



A theory about having babies

Across the globe, fertility rates are declining. If population sizes continue to decrease, there will be major social, economic and political ramifications. But encouraging citizens to have more children is a very fine line for policymakers to be treading.

One of the most underappreciated facts about the last half of the 20th century was the global decline in fertility rates. In 1950, the average woman had around 5 children. Today it's less than 2.5.

The implication is that women's fertility rates can fall rapidly; it took 95 years in the UK for the fertility rate to fall from 6 to 3 children per woman (from 1815 to 1910), yet only 20 years in Bangladesh (1982 to 2002). South Africa, incidentally, needed 34 years (1963 to 1997).

In many parts of the world the fertility rate is now way below the replacement rates, creating demographic challenges. And not just in the wealthiest countries. Yes, rich countries like Germany (fertility rate of 1.48) and South Korea (1.35) have exceptionally low fertility rates, but so do Iran (1.59), Poland (1.29) and Brazil (1.69). Bangladesh, with a fertility rate above 6 only 40 years ago, now has a fertility rate of 2.02, below the replacement rate of 2.1.

If sustained, these low fertility rates will radically reshape the population sizes of countries. Germany's population, for instance, is projected to decrease by about 13m from the current 80m by 2060. This is likely to have major social, economic and political ramifications. A larger share of dependent pensioners would need to be funded by an increasingly smaller pool of tax payers, for example, as Japan is experiencing.

This has forced many governments to think about ways to boost their population size. Migration from places with high fertility rates is one option, but is politically challenging.

An alternative is to encourage higher fertility rates. But this would require an understanding of the reasons for its initial decline.

Many factors help to explain the tremendous decline in global fertility, but a key insight scholars have come to is that fertility reduces significantly when women have the freedom to make decisions about their own family planning. Women tend to want to have fewer children than men.

In contexts where women have gained political, economic and social freedoms the fastest, fertility levels have declined rapidly.

Policymakers hoping to increase fertility rates are therefore left with a conundrum. To increase fertility rates would mean to overturn the freedoms women have received. Some countries have tried this, removing the right to abortion and imposing a tax on childless individuals older than 25. However, removing these freedoms are undesirable and unconstitutional.

An alternative is to use positive incentives. One option, tried by several countries, is to subsidise having children. This could be done in a variety of ways, like subsidising education or other kinds of expenses related to young children. It could also be very direct. In 2003, one Italian mayor

offered women €10 000 for every baby they had.

But almost all these positive incentives failed or, at best, had only limited positive results. The reason is, according to a new study in the *American Economic Review*, that few of these policies had a good theory of bargaining over babies. Without a good theory, the policy is unlikely to succeed.

To have a baby, it's generally necessary for both the man and woman to agree on having one. Using a dataset across 19 countries that reports people's willingness to have kids, the authors show that this is supported by facts. (The probability of a pregnancy is almost zero if just the man wants a child and slightly higher if only the woman wants one.)

They also find that there is much disagreement about having babies. "Disagreement increases with the existing number of children. Among couples who have at least two children already, in all countries in our dataset we observe more couples who disagree than couples who both want another child. Moreover, women are generally more likely to be opposed to having another child than are men, particularly so in countries with a very low fertility rate."

The last conclusion is key to their consequent analysis. They construct a Nash bargaining model, which reveals that not just the overall costs and benefits of children matter for fertility, but also the distribution of costs and benefits within the household. "In a society where the burden of raising children is borne primarily by mothers, women will be more likely than men to disagree with having another child and, *ceteris paribus*, the fertility rate will be lower compared to a society with a more equitable distribution of the costs and benefits of having children."

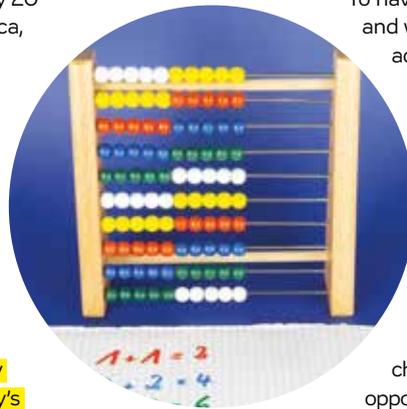
The authors show that policies that lower the childcare burden, specifically for mothers (for example, by providing public childcare that substitutes time costs that were previously borne by mothers), can be more than twice as effective as policies that provide general subsidies for childbearing.

This, they argue, is primarily because mothers are much more likely to be opposed to having another child than are fathers. "The countries in our sample that have relatively high fertility rates close to the replacement level (France, Belgium, and Norway) already have such policies in place. Other countries that highly subsidise childbearing, but in a less targeted manner (such as Germany), have much lower fertility rates."

The lesson is that having a theory of how humans make decisions is a necessary first step to designing policies that hope to change it. Making babies is as much about economics as it is about the birds and the bees. ■

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