

WILL 2022 BE THE FIRST YEAR OF NEGATIVE U.S. POPULATION GROWTH?

An NPG Forum Paper
by Nathaniel Gronewold

Abstract: America's population growth came to a virtual standstill last year. Experts point to COVID-19 and say the nation will resume its relentless push to 400 million Americans just as soon as the ongoing crisis ends. But it's plausible that America could decline somewhat in population numbers this year as the pandemic rages on. And even though population increases will likely resume at some point, America's growth trend may be coming to an end much sooner than expected thanks in part to the pandemic.

Annual population growth in the United States now stands at a record low. Will COVID-19 send it into early reverse? It's possible, though far from certain.

On December 21, the Census Bureau reported that the United States' population expanded by just 0.1% last year, "the lowest rate since the nation's founding." It's an astonishing milestone, with Census citing "decreased net international migration, decreased fertility, and increased mortality due in part to the COVID-19 pandemic" as causes.¹

To clarify, the nation's population still grew last year. Despite a media panic following this latest data release the Census Bureau said total U.S. population expanded by 392,665 people in 2021, a figure slightly greater than the population of Iceland. More population growth can be expected in subsequent years depending on the depth of our economic malaise, how long the pandemic continues, the lethality of emerging variants, and the degree to which immigration resumes. But this growth is still the slowest ever, well below the average two million additional people per year or so witnessed for decades. And as I'll argue below, U.S. population growth could be dragged lower or even turn negative in 2022 as America begins Year Three of the COVID-19 pandemic.

The pandemic is still raging with no clear end in sight. Over 846,463 Americans have lost their lives to the outbreak according to Johns Hopkins University of Medicine, but that figure will be far higher by the time you read these words.² One million Americans may ultimately be lost by the time the pandemic subsides. And when will that happen? Nobody knows. The original plan was a mass vaccination campaign until at least 80% of the country had received full inoculations, hopefully achieving "herd immunity" that way. To date, only about 63% of the population is considered fully vaccinated, a far cry from the original 80% target.³ But even so-called herd immunity may not be enough. The new Omicron variant is spreading rapidly regardless of vaccination rates. Data shows that unvaccinated people are ten times more likely to end up in the hospital from a COVID infection, but fear is just as infectious as the Omicron variant so even the fully vaccinated are now being told they must accept restrictions. Thus, the crisis continues – how many more COVID-19 virus variants could emerge in the months to come? *How many letters are there in the Greek alphabet?* Much remains unknown, including how the ongoing pandemic will transform longstanding U.S. demographic trends, and whether those changes are only temporary or permanent.

Some effects are already apparent, at least anecdotally. Reports show a noticeable shift in population away from the nation's largest cities, especially New York City, Los Angeles, and Chicago. Immigration slowed before the pandemic, but the crisis is now making that slowdown more pronounced. Working from home has become normalized and acceptable to more employers, depending on the job. Online education is common. Couples have put off having children. Millions of Americans have either switched jobs or left the workforce entirely. "Accelerated migration, less immigration, fewer births, and more deaths," is how the Brookings Institution summed it up back in May.⁴ But a debate is now raging: will long-standing population trends resume once the pandemic ends, or will the memory of COVID-19 and the recession it sparked see Americans permanently changing where and how they live and work? A review of literature on this question shows most pundits are largely predicting the former. Changes to population trajectories will prove mainly temporary, the experts believe; as the pandemic subsides, past demographic trends will resume.⁵ But experts have been wrong before. I believe they could be proven wrong again, and that the great pandemic of the 2020s may end up altering future U.S. population growth trends by a far greater extent than what experts are assuming.

Neither I nor Negative Population Growth is celebrating the cause of this demographic downshift. No one is – there are no words to describe the devastation wrought by the pandemic and the amount of suffering COVID-19 has caused. The pandemic is a crisis. A barely growing or even declining population, however, is not. There are many good reasons to feel relieved by a coming end to U.S. population growth, and a long list of positive outcomes for the American public from this inevitability – since, as I've argued previously, nothing grows forever.

But first, let's consider some of the arguments by experts predicting an eventual return to the pre-pandemic status quo demographics, and reasons for doubting them.

COVID-19: A mere demographic speedbump?

Factoring in disruptions to immigration, changes in birth rates, and one million additional deaths, and a compelling case can be made that the U.S. population will have either not risen by much or even declined slightly during the pandemic years by the end of 2022, depending on how much longer this crisis lasts. Life expectancy alone has taken a heavy blow. Yet, some are arguing that any pandemic-driven

changes to demographic forces will end up as nothing more than a temporary dip in the inevitable march to a U.S. population of over 400 million (Census puts the current U.S. population at 332.4 million).

In a working paper published by the National Bureau of Economic Research in April 2020, at the beginning of the crisis, authors Joshua Goldstein and Ronald Lee ask “what would a hypothetical one million U.S. deaths in the COVID-19 pandemic mean for mortality of individuals at the population level?”⁶ Sadly, this question is no longer hypothetical, but at the time these two researchers predicted that one million premature American deaths from COVID-19 would cause average U.S. life expectancy to decline by at least three years. Still, that research pair sees the current pandemic as less impactful to long-term U.S. demographic changes than the 1918 Spanish flu pandemic. In their view, the Spanish flu had a greater per-capita effect on mortality and life expectancy in the United States because it killed more young Americans, whereas COVID-19 mainly attacks the old. “It is important to know that we as a society have been through such mortality crises before,” the researchers concluded.⁷ Goldstein and Lee expect America’s population expansion to resume as usual once the current crisis is over.

What of changes to birth rates? If the past is precedent, then the U.S. should be in for a mini baby boom in the near future, according to some other corners.

Readers will recall that at the start of the pandemic-driven lockdowns and stay-at-home orders many pundits predicted a forthcoming COVID-19 baby boom. Media figures basically thought bored couples trapped indoors would have little else to do other than have sex. More intelligent observers predicted the opposite effect. Considering how past pandemics and/or major economic calamities were always accompanied by noticeable declines in birth rates, the opposing view held that the experience under COVID should prove no different. That more sensible prediction was later proven true – the National Center for Health Statistics, Centers for Disease Control and Prevention posted data last September showing the U.S. general fertility rate dropped by 4% in 2020, with birth rates showing declines for all races and ethnicities.⁸ However, when past pandemics and recessions occurred, fertility rates rebounded after the crises passed. Another paper published in late 2020 highlights this fact. “While initial reductions in births are likely, it is overall expected that a rebound of such rates will take place,” researchers argued in the journal *Frontiers in Public Health*.⁹ An even more recent study used electronic medical records to model anticipated changes to American’s pandemic-driven reproductive behavior. Their modeling exercise led those authors to predict a summer 2021 surge in U.S. births for largely the same reason: because in the past, U.S. birth rates recovered relatively soon after other disease outbreaks or periods of economic trouble ended.¹⁰

It isn’t entirely unreasonable to expect some recovery in U.S. birth rates as conditions return to somewhat normal. Indeed, last December two scholars at the Brookings Institution issued a report pointing to signs of a recovery in birth rates. Fellows Melissa Kearney and Phillip Levine estimated the U.S. experienced at least 60,000 “missing births” due to a lack of conceptions in the early months of the pandemic, but say these missing births happened only from October 2020 to February 2021. “Births returned to pre-pandemic trend levels in March 2021, indicating that conceptions returned to pre-pandemic trend levels in June 2020,” the two scientists noted.¹¹ However, Kearney and

Levine caution that the situation could change once data from the 2020-21 winter wave of infections has been factored in, “so we cannot make a final determination on the ultimate size of the COVID baby bust.”¹² Factor in the ultimate impact of the Omicron variant wave to this cautionary note, too, and the past may indeed no longer be precedent this time around.

How about the great COVID-19 migration? Interpreting how the pandemic is affecting where Americans live and work is a slightly more complicated task, but Brookings Institution fellow William Frey takes a stab at it in a May 2021 review.

As I already argued, the U.S. population may hardly grow or even register a slight dip by the end of this year depending on the length of the pandemic, especially considering how the nation barely grew at all last year. Frey presents evidence to support this view. “Together, low immigration, more deaths, and fewer births led to a national 2019-21 [population] growth rate of just 0.35% – the lowest in 120 years,” he notes.¹³ The Census Bureau later reported an even lower population growth rate estimate of just 0.1%. Many large U.S. states and metropolitan centers are losing population due mainly to out-migration. Census data shows that New York lost over 300,000 people, while California’s population declined by more than 260,000. The District of Columbia lost nearly 3% of its population last year. But as Frey points out, none of this is new nor all that surprising. Two points are emphasized in his piece. First, this shift of population out of the largest urban centers was already occurring before COVID-19; the pandemic merely “accelerated” the trend, as he puts it. Second, there is no apparent flight from cities to rural America currently underway. Rather, as he argues, Americans appear to be changing their residences from the most crowded and expensive urban cores to the outer suburbs or less crowded and more affordable urban cores.

Again, it must be stressed, this is nothing new, and this flight from the largest U.S. cities should be taken into perspective. For instance, Los Angeles has been losing people to places like Texas, Arizona, and Utah for the better part of a decade, but L.A. still registered a net gain in residents from 2010 to 2020 due to natural increase and contributions from immigration. Former New Yorkers have been busy making themselves at home in places like Atlanta, Nashville, or the Raleigh-Durham area, yet New York still experienced net population increase for the same reasons as Los Angeles. Three scholars at New York University try to make the case that a pandemic-driven population shift back to rural America is occurring to some extent, but the data they use is dubious. Those researchers with NYU’s Center on International Cooperation use data on Airbnb revenues in an attempt to prove a nationwide phenomenon – Airbnb reported a jump of 30% in rural revenues while registering lower earnings in the cities. But all Airbnb sales figures prove is that quite a few Americans spent more vacation time in the countryside, perhaps to briefly escape the worst of the pandemic’s effects. There is scant evidence they moved to the countryside permanently.¹⁴ But the trend Frey points to is very real: a move from a large, expensive city to a smaller, more affordable city is far more common. I should know.

Over a decade ago this author moved from the expensive New York tri-state area to Houston, Texas, because the change in the cost of living was equivalent to giving myself a giant raise. At that time, the authorities in New York City were confidently predicting a gain of 1

million residents by 2030. Today, this looks like a pipe dream. As Frey explains it, New York's city planners were probably fooled by the influx of younger professionals to the largest U.S. cities during much of the first decade of the new millennium until the start of the 2010s, interrupted by the 2008-09 Great Recession. That trend had largely ended by the time I made my move to Houston. "The decade began when major metropolitan areas, as a group, grew substantially greater than those with smaller populations or nonmetropolitan areas," he said. "The picture changed after mid-decade as the economy picked up, bringing greater movement to smaller-sized areas as well as to the suburban portions of the major metros."¹⁵ The pandemic is accelerating out-migration trends for some major metro areas – New York City, San Francisco – while only modestly exacerbating the trend for others, and this combined with lower rates of immigration and depressed natural increase (fewer births, more deaths) has seen the largest U.S. cities losing population compared to gains registered in Denver, Phoenix, Nashville, Austin, Tampa, and other smaller urban areas. The thinking goes that as the pandemic eases the U.S. may see a return to pre-pandemic domestic migration trends, meaning this net exodus from the largest cities should slow or even cease at some point.

So that's the majority view: an end to the pandemic will mean a return to the status quo as far as the U.S. population surge is concerned. Now, for a more contrarian take.

Return to normal? Not so fast.

The COVID-19 pandemic will end someday, just as the Spanish flu ebbed and faded in time for the roaring '20s to get underway. When will this happen? We don't know. And what becomes of the U.S. when it does? Will immigrants again flock to U.S. coastal urban megacities? Will young professionals reconsider plans to move to Austin and Memphis? Will the baby bust be followed by a baby boom, as many pundits are predicting? Will U.S. population growth resume its relentless march to 400 million people and beyond? There are good reasons to doubt any of this will happen.

As U.S. natural population growth slows precipitously, as was already the case pre-COVID, calls for massive increases to immigration levels will only grow louder. Economists and their allies in academia will point to the coming Japan-like economic stagnation and conclude that expanding the nation's population is the only means to grow the economy and keep the U.S. at or close to its pole position in the geopolitical order (though it seems inevitable that China will supplant the U.S. as the world's largest economy). The ruling class will push this solution over the objections of the people already here. As they do, Negative Population Growth and its allies should push back – we can support and defend reasonable levels of immigration, but to date, this author sees scant evidence that mass immigration has improved the lot of people already living and working in the United States. But, for this supposed solution to really work, one must assume that the immigrants actually want to come to our shores. America's reputation abroad has taken a beating as of late, and would-be immigrants have other options.

Australia and Canada have always drawn their share of immigrants, and policymakers in those countries will probably also turn to this same solution as they conclude keeping Canadian and Australian economic growth higher and higher will require ever greater influxes of newcomers. Other nations may join this race to attract new workers and taxpayers, including, surprisingly, Japan and South Korea.

This idea may seem ludicrous today (as I write this, foreign tourism to Japan is effectively illegal) but in fact, Japan and South Korea were already in the process of easing restrictions on immigration before the pandemic struck. And immigrant magnets such as Ireland, the United Kingdom, Australia, Canada, Germany, France, Scandinavia, New Zealand, and more offer existing and new residents alike something the U.S. cannot: access to affordable healthcare services regardless of employment status. Believe me, foreigners are fully aware of how nightmarishly expensive the U.S. healthcare system is and how millions of Americans are one major illness or injury away from financial ruin. Washington has zero intention of fixing this problem anytime soon, so as U.S. healthcare deteriorates further that shining beacon on the hill will probably dim quite a lot.

What of U.S. birth rates? As noted above, many observers are expecting the present drop in fertility to rebound once the pandemic and all the economic uncertainty it's causing has ended. After all, that's what happened following similar episodes in the past, thus the studies cited above assume history will repeat itself. However, those studies are overlooking one major piece of evidence undercutting their arguments: the lack of any apparent upsurge in birth rates following the 2008-09 Great Recession.

In the wake of the subprime mortgage crisis, most demographers predicted, incorrectly, that American society would return to past levels of reproduction. That didn't happen. Instead, average U.S. birth rates remained depressed immediately following the Great Recession's end, and then U.S. fertility actually fell lower still as years passed – CDC data shows the U.S. crude birth rate for all races fell by 10 percent from 2010 to 2018.¹⁶ Birth rates did not recover after the most recent economic crisis of a decade ago. I suspect we may see the same thing happen in the years following the COVID-19 crisis – America's birth rate may recover somewhat but will likely fall lower again as time passes. Falling fertility may be offset by increased immigration – in an August 2020 report, Pew Research Center predicts immigrants and their descendants will constitute 88% of U.S. population growth out to 2065.¹⁷ But as I argue above, Pew could be overestimating America's future allure.

In an earlier essay, I outlined why we can be confident U.S. birth rates have yet to hit bottom: because America's population density is still rising, and population density best explains collapsing birth rates worldwide.¹⁸ Subsequent studies published in scientific journals further support this view, adding to the growing body of strong scientific evidence identifying population density as the most important factor pressing national birth rates lower. In a study published in September, researchers detail how they were able to use national population density increases to predict changes in birth rates, once again demonstrating how crowding leads to couples having fewer children.¹⁹ And in a commentary piece published that same month, two scientists explain the mechanism at work: crowding induces stress, and stress lowers fertility.²⁰ It may be too soon to tell, but for now, there is little indication that changes to U.S. population trends wrought by COVID-19 are large enough to upset this dynamic. The pandemic exacerbated or accelerated a pre-existing trend of Americans leaving the most expensive cities or states in favor of urban centers with lower populations and more affordable housing. The necessary effect of this is to increase both the populations and population densities of these magnet cities. The change is initially good for the

individuals and families participating in it; they're able to take advantage of a lower cost of living. But in my own experience, this effect can be remarkably short-lived.

The exodus from New York City, Los Angeles, San Francisco, Chicago, and other expensive urban hubs is not making life more affordable in those cities. It is, however, driving up the cost of living in the new urban magnets of Denver, Austin, Atlanta, and other rapidly growing metropolitan areas. This is what I witnessed in Houston: housing costs were initially reasonable, but later soared as that city's population rose higher and higher. And we already know Americans have not been compelled to have more children following their moves to these new urban destinations. As Frey at the Brookings Institution demonstrates, this domestic migration pattern was already present before the pandemic. Perhaps it will slow post-pandemic, but perhaps not. Either way, the CDC's numbers make it clear Americans are trending towards having fewer children, not more, regardless of where they relocate to.

International immigration interrupted, perhaps permanently. Ongoing migration to alternative urban centers and a rising cost of living in those cities, all forces encouraging smaller families. Elevated mortality and depressed life expectancy. The cumulative result is profound: 2021 saw the weakest rate of U.S. population growth since the signing of the Declaration of Independence. All these factors are very much still with us, and they could even strengthen this year. If negative U.S. population growth does happen in 2022, then rest assured: this is no reason for despair. The catalyst is horrible – COVID-19 is a disaster and scourge that must be defeated, and we will long mourn its victims. While epidemiologists believe this pandemic will eventually phase out and become something like the seasonal flu, for the short term we cannot ignore what has happened over the last two years. Nevertheless, there's a silver lining. This author believes lower, slower, and ultimately negative population growth in the U.S. is both desirable and inevitable. Reaching that milestone this year gives us an opportunity (albeit a temporary one) to demonstrate how all the things made wrong by population growth – rising economic insecurity, biodiversity loss, global warming, etc. – could be made right by its opposite. The same goes for the world as a whole – on this planet, in this century, negative population growth for humans would be a good thing in my humble opinion. And as you may have guessed by its name, NPG

wholeheartedly agrees.

Will America's population growth turn negative in 2022? What was once unthinkable now seems entirely plausible.

NOTES

1. "Estimates Show Slowest Growth on Record for the Nation's Population". New Vintage 2021 Population Estimates Available for the Nation, States and Puerto Rico, United States Census Bureau, release no. CB21-208, December 21, 2021.
2. Johns Hopkins University of Medicine Coronavirus Resource Center. <https://coronavirus.jhu.edu/map.html>
3. Mayo Clinic. "U.S. COVID-19 vaccine tracker". <https://www.mayoclinic.org/coronavirus-covid-19/vaccine-tracker/>
4. Frey, William. "Pandemic population change across metro America: Accelerated migration, less immigration, fewer births, and more deaths". Brookings Institution Report, May 20, 2021.
5. Ullah et al. "Potential Effects of the COVID-19 Pandemic on Future Birth Rate". *Frontiers in Public Health*, vol. 8, December 2020.
6. Goldstein, Joshua R. and Lee, Ronald D. "Demographic Perspectives in Mortality of COVID-19 and Other Epidemics". NBER Working Paper Series, National Bureau of Economic Research, April 2020.
7. Ibid.
8. Martin, Joyce A., Hamilton, Brady E., and Osterman, Michelle J.K. NCHS Data Brief No. 418. U.S. Centers for Disease Control and Prevention National Center for Health Statistics, September 2021.
9. Ullah et al. "Potential Effects of the COVID-19 Pandemic on Future Birth Rate". *Frontiers in Public Health*, vol. 8, December 2020.
10. Stout et al. "Use of Electronic Medical Records to Estimate Changes in Pregnancy and Birth Rates During the COVID-19 Pandemic". *Journal of the American Medical Association JAMA Network Open*, June 3, 2021.
11. Kearney, Melissa, and Levine, Phillip. "Early evidence of missing births from the COVID-19 baby bust". Brookings Institution Report, December 13, 2021.
12. Ibid.
13. Frey, William. "Pandemic population change across metro America: Accelerated migration, less immigration, fewer births, and more deaths". Brookings Institution Report, May 20, 2021.
14. Cliffe, Sarah et al. "Population Movements, COVID-19, and Conflict Risk". Center on International Cooperation, New York University, April 10, 2020.
15. Frey, William. "Pandemic population change across metro America: Accelerated migration, less immigration, fewer births, and more deaths". Brookings Institution Report, May 20, 2021.
16. Health, United States, 2019 Data Finder, "Table 1. Crude birth rates, fertility rates, and birth rates, by age, race, and Hispanic origin of mother: United States, selected years 1950-2018". National Center for Health Statistics, Centers for Disease Control and Prevention, 2019.
17. Budiman, Abby. "Key findings about U.S. immigrants". Pew Research Center, August 20, 2020.
18. Gronewold, Nathaniel. "Don't Call it a Crisis: The Natural Explanation Behind Collapsing Birth Rates". NPG Forum Paper, Negative Population Growth, July 2021.
19. Rotella et al. "Increasing population densities predict decreasing fertility rates over time: A 174-nation investigation". *American Psychologist*, Volume 76, Issue 6, September 2021.
20. Weitekamp, Chelsea A. and Hofman, Hans A. "Human Population Density and Reproductive Health: A Changing World Needs Endocrinology". *Endocrinology*, Volume 162, No. 12, September 2021.



Nathaniel Gronewold is an assistant professor of international relations and environmental studies in Japan. He's the author of *Anthill Economics: Animal Ecosystems and the Human Economy*. <https://www.amazon.com/Anthill-Economics-Animal-Ecosystems-Economy/dp/1633886522>

NOTE: The views expressed in this article are those of the author and do not necessarily represent the views of NPG, Inc.



Negative Population Growth, Inc.
2861 Duke Street, Suite 36
Alexandria, VA 22314

Phone: (703) 370-9510
Fax: (703) 370-9514
Email: npg@npg.org

**SIGN UP TODAY AT WWW.NPG.ORG
TO RECEIVE NPG COMMENTARY ONLINE!**

Board of Directors

June Bauernschmidt, *Chairman*
Josephine Lobretto,
Secretary/Treasurer
Frances Ferrara
Sharon Marks
Diane Saco

NPG Executive Office

Craig Lewis, *Executive Director*