

EXECUTIVE SUMMARY

The Causes and Consequences of Declining US Fertility

by Melissa S. Kearney and Phillip B. Levine

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KEY FACTS

- The US population grew by only 0.1 percent in 2021, the slowest rate in the nation's history. This slow growth is due to rising mortality due to an aging population, lower net immigration, and a decline in births since 2007.
- The total fertility rate—a measure of the expected number of lifetime births per woman based on current birth rates—is now around 1.65, well below the replacement-level fertility rate of 2.1.
- Lower fertility implies not only lower population growth, but also a smaller working-age population and lower economic growth. A smaller workforce could lead to a decline in living standards through reduced innovation and a decline in income per person.
- The US fertility rate is converging to that of other high-income countries, after being an outlier among advanced economies for decades.

Policy Takeaway: Immigration reform is a potential policy response to declining fertility aimed at maintaining the US working-age population. The evidence on “pro-natalist” policies—based on studies from the United States and other high-income countries—suggests that incremental policy changes such as expanded child tax credits, paid family leave, or subsidized childcare is unlikely to lead to a substantial increase in the US fertility rate.

RECENT TRENDS IN US FERTILITY RATES

The authors identify three key trends about declining fertility in the United States.

1. The US general fertility rate has fallen since 2007, driven by a decline in births among many demographic subgroups of women.

The secular decline in fertility began during the Great Recession and continued throughout the subsequent recovery. Birth rates have fallen among all five-year age groups of women under 30, with the largest decline over the last four decades being among teenagers. Birth rates among women above age 30 remained constant or rose slightly, but not by enough to make up for the declines among younger women. The authors find that birth rates have fallen across racial and ethnic groups, with Hispanic women experiencing the most dramatic declines in births. The general fertility rate (births per 1,000 women) among Hispanic women fell from 97.4 in 2007 to 62.8 in 2020. The authors also explore birth rates across education levels and document that the sharpest declines have been among women with a four-year college degree and those without a high school degree.

"The decline in the United States fertility rate reflects widespread declines in childbearing across women of different races, ethnicities, and education levels, as well as across geographic regions"

¹ The COVID pandemic of 2020 led to an initial decrease in fertility rates, followed by an offsetting increase, but births appear to be back on the pre-pandemic downward trend.

The authors perform a statistical decomposition to evaluate how much of the total decline in fertility is due to changes within demographic subgroups of women (which Kearney and Levine divide according to age, race or ethnicity, and education levels) as opposed to changes in the overall composition of the population. They find that the decline in the US general fertility rate is driven entirely by the former. In fact, had birth rates remained constant within these demographic subgroups between 2007 and 2019, shifts in population shares would have caused the expected birth rate to rise by 2.6 births per thousand.

2. The decline in annual births does not just reflect a delay in births until older ages; rather, women are having fewer children over their entire childbearing years.

More recent cohorts of women are not simply delaying childbearing, but are having fewer children at all ages, resulting in decreased total lifetime fertility. Based on this finding, the authors predict that the total number of children ever born to more recent cohorts of women is likely to fall well below that of previous cohorts, and below the replacement level of 2.1 births per woman. The US fertility rate is therefore likely to remain considerably below replacement level for the foreseeable future.

3. The US total fertility rate is converging to that of other high-income countries, after decades as an outlier.

While the decline in the US birth rate is a relatively new phenomenon, many other

high-income countries experienced similar declines in earlier decades. The authors map out fertility rates in other industrialized countries based on data from the World Bank and find that the US fertility rate is belatedly converging toward those of other high-income countries, including countries with greater support systems for families and workers. Kearney and Levine conclude that US exceptionalism in this regard is likely nearing an end.

POTENTIAL FACTORS BEHIND THE RECENT DECLINE IN US FERTILITY

The authors posit that the decline in the US fertility rate is attributable to changing attitudes and preferences toward having children and is therefore unlikely to rebound in response to any public initiative. The authors find no evidence that any particular policy, economic factor, or social trend has changed in recent years in a way that could explain the steady, widespread decline in US birth rates.

The authors examine the role of a variety of potential factors that might impact birth rates. For instance, the authors examine the link between birth rates across states and years and time-varying policy and economic conditions, including the unemployment rate, generosity of welfare benefits, state minimum wages, and expenditures on child support enforcement. The authors also examine the role of various reproductive health policies: abortion restrictions in the form of parental notification laws, abortion restrictions in the form of waiting periods, health insurance coverage through Medicaid, mandatory coverage of

contraception in private insurance plans, mandatory sex education, and mandatory contraception instruction laws. The authors find that the combined effect of these ten economic and health factors explain just 6 percent of the total decline in fertility.

The authors also examine relationships between longer term state-level changes in birth rates and a variety of slower moving factors. They find no empirical evidence that increased adoption of long-acting and reversible contraception, increased housing rental costs, increased childcare costs, rising female wages, employment and occupational prestige, rising student debt burdens, or declining religious observance explain the decline. They also find no evidence in support of the idea that growing concern about climate change is depressing birth rates.

"The authors find no evidence of any social, economic, or policy factors driving the recent decline in the US birth rate, other than the Great Recession"

IMPLICATIONS FOR ECONOMIC GROWTH AND FISCAL RESPONSIBILITY

The decline in the US fertility rate since 2007 is unlikely to reverse course, and the US fertility rate is expected to remain below replacement level for the foreseeable future. This potentially has important implications for the future of US economic growth. If fertility continues to decline, as the authors expect, the US working-age population will begin to decline in the next decade. A shrinking working-age population in the US could potentially result in less domestic innovation and productivity, leading to lower economic growth and decreased income per capita. Although a shrinking workforce need not necessarily reduce GDP per worker, falling fertility rates could depress productivity in various ways. With a constant share of the workforce dedicated to research and development, for instance, a larger workforce produces more innovations that in turn can increase all workers' productivity.

Lower fertility also has important fiscal implications, particularly on funding entitlement programs including Social Security and Medicare. Because such programs are funded by taxes on current workers, a decreasing ratio of workers per retiree will exacerbate strains on entitlement funding. The authors explain the importance of forecasting future fertility patterns to quantify the additional revenues that will be required to fund public programs. The authors fear that current forecasts by the Social Security administration of future fertility patterns remain overly optimistic.

THE ROLE OF PRO-NATALIST POLICIES

A “pro-natalist” policy refers to a policy that provides additional income to families based on the number of children or reduces the cost of having and raising children, thereby providing financial incentives for childbearing (even if that isn’t the explicit goal of the policy.) Such policies include child allowances, child tax credits, paid family leave, and subsidized childcare. Over the past 30 years an increasing number of countries, particularly high-income countries, have implemented these types of policies. While the empirical evidence suggests that different policy environments can influence the number of children that women ultimately bear, Kearney and Levine interpret the evidence as showing that such policies tend to produce only modest increases in birth rates. They conclude that it is thus unlikely that incremental policy reforms of this type would lead to a sufficiently large increase in US fertility rates that the total fertility rate would return to replacement levels in the near future.

Barring a reversal in the fertility decline, the authors note that the country could instead maintain its working-age population with a sizable increase in immigration and advances in productivity, which are the subject of two chapters in this volume, one by Tara Watson and the other by Ufuk Akcigit and Sina Ates.



ABOUT THE AUTHORS

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Melissa S. Kearney is the Neil Moskowitz Professor of Economics at the University of Maryland. She is also director of the Aspen Economic Strategy Group; a research associate at the National Bureau of Economic Research; and a nonresident senior fellow at the Brookings Institution. She serves on the Board of Directors of MDRC and on advisory boards for the Notre Dame Wilson-Sheehan Lab for Economic Opportunities and the Smith Richardson Foundation. Kearney previously served as Director of the Hamilton Project at Brookings and as co-chair of the Massachusetts Institute of Technology J-PAL State and Local Innovation Initiative. Kearney's research focuses on poverty, inequality, and social policy in the United States. Her work is published in leading academic journals and is frequently cited in the press. She is an editorial board member of the *American Economic Journal: Economic Policy*, *Journal of Economic Literature*, and *Demography*; she was previously co-editor of the *Journal of Human Resources* and a Senior Editor of the *Future of Children*. Kearney teaches Public Economics at both the undergraduate and Ph.D. level at the University of Maryland. She holds a B.A. in Economics from Princeton University and a Ph.D. in Economics from MIT.

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