

CROWDED CLASSROOMS, TEACHER SHORTAGES – DEMOGRAPHIC CHANGES COULD HELP OUR NATION’S TROUBLED SCHOOLS, BUT ONLY IF WE LET THEM

An NPG Forum Paper
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Abstract: Schools in thousands of school districts across the country are burdened by too many students and not enough teachers to take care of them all. Classrooms are packed, halls are jammed, and children are forced to stand in the aisles of their school buses. Overcrowding causes behavioral problems, classroom disruptions, and weaker educational outcomes. Lower birth rates could deliver relief in the coming years as U.S. school enrollments are expected to decline. Many people are determined to stop this from happening, however, calling for mass increases in immigration to keep population growth ever higher. They should be careful what they wish for, for the sake of our students.

I attended high school in northern Arizona, generally a sparsely populated region where towns are spaced apart by hours-long drives. At the time, my high school was actually facing an overcrowding issue, but the school was legally mandated to take in any and all new students, including me. This situation wasn't helped by the fact that it was the only high school in a city that was rapidly growing in population and school enrollments. My high school coped with this influx as best it could, but the strain was obvious.

Lockers were added to the outside of buildings, in an arched enclosure that looked like it was meant to be temporary but stayed put right up until my graduation. I remember walking through snow to get books out of my locker. Half of my classes were held in supposedly “temporary” trailers that were never actually removed or replaced. Every classroom was packed, and every desk was occupied. The school had a good football team, but it was hardly known for its academic excellence. This fact clearly bothered the faculty and administrators, but it wasn't their fault, and there was little they could do about it. Crowded schools

are bad schools—their classrooms are noisier, their students are less disciplined, and their teachers have less time to attend to each pupil, causing many struggling learners to fall through the cracks. My high school issued diplomas to peers who could barely read because the teachers had a hard time keeping track of us all. Classroom disruptions were routine. Many of the students were cruel and disrespectful to teachers they didn't particularly care for at times. These same students drove at least one of my teachers to quit. There were no teacher shortages back then, so they found a replacement for her in short order. Would they be able to today?

My high school's problems were driven by one force: a rapidly rising city population. Too many students were coming in without enough time or resources for the school to cope. This is now an all-too-familiar story in much of America today, one that is getting worse as school districts across the country rebound from the pandemic. Unfortunately, there is no national conversation discussing how population growth has been making the long list of substantial problems plaguing America's school systems significantly worse. Perhaps this needs to

change. Population growth and massively high levels of immigration are portrayed in the media and in much of the nation's political conversation as forever and always good things, with absolutely no downsides to speak of whatsoever anywhere. This is a powerful delusion, but a delusion still. Increasingly, the downsides to population growth could be outnumbering the upsides, and it's time for America to recognize this.

International studies show that the academic performance of American students has been dragged lower for decades compared to other nations. Several factors are blamed for this, but one explanation given is: far higher rates of immigration, a mass population influx coming in too fast and too strong for schools to keep up. Domestic migration adds further strains – schools in magnet cities and states are forced to put up trailers for classes or add lockers outdoors. Schools need relief. This may be a difficult and sensitive conversation to embark on, but we should have the courage to do so anyway, if only to better understand the strain and pain so many school districts are experiencing and how we can at least avoid exacerbating their circumstances. You can't put out a fire by adding gasoline to it. You can't fix the problems plaguing U.S. schools by giving them millions of more students to be responsible for.

Demographic data suggests that over the coming years school crowding could actually ease nationally. That may be of little comfort to states with school districts expecting an ongoing influx of new residents, especially in the West and Southwest, but the pressure could even ease somewhat in these jurisdictions, as well. Natural population growth in the United States is slowing. Birth rates have collapsed and the nation's population barely expanded in 2021. This is good news for schools – no social problem is ever resolved by increasing the number of people suffering from it. But not everyone sees it this way. Aware of the demographic outlook and concerned for the low and still falling average U.S. birth rate, a growing political movement is now calling for a large expansion of America's already problematic and increasingly chaotic immigration system. It's a popular position to take, especially among the left

side of the political spectrum, but even many centrist economists favor this. The trouble is, actually doing what they want will not make the nation's public schools perform any better in international comparisons, nor will it make the field of education more enticing to a new generation of would-be educators. Many schools are already overcrowded and struggling to recruit new teachers. Will a huge new wave of students, whether driven by immigration or domestic migration, resolve any of their issues? In the great debates over school and immigration reform, this is a discussion that's not occurring.

We can have smaller class sizes and better performing schools experiencing far fewer student behavioral problems. We can have schools that enjoy better teacher retention and recruitment. Or, we can have a massive new influx of additional students with their own educational needs. There's little evidence that we can have all these things at once. Too many of America's schools are facing crisis; adding far more students to their roles won't help one bit – it will either prolong or exacerbate their problems.

TEACHERS ARE HARD TO COME BY

The COVID-19 pandemic has had a profoundly negative impact on public education in the United States. Actually, that's an understatement. The forced school closures and reliance on distance education – executed by teachers who were never trained or equipped to handle online teaching – has had the same effect on American education as if all students in the nation were taken out of school and left to roam free for two years. Some students continued their education and intellectual development admirably. Most did not. Standardized test scores have plummeted. Literacy levels are way down. Math scores are in even worse shape.

“The pandemic erased two decades of progress in math and reading,” declared the *New York Times* in an early September headline.¹ Media institutions are not trying to sugarcoat the severity of the situation. Minnesota, where I first went to college, was once a model education state. Schools have been laid low by the pandemic there, as well. Only 45% of Minnesota students can be considered

“proficient” in math, according to the most recent test scores. Just 51% can read at their grade levels. “Remote learning in the early days of COVID-19 and disruptions due to outbreaks in the fall and winter of 2021-22 left students academically lagging as society returned to normal in fits and starts,” says a report from the *Minneapolis Star Tribune*.² This is not limited to Minnesota; it’s a nationwide phenomenon. With students this badly behind, it will take an army of skilled and dedicated teachers to raise test scores and educational performance over the coming years. But here, we’re running into another problem: the famous teacher shortage also made worse by the pandemic.

Some outlets are arguing that there is no national teacher shortage. “America’s new ‘national teacher shortage’ is neither new nor national,” declared a recent report in the *Economist*.³ The article argued that teacher recruiting and retention are persistent problems in poorer states and in school districts in the South known for their low-performing schools. The writer cites Alabama as an example. Elsewhere, there is no issue, the article’s author insists. “New Jersey ranks highly on many measures – test scores, per-pupil spending, graduation rates – and the state was fully staffed last year.”⁴ The writer apparently forgot to check in this year with school authorities in Paterson, a city known for its large immigrant community and crowded school system. There, the city school district is scrambling to fill teacher vacancies and new recruits are being offered signing bonuses of \$7,500 each. New teachers in Newark are being promised \$4,000 to join school faculties there.⁵ This is something of an oversight for the famous magazine – Newark and Paterson are New Jersey’s first and third most populous cities, respectively.

There are variances within states, for sure, and between them. Some counties in New Jersey have been losing population, and their school enrollments are likely declining in tandem. Hawaii has both teacher shortages and a falling student body population – 3,000 fewer students have enrolled in that state this year.⁶ Teachers can’t afford to live in Hawaii, and families can’t afford to raise children there, driving net population declines five years in a row as Hawaii residents

relocate to the mainland. Housing affordability is a big factor in the teacher shortage. Some jurisdictions are building affordable housing for teachers, like one district just north of San Francisco. “There’s been times when we didn’t have a math teacher, or we didn’t have a language teacher,” one high school principal told *CBS News* when explaining why they decided to build apartments for teachers on school property.⁷

Ed Source, a nonprofit education news and data provider, recently took a look at teacher recruitment and retention problems in California school districts. Richer areas famous for good schools that pay great salaries have few troubles getting and keeping teachers, to the surprise of no one. But that’s not reflective of the majority of America today. The report details how the unified California school districts in San Juan, Stockton, Long Beach, Oakland, and Sacramento were struggling with large numbers of vacancies while desperately trying to keep the teachers they have.⁸ It’s hard to find stories of schools happy with their turnover levels voicing no issues whatsoever over hiring new teachers and keeping existing faculty satisfied. A casual internet search will lead you to an endless string of reports decrying teacher shortages and the problems they’re causing.

The Center for Public Integrity (CPI) says schools nationwide are seriously considering switching to a four-day school week because of teacher shortages. It’s already happened in one district in Fort Worth, Texas with over 3,000 students, CPI notes, and schools across Texas and the nation are now thinking of emulating this example if they can’t fill vacant teaching slots. They’ll have plenty of company. Data shows that school districts in 25 states have already adopted four-day teaching weeks. The practice is most common in Colorado, New Mexico, South Dakota, Idaho, and Oregon, with over 20% of school districts in these states having switched to a four-day instructional model, CPI says, citing data by the Center on Reinventing Public Education.⁹ All of those states have something in common – they’ve been experiencing high levels of population growth. The National Conference of State Legislators says data for the 2022-23 school year

shows teacher shortages spiking after holding fairly steady since 2018. Shortages for subject area teachers – not homeroom or special education teachers – are highest in Idaho, Nevada, Wyoming, Colorado, Texas, and Oklahoma.

One research effort estimates there are at least 36,500 teacher vacancies across America and over 163,500 positions are being filled by teachers who are either not certified or not qualified to teach the subjects they're teaching.¹⁰ But this is a very "conservative estimate," the research team cautioned, as they were unable to obtain useable data from 13 states, including populous ones like California, New York, and Oregon.¹¹ The National Education Association (NEA) reports a far higher figure. NEA says that America is struggling with over 300,000 unfilled teaching and teaching support positions across the country. Florida reports 8,000 vacancies in their school districts.¹² Recently, Florida overtook New York in population size. Things could go downhill even further, and quickly. NEA reports that 55% of teachers surveyed are thinking of leaving the field.¹³ To make matters worse, fewer students are enrolling in college education programs. More teachers than ever want to quit their crowded and rowdy schools, and fewer college students want to become teachers.

The situation must be dire because, as I noted, there are definitely no shortages of alarming headlines pointing to the problem. "Even schools flush with cash can't keep up with teacher shortage," Bloomberg declared on August 25, 2022.¹⁴ "Teacher shortage forces hundreds of Delaware students to get virtual lessons," public broadcaster WHYY said on September 8, 2022.¹⁵ "Teacher shortage causing 'crisis' in North Carolina schools," said Spectrum News on August 21, 2022.¹⁶ "Unqualified educators will only worsen the teacher shortage," *The Hill* complains in an August 25, 2022 op-ed.¹⁷ I could go on like this for pages.

PACKED CLASSROOMS

Americans imagine quality schools as places with relatively low student-to-teacher ratios, schools with modest numbers of students in classrooms (maybe 20 students per lecture room

but no more), and where students can traverse the halls in a stress-free environment. These imagined scenarios are not what America's public schools look like today. Prior to the pandemic, schools only seemed to swell and swell in enrollment numbers and 20-student classrooms were a rarity. The country is now returning to those pre-pandemic school atmospheres.

"Overcrowding is one of the most significant issues facing schools and teachers in the United States today," said an article in *Patch* in 2019.¹⁸ The author bravely pointed to population growth as a cause, along with funding crunches and, yes, teacher shortages.¹⁹ Just as I experienced back in my high school days, classroom sizes of 30 or even 40 students or more are now normal. Newly enrolled students are being packed into "temporary" trailers to be taught by instructors who may or may not be qualified to teach the subjects they're teaching, or by a continually rotating roster of substitute teachers.

It was an issue in 2019, and it's an issue today, especially in states experiencing high rates of population growth as residents abandon parts of the Northeast and Midwest for the West, Southeast, and Southwest.

A photo of an excessively crowded school hallway in Apopka, Florida went viral on social media recently.²⁰ The picture shows kids packed in like sardines in an image more reminiscent of a Tokyo subway platform at rush hour.

In New Mexico, parents are up in arms about buses so crowded that students are forced to stand in the aisles. This isn't just uncomfortable, it's dangerous; traffic accidents involving school buses are more common than you might think.²¹

Insurify issued a report in 2020 showing that Washington State, Oregon, Idaho, California, Nevada, Utah, Arizona, Colorado, Louisiana, and Florida had some of the worst average student-to-teacher ratios in the nation. School crowding was shown worsening in states either drawing in lots of immigrants or lots of domestic migrants from other states.²² Again, there are variances – even in

Colorado, some districts have seen stabilized or even slight declines to enrollment levels as they easily locate enough teachers for their students. Wealthier and less-crowded areas don't seem to be experiencing these problems to the degree that other schools are. Of course, not every school district is experiencing the same thing. But too many of them are obviously struggling with school overcrowding. And the situation has only worsened in magnet cities and states since 2020, including in Texas where some schools are now considering four-day weeks.

Will things ever improve? They actually might, especially if projected demographic changes can ease pressure on our already overstretched school systems. But only if we let them. That's because influential voices are actually complaining loudly about a coming phenomenon that will finally give some long-needed relief to overcrowded, overburdened schools: fewer students. These voices are saying we must reverse a trend of stagnating demographics with ever-higher levels of immigration, while offering no solutions for schools already struggling with the student population we already have today.

THE VIEW TO 2030

There might be relief in sight. Just maybe. That's because there's a good chance the population pressure schools are feeling will come off a bit. It won't be much, but it's at least something to look forward to.

America's population expanded at its lowest level ever recorded in 2021. The Census Bureau says total population grew by just 0.1% that year, a rate that's "the lowest since the nation's founding" the Bureau's researchers said.²³ The nation's largest urban centers, New York City, Los Angeles, and Chicago, all experienced population declines. People may still be steadily fleeing these cities, moving to places with better weather and far more affordable housing.

The most populous states are becoming less so. Some 300,000 people left New York state during the pandemic, per Census Bureau data, and the net outflow is expected to continue.²⁴ California

dropped in population by at least a quarter of million people.²⁵ Population was trending lower in all these places; the pandemic accelerated the declines, but there's every reason to expect these decline trends to continue even in a post-pandemic reality. Incidentally, these cities and states are home to some of the nation's largest, most crowded, and worst performing school districts. Adding ever more students to these school districts has done nothing to improve the quality of education they deliver. Will declining enrollment help? At the very least, it couldn't hurt.

The low birth rate and slowdown in immigration are starting to have a real impact. Data published by the National Center for Education Statistics (NCES) projects that total public school enrollments in the United States will decline by about 4% by 2030. Total enrollment declines are expected to be slight this year, and then pick up speed, peaking in 2026 while still continuing to fall less quickly to the end of the decade, the NCES forecast shows. Enrollment numbers yo-yoed in the pandemic years, plummeting in 2020, then bouncing back strongly in 2021. But what's coming isn't pandemic related at all, NCES says. "The projected decrease in public school enrollments over the next decade is not a direct continuation of the pandemic-related drop observed between fall 2019 and fall 2020," NCES said. "Rather, it is primarily a reflection of changes in the school-age population."²⁶

The pandemic has clearly taken a severe toll on life expectancy and the birth rate. In March, the Census Bureau reported population declines in over two-thirds of U.S. counties in 2021, pointing to the falling birth rate and increased mortality as primary causes. But out-migration played a big role, as well, especially in California, Oregon, Mississippi, Alaska, Louisiana, and Illinois. Los Angeles County alone lost more than 159,000 residents last year. Those who didn't pass away perhaps ended up in Texas – just five Texas counties saw influxes of more than 145,000 people in 2021, almost certainly adding to the strain school districts in those counties are facing.²⁷ But in many ways, Census' outlook for America's population is still wildly outdated. Forecasts Census published in

2020 rely on birth rates higher than what they actually are at present and assume life expectancy in the U.S. is climbing. Life expectancy has actually been trending down. The previous Census view also saw a continued increase in the number of school aged Americans from now to 2030, albeit a modest one.²⁸ As noted above, NCES data factors in new realities, in particular the decline in birth rates and slowdown in legal migration, to arrive at its forecast of a fall in school enrollments by the end of this decade.

I think the NCES outlook will ultimately be shown to have been too modest. It assumes that U.S. birth rates will bounce back to pre-pandemic levels and then stay there. In reality, we're more likely to see birth rates recovering somewhat but remaining depressed and then continuing a downward slide in later years. Either way, the coronavirus pandemic helped push the nation's birth rate lower, and this will translate to fewer students in the coming years. NCES says there were nearly 51 million students enrolled at all grade levels in the U.S. in 2019. Their prediction sees about 47 million enrolled in 2030 – translating to about 4 million fewer students packing America's packed classrooms. Enrollment could decline even more—as noted above, birth rates have been trending lower in the U.S. for a while now, long before the pandemic ever came around, and I think they've yet to hit bottom. Either way, even a modest 4% drop in enrollments will mean millions of fewer students crowding buses and classrooms in schools perpetually struggling to find teachers to teach them.

FEAR OF DE-GROWTH

This is all horrible news to many prognosticators.

The Economist – the same publication that couldn't find teacher shortages in two of New Jersey's largest cities – calls America's legal immigration slowdown a massive problem that needs to be nipped in the bud post-haste. "The real crisis is not border crossings but a shortage of new arrivals," the writer confidently asserts.²⁹ Recent reports suggest the U.S. Border Patrol will arrest 2

million people trying to cross illegally into the United States this year, the highest figure ever recorded.³⁰ More are coming still as there appears to be no let-up in the avalanche of new arrivals, many landing with little more than the clothes they're wearing and what money they weren't forced to hand over to gangs at the southern border. Let them, and far more, all in permanently, the *Economist's* writer insists. The author's sympathies lie not with the immigrants, but with U.S. employers who have grown fond of cheap labor and don't want to raise wages to entice new applicants, a tried-and-true practice. Nowhere does the article even mention the word "schools" or bother to explain how ever more warm bodies will make America's already terrible education system any better.

Famous billionaire entrepreneur Elon Musk is very vocal about his concern over low birth rates throughout the world, including America. He insists we need another baby boom to eventually fill our already full schools. Writer Matthew Yglesias wants the U.S. to achieve a population of 1 billion – because that will surely ease traffic, raise wages, lower housing costs, and reduce the stress on our stressed-out school systems, right?

America's economists and professional pundits, of course, see the nation's population growth slowdown (a decline could be registered this year, but that's increasingly unlikely given the unrelenting surge at the southern border) as a massive crisis. Brookings Institution senior fellow William Frey argues that the nation can't truly turn its back on COVID-19 until it resumes faster population expansion. "Among the many ways that are needed to recover from the pandemic, a focus on reactivating the nation's population growth should be given high priority."³¹ Other countries disagree. Despite experiencing downward demographic trends, public opinion polling in Europe and Japan shows that most people think their countries' populations are still too high and that the world's population should either cease expanding or even fall. I can't locate data from any similar surveys taken in America. Perhaps economists and demographers are too afraid to conduct this kind of opinion polling in the U.S

because they already know what the outcome will look like.

If pro-population explosion economists are to be believed, growth and only growth is always pure and good and righteous, and the faster and more aggressive the growth, the better, with no ill consequences ever possibly arising from any of it, ever. Except, we all know this isn't true. Our school children can certainly attest to this fact – larger, more crowded, and ever more populous schools with shrinking faculties are not creating better educational outcomes or a more competitive workforce.

We should be welcoming to immigrants, especially refugees, and their children should be educated. There's nothing wrong with immigration. Hell, I'm an immigrant – I live in Japan, so coming out against immigration would be rather hypocritical on my part. Immigration is making Japan a better place, and the Japanese are increasingly coming to recognize this to their credit. But they know, as I do, that it isn't only and always a positive thing. Some employers are getting busted for abusing their vulnerable immigrant employees. And, unfortunately, many of the new arrivals are committing crimes. The news here recently reported on the police busting a Vietnamese gang for stealing massive quantities of fruits and produce from orchards and farms. Live pigs have even been stolen. And some of Japan's schools are also feeling a bit of stress. Many are short of Japanese language instructors, for instance. But public support for immigration in Japan is rising and should continue to do so. Governments and the public here seem confident that any issues impacting education in Japan can be dealt with in good time as long as the influx of new residents is kept to sustainable levels. America should adopt a similar attitude.

The coming decline in U.S. school enrollments projected by NCES could be America's window of opportunity to sort out what ails its public schools. That doesn't mean closing the borders. Immigration to the United States is an established fact, one that will continue to endure for as long as the nation exists. Immigration has made the U.S. more diverse,

culturally rich, and economically competitive on the global stage, even as America's economists have done their very best to destroy these advantages by encouraging deindustrialization. America's immigrant community is a fantastic source of soft power and influence throughout the world, as well. Every nation on Earth can see a bit of themselves in the United States. You can't say the same about China or Russia.

But for far too long, the view from Washington, D.C. has been to push for more and more population growth for its own sake, never bothering for a second to pause and consider what consequences might arise from these policies, and spending very little to no time at all thinking about how immigration could be better managed, if only to give the nation the space and time it needs to fix problems that are hurting the people already living in the U.S., new arrivals and native born equally. Again, this is an important point worth reiterating: no social problem is ever resolved by adding more people to be negatively impacted by it. America's constantly struggling and low-performing school system is a persistent social problem that's never resolved. Adding more students to it won't help at all. But lowering the number of pupils forced to deal with its issues just might. And here, a window of opportunity is finally opening for us. Let's not slam it shut.

Adding more and more warm bodies to my Arizona high school did not make my high school's students perform any better on standardized tests – it made them perform worse. In debates over population and demographics, far too few economists, journalists, and politicians pushing for wide-open immigration policies and more and ever higher numbers of people living in America, seemingly to infinity (the “one billion Americans” vision espoused by Yglesias) pause to consider how these policies may actually end up harming everyone involved, including the large number of immigrants they want to welcome with open arms. Maybe it's time they did.

NOTES

1. “The pandemic erased two decades of progress in math and reading.” The New York Times, September 1, 2022.
2. “Minnesota students’ low math, reading test scores offer glimpse of pandemic challenges.” Minneapolis Star Tribune, August 25, 2022.
3. “America’s new ‘national teacher shortage’ is neither new nor national.” The Economist, August 21, 2022.
4. Ibid.
5. “Want a \$7,500 bonus? Take a teaching job in Paterson.” Joe Malinconico, Paterson Press, NorthJersey.com, September 16, 2022.
6. “Outmigration in Hawaii is expected to drive major declines in public school enrollment.” Jessica Terrell, Honolulu Civil Beat, September 16, 2022.
7. “California school district tries new ways to retain teachers: Low-cost apartments on school property.” Jonathan Vigliotti, CBS News, September 1, 2022.
8. “Teacher shortage? Depends on where you look.” Carolyn Jones, Ed Source, August 31, 2022.
9. “Teachers shortage pushes schools to 4-day schedule.” Kristian Hernandez, Center for Public Integrity, September 2, 2022.
10. “How bad is the teacher shortage? What two new studies say.” Madeline Will, Education Week, September 6, 2022.
11. Ibid.
12. “Five-alarm crisis: US has shortage of 300K teachers, school staff.” Julia Conley, Common Dreams, August 12, 2022.
13. Ibid.
14. “Even schools flush with cash can’t keep up with teacher shortage.” Bloomberg, August 25, 2022.
15. “Teacher shortage forces hundreds of Delaware students to get virtual lessons.” WHYY, September 8, 2022.
16. “Teacher shortage causing ‘crisis’ in North Carolina schools.” Spectrum News, August 21, 2022.
17. “Unqualified educators will only worsen the teacher shortage.” The Hill, August 25, 2022.
18. “Overcrowding in schools: Why is it a huge issue?” Hussein Hachem, Patch, October 4, 2019.
19. Ibid.
20. “Photo of overcrowded hallway at Apopka High School triggers response from local activists.” Reggie Connell, the Apopka Voice, August 17, 2022.
21. “‘It’s dangerous’: APS parents concerned about students with overcrowded buses.” Breana Albizu, KOAT, August 18, 2022.
22. “Too close for comfort: states with the most crowded schools.” Insurify Insights, July 22, 2020.
23. “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.
24. “‘Census: New York State leads nation in population decline amid Covid-19 pandemic.’” Mark Weiner, Syracuse.com, December 22, 2021.
25. Ibid.
26. “New projected data through 2030 to be included in Digest of Education Statistics.” National Center for Education Statistics, NCES Blog, February 23, 2022.
27. “COVID-19 pandemic’s impact on births and deaths results in a record number of counties experiencing natural decrease.” United States Census Bureau, press release, March 24, 2022.
28. 2017 National Population Projections, U.S. Census Bureau.
29. “A shortfall in immigration has become an economic problem for America.” The Economist, July 28, 2022.
30. “Border arrests top ’21 record, on pace for 2 million by end of September.” Mark Moore, New York Post, August 16, 2022.
31. “U.S. population growth has nearly flatlined, new census data shows.” Report by William Frey, Brookings Institution, December 23, 2021.



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