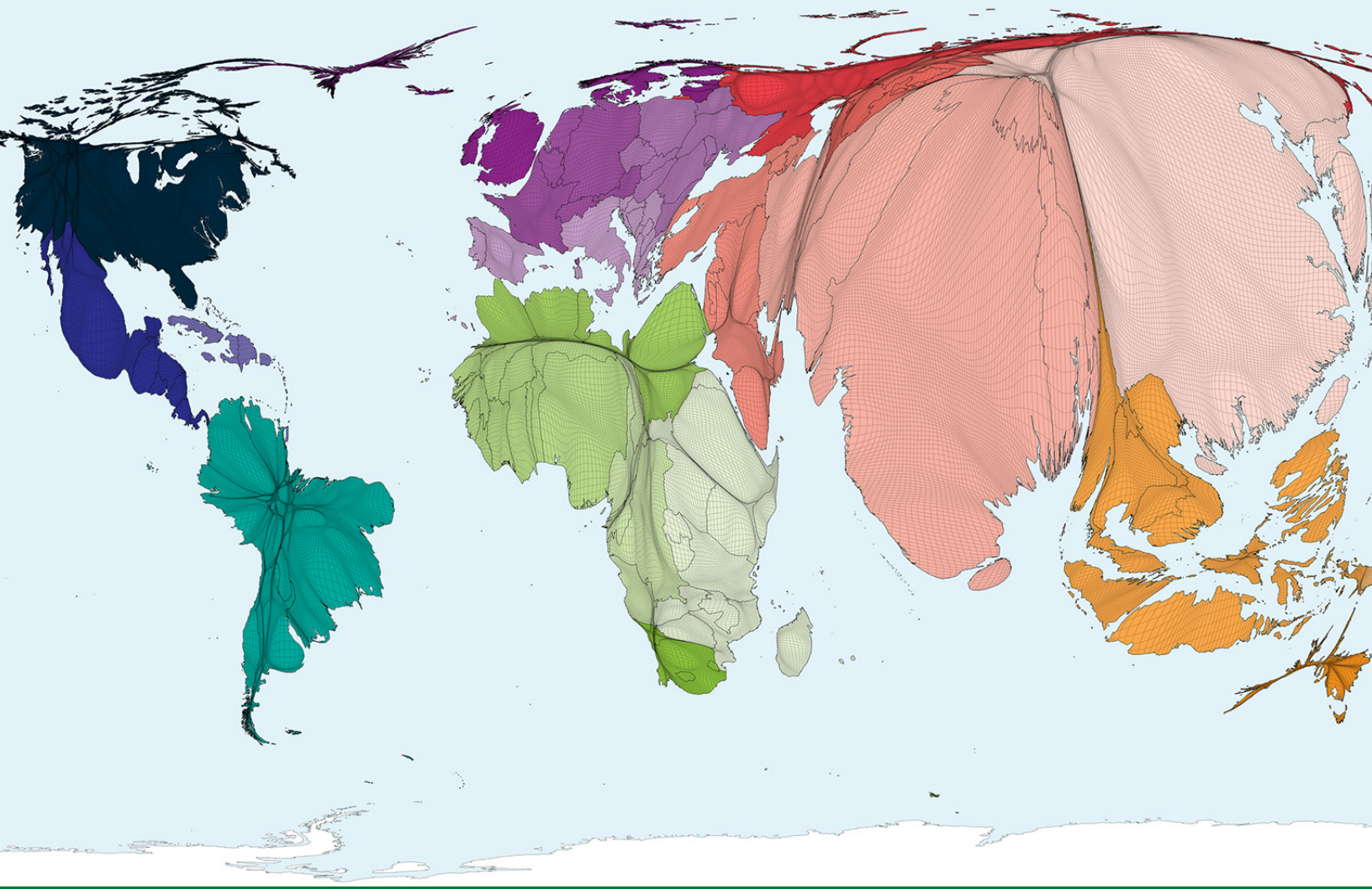


POPULATION TRENDS AND THE FUTURE OF US COMPETITIVENESS

By Jennifer D. Sciubba, Lauren Risi,
and Sarah B. Barnes



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Residents in Beni region greet peacekeepers passing by in a MONUSCO armoured personnel carrier.. (Sylvain Liechti / Flickr)

Demographic issues intersect with the gamut of policy priorities on the congressional agenda: the economy, health care, education, immigration, foreign policy, and Social Security. In the latter case, for example, projections indicate that an aging US population and the decline in the worker-to-beneficiary ratio [will exhaust Social Security funds by 2040](#), in the absence of reform. As host to the largest immigrant population worldwide, the United States has seen not only the benefits from a growing workforce in the face of low fertility rates, but also political division in response to that immigration.

Although demography is important, how population trends influence policy outcomes is often overlooked or misunderstood.

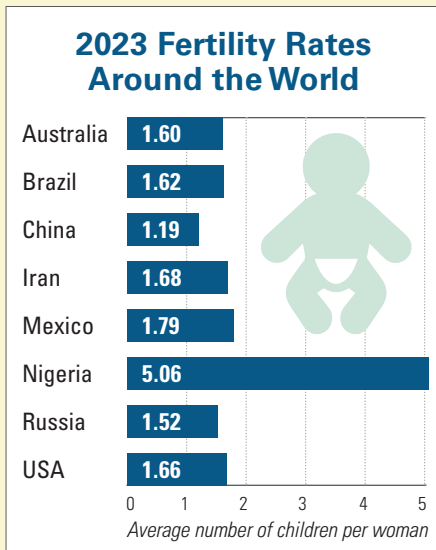
Some population issues are an immediate and direct concern—as one sees clearly in the increased mortality rates due to the COVID-19 pandemic, or in spikes in the number of asylum seekers in the wake of conflict or instability. As all levels of government continue to prepare for such “shocks,” understanding demography is necessary for foresight exercises to anticipate them. Yet population dynamics are also important underlying drivers of long-term shifts. For example, demographic trends in fertility rates, mortality rates, and migration—the three building blocks of demographic change—affect the US labor market and its domestic consumer base. (See “A note on terms,” at right.)

The same situation holds true in other countries, and thus impacts the United States’ global economic competitiveness. If some countries with shrinking workforces, like many of those in Europe, do little to adapt to their new demographic reality (e.g., failing to reform low retirement ages and unsustainable entitlement levels), they could become less attractive economic partners for demographically younger states. If regions and countries with relatively larger and younger workforces, like sub-Saharan Africa or Indonesia, attract global capital and become strong economic hubs through partnerships with US competitors, the United States could lose its edge.

Population dynamics also affect national security and stability. The strategic environment will necessarily change as allies of the US (including South Korea and Germany) and competitors

A note on terms

Since we want to compare across regions and across time in this paper, the best measure to indicate overall patterns in birth is the **total fertility rate**, or the average number of children expected to be born to a woman in her lifetime. This is not the same as **fecundity**, which is the ability to produce children. Thus, when demographers refer to fertility as being “up,” or “down,” they are referring to actual births, and not fecundity. Also: a total fertility rate of roughly 2 children per woman is considered “replacement level.” Thus, conversations about fertility rates generally refer to “below replacement” as leading towards a population eventually shrinking (absent immigration), while “above replacement” indicates positive population growth.



Source: UN World Population Prospects, 2022 Revision

(China and Russia), adapt to their own aging populations. For example, the [massive surge in China's labor force](#), which was a driver of its post-1980 economic growth and emergence as a global power, is now over as decades of declining birth rates catch up to that nation's working age population. There is also mounting evidence of a relationship between [youthful populations and civil conflict](#), with possible lessons to be found in the long US involvement in Afghanistan, which has one of the highest fertility rates and [poorest human rights records](#) in the world.

Finally, the energy and resource demands of the world's 8 billion people—which vary greatly across regions—have implications for efforts to mitigate and adapt to climate change. Is it possible to achieve global climate goals and close energy deficits at the same time? Places such as India (the world's most populous country) or sub-Saharan Africa (the only region of the world with a population growth rate over 2%) articulate this challenge. For instance, in sub-Saharan Africa, [600 million people lack access to electricity](#).

Population is a powerful dynamic. Yet US policy makers would be wise not to see any demographic trend as deterministic, whether at home or abroad. Doing so can lead to severely under- or overestimating the economic and national security effects that trends create. No demographic trend is inherently good or bad; national responses matter.

While the shift from high to low fertility around the globe is much maligned among those who portend economic collapse, the overall picture of global population is positive. We've made tremendous strides in health and longevity, stretching a life expectancy at birth of [31 years in 1900](#) to [over 73 years today](#), adding what amounts to an "extra life" for people over the last century. With the right investments, we can ensure the world stays on a path towards greater prosperity in the future.



Portrait of a large family, Botswana. (Lucian Coman / Shutterstock)

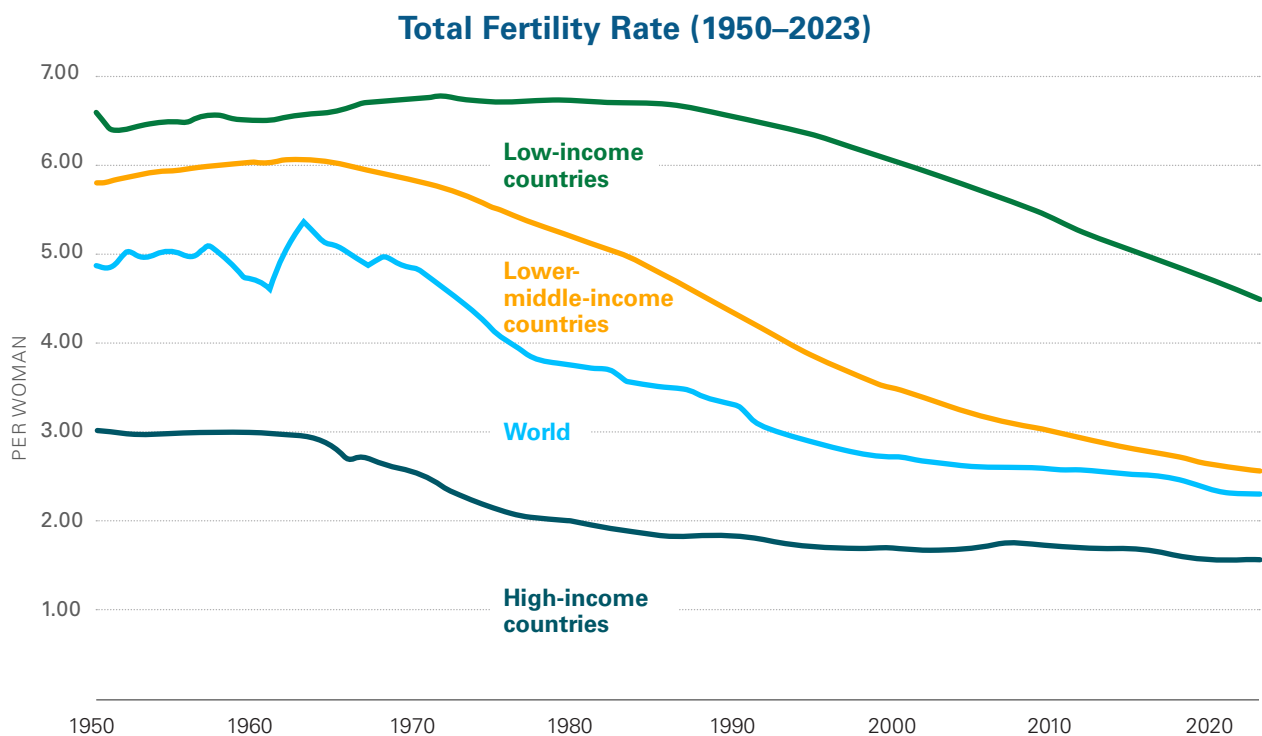
Today's population moment is different

While we have come a long way since the start of the 20th century, the [global population](#) has changed dramatically even within our present century. The infant mortality rate has been halved, from 53 deaths per 1,000 live births in 2000 to 26 deaths per 1,000 live births in 2023. We have gained nearly seven years in global life expectancy, and the fertility rate has fallen from 2.7 to 2.3 children per woman on average. And demonstrating the widening global demographic divide, the median age of populations in high-income countries has gone from 35 years to 41 years, while increasing only by 1.8 years among low-income countries.

These momentous changes have big implications for the economic and security interests of the United States, and they pose new challenges and opportunities for its policymakers. In short, past approaches that proved successful may not be effective in the present and near future. And the challenges that persist—e.g., inadequate health and caregiving services and immigration—are likely to be made worse if policies fail to take into consideration global demographic trends and how they will impact the United States and its interests.

As noted above, the drivers of population trends are fertility rates, mortality rates, and migration. The downward trend in fertility rates since the 1960s has led to the most significant change in global population dynamics.

Due to decades of low fertility rates, the populations of more than 30 countries are shrinking, including US adversaries like China and Russia, and US allies such as Germany, Japan, and South Korea. Many more countries are experiencing significant population aging. In short, this means that their populations are growing older (with rising median ages and fewer young people), even if their overall numbers have not yet begun to shrink. This [aging has implications for national security](#) and economic prosperity.



Source: UN World Population Prospects, 2022 Revision

At the same time, because of their youthful populations and higher fertility rates, the world's poorest and least stable countries will boast young and rapidly growing populations for decades to come. This growth is ensured, even as fertility rates continue to fall in these nations. As a result, these countries will have large potential workforces but also continue to face both governance challenges and a limited ability to provide basic services to their populations, which are growing rapidly but also bringing with them a low tax base.

This demographic divide in fertility rates, mortality rates, and migration challenges between higher and lower income countries means wide disparities in the issues various countries face. Yet our highly integrated world also means that they will translate into shared global economic and security challenges.

Just a few decades ago, the vast majority of the world's people lived in countries with high fertility rates. In 2000, [41 countries](#) (out of 196 total) had total fertility rates of at least 5—meaning that, on average, women in these countries had 5 or more children in their lifetimes. Yet in 2022, there were only 8 countries with fertility rates that high. [Two-thirds of our 8 billion people live](#) in a place with below replacement fertility. Generally speaking, the higher a country's fertility rate, the younger the population. Due to declining fertility rates and increased life expectancy, [our populations are becoming more "top-heavy,"](#) with greater proportions of older people.

Although fertility rates are declining everywhere, they have done so at different rates in different places, creating varied population experiences for countries and regions around the globe. Even across Africa, the world's demographically youngest continent, fertility rates continue to decline. And in African countries that still have high fertility rates on average, rates are declining in cities.



A grandmother takes care of her grandchild in Jakarta. (Reza Syah Fahlevi / Shutterstock)

For instance, fertility rates are highest in the Sahel region of north-central Africa. While they have not fallen as quickly as some demographers expected, they have fallen. Yet, even with these declines, as the following discussion on age structure will lay out, these populations will remain young and growing for decades, giving them a different set of challenges and opportunities than higher income countries face.

Death patterns, or mortality, have seen remarkable shifts as well. Communicable diseases are **no longer the top killer** anywhere in the world. Great strides also have been made in malaria and HIV/AIDS prevention and treatment. Yet many communicable diseases kill exclusively in lower income countries, furthering the demographic and health divides between rich and poor countries. The global divide in health is important to remember as Congress allocates resources for global health and development. If funding for communicable diseases and health infrastructure should stall or fall off the agenda, morbidity and mortality in lower income countries could undermine global development goals like the Sustainable Development Goals.

Migration is the final building block of population. There have been fewer shifts in migration patterns over the past generation. It was important then, it is important now, and it will likely continue to be important in similar ways in the future. The United States remains the top recipient of migrants worldwide, by a large margin, and political divisions over attitudes towards migration will continue to play a large role in electoral politics in North America and Europe.

These trends in fertility rates and longevity mean we are heading into a new world. Populations have never been as old as they are now. They will only continue to grow older, and the total number of aging countries will continue to grow over the next 20 years. In this new world, we must rethink what retirement, work, family structures, and infrastructure look like. Which policies can best serve the needs of these diverse and changing populations? And in places where population growth, high fertility rates, and youthful population age structures exist, what does this tell us about needed investments that can expand rights and opportunities, especially for women and girls?

Pursuing specific population targets is a poor use of resources, however. Policies aiming to directly raise or lower fertility rates often do little to move the needle, whether in the United States or abroad. Thus, we must look beyond women's childbearing to solve population challenges. Policy makers would be better served by focusing on improving quality of life for citizens already born, and by adapting to new demographic realities. They should try to make the most of the human capital resources already available. The societies that do this—rather than trying to reverse population aging—will come out on top.

A demographic divide in fertility rates, mortality rates, and migration between higher and lower-income countries means wide disparities in the issues countries face. Yet our highly integrated world also means that they will translate into shared challenges.

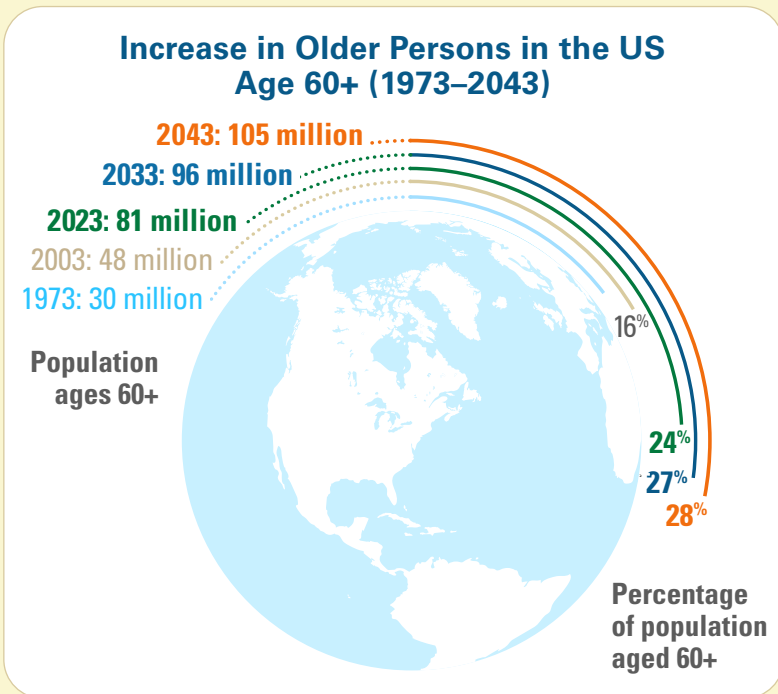
The care economy

The global care economy—the paid and unpaid labor related to caregiving such as childcare, older person care, and domestic chores—is a critical sector that [enhances economic growth, gender equity, and women’s empowerment](#). Care work makes all other work possible. Finding ways to provide adequate caregiving is not a new dilemma, but it has been exacerbated in the inevitable and unprecedented shift of older persons growing proportionally larger relative to younger persons. As people live longer, we have essentially created another generation. Yet we have done little to address the resources required to create a dignified quality of life for this “new” generation.

Care work is economically valuable, but also undervalued. [Women and girls contribute](#) more than 70% of total global caregiving hours (paid and unpaid) and perform more than [75% of unpaid care work](#). While women make up only 47% of the global paid workforce, they make up [89% of home health care workers](#) and 94% of child-care workers. Unpaid care work presents additional challenges for women. It is estimated that [647 million full-time unpaid caregivers](#) around the world are not

seeking a job due to their caregiving responsibilities. Most of them (93%) are women. For these women, absence from the job market can mean missing the opportunity to accrue earnings over time that would result in greater income security in their old age, either through personal savings or by qualifying for higher Social Security benefits.

Another subset of unpaid caregivers is the “[sandwich generation](#)” of caregivers. People in this group provide unpaid care to an adult while also caring for a child or children under the age of 18. In wealthier countries with older populations, the “sandwich generation” results from a combination of high life expectancy and delayed fertility. However, in sub-Saharan African countries, with twice as many “sandwiched” caregivers, high fertility increases the probability of generational overlap between older and younger generations.

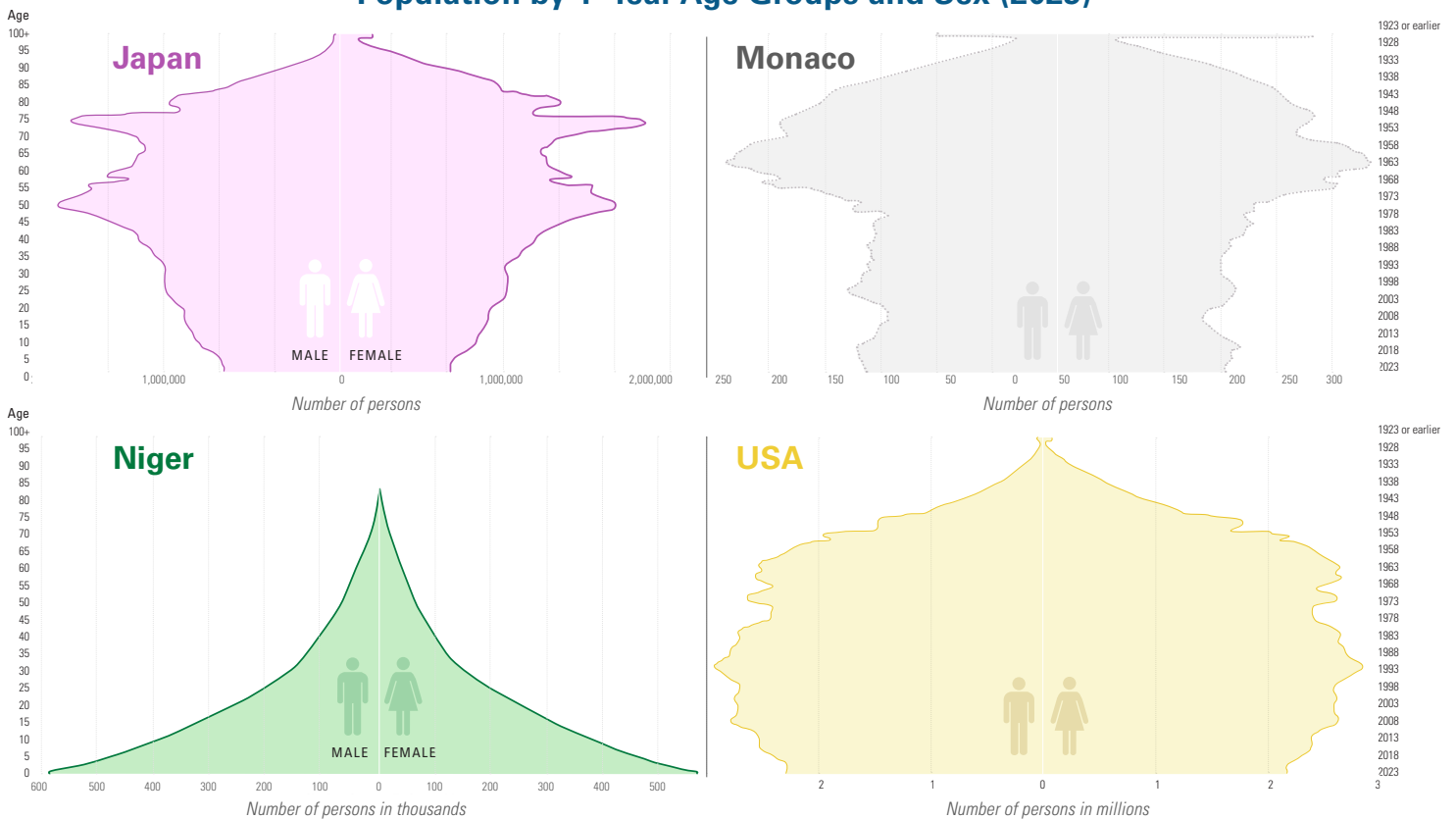


Age structure matters

Age structure refers to the various proportions of a society comprised of different age groups. Generally, those are children and youth not yet in the workforce, those in their working ages, and the segment of the population that has exited the workforce into retirement.

Political demographers often use median age as shorthand to compare age structures around the globe. In 2023, for instance, these range from a low of 14.5 years in Niger to a high of 54.3 years in Monaco. Societies with higher median ages will have relatively higher proportions of older people, and vice versa. A country's age structure is not deterministic, but it does set the scene for political, economic, and social dynamics. What we know about age structure also can help us anticipate the future.

Population by 1-Year Age Groups and Sex (2023)



Source: [United Nations Data Portal](#)

Countries with younger age structures are more likely to [experience political instability and poverty](#). They have also been the most likely to develop challenges such as armed civil conflict, low levels of social and economic development, losses of liberal democracy even in the midst of democratic transitions, and [coups d'état](#). Countries with median ages under 25 years have a higher likelihood of breaking out into [revolutionary conflicts](#). This group includes most countries in Western and Eastern Africa (but not Northern, and not all of Southern Africa); several countries in Central Asia, like Afghanistan, Kyrgyzstan, and Tajikistan; Haiti; Guatemala; and some island states in Oceania, like Papua New Guinea. Many of the most at-risk countries are focus countries of the ten-year [US Strategy to Prevent Conflict and Promote Stability](#).

More than half of the world's future population growth to 2050 will occur in sub-Saharan Africa, and more than forty percent of [that region's growth](#) will come from just four countries: the Democratic Republic of the Congo, Ethiopia, Nigeria, and Tanzania. The number of people aged 15-59 years old globally will grow by 676 million, net, between 2023 and 2050. That same population in Africa will grow by 686 million, meaning that much of the world's future growth comes from Africa, whose population increases offset losses elsewhere. It is crucial to ensure this workforce has the opportunities needed to be most productive.

This will be a challenge. Niger, which experienced a coup in 2023, is embedded in a region that reflects similar political and demographic challenges to its own. With one of the world's highest fertility rates, the population of Niger will double every 19 years. In order to just maintain the current dismal levels of school and healthcare access, Niger has to double the number of schools, its physical infrastructure, and even its jobs every 18 years. 76% of girls in Niger are [married before they are 18](#), and the [average age of a mother's first birth is 18.5 years](#), compared to 27 in the United States. Early marriage and childbearing restricts women's ability to seek education and income-earning opportunities outside the home, both of which are necessary to give women more equal participation in society.

Diving deeper, we find that often, the younger women are when they have their first baby, the higher their fertility overall. Early onset of childbearing creates smaller intergenerational age gaps, which lead to higher infant and child mortality. Thus, investments in education (especially for girls) and voluntary family planning—investments that yield economic dividends and increase gender equity while lowering fertility rates—can put them on a more sustainable path. Even if Niger's total fertility rate decreases by 50% today, its population will continue to grow, which demonstrates that policies aiming to change fertility rates are insufficient to address the unique needs of youthful societies.

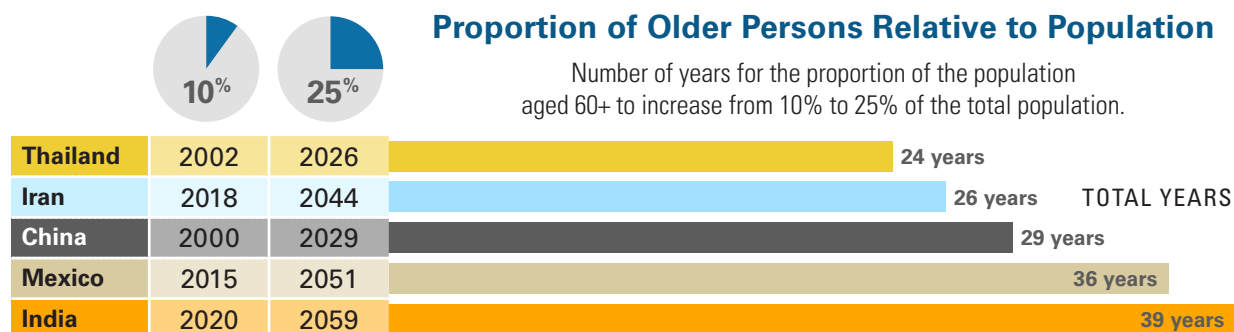


Doctor visits an older patient. (Media Lens King / Shutterstock)

Numerous countries lie somewhere in the middle of the age structure spectrum, however. India is emblematic of these “middle-aged” countries. While it is now the world’s most populous country, its fertility rate is currently below replacement level. Due to population momentum (see text box on page 12), India’s population will keep growing for many decades, but the number of new entrants to the labor force has already peaked.

And although it is relatively younger than China or European countries, India will have to invest more in its current working age population to help its citizens be as productive and prosperous as possible. They have a long way to go. India’s rate of [female labor force participation](#) is 24% (as opposed to 61% in China).

It is too soon to tell how India will respond to its shifting population, but some pessimists argue they are not doing enough and will see a ceiling on their economic growth far lower than China’s has been. Rapidly falling fertility rates have put India on a similar path as Iran and Thailand—two other nations with some of the most rapidly aging populations in the world. These countries won’t stay middle-aged for long, and they face the double challenge of addressing the needs of their currently youthful populations while preparing for an aging population just around the corner.



Higher-income countries are on the upper end of the age structure scale. One consequence of their below replacement fertility is an accompanying shrinkage of their working-age population. Immigration is one way to expand the potential workforce, as it allows states to target specific skills gaps. The United States has below replacement fertility (around 1.6 children per woman on average), but the overall population continues to grow because of robust immigration—a trend that [has mostly recovered in the post-COVID era](#). Canada and Australia also follow this model. However, it is federal policies—and not the supply of immigrants who want to move—that are the single most important factor in determining the level of immigration. Countries like Japan and South Korea, with effective policies to limit immigration, show this clearly.

Another policy choice to expand the workforce is to extend working ages and bring in underutilized segments of the labor force, typically women. The impact of doing so can be huge. The [labor force participation rate](#) of 55-64 year-olds in the United States is 65%, just below the OECD average. By contrast, Iceland’s rate for that same age group is 84% and Japan’s is 80%.

There are currently 42 million Americans in this 55-to-64-year age group, and there will consistently be between 39 and 42 million such persons over the next twenty years (after this, [the number will actually rise](#).) Changing

laws and norms to make sure this segment of the potential workforce is engaged now will yield dividends in the future, both for the overall economy, as well as for individual wellbeing and income security.

While nations with younger populations run a higher risk of conflict, the inverse is not necessarily true. Countries with older, or more “mature,” age structures have to date been the most peaceful. Yet a greater number of countries with less democratic institutions have now achieved older age structures, and [we have yet to witness a pacifying effect](#). For instance, despite their aging and shrinking populations, China and Russia continue to project military power beyond their borders. Political power is highly concentrated in both countries, so leaders can reallocate economic resources to meet national goals.

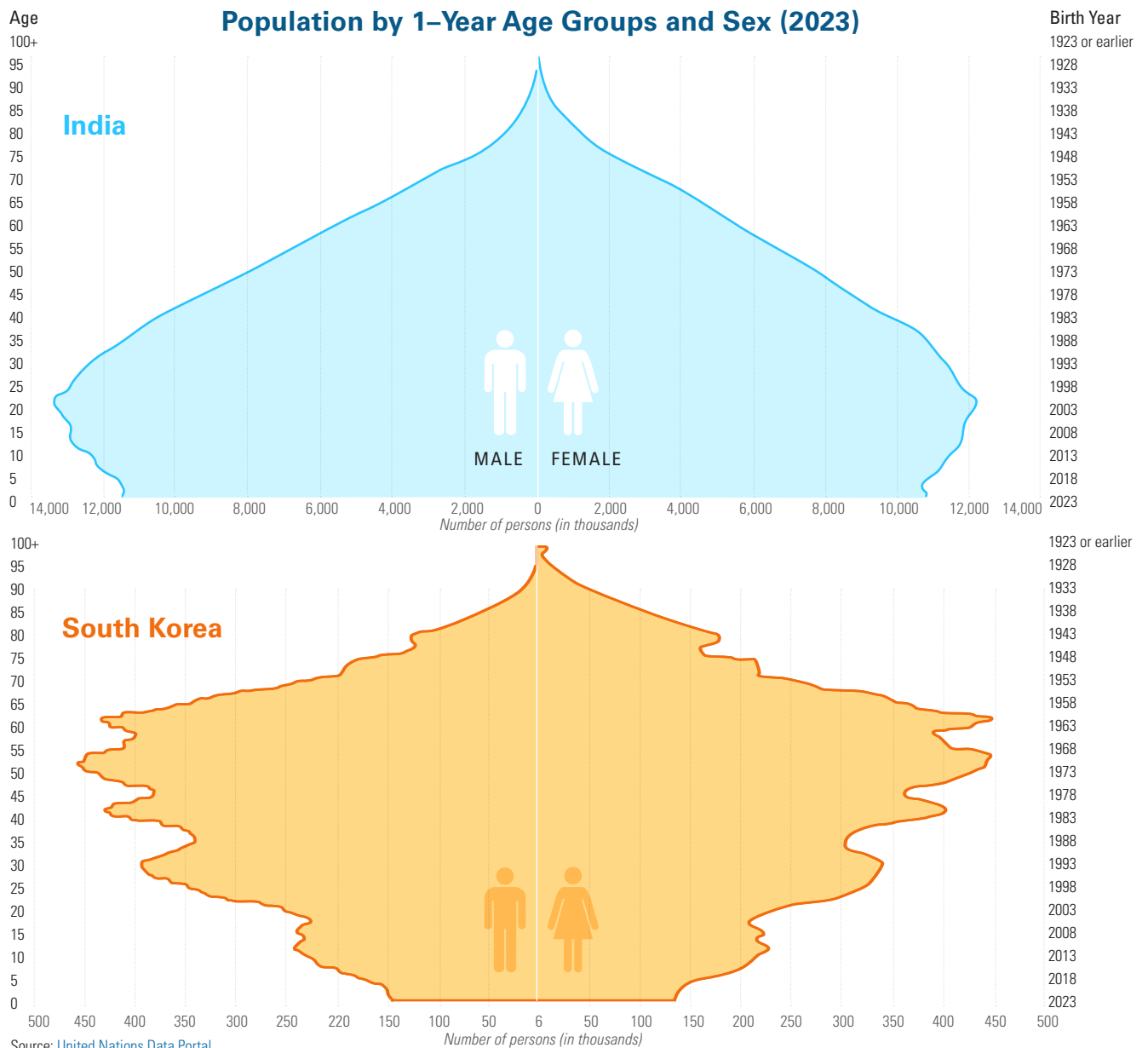
In the case of China, specifically, it is unclear how its population aging will impact its economy. China’s working age population peaked a decade ago and the country is rapidly shrinking; youth unemployment is [over 20%](#). But demography isn’t China’s only or biggest impediment to economic growth. [Debt-fueled housing speculation](#) has led to a real estate crash. The government is [reinvesting in manufacturing](#), even as its domestic consumer market is reticent to buy, and trade partners are reticent to accept, Chinese exports that would increase their trade deficit. There is a role for policy choices, but the ones China’s leadership is making may not stimulate economic growth and right the flailing economy.



Happy mother with happy kids, Niger, Niamey (buraktumler / Shutterstock)

Population momentum

Population momentum often refers to the tendency of a population to continue growing even after fertility rates fall to—or below—replacement level. Fertility rates in India, Mexico, and Vietnam are all below replacement, for instance. But their populations will continue to grow for several decades, because the higher fertility in their past means a larger number of potential mothers in the present and near future. Population momentum works the other way as well. This is why even when fertility rates increase, a population can still shrink—as would be the case in South Korea. The number of potential mothers in those societies remains small. The figures below help visualize population momentum works. Understanding its power underscores why policies that target population size or fertility rates are often misguided. Tomorrow’s parents have already been born, as have tomorrow’s students, workers, and retirees. To a certain degree, the population of the future is already baked in.



Climate change

Together, climate change and population trends are shaping our future in unprecedented ways. Climate change—and responses to it—will increasingly influence where people live, the work they do, and how they plan for their futures. Over the long term, population trends also have implications for climate change vulnerability. A recent [analysis by the Population Institute](#) found that in the countries ranked most vulnerable to the impacts of climate change, population growth rates are more than double the global average. Such growth results in greater numbers of people exposed to impacts, greater strain on climate-sensitive sectors such as agriculture and coastal resources, and can affect community capacity to adapt. As climate change adaptation plans are further elaborated, greater attention to population trends is warranted.

In the near-term climate change interacts directly with population trends primarily through migration patterns. Migration is expected to increase in response to climate impacts. Already we have seen significant increases in the numbers of people displaced due to extreme weather events. But while climate change interacts with the drivers of migration, how climate and migration are linked is far from simple. We cannot simply overlay climate on a map and see where people will move. Certain dynamics allow people to adapt; others force decisions to move; and still others keep people trapped in a bad situation. As a [report published by ECSP](#) observed: “Climate change *is* in fact driving people’s decisions to move. But it does so in dynamic and complex ways interwoven with more traditional drivers of migration: a search for economic or educational opportunities, the tug of social and familial ties, or to escape conflict or avoid persecution.” Many assessments rely upon forecasts that do not take these political, social, and economic complexities into account. And often lost in the nuances of policy discussions of these issues is the fact that migration has long been an important and effective adaptation strategy, bringing benefits to both sending and receiving communities.



Migrants, mainly from Venezuela, seek asylum before Title 42 ends at the Mexico-US border in Juarez, Mexico, May, 2023 (David Peinado Romero / Shutterstock)

Policy recommendations

Policymakers beholden to short campaign and election cycles can find it difficult to justify investments that yield outcomes only measured in generations. Yet glimpsing the world through a demographic lens shows how investments today can have massive implications for the future.

For example, the Sahel region will fail to achieve long term stability unless the underlying drivers of its instability are addressed, including rapid population growth and lack of women's empowerment. Seen through this lens, foreign assistance to the region that supports education and health are investments in a more peaceful and stable future. Likewise, failing to invest or reform can bake in decades of continued struggle.

Another case is retirement infrastructure. Whether it is retirement ages, entitlements budgets, or the care economy, such structures are difficult to reform once they are in place—even when demographic pressures make such reforms imperative. Investment in the care economy, for example, will pay dividends in the future as populations age, easing strains on the budget and making the economy more resilient towards shocks.

A demographic lens points to several key lessons the policy community should consider in this “new world”:

- **There is a need for comprehensive policy approaches that recognize the interconnectedness of health, education, economic prosperity, and national security.** US policy making structures facilitate single-issue or siloed approaches, but they may not have the desired impact when factors such as migration, health, and reproductive choices are so complex. For example, although high fertility contexts likely need improved access to family planning, availability of contraception is not the only factor in childbearing. When investments in health are paired with investments in education, they can create a multiplying effect that can lead to changes in fertility preferences. Providing access to both puts the decision-making power in the hands of communities and empowers women to make choices. The challenge is to recognize and account for complexity.
- **Policymakers should work across the scales of decision-making, including at the local level. Local nuances make one-size-fits-all approaches less effective.** Investments seen as aid or charity will not lead to sustainable change. The existing institutions through which the United States has long made its investments have not always empowered local partners operating in target communities. USAID has recognized this by launching a “[localization](#)” strategy. Other US policymakers would be wise to do so as well, building up and sustaining direct support to local NGOs, and engaging with local actors, all of which allows countries to channel and direct funds independently. This approach will go a long way in building goodwill while also ensuring that funds are used more effectively.
- **Invest in health, education, and the care economy.** Significant research suggests that increasing access to health services, including voluntary family planning, and providing quality education yields [significant economic and security benefits](#). According to the Copenhagen Project, every \$1 invested in universal access to contraceptives yields [\\$120 of annual social, economic, and environmental benefits](#).

- **Build strategic partnerships with African countries.** As the demographically youngest continent, and one of the few regions with robust future population growth, African countries will play an increasingly significant role in the global economy. African youth have the potential to power the world’s workforce, and the continent itself is a potential economic hub for the globe.
- **Recognize migration as an important adaptation strategy that can strengthen overall resilience in both sending and receiving communities if facilitated through sound policy.** With populations in the United States, Europe, and much of Asia aging, and virtually all of the world’s working age population in the next two decades coming out of African countries, migration will continue its role as a critical economic force. And, as the impacts of climate change are increasingly felt, it will persist and grow—especially in communities where the population is left with little choice but to move.

Sources: *Social Security.gov, ECSP Report Vo. 16, New Security Beat, OCHCR, UNCTAD, Statista, UN Population, Journal of International Affairs, UN Department of Social and Economic Affairs, TED, MIT Press, The Care Economic Knowledge Hub, World Economic Forum, Oxfam, Economic Policy Institute, International Labor Organization, Population and Development Review, Atlantic Council, Global Political Demography, U.S. Department of State, The Wilson Center, Girls Not Brides, CIA, World Bank, Center for Disease Control, Census.gov, OECD, Council on Foreign Relations, New York Times, The Population Institute, USAID, OASIS Sahel, Copenhagen Consensus Center*



West front of the United States Capitol building in Washington, DC. (Tada Images / Shutterstock.com)





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Young people gather in Tafawa Balewa square, Lagos, Nigeria. (Tolu Owoeye / Shutterstock)