. The publication of Ehrlich's (1968) "The Population Bomb" and Meadows et al (1972) "Limits to Growth" drew popular attention onto population growth and sustainability issues. This increased awareness of global population growth is believed to have been a causal factor, along with other things including improving contraceptive technology and increasing female employment, in the rapid drop in US fertility rates during the 1970s (Preston, 1986).

Few studies have examined the issue for contemporary western countries. An exception is the study of De Rose & Testa (2015) which investigated two mechanisms through which environment change might affect reproduction; through the impact of pollution on reproductive health, and through couples wanting to avoid bringing children into a world facing a sustainability crisis. Using the 2011 Eurobarometer survey they found no evidence to support the hypothesis that individuals who were more concerned about climate change would have smaller intended family sizes. However that work was based on data collected before the recent attention paid to climate change.

This paper makes an important contribution, being the first paper to examine for the UK whether concerns about the climate change, and reported environmental behaviour are associated with fertility intentions. Our hypothesis is that individuals who are more concerned about the environment, and individuals who report more environmentally friendly behaviour will be more likely to intend to have small families, i.e. remain childfree or have just one child, and less likely to intend to have three or more. Additionally, the paper also considers the considerable group of young people who are uncertain about their intended family size. We hypothesize that those with climate concerns to be more uncertain childbearing intentions.

## **Data and Methods**

We use data from the United Kingdom Household Longitudinal Study to examine the relationship between environmental attitudes and behaviour which were collected in wave 4 (2013/14) with fertility intentions collected in wave 5 (2014/15) for men and women aged 18-29. Control variables are measured in wave 5 and the analyses are made representative by weighting using wave 5 cross-sectional weights.

## ***Fertility intentions***

Respondents are asked whether “they intend to have any (more) children?” No time limit is given. If they say “yes”, then they are asked “how many more children they intend to have”. The answer to these questions is combined with current parity to identify respondents’ intended completed family size. Those who say “do not know” to the first or second question are included as “do not know their intended family size”.

### ***Environmental Behaviour***

Respondents are asked how often they display the ten behaviours shown in Box 1. The possible answers are: Always; very often; quite often; not very often; never; not applicable/cannot do this. Scores are summed with a range in this sample between 11 and 50. A higher score signals a higher carbon footprint.

Box 1: Environmental behaviours. Coding for items 1 and 3 reversed. Cronbach’s  $\alpha = 0.64$ .

1. Leave your TV on standby for the night
2. Switch off lights in rooms that aren't being used
3. Keep the tap running while you brush your teeth
4. Put more clothes on when you feel cold rather than putting the heating on or turning it up
5. Decide not to buy something because you feel it has too much packaging
6. Buy recycled paper products such as toilet paper or tissues
7. Take your own shopping bag when shopping
8. Use public transport (e.g. bus, train) rather than travel by car
9. Walk or cycle for short journeys less than 2 or 3 miles
10. Take fewer flights when possible

### ***Environmental Attitudes***

Respondents were asked to respond to nine likert-scale items shown in Box 2. These are summed into an attitudinal score which ranges from 10 to 45 in this sample. A higher score signals greater concern for the environment.

Box 2: Environmental attitudes. Answered strongly agree to strongly disagree. Coding of items 1,2 and 3 reversed. Cronbach’s  $\alpha = 0.73$ .

1. My behaviour and everyday lifestyle contribute to climate change
2. I would be prepared to pay more for environmentally-friendly products.
3. If things continue on their current course, we will soon experience a major environmental disaster.
4. The so-called 'environmental crisis' facing humanity has been greatly exaggerated.
5. Climate change is beyond control - it's too late to do anything about it.
6. The effects of climate change are too far in the future to really worry me
7. Any changes I make to help the environment need to fit in with my lifestyle.
8. It's not worth me doing things to help the environment if others don't do the same.
9. It's not worth the UK trying to combat climate change, because other countries will just cancel out what we do

### ***Controls***

**Age** (continuous measured 18-29 years); **Partnership status** (unpartnered ,married, cohabiting). **Highest educational qualification** (Degree, Advanced, Secondary and below); **Socio-economic position** (Employed Managerial/Professional; Employed Intermediate; Employed Routine; Full time Student ; Unemployed/inactive). Total monthly gross **personal income** (quartiles); **Gender role attitudes** (summed score of response to three likert-scale questions asking the respondent whether they agreed or disagreed with the following statements; husband should earn and the wife stay at home; family life suffers if the wife works full time; and pre-school child suffers if mother works).

## Results

Descriptive analyses (Table 1) show that young men and women with advanced and degree level educational qualifications are more likely to agree or strongly agree that there is a climate / environmental problem, and that they feel it is worth trying to take action. This is reflected in a higher mean score in Table 1. More educated men and women report more environmentally friendly behaviour, such as water conservation and recycling, than lower educated men and women. This is reflected in a lower mean score (Table 2). No gender difference is seen in respondents' attitudes towards the environment. Table 3 shows that for men there are strong educational gradients in intended family size, with those with secondary levels of education being far more likely to intend to remain childless or to be uncertain about how many children they want. Intended family size is smallest among less educated men. Young women are significantly less likely to intend to remain childfree than young men. Overall, intended family size is larger for young women than men, especially among the least educated for whom it is 2.22 for women, compared to 1.79 for men.

In multinomial logistic regression analyses of intended family size (Table 4) we find attitudes towards climate change and the environment have no systematic relationship with intended family size. However, environmentally friendly behaviour associated with intentions to remain childfree and lower intentions to have three or four children. This association is particularly strong for graduates.

## Discussion and conclusion

In comparison with other predictors of fertility intention, including partnership status, employment status, level of education and gender role attitudes, environmental concerns do not appear to be a very strong motivator to remain childfree. Structural constraints, including low income, and lack of a coresidential partner appear to be more important determinants of intentions to remain childless, especially among those with less education.

## References

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Table 1: Environmental attitude score by gender and education (higher score means more concerned about the environment & climate change). UK respondents, aged 18-29.

	Men		Women	
	Mean	95% CI	Mean	95% CI
Degree	29.2	28.6-29.7	29.5	29.1-29.9
Advanced	28.3	27.8-28.6	28.9	28.5-29.2
Secondary or below	26.7	26.2-27.2	27.0	26.6-27.4

Table 2: Environmental behaviour score by gender and education (higher score means higher carbon footprint). UK respondents, aged 18-29.

	Men		Women	
	Mean	95% CI	Mean	95% CI
Degree	30.9	30.3-31.5	31.2	30.7-31.7
Advanced	31.9	31.4-32.2	31.6	31.1-32.0
Secondary	32.9	32.3-33.5	33.0	32.4-33.6

Table 3: Mean intended family size, and % who wish to remain childfree according to gender and education. UK respondents, aged 18-29.

	% who intend to remain childless		Mean intended family size		% who do not know their intended family size	
	%	95% CI	Mean	95% CI	%	95% CI
Men						
Degree	13.2	10.5-16.6	1.90	1.80-1.99	12.4	10.0-16.1
Advanced	12.2	9.9-14.9	1.87	1.79-1.95	12.7	10.4-15.4
Secondary and below	15.0	11.7-19.1	1.79	1.67-1.92	15.5	12.3-19.2
Total	13.3	11.6-15.1	1.86	1.80-1.91	13.5	11.9-15.3
Women						
Degree	7.9	6.0-10.0	2.05	1.97-2.12	9.6	7.6-12.0
Advanced	7.9	6.3-10.0	2.09	2.02-2.16	11.6	9.6-14.0
Secondary and below	7.7	5.8-10.1	2.22	2.12-2.34	9.1	7.0-11.8
Total	7.9	6.8-9.1	2.12	2.07-2.16	10.2	9.0-11.6

Note: The mean is calculated on the sample who express an intention.

Table 4: RRR from multinomial logistic regression of intended family size (reference category is intending two children). UK respondents, aged 18-29.

	Model 1 (Environmental Attitudes). Sample=5008					Model 2 (Environmental Behaviour). Sample=5361				
	0 children	1 child	3 children	4+ children	Not know intended family size	0 children	1 child	3 children	4+ children	Not know intended family size
Gender (ref=men)										
Women	0.69**	0.95	1.33**	1.27*	0.80**	0.70**	0.98	1.25**	1.23*	0.76**
Age	1.04**	1.02	1.01	0.99	1.05**	1.05**	1.02	1.02	0.99	1.05**
Partnership status (ref=unpartnered)										
Cohabiting	0.26**	0.94	1.05	1.16	0.55**	0.25**	0.97	1.03	1.08	0.56**
Married	0.11**	0.60**	1.31**	1.49*	0.44**	0.11**	0.60**	1.30**	1.49**	0.40**
Socio-economic position (ref=Employed prof. & managerial)										
Employed intermediate	1.14**	1.73**	1.19	1.35	1.62**	1.07	1.70**	1.18	1.45	1.59**
Employed routine	1.04	1.49**	1.14	1.60*	1.52**	0.98	1.51**	1.17	1.61**	1.40**
Full time student	0.94	1.22	1.52**	2.62**	1.53**	0.93	1.23	1.64**	2.56**	1.43**
Unemployed or inactive	1.72*	2.16**	1.72**	4.32**	2.31**	1.66**	2.24**	1.88**	4.38**	2.27**
Gender role attitudes score	1.00	1.03	0.94**	0.88**	0.97*	1.00	1.00	1.00	0.98**	0.99
Educational attainment (ref=degree)										
Advanced	4.14**	1.25	1.20	0.39	2.79	0.29	0.42	1.11	2.78	1.44
Secondary	12.6**	0.84	1.86	0.32	7.67**	0.32*	0.78	1.67	5.49**	2.90
Environmental attitude score	1.03	0.96**	1.01	0.98	1.01					
Education * env. attitude score										
Advanced	0.95**	1.00	1.00	1.03	0.97					
Secondary	0.92**	1.02	0.98	1.04	0.94**					
Environmental behaviour score						0.96**	1.00	1.02**	1.03	1.01
Education * env. behaviour score										
Advanced						1.04**	1.04	1.00	0.97	0.99
Secondary						1.05**	1.02	0.99	0.96	0.98