

The World's Population May Peak in Your Lifetime. What Happens Next?

The global human population has been climbing for the past two centuries. But what is normal for all of us alive today — growing up while the world is growing rapidly — may be a blip in human history.

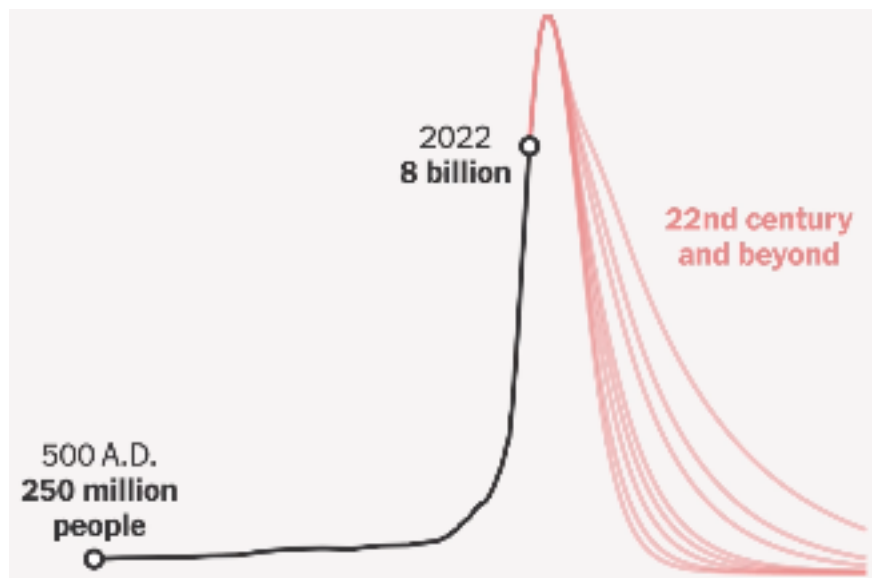
Children born today will very likely live to see the end of global population growth.

A baby born this year will be 60 in the 2080s, when demographers at the U.N. expect the size of humanity to peak. The Wittgenstein Center for Demography and Global Human Capital in Vienna places the peak in the 2070s. The Institute for Health Metrics and Evaluation at the University of Washington puts it in the 2060s. All of the predictions agree on one thing: We peak soon.

And then we shrink. Humanity will not reach a plateau and then stabilize. It will begin an unprecedented decline.

Because most demographers look ahead only to 2100, there is no consensus on exactly how quickly populations will fall after that. Over the past 100 years, the global population quadrupled, from two billion to eight billion. As long as life

continues as it has — with people choosing smaller family sizes, as is now common in most of the world — then in the 22nd or 23rd century, our decline could be just as steep as our rise.



By Dean Spears

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Most people now live in countries where two or fewer children are born for every two adults. If all people in the United States today lived through their reproductive years and had babies at an average pace, then it would add up to about 1.66 births per woman. In Europe, that number is 1.5; in East Asia, 1.2; in Latin America, 1.9. Any worldwide average of fewer than two children per two adults means our population shrinks and in the long run each new generation is smaller than the one before. If the world's fertility rate were the same as in the United States today, then the global population would fall from a peak of around 10 billion to less than two billion about 300 years later, over perhaps 10 generations. And if family sizes remained small, we would continue declining.

What would happen as a consequence? Over the past 200 years, humanity's population growth has gone hand in hand with profound advances in living standards and health: longer lives, healthier children, better education, shorter workweeks and many more improvements. Our period of progress began recently, bringing the discovery of antibiotics, the invention of electric lightbulbs, video calls with Grandma and the possibility of eradicating Guinea worm disease. In this short period, humanity has been large and growing. Economists who study growth and progress don't think this is a coincidence. Innovations and discoveries are made by people. In a world with fewer people in it, the loss of so much human potential may threaten humanity's continued path toward better lives. Whenever low birthrates get public attention, chances are somebody is concerned about what it means for international competition, immigration or a government's fiscal challenges over the coming decades as the population ages. But that's thinking too small. A depopulating world is a big change that we all face together. It's bigger than geopolitical advantage or government budgets. It's much bigger than nationalistic worries over which country or culture might manage to eke out a population decline that's a little bit slower than its neighbors'.

Fewer and fewer countries have high birthrates

Total fertility rates and populations for countries with at least one million people.

Population



Total fertility rate

6—

5—

4—

3—

REPLACEMENT FERTILITY

2—

1—

Niger
6.8

Mali
6.0

Nigeria
5.2

5.2

The total fertility rate is the number of births a woman would have if she followed the average patterns of births in her country during her lifetime.

Over the past two centuries, birthrates have fallen everywhere. Africa is the only higher-fertility region remaining.

A rate of about 2.1 is known as replacement fertility because the population would stabilize if every two people had two children (plus additional births to account for childhood deaths and imbalances in sex at birth).

Most people now live in places with **below-replacement fertility**. Europe crossed the threshold in 1975, China in the early 1990s, Brazil in the early 2000s. India crossed below 2 in its most recent population survey.

India
2.0

Italy
1.3

China
1.2

Hong Kong
0.7

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Sustained below-replacement fertility will mean tens of billions of lives not lived over the next few centuries — many lives that could have been wonderful for the people who would have lived them and by your standards, too.

Perhaps that loss doesn't trouble you. It would be tempting to welcome depopulation as a boon to the environment. But the pace of depopulation will be too slow for our most pressing problems. It will not replace the need for urgent action on climate, land use, biodiversity, pollution and other environmental challenges. If the population hits around 10 billion people in the 2080s and then begins to decline, it might still exceed today's eight billion after 2100.

Population decline would come quickly, measured in generations, and yet arrive far too slowly to be more than a sideshow in the effort to save the planet. Work to decarbonize our economies and reform our land use and food systems must accelerate in this decade and the next, not start in the next century.

This isn't a call to immediately remake our societies and economies in the service of birthrates. It's a call to start conversations now, so that our response to low birthrates is a decision that is made with the best ideas from all of us. Kicking the can down the road will make choices more difficult for future generations. The economics and politics of a

society in which the old outnumber the young will make it even harder to choose policies that support children.

If we wait, the less inclusive, less compassionate, less calm elements within our society and many societies worldwide may someday call depopulation a crisis and exploit it to suit their agendas — of inequality, nationalism, exclusion or control. Paying attention now would create an opportunity to lay out a path that would preserve freedom, share burdens, advance gender equity, value care work and avoid the disasters that happen when governments try to impose their will on reproduction.

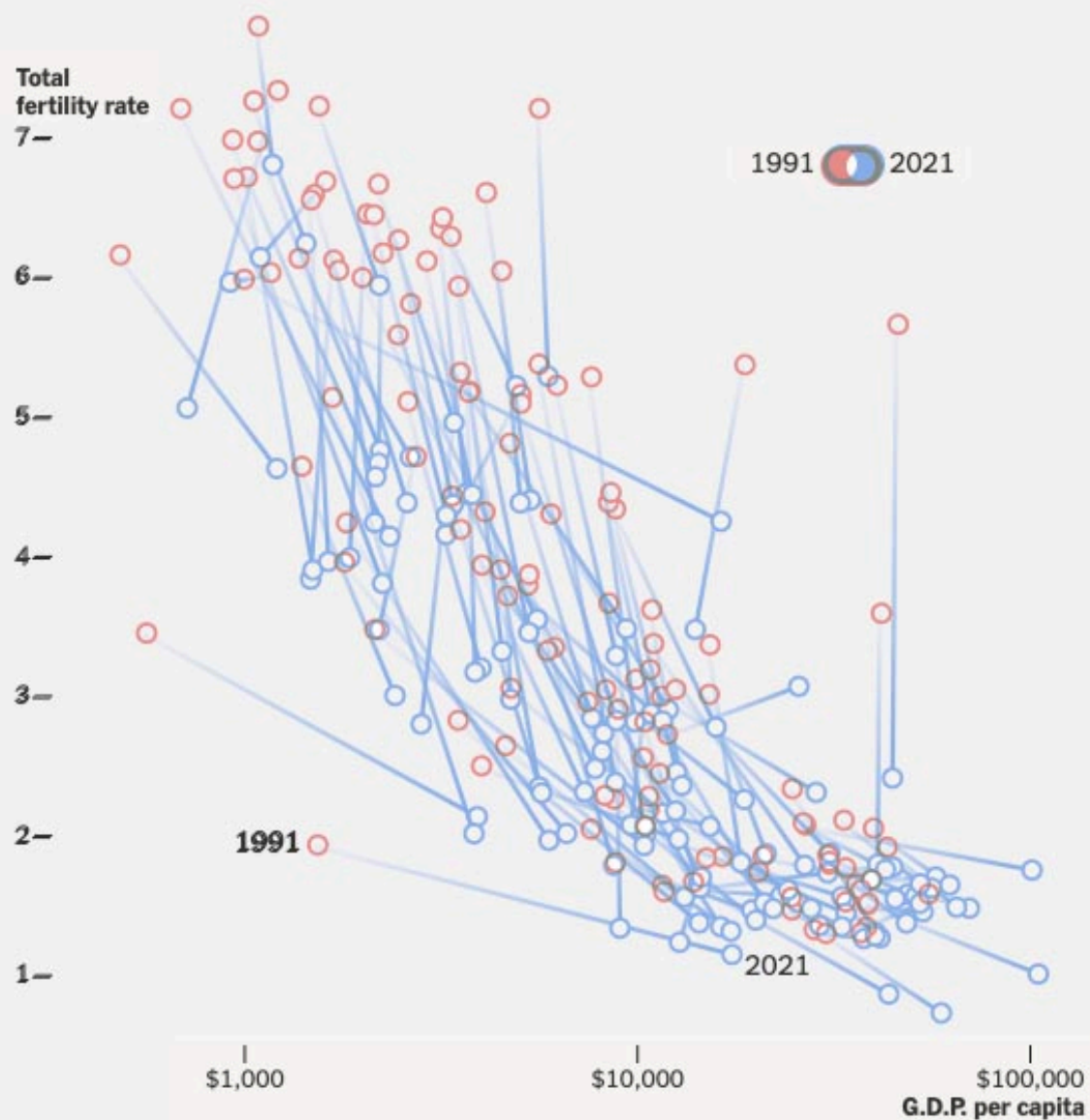
Or perhaps we don't need to concern ourselves at all if fertility rates self-correct to two. But the data shows that they don't. Births won't automatically rebound just because it would be convenient for advancing living standards or sharing the burden of care work or financing social insurance programs. We know that fertility rates can stay below replacement because they have. They've been below that level in Brazil and Chile for about 20 years; in Thailand for about 30 years; and in Canada, Germany and Japan for about 50.

In fact, in none of the countries where lifelong fertility rates have fallen well below two have they ever returned above it. Depopulation could continue, generation after generation, as long as people look around and decide that small families work best for them, some having no children, some having three or four and many having one or two.

Nor can humanity count on any one region or subgroup to buoy us all over the long run. Birthrates are falling in sub-Saharan Africa, the region with the current highest average rates, as education and economic opportunities continue to improve. Israel is an example of a rich country that, as of today, has above-replacement fertility rates. But there, too, fertility rates have been falling over the decades, from 4.5 in 1950 to 3.0 today. Israel may not be above 2.1 for many more generations.

As living standards increased, birthrates fell

Total fertility rates and G.D.P. per capita for countries with at least one million people.



Sources: U.N. World Population Prospects 2022, World Bank

The main reason that birthrates are low is simple: People today want smaller families than people did in the past. That's true in different cultures and economies around the world. It's what both women and men report in surveys.

Humanity is building a better, freer world with more opportunities for everyone, especially for women. That progress deserves everyone's greatest celebration — and everyone's continued efforts. That progress also means that, for many of us, the desire to build a family can clash with other important goals, including having a career,

pursuing projects and maintaining relationships. No society has solved this yet. These tradeoffs bite deep for parents everywhere. For some parents, that means struggle. For others, that means smaller families than they hoped for. And for too many, it means both. In a world of sustained low birthrates and declining populations, there may be threats of backsliding on reproductive freedom — by limiting abortion rights, for example. Some will inexcusably claim that restricting reproductive choice is a way to curb long-run population decline. Some already do.

No. Low birthrates are no reason to reverse progress toward a more free, diverse and equal world. Restricting reproductive rights — by denying access to critical health care and by denying the basic freedom to choose to parent or not to parent — would harm many people and for that reason would be wrong whether or not depopulation is coming. And it would not prevent the population from shrinking. We know that because fertility rates are below two both where abortion is freely available and where abortion is restricted. Any policymaker asking how to respond to global depopulation should start by asking what people want and how to help them achieve it rather than by asking what they might take away.

There are many ways to live a life or be a family, and having that freedom and diversity is good. If an inclusive, compassionate response to population decline emerges someday, it need not be in conflict with those values. If one in every four pairs of American adults would choose to have one more child, that would be enough to stabilize the U.S. population. In that future, there would still be many ways to live a life or be a family; two kids on average doesn't mean two kids for everyone.

Nobody yet knows what to do about global depopulation. But it wasn't long ago that nobody knew what to do about climate change. These shared challenges have much in common, which gives humanity some shared experience to build on.

As with climate change, our individual decisions on family size add up to an outcome that we all share. No people are making mistakes when they choose not to have children or to have small families. (Although we might all be making a mistake, together, when instead

of taking care of one another, we make it hard for people to choose larger families.) It's in no one's hands to change global population trajectories alone. Not yours, whatever you choose for your life, not one country's, not one generation's. Nor is it in your hands personally to end all carbon emissions even by ending your own emissions. And yet our personal choices add up to big implications for humanity as a whole.

It's not too early to take depopulation seriously. The New York Times reported on the threat of climate change in 1956. A scientist testified about it before Congress in 1957. In 1965 the White House released a report calling carbon dioxide a pollutant, warning of a warming world with melting ice caps and rising sea levels. That was nearly six decades ago.

Six decades from now is when the U.N. projects the size of the world population will peak. There won't be any quick fixes: Even if it's too early today to know exactly how to build an abundant future that offers good lives to a stable, large and flourishing future population, we should already be working toward that goal. Waiting until the population peaks to ask how to respond to depopulation would be as imprudent as waiting until the world starts to run out of fossil fuels to begin responding to climate change.

Humanity needs a compassionate, factual and fair conversation about how to respond to depopulation and how to share the burdens of creating each future generation. The way to have that conversation is to start paying attention now.

Methodology

Historical data for the top line chart came from Our World in Data. The projections are by Dean Spears, Sangita Vyas, Gage Weston and Michael Geruso.

Correction: Sept. 21, 2023

An earlier version of this article described incorrectly Dr. Spears's role at the Population Research Center at the University of Texas, Austin. He is a faculty member there, not a research affiliate.

Correction: Sept. 26, 2023

An earlier version of a graphic accompanying this article misidentified the statistics for Guinea as those for Guinea-Bissau. The graphic has been corrected.