

Editor's Note: URLs for websites discussed in this essay appear in a Resources List on page 70.

Population Trends and Issues BANGLADESH

By Byron Haast and Phillip O'Brien



June 2018 Traffic jam in Dhaka, Bangladesh. In the last ten years in Dhaka, average traffic speed has dropped from twenty-one km/hour to seven km/hour, only slightly above the average walking speed. Congestion in Dhaka eats up 3.2 million working hours per day, according to static reports. Source: Alamy Stock Photos. ©Alamy.

A discussion of the possibilities available for having students use data sources beyond the textbook to explore Bangladesh's demographic challenges.

In demographic studies, much discussion in academic circles centers around either the challenges faced by aging populations in places such as Japan, Germany, or Italy, or the impacts of pronatal and antinatal policies (policies meant to increase or decrease birthrate), such as China's One-Child Policy or Australia's Baby Bonus. With a population in excess of 165 million, Bangladesh is currently the world's eighth-most populous nation, yet remains largely unknown and misunderstood outside of South Asia. With a growing economy and extended diaspora across the United Kingdom, the Gulf States, North America, and Australia, it is a nation that has undergone tremendous change in terms of its population composition, size, and density. Despite being one of the world's most populous nations, Bangladesh is often overlooked in demographic discussions, perhaps be-

cause educators and scholars have a common misconception there is a lack of teaching resources. We disagree. Given its growing international relevance and parallels to similar nations transitioning from rapid population growth to growing economic prosperity and stability, Bangladesh offers a fascinating glimpse into the changing global population of the future. In sub-Saharan Africa, fertility rates and population growth remain high; by contrast, the Bangladeshi government, through a range of initiatives, has made significant inroads into stabilizing growth. This, in turn, creates a double-edged sword; steadier growth has facilitated economic growth, but has also placed increasing pressure on the natural environment.

As it continues to evolve and adapt, Bangladesh is playing an increased role in global trade, migration, and current events. These dynamics have, in part, contributed to a number of social, environmental, and economic outcomes, which continue to evolve on a daily basis. For example, on July 29th, 2018, two schoolchildren in the capital, Dhaka, were run over and killed by a speeding bus. This event ignited simmering tensions previously dormant in Bangladesh's young population, triggering widespread protests involving tens of thousands of students thrusting this geographically small South Asian nation into the global spotlight. Such an incident illustrates the latent outcomes of particular population structures and of changing social, political, environmental, and economic impacts of large, young populations empowered by improvement in living standards. According to the United Nations (2017), Bangladesh is soon to graduate from the category of least developed country.¹ Understanding demographics is an important key to understanding Bangladesh.



Screen capture from *The Daily Star News* video "Students End Dhaka Blockade, Streets Cleared." Source: *The Daily Star News* on YouTube at <http://tinyurl.com/y6z495y6>.

Such current events provide an exciting “hook” inside the classroom, enabling teachable moments with which to tie the concepts and skills of geography to the outside world. This teaching resource essay provides a framework for educators to provide opportunities for students to gather, collect, and sort data from a variety of sources before analyzing causes and impacts, and evaluating various government responses. Furthermore, it aims to present a variety of useful sites that have broad applicability for demographic study at differing scales.

Collecting Information: Population Dynamics

Students must gain a sense of a nation’s current population dynamics before diving into the various underlying causes, impacts, and future projections of growth and decline. There is a large number of online sources that provide up-to-date and robust population statistics.

Worldometers provides robust statistics, including population growth rate and a year-by-year breakdown of key dynamics such as fertility rate, median age, density, and percentage urbanized.² This allows for quick and easy comparisons of Bangladesh’s current and historical data, serving as a great springboard for a number of discussions surrounding the immediately noticeable changes in these dynamics. Examples include both *fertility rate* (6.63 in 1980, in contrast to 2.19 in 2018) and *urbanization* (15 percent, compared with 35 percent over the same time period), important gateways to further discussion surrounding rapid change. Students can also compare Bangladesh with countries in its region, such as India, Pakistan, and Myanmar, before expanding the comparison to world context: which countries currently have a fertility rate comparable to the rate Bangladesh had in the 1980s?³ Also, students can explore interconnections between population phenomena, such as the links between rising urbanization and a falling fertility rate. Future data predictions offer even greater depth for discussion in regards to where the nation is heading.

When exploring demographics, population pyramids are a valuable resource for enabling students to further visualize change over time. Population Pyramid is a valuable site that allows students to practice their data analysis skills, identifying and quantifying trends while comparing these to global and regional contexts, as well as with other specific nations.⁴ Also known as “age-sex structures,” population pyramids are useful introductions to lessons that allow students to recap much of their learning while linking their knowledge to the demographic transition model. Visualizing these population dynamics creates bountiful opportunities for students to demonstrate evident trends and flag periods of change, particularly when comparing current, historical, and projected population pyramids. Have students annotate their pyramids, such as Figure 1, to add more specific information.

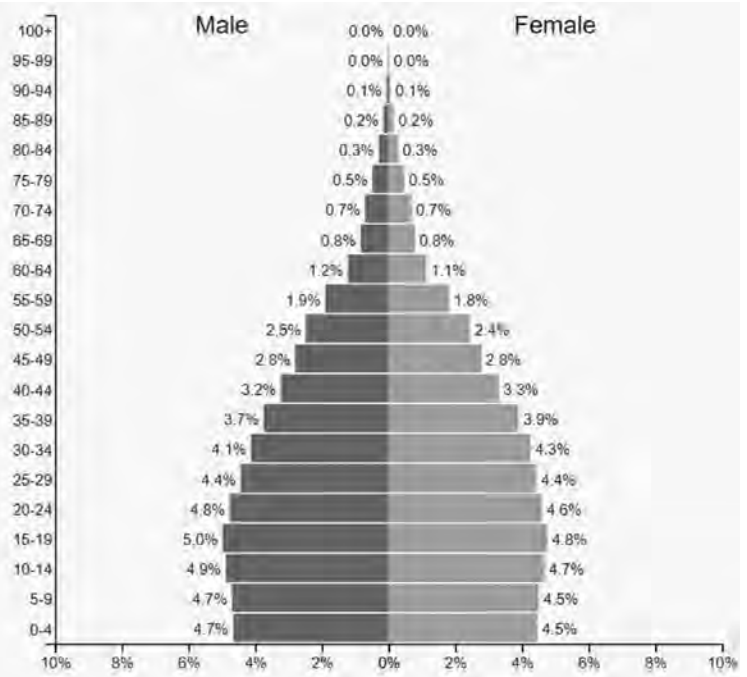


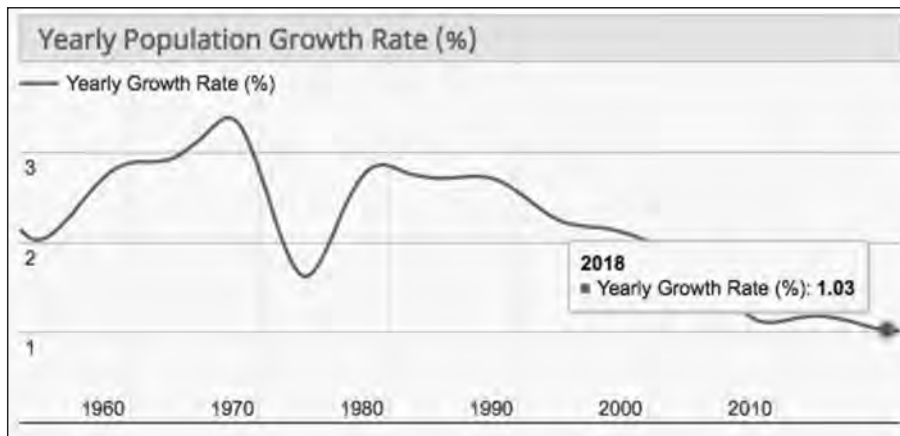
Figure 1: Bangladesh’s population pyramid as of 2018. Source: PopulationPyramids.net at <http://tinyurl.com/yy90ae6h>.

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Population Trends: Why Has Fertility Declined?

Having gained a solid understanding of the underlying dynamics, students can then investigate the various factors responsible for these trends. As mentioned earlier, perhaps the most important trend in Bangladesh has been the reduction in fertility rates. Historically high rates have been a major factor in the nation’s rapid population growth over the past half-century. A number of factors have combined to produce this reduction, but they are mostly limited to improved grassroots education about family planning, provision of contraceptives, and wider choices available to women—including employment and education—particularly in urban areas. Family planning, as previously indicated, has changed significantly in Bangladesh over the past few decades, growing in both usage, access, and social acceptability. The Centre for Global Development provides excellent case study data for students, particularly in regards to the active role of female family planning outreach workers.⁵

Despite being a relatively conservative society, religion has not played a significant role in hampering family planning, particularly when compared with nearby Pakistan, where the fertility rate remains well above the global average.⁶ Proposed future changes to the national marriage laws are also likely to play a role in further change, particularly given that Bangladesh has one of the world’s highest rates of teenage marriage; UNICEF states



Bangladesh population growth chart example from the Worldometers website at <http://tinyurl.com/mlq2yeg>.



Girls at their local girls club learn about their rights and how to say no to child marriage. Source: *Girls Not Brides* website at <http://tinyurl.com/y2lrtnbw>. Photo by Abdullah al Kaf.

that a third of girls are married before their fifteenth birthday.⁷ Nongovernmental organizations such as Girls Not Brides are also making strides to raise awareness of the issue; their website offers a host of teaching materials and links to better understand the issue, impacts, and responses involved.⁸ These changes can be investigated through a consideration of historical sociocultural factors that contributed to previously high fertility rates, alongside environmental factors such as the availability of arable land, particularly in the fertile south and the banks of the Ganges and Brahmaputra rivers.

Why Are Bangladeshis Living Longer?

Interconnection is an important geographical concept that students are continually exposed to through different areas of study. The relationships

While health and wealth tend to be worse in rural areas, rapid rural–urban migration is resulting in dynamically changing city environments.

between human activities and geographic phenomena provide rich learning opportunities for students, particularly the challenge of demonstrating the strengths and trends of interconnections. In terms of demographics, the interconnection between reduced fertility and improvements in life expectancy is quickly apparent; aging societies such as Japan and Italy also have some of the world’s lowest fertility rates. Increased life expectancy (from fifty-five in 1980 to seventy-five in 2018) in Bangladesh,⁹ the result of improved infant mortality rates (133.4 per 1,000 in 1980 to 26.9 in 2017) and a growing investment in health care and immunizations, is cause for great pride—health improvements providing evidence of economic development.¹⁰ This is further underscored by the drastic improvements in female mortality rates, which fell from 218.8 in 1980 to 109.5 in 2015.¹¹ Local news sources *The Dhaka Tribune* and *Daily Star* see this as reducing the *psychological distance* in terms of development status. As a teaching resource, articles from local sources offer significant potential for helping students develop geographic literacy. Potential examples include highlighting key terms and providing appropriate synonyms and definitions, as well as underlining associated factors and impacts.

Current Population Challenges

The distribution of population issues and challenges are mostly confined to Bangladesh’s urban centers. While health and wealth tend to be worse in rural areas, rapid rural–urban migration is resulting in dynamically changing city environments. The Bangladeshi government’s reluctance to invest in cities beyond Dhaka means that these challenges are concentrated in the world’s fastest-growing megacity, with 2,000 people arriving each day. The national population density rate of 1,278 people per square kilometer pales in comparison to Dhaka, where it can exceed 45,000 people per square kilometer in some pockets, creating enormous challenges for housing, electricity supply, public transport, hygiene, sewerage, waste management, water supply, and public services.¹² By comparison, the population density of New York City’s urban area is barely 5 percent of that of Dhaka.

Extended articles are a daunting read for many high school and beginning university students, but a rich source of content for teachers. A piece such as *The Dysfunctional Megacity: Why Dhaka Is Bursting at the Sewers* allows for a lesson-long investigation into the various issues and challenges that arise with a rapidly growing urban population.¹³ Students can be provided with a simple graphic organizer that requires them to sort information from the article into categories of social, economic, political, and environmental impacts. They can then be asked to assume the role of mayor, accounting for the current political situation. Students can also be asked to propose priority projects for the municipal government. Should the city focus on fixing water shortages or sewerage? This forces students to rank the various challenges that Bangladesh’s population is facing before justifying their ranking with evidence from the article.

The World Bank—which provides valuable demographic data on population movement and remittances—recorded more than four times the number of Bangladeshi emigrants than returnees in 2017, many of whom fit into three broad categories: highly educated professionals, such as engineers and doctors moving to the United States; unskilled laborers attracted to construction roles in Saudi Arabia and the Arabian Gulf nations; and

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Rohingya refugees in Cox's Bazar, Bangladesh, protesting against what they view as a dangerous repatriation to Myanmar. Source: Wikimedia Commons at <https://tinyurl.com/y59w6evg>. Photo: by Jafor Islam/VOA.

tertiary students, furthering their education in India, Australia, and beyond.¹⁴ Given the large rate of negative net migration (-3.2 per 1,000 people in 2017, according to the United Nations), there is growing concern that a migration “brain drain” may be occurring, further hindering the nation’s pace of development.¹⁵ With a documented diaspora in excess of eight million Bangladeshi nationals, as well as large numbers of foreign citizens of Bangladeshi heritage, economic remittances play a key role in the emigration question: according to the World Bank, remittances to Bangladesh have exceeded US \$12 billion per annum since 2011; with a gross domestic product total of around US \$250 billion (2018), this figure represents almost 5 percent of the national economy. Similar patterns can also be found among developing nations with large expatriate populations, including Nigeria, the Philippines, Pakistan, and Kenya.

Population movement in Bangladesh, in addition to vast internal urbanization and international migration, is further complicated by the humanitarian disaster of the displaced Rohingya people. Native to Myanmar’s Rakhine state, the Rohingya have been the subject of continued discrimination and internal conflict, triggering waves of asylum-seekers across the region. As the nearest neighbor, Bangladesh has absorbed in excess of one million Rohingya, creating a desperate situation in the nation’s southeastern Cox’s Bazar region.¹⁶ As tensions run high between all parties, the United Nations High Commission for Refugees is seeking to play an active role in providing assistance and finding a more permanent solution.¹⁷

Ongoing natural disasters further complicate the nation’s population issues; Bangladesh is frequently wracked with flooding, monsoonal rainfall, cyclones, and the growing threat of sea level rise, which threatens both the amount of available arable land—a situation further exacerbated by population growth and increasing population density—and the Sundarbans, the World Heritage-listed mangrove forests of the low-lying southern coastal region.

Bangladesh is a great case study for students to analyze “five-year plans” that the government has attempted to implement to target the nation’s population growth.

Responses to These Challenges

Bangladesh is a great case study for students to analyze five-year plans that the government has attempted to implement to target the nation’s population growth. A simple strengths, weaknesses, opportunities, threats, and evaluate (SWOTE) analysis allows students to sort the various components of Bangladesh’s five-year plans, dating back to 1973, before evaluating their effectiveness by analyzing these parts.

Through these plans, the government established a national contraceptive service and family planning program.¹⁸ Today, this strategy is implemented by the Family Planning Service, which relies on grassroots services that employ women in villages. These women go door to door raising awareness about family planning and contraception while empowering women to make their own choices. Such programs have had an outstanding impact on Bangladesh’s fertility rate—reducing it to almost the replacement rate of 2.1 in only a few decades.¹⁹

Since the initial five-year plan, there has been a succession of other five-year plans. These plans are excellent examples of responses to a population issue and challenge, as they provide a clear example of aims, strategies, and criterion for success. Students can not only evaluate the effect of these plans in the past but can be asked to evaluate their likely success in the future, as Bangladesh has recently launched its seventh five-year plan.



Screen capture of NGO Aid Map page at <https://tinyurl.com/y6sc69mu>.

In addition to the government’s five-year plans, there is a multitude of nongovernmental organizations (NGOs) active in Bangladesh. The NGO Aid Map site provides plenty of options for further investigation across a host of population and development issues in Bangladesh.²⁰

Spatial Technology and Population Issues and Challenges

Spatial technology is now central to geography teaching and learning. Students should be exposed to applications of spatial technology, which seek to solve issues through a geographic lens. As a nation with its fate at the feet of its geography, Bangladesh is home to a slew of spatial tech programs that seek to solve its unique issues and challenges.

The Bangladesh Geospatial Data Sharing Platform (GeoDASH) is a web-based spatial data infrastructure and geographic information system that empowers government, academia, private enterprise, and the public to securely host, manage, share, visualize, and analyze geospatial data.²¹ The platform allows the use of many mapping layers such as storm surge risk, slum areas, surface water, and major sewerage lines. GeoDASH is an excellent tool that would act as a great end to a unit on population issues and challenges in Bangladesh. It enables students to engage with real data and even allows them to create their own maps, which they can then use to plan responses to the impacts they have previously learned about. Students can also assess spatial technology as a general tool for responses more broadly. For example, applications like GeoDASH may enable urban planners to identify specific locations of issues related to population, but they are also limited in their application and are costly to implement.

Bangladesh offers enormous potential for the study of demographics, urbanization, rapid population growth, and density. Emigration and displaced peoples are significant challenges for the nation and provide a fascinating look into the need for effective management and the key role that data plays in doing so. ■

RESOURCES LIST

Bangladesh Bureau of Statistics: <https://tinyurl.com/y4wfyrdl>
 Center for Global Development—Bangladesh: <https://tinyurl.com/yxuf7qx3>
 Geodash Bangladesh: <http://geodash.gov.bd/>
 Girls Not Brides Bangladesh: <https://www.girlsnotbrides.org/child-marriage/bangladesh/>
 IndexMundi Data Sets: <https://www.indexmundi.com/facts/bangladesh/>
 NGO Aid Map: <https://ngoaidmap.org/>

Population Pyramids: <https://www.populationpyramid.net/>
 UNICEF: <https://tinyurl.com/y5bqlvkv>
 UNHCR: <https://tinyurl.com/y4ob4rsf>
 UNICEF Bangladesh: <https://tinyurl.com/yxnypxp7>
 World Bank—Global Migration and Remittance Data: <https://tinyurl.com/zq7hor4>
 Worldometers: <http://www.worldometers.info/population>

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17. “Bangladesh Rohingya Emergency,” *The UN Refugee Agency*, accessed August 27, 2018, <https://tinyurl.com/y4ob4rsf>.
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19. Ibid.
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21. “GeoDASH,” *Bangladesh Government ICT Division*, accessed August 25, 2018, <http://geodash.gov.bd/>.

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