

OPINION

## Leaked Data Show China's Population Is Shrinking Fast

China has always massaged its demographic figures, but a recent, large-scale data breach offers some sorely needed clarity.

BY YI FUXIAN — JULY 31, 2022

Credit: Javier Quiroga via [Unsplash](#)

Even though everyone knows that China's official demographic figures are systematically overestimated, the authorities have consistently cracked down on anyone who questions the data. For example, my book *Big Country, with an Empty Nest* was quickly banned when it appeared in 2007, because it voiced concerns about China's one-child policy and predicted that the Chinese population would begin to shrink in 2017, not in 2033-34, as Chinese officials and the United Nations' 2006 *World Population Prospects* (WPP) had [projected](#).

Then, in 2019, I [concluded](#) that China's population had already been overtaken by India in 2014 and begun to decline in 2018 (one year later than my initial estimate due to the two-child policy). In response, the head of the Chinese statistics bureau went on China Central Television to accuse me of [creating rumors](#), and *People's Daily Online* [ranked](#) my conclusion third in its "Top Ten Rumors of 2019 in China."

Now, the UN has [released](#) its 2022 *WPP*, which concludes that China's population began to decline this year (ten years earlier than its 2019 projection), and that [India's population](#) will surpass China's in 2023 (seven years ahead of the 2019 forecast). And yet, as in previous revisions, the *WPP* is still overestimating China's population figures. The 2022 *WPP*, the Chinese statistics bureau, and China's 2020 census all overstate the country's post-1990 births. While the 2020 census and the 2022 *WPP* show a birth peak starting in 2004, the statistics bureau puts the peak in 2011, and all three data sets have roughly the same number of post-2010 births.

## “ Are we supposed to believe that instead of lowering the fertility rate, the one-child policy actually boosted it? ”

It is worth remembering that China did not replace its one-child policy with a selective [two-child policy](#) until 2014, before enacting a [universal two-child policy](#) in 2016. Because the one-child policy has irreversibly altered the Chinese concept of fertility and reshaped the economy, there was no baby boom in 2015, 2017, or thereafter. What, then, are we to make of the reported birth peaks in 2004 and 2011?

In 2010, the population aged 3-14 was only 169 million, according to the 2010 household registration database, and 176 million, according to the 2010 census. Yet, according to the Chinese statistics bureau, there were 210 million births in the 1996-2007 period. Similarly, the 2022 *WPP* counts 195 million people aged 15-26 in 2022.

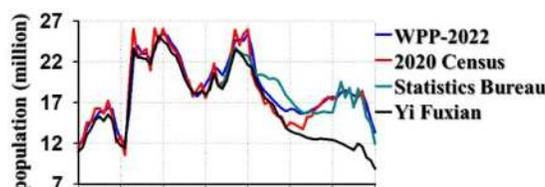
Consider that fertility rates tend to [decline](#) with improvements in health and education, and that Taiwan is about 15 years ahead of mainland China in terms of both factors. While Taiwan had an average [fertility rate](#) of only 1.6 for the 1989-2004 period and 1.08 for the 2005-21 period, the 2022 *WPP* puts China's average fertility rate for 2004-19 at 1.68. Are we supposed to believe that instead of lowering the fertility rate, the one-child policy actually boosted it?

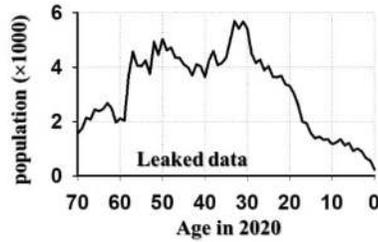
In China's 2000 and 2010 censuses, its total fertility rate was 1.22 and 1.18, respectively, and its first-order fertility rates – the average number of first children born to a woman during her childbearing years (15-49) – were 0.86 and 0.73. That is consistent with Taiwan's 1985-95 average first-order fertility rate of 0.75. But the 2022 *WPP*'s 2000 and 2010 total fertility rates of 1.63 and 1.68 imply first-order fertility rates as high as 1.15 and 1.03. Such figures are not credible: China's first-order fertility rate should be well below 1.0, [owing](#) to the country's rate of infertility, impaired fecundity, low probability of twins, and number of unmarried and DINK (dual income, no kids) households.

[Moreover, Bacille Calmette-Guérin vaccination \(against tuberculosis\) is mandatory](#) in China for every newborn within 24 hours of birth, and we know that an average of 1.2-1.5 newborns can be [vaccinated](#) with one dose of BCG (from one newborn in small hospitals to as many as three in large hospitals). For example, because 11.54 million doses of BCG were [distributed](#) in 2010, and the 2010 census [showed](#) 13.79 million people aged 0, then an average of 1.2 newborns were vaccinated per dose.

In 2018, 2019, and 2020, the numbers of BCG doses [distributed](#) were 6.21 million, 5.73 million, and 5.37 million, respectively. That means China's population began to decline in 2018 (when deaths [totaled 9.93 million](#)), and it suggests that China will soon have [fewer births](#) per year than Nigeria and Pakistan. (This finding is further supported by [Baidu Trends](#) – China's equivalent of Google Trends – which shows a decline for newborn-related purchases such as maternity wear, strollers, and cribs in 2018.)

Yet, according to the 2022 *WPP*'s population figures for 2018, 2019, and 2020, each dose of BCG would had to have been stretched out to 2.7, 2.6, and 2.5 newborns, respectively. That defies medical common sense.





Credit: Yi Fuxian

What are we to make of these discrepancies? Fortunately, a [massive leak](#) from the Shanghai Police Department this past June helps to demystify the data. Claiming to have obtained personal data about roughly one billion Chinese citizens, an anonymous hacker released a sample of about 750,000 records, including the household registration data of 250,000 people of all ages. The sample data are highly dispersed and random, covering almost every county, including in remote, sparsely populated areas in Tibet. All appear to align with data from the 2010 census in terms of population shares by surname.

“ **China’s economic, social, foreign, and defense policies – as well as those of the United States and other countries toward China – are based on erroneous demographic data.** ”

Since sampling is not perfectly uniform, it is not possible to pinpoint the number of people in each age group nationwide; but the overall pattern of the age distribution is consistent with past censuses. It suggests that post-1990 births continued to decline faster than I had predicted, and in fact did not peak in 2004 or 2011. That means China’s real population is not [1.41 billion](#) (the official figure) and could be even smaller than my own estimate of 1.28 billion. It also means that China’s economic, social, foreign, and defense policies – as well as those of the United States and other countries toward China – are based on erroneous demographic data.

Unexpectedly [rapid aging](#) is slowing China’s economy, reducing revenues, and increasing government debt, with provinces [cutting](#) civil servants’ wages and infrastructure investment this year. Clearly, the population base that supported China’s strategic expansion is gone.

Will China adjust its strategy and seek better relations with the West, or will it follow Russia in desperately trying to undermine the global order? The first option is obviously in the interest of both China and the West, which is also facing an [aging crisis](#) that will require it to pursue a strategic contraction. The second is a surefire formula for prolonged decline.

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