

ISSUES IN BRIEF

Demography is not Destiny: The Faulty Link Between Population and Development



Kristen Carey is a PhD candidate in history at Boston University. She was a 2018 Graduate Summer Fellow at the Frederick S. Pardee Center for the Study of the Longer-Range Future. Her research focuses on ideas and interventions surrounding population change in Africa.

Kristen Carey

What do we really know about population change? In their 2019 book *Empty Planet*, Darrell Bricker and John Ibbitson question one tenet of assumed knowledge – that world population will continue to grow throughout the 21st century. An increasingly vocal group of dissident demographers has offered an alternative to the omnipresent United Nations (UN) projection of 11 billion people by the end of the century, arguing that it is increasingly possible world population will peak in just a couple decades. Global population decline in the second half of the century would be unprecedented and it is worth considering what an “Empty(-ier)” planet would mean for political, economic, ecological, and social systems. Allowing for the possibility of alternative demographic trajectories raises the question of why population projections receive so much attention in the first place. One of the main reasons is the prevalent idea that changing demographic trends has a direct effect on development.

Demographic data have come to play two roles in discussions about “progress.” First, they can be useful indicators for research and policymaking. For example, we measure infant mortality rates to signal the condition of public health and the impact of policy interventions. But demographic data’s other use is more complex and problematic. The details can be fuzzy, but “everybody knows” fewer people on the planet would be good for the environment by lowering carbon emissions and combatting resource scarcity, fewer people in low-income countries would lead to better job opportunities and per capita economic dividends, and fewer children in a family would improve individual nutrition and educational prospects. Signs of unbridled population growth like high fertility rates and skewed age profiles have thus become potential targets for policy intervention.

Unfortunately, the coupling of demography and development is built on two faulty premises. First, there is no causal connection between general population trends and developmental outcomes. Second, even if there were good reasons to intervene in demographic trends, there is little evidence governments or international organizations are any good at it. Their interventions often cause unintended consequences and can even work as roadblocks to the developmental goals they seek to accomplish. This paper explores the history of how the study of demography

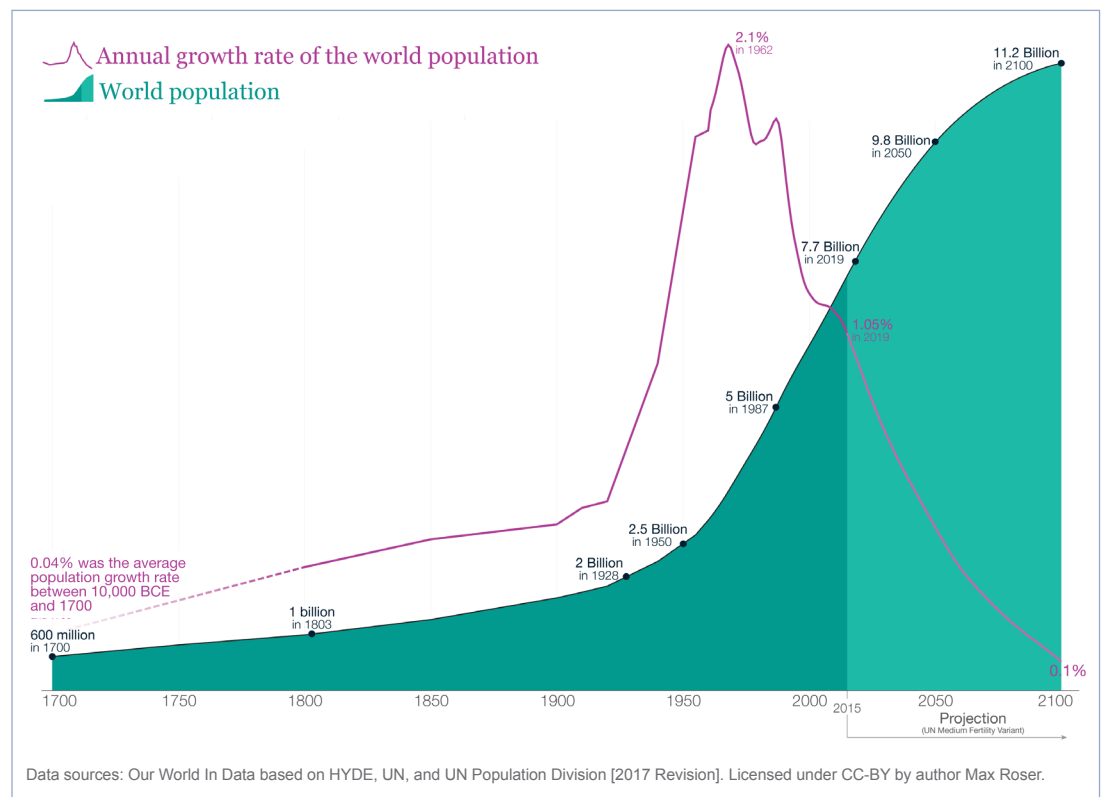
became intertwined with the development mission, the weaknesses of arguments that connect the two, and how research can move forward in a more constructive way.

Humanist Demographers

There is a historical tradition for demographers and population-conscious thinkers to breathe life into their data, beyond birth, death, and migration statistics. In the 17th century, John Graunt, largely considered the father of demographic inquiry, methodically combed birth and death records of an entire London community. On its face, his study appears to be an exercise in early quantification. Graunt saw it differently. He had not performed simple “Shop-Arithmetic,” but was contributing to larger humanist projects, including philosophy, government, trade, and natural history (Petty and Graunt 1662/1899:323). Over a century, later T. Robert Malthus continued the tradition by framing his examination of differing rates of food production and population growth within broader moral quandaries of human perfectibility, connections between love and passion, emotional intelligence, and the poetic “sorrows of life necessary to soften and humanize the heart” (Malthus 1798:118). Demographers were not the only eclectic public intellectuals of the 17th and 18th centuries, but unlike other fields of study that narrowed in scope with professionalization, demographers remained entrenched in broader narratives of progress, modernity, and development.

In the late 18th century, many industrializing societies began to see a drop in mortality rates, particularly infant mortality, which led to significant increases in population growth rates. After a period of pronounced growth, fertility rates fell as well and a general population stasis returned. At the end of this “demographic transition,” a society would have three idealized elements — low mortality, low fertility, and high development. Given the European context where the demographic transition first occurred, its socioeconomic phenomena came to exemplify the nebulous concept of “development,” including urbanization, biomedical advancement, concentration of capital, and rising incomes (Caldwell 2004: 298-99).

Figure 1: World Population Growth (1700–2100)



In demographic transition theory's initial iterations, the demographic and developmental variables were simply correlated (Thompson 1929; Landry 1934; Carr-Saunders 1936). Because they tended to emerge together in post-industrial societies, demographers proposed reasonable hypotheses about whether the trends were causally related. The largest study of demographic transition datasets at the time was the European Fertility Project. It would take decades (1963-1986) for the study's authors to conclude that socioeconomic conditions were only weakly predictive – and in no way causal – of fertility decline (Coale & Cotts Watkins 1986:32). In the interim, a growing contingent of population-conscious bureaucrats, doctors, philanthropists, and academics doubled down on the “fatal misconception” that demography had a key role to play in the development project (Connelly 2008). Why? Advancements in biomedical technology made potential large-scale demographic interventions possible at the same time that the international community became preoccupied with the intransigent and growing development gap.

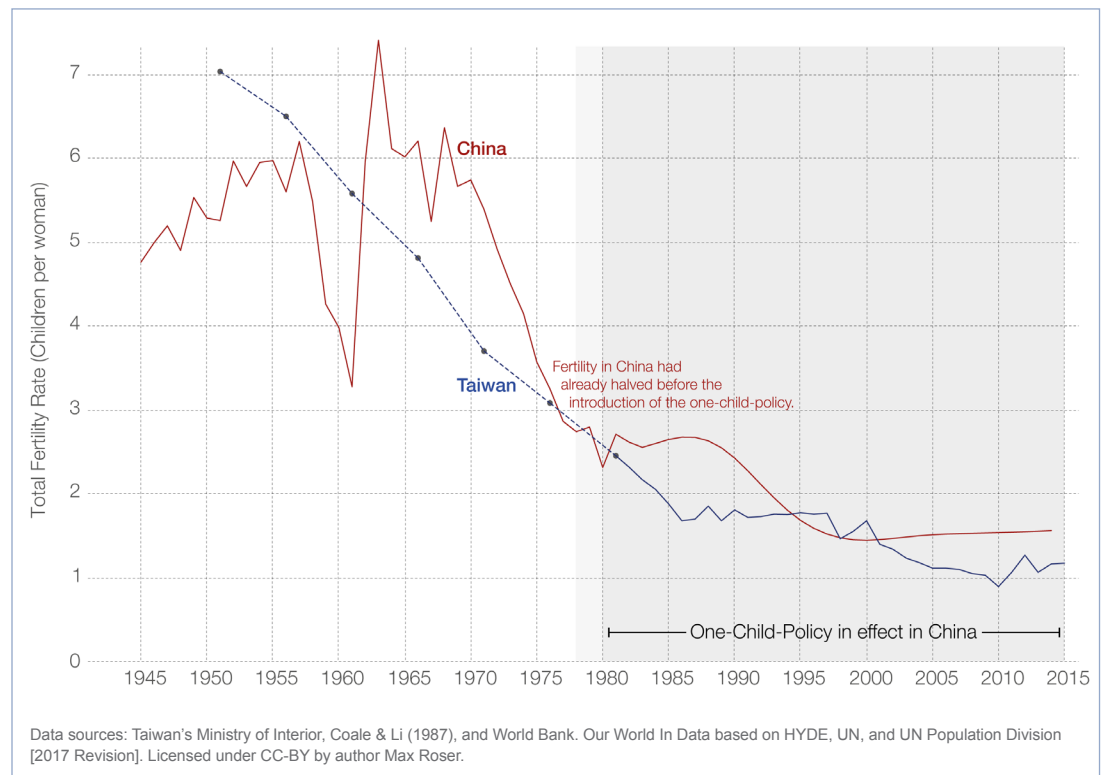
Planned Demographies

The connection between demographic trends and the global human enterprise reached an apex in the late 1960s. Increased scholarly attention, most notably Paul Erlich's 1968 book *The Population Bomb*, coincided with President John F. Kennedy and the United Nations launching its first “Decade of Development,” through which international organizations pledged to use their manpower and resources to alleviate problems in low-income countries that were hindering development. Definitions of development shifted to include not just economic growth, but social conditions and “broad human aspirations” that appealed to myriad activist agendas including environmentalists, Marxists, and feminists (UN 1962). The development mission and its goals had always been complex, but the evolving definition made the UN's task even more difficult. If it was true that altering demographic trends could simplify the process by working as a panacea for social, economic, and environmental development woes, it made sense to make population policy a top priority (Ward 1966:15). The fact that scholars had yet to prove any causal connection between the two processes was overshadowed by its potential efficacy.

Codified attempts to intervene in demographic trajectories became commonplace for countries looking to improve their development outcomes (Demeny 2011). The UN, USAID, and myriad other international aid organizations encouraged states to adopt family planning programs, national population policies, and population redistribution campaigns. Unfortunately, there is little evidence that governments were able to effectively mitigate population growth through those programs. The height of population planning coincided with the fastest doubling of world population from 1950 to 1987, and the period of fastest population growth from 1975 to 2011 (UN 2017).

It is true that fertility rates fell in conjunction with some state-led policies, but they had already begun to fall before many of those “successful” interventions took place. The timing complicates causal arguments, which are clouded by counterfactuals to begin with. Take China's One-Child Policy, for example, one of the most iconic population interventions in recent history. Fertility rates hovered around six births per woman from 1945 to 1970. Between 1970 and the introduction of the One-Child Policy at the end of the decade, they had already plummeted to below three births per woman (Coale & Li Chen 1987). Once a demographic transition has begun, it's difficult to reverse, making it likely that China's fertility rate would have continued to fall without such drastic intervention (Bongaarts & Cotts Watkins 1996). Which is exactly what happened in neighboring Taiwan, where state authorities did not limit couples to one child. Taiwan's fertility rate was about the same as China's in 1978 when the latter adopted the One-Child Policy, and lower in 2015 when the policy ended (Feng, et. al. 2013). Scholars have documented that regions tend to undergo demographic transitions around the same time, so a realistic conclusion is that East Asia was undergoing its demographic transition in the 1970s and 1980s and would have done so regardless of government policy (Bongaarts & Cotts Watkins 1996).

Figure 2: Fertility in China and Taiwan (1945–2015)



It is difficult to say exactly why a state or region undergoes its demographic transition, but researchers have concluded that some combination of falling mortality rates, economic growth, hegemony of Euro-American nuclear family mores, changing institutional structures, social diffusion, government intervention, and technology plays a role (Caldwell 2004). The recipe leaves an “impression of chaos” (Kirk 1996: 379). Governments, however, prefer simple narratives of development. Chinese policymakers could be forgiven for the early stages of their One-Child Policy, as they were drawing on common development discourse of the time. But studies had effectively disproven any direct causal link between demography and development by the late 1980s, and China continued with its One-Child Policy until 2015 (Coale & Cotts Watkins 1986).

Given the lack of evidentiary support for the connection between demography and development, the discourse has become more subtle. Neither the Millennium Development Goals of 2000 nor the Sustainable Development Goals (SDGs) of 2015 directly address demographic factors. Yet, the association remains as deep, vertical knowledge. “In the context of the SDGs population is sometimes called the elephant in the room. It is not mentioned in any of the 169 targets, yet many people think it is a decisive factor for global environmental change and future human wellbeing,” writes Wolfgang Lutz, the World Population Program Director for the International Institute for Applied Systems Analysis (IIASA 2016). The UN Population Fund actively participates in the SDGs, particularly when it comes to quantitative targets for mortality, reproductive health, and girls’ education. While those targets show a proper use of demographic indicators in policymaking, the people behind the policies continue to advocate for demographic interventions in the name of a nebulous development project, undermining the fact that health and education are worthy goals in their own right. Worse, state authorities have a long history of mishandling population policies and using “intimate interventions” as a way to augment government control (Robinson 2017).

Casualties of Demographic Development

The connection between demography and development has repeatedly provided a blame-free excuse for poor governance. For example, many Sub-Saharan African leaders have pointed to rapidly increasing population as the reason their governments have failed to provide adequate services to citizens. During the Ethiopian famine in the mid-1980s (and repeated in the aftermath of many famines since), state and international policymakers blamed the lack of available food on “overpopulation” and its role in environmental degradation, eschewing the impact of nationalist land reform programs and military occupation of farm land that crippled the country’s ability to produce food (Leach and Mearns 1996:195; McCann 1987).

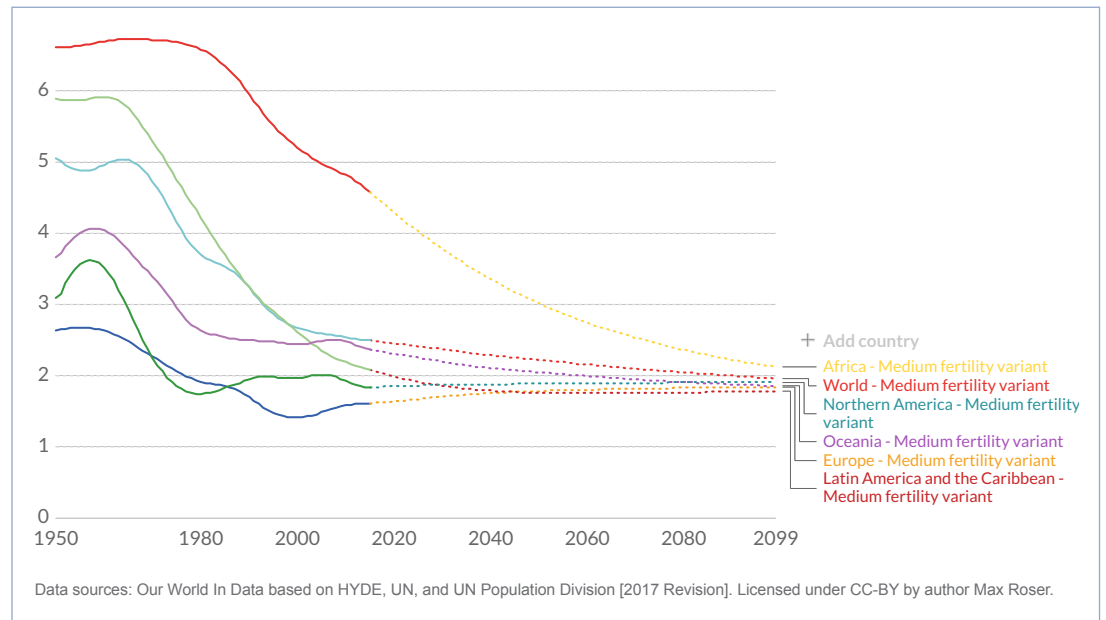
Similarly, members of the African Water Association often cite growing population as a cause of governments’ inability to provide adequate water for drinking and agriculture, while simultaneously pointing out the “glaring paradox” that little of the region’s renewable freshwater resources are adequately tapped (EnviroNews 2018). As the Association implies in its own analysis, the paradox has little to do with population and everything to do with infrastructure inefficiencies. Most scholarly research on water availability has moved beyond the essentialized population narrative toward a more solution-oriented approach, but it mandates state action (Valipour 2015; Mekonnen & Hoekstra 2016). Reaffirming African governments’ responsibility for service provision raises questions of crippling budgets, inadequate institutions, and political maneuvering that can make the alternative demographic scapegoat appealing. The UN estimates that up to 82 percent of global population growth between now and the end of the century will occur on the African continent, so prioritizing good governance will require awareness of the complicated relationship between demography and development (UN 2017).

When state authorities attempt demographic interventions in the name of development, it often produces unintended consequences. The most obvious example once again stems from East Asia. Led by China’s One-Child Policy and India’s mass sterilization campaigns, the region has hundreds of millions of “missing women” due to massively skewed sex ratios (Sen 1990). Many societies in China and India are patriarchal. National population policies exacerbated the preference for male offspring and worked to sustain various indicators of low development, including gender disparity, poor socioeconomic safety nets, and authoritarian tendencies (Dyson 2012). Thus, population interventions ended up working counter to the stated development goals at the heart of the projects.

Gender disparity is a significant weakness in state attempts to socially engineer populations, but young men are not immune to the consequences of demographic intervention. “Youth bulge” theorists argue that sustained high fertility leads to bigger and younger populations with less available economic opportunities, creating a class of liminal youth that has contempt for the system and free time to do something about it (Urdal 2006). The current median age in African countries is 18 years old, almost half that of the rest of the world (WHO 2018). As a result, the workforce in African countries will expand by more than the rest of the world combined between now and 2030. Having a large working-age population can be an economic asset to countries looking to increase production of goods and services, but only if educational and job opportunities grow with it (World Economic Forum 2017). Although many good-faith efforts are being made to increase opportunity for young people, government officials often point to increasing youth cohorts as a reason for government inefficiency or a rationale for state repression.

In January 2018, President Buhari of Nigeria agreed with “many experts” in saying that “major demographic changes” had prompted a series of violent episodes in the country, which hindered the state’s ability to govern properly (Reuters 2018). It is entirely possible, and usually likely, that factors more primary than demographic change lead to political instability, such as disruptions in rites of passage, state repression, and breakdowns in social support networks (Annan 2014). Missing from Buhari’s explanation is a long-standing and complex history of land tenure disputes, religious conflict, and regional favoritism by state authorities in Nigeria.

Figure 3: Fertility Rate by World Regions, including UN Projections



Demographic scapegoating carries a psychological toll, particularly for younger generations whose disillusionment with future prospects can become a self-fulfilling prophecy. Individuals have little to no control over national population trends and many African youths voice a fatalist attitude toward their future (Sommers & Uvin 2011). “Waithood” has usurped the position of adulthood, as customary rites of passage such as marriage, buying a house, and entering the workforce are drastically delayed or never materialize (Honwana 2014; Sommers 2012). It is clear that definitions of development for youth can vary drastically from state and global conceptions that focus on formal economic indicators. High rates of youth urbanization and participation in the informal economy are often counter to national development goals, but form the livelihood and social support system for young people left out of planned economies and demographics.

Moving Forward

Much like Bricker and Ibbitson are encouraging scholars and policymakers to consider an alternative vision of an “Empty Planet,” we should also allow for varying demographic trajectories without pre-determining what they would mean for development. The goal in decoupling the two phenomena is not to deny any relationship between them, but to break down essentialized causal narratives that offer unsubstantiated quick fixes and can produce unintended consequences. What if we’re wrong about how long it will take Sub-Saharan African countries to go through their demographic transitions? What would policies look like if we believed large youth cohorts could be a good thing for both national economies and individual job prospects? If we take population considerations off the table, what becomes the focus of conversations about service provision and resource availability in low-income countries? In answering these questions, scholars should focus on how population decisions interact with specific developmental outcomes in specific contexts.

The good news is there are already models to emulate. In *Poor Economics*, a team of scholars ask us to “leave the large question aside, and focus on the lives and choices of poor people — if we want to have any hope of making progress on this issue” (Banerjee et al., 2011:176). They explore whether large families are poorer because they are large, if they invest less in the health and education of their children, and what forms of sexual education are most appropriate given social taboos and young peoples’ imagined futures. By resisting the urge to over-determine demographic trends, their research asks how individual family planning choices and national policies affect

those who make them. Local research centers are also working to incorporate evidence-based findings into policy. For example, the Institute for Political Research in Political Economy in Benin has conducted studies on youth unemployment, alternative education options, and the impact of decision making by heads of households on their children's' futures. Targeted research can get us closer to the incremental improvements we all want to see at the global, national, and individual levels and re-center the human target at the heart of the development project.

In order to prioritize studies that are smaller in scope, we need to accept a “story of chaos” when it comes to the relationship between demography and development. It is likely that we will never find an answer to the big question, “What causes development and what is population's role in it?” Not for lack of trying, but because there is no single answer. By understanding the complex history that underlies population change and intervention, we remind ourselves that demography is not destiny, but part of a larger, disorderly path forward. ●

References

- Annan, Nancy. “Violent Conflicts and Civil Strife in West Africa: Causes, Challenges and Prospects.” *Stability: International Journal of Security and Development*, vol. 3, no. 1 (2014): 1-16.
- Banerjee, Abhijit V., Abhijit Banerjee, and Esther Duflo. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. New York: Public Affairs, 2011.
- Bongaarts, John, and Susan Cotts Watkins. “Social Interactions and Contemporary Fertility Transitions.” *Population and Development Review*, vol. 22, no. 4 (1996): 639-682.
- Bricker, Darrell, and John Ibbitson. *Empty Planet: The Shock of Global Population Decline*. New York: Crown, 2019.
- Caldwell, John C. “Demographic Theory: A Long View.” *Population and Development Review*, vol. 30, no. 2 (2004): 297-316.
- Carr-Saunders, A.M. *World Population: Past Growth and Present Trends*. London: Cass Publishers, 1936.
- Coale, Ansley J., and Sheng Li Chen. *Basic Data on Fertility in the Provinces of China, 1940-82*. East-West Population Institute, East-West Center, 1987.
- Coale, Ansley J., and Susan Cotts Watkins. *The Decline of Fertility in Europe: The Revised Proceedings of a Conference on the Princeton European Fertility Project*. Princeton: Princeton University Press, 1986.
- Connelly, Matthew. *Fatal Misconception: The Struggle to Control World Population*. Cambridge: Harvard University Press, 2008.
- Demeny, Paul. “Population Policy and the Demographic Transition: Performance, Prospects, and Options.” *Population and Development Review*, vol. 37, no. 1 (2011): 249–74.
- Dyson, Tim. “Causes and Consequences of Skewed Sex Ratios.” *Annual Review of Sociology*, vol. 38 (2012): 443-461.
- Ehrlich, Paul R. *The Population Bomb*. New York: Ballantine Books, 1968.
- Feng, Wang, Yong Cai, and Baochang Gu. “Population, Policy, and Politics: How Will History Judge China's One-child Policy?” *Population and Development Review*, vol. 38 (2013): 115-129.
- Honwana, Alcinda. “Waithood: Youth Transitions and Social Change.” Ed. Foeken, et al. *Development and Equity: An Interdisciplinary Exploration by Ten Scholars from Africa, Asia and Latin America*, Boston: Brill, 2014.
- International Institute for Applied Systems Analysis, “Sustainable Development Goals Lead to Lower Population Growth,” 29 November 2016.
- Kirk, Dudley. “Demographic Transition Theory.” *Population Studies*, vol. 50, no. 3 (1996): 361-387.
- Landry, Adolphe. *La Revolution Demographique*. Paris, 1934.
- Leach, Melissa, and Robin Mearns. *The Lie of the Land: Challenging Received Wisdom on the African Environment*. Oxford: James Currey Press, 1996.



Analysis for a better tomorrow, today.

The Frederick S. Pardee Center for the Study of the Longer-Range Future at Boston University conducts interdisciplinary and policy-relevant research on a wide range of issues that contribute to long-term improvements in the human condition. Through programs of scholarship and outreach, the Pardee Center works to disseminate the collective knowledge and experience of scholars and practitioners in an effort to ensure that decisions made today lead to better outcomes tomorrow.

www.bu.edu/pardee



BUPardeeCenter

The views expressed in Issues in Brief are strictly those of the author(s) and should not be assumed to represent the position of Boston University, or the Frederick S. Pardee Center for the Study of the Longer-Range Future.

Malthus, T.R. *An Essay on the Principle of Population, as It Affects the Future Improvement of Society, with Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers* (1798).

McCann, James. *From Poverty to Famine in Northeast Ethiopia: A Rural History 1900-35*. Philadelphia: University of Pennsylvania Press, 1987.

Mekonnen, Mesfin M., and Arjen Y. Hoekstra. "Four Billion People Facing Severe Water Scarcity." *Science Advances*, vol. 2, no. 2 (2016): e1500323.

"Nigeria's Buhari Blames Communal Violence on Population Growth," *Reuters*, 9 January 2018.

Petty, William and John Graunt. *The Economic Writings of Sir William Petty. Vol. 1*. Cambridge: Cambridge University Press, 1899.

"Poor Water Supply Blamed on Undue Politics, Population Growth," *Environews Nigeria*, 6 July 2018.

Robinson, Rachel Sullivan. *Intimate Interventions in Global Health: Family Planning and HIV Prevention in Sub-Saharan Africa*. Cambridge: Cambridge University Press, 2017.

Sen, Amartya. "More Than 100 Million Women are Missing." *New York Review of Books*, vol. 37, no. 20 (1990): 61-66.

Sommers, Marc. *Stuck: Rwandan Youth and the Struggle for Adulthood*. Athens, GA: University of Georgia Press, 2012.

Sommers, Marc, and Peter Uvin. "Youth in Rwanda and Burundi." United States Institute of Peace Special Report, no. 293 (2011).

Thompson, Warren S. "Population," *American Journal of Sociology*, vol. 34, no. 6 (1929): 959-975.

United Nations, Department of Economic and Social Affairs, Population Division. "World Population Prospects: The 2017 Revision, Key Findings and Advance Tables." Working Paper No. ESA/P/WP/248 (2017)

_____. "The United Nations Development Decade: Proposals for Action." E/3613 (1962).

Urdal, Henrik, "A Clash of Generations? Youth Bulges and Political Violence." *International Studies Quarterly*, vol. 50, no. 3 (2006): 607-29.

Valipour, Mohammad. "Future of Agricultural Water Management in Africa." *Archives of Agronomy and Soil Science*, vol. 61, no. 7 (2015): 907-927.

Ward, Barbara. *The Decade of Development: A Study in Frustration*. Overseas Development Institute, 1966.

World Economic Forum, "The Future of Jobs and Skills in Africa: Preparing the Region for the Fourth Industrial Revolution." May 2017.

World Health Organization, "Population Data by WHO Region." 15 March 2018.