



December 2011

Produced by The National Bureau of Asian Research for the Senate India Caucus

INDIA'S DEMOGRAPHIC OUTLOOK: IMPLICATIONS AND TRENDS

Over the next two to three decades, India's demographic composition will have a significant impact on the country's economic and strategic capabilities. NBR spoke with expert demographer Nicholas Eberstadt about what India's population profile will likely look like and how it compares to another major state in the region, China. Dr. Eberstadt, a Senior Advisor to NBR and a scholar at the American Enterprise Institute, argues that while India will benefit from a surge in highly educated manpower, to fully realize these gains it must acknowledge the significant portion of its population that is still impoverished and illiterate.

What does India's demographic profile look like for the next two to three decades?

Surprising as this may sound, we already have a reasonably reliable idea of what India's population profile will look like twenty years from now—in sharp contradistinction to economic or political prognostications about what lies in store twenty years hence. This is because the overwhelming majority of the people inhabiting India in 2030 are already alive and living there today.

With about 1.2 billion people, India is the world's second most populous country and its largest democracy. Despite two decades of exceptionally rapid economic growth, material poverty is still widespread in India—the World Bank estimates that well over 50% of the country still lives on less than \$2 a day. Even so, life expectancy at birth is now estimated to exceed 65 years, the United States' level right after World War II, and is on track to continue its rise, barring only some presently unimaginable catastrophe. While birth rates have fallen very sharply over the past two generations, nationwide levels remain well above replacement at about 2.6 births per woman per lifetime. Since international migration trends do

not impact India's population profile much, the country's fertility and mortality prospects will essentially shape its future demographic contours.

The U.S. Census Bureau and the UN Population Division (UNPD) offer broadly consistent pictures of India's population profile for the year 2030. Both the Census Bureau and the UNPD's medium variant projections envision India 2030 as a country with roughly 1.5 billion people, implying an intervening rate of population growth averaging about 1.1% per year. Twenty years from now, India will still be a rather youthful country, with 8%–9% of its population 65 years of age or older and a median age of 31–32 years (compared to roughly 13% and 37 years, respectively, for the United States today).

About 68% of India 2030's population will comprise men and women of working age (conventionally defined as the 15–64 group), compared with 65% today. This means that the working-age manpower is set to grow more rapidly than overall population in the decades immediately ahead, by about 1.3% per annum on average.

By 2030, UNPD anticipates India's life expectancy to reach 70 years, and by its projections, the India of 2030 will be about 40% urban, up from an estimated 30% today.

How does this profile compare with other major states in the Asia-Pacific region, especially China, which is still the most populated country in the world?

China is clearly the obvious comparator to India, with a current population of over 1.3 billion. No other countries are even close in scale to these two.

India is on track to become the world's most populous country in the not-so-distant future, however. Both Census and UNPD projections anticipate that India's population will exceed China's by 2025, and the UNPD's projections imply that the crossover may occur even sooner than that—possibly within a decade.

By 2030, current projections envision that China will have entered into a long-term depopulation. That impending depopulation is by now virtually unavoidable and has already been “baked in the cake,” so to speak. The country's fertility trends sank below the replacement level two decades ago and are currently estimated to be 30% below replacement.

China's working-age population is on track to peak around 2015 and will have been shrinking for a decade and a half by 2030. By contrast, India's steadily growing working-age population will be the world's largest well before 2030.

China will be aging very rapidly over the decades immediately ahead. By 2030, the population's median age will likely be about 43 years, up eight years from today, and the 65 years and older share will be approaching 17%, twice as much as today. Accordingly, China will face the burdens that come with an aging population. By 2030 it will be a decidedly “grayer” society than America today—on an income level far below current OECD norms, even assuming rapid material progress.

China's coming population profile will also be characterized by major changes in family structure. Due to the prevalence of female feticide today, China now has a biologically abnormal “excess” of little boys, which portends a potentially monumental “marriage squeeze” in the decades ahead. While China currently has a universal marriage norm, in less than a generation a fifth or more of men in their late 30s or early 40s may be essentially unmarriageable. This is a demographic wildcard for China's future and may presage unpredictable social strains or political pressures. While India also has abnormally high ratios of little boys in some regions, its gender ratio is far less extreme than China's and is unlikely to have similar ramifications on marriage prospects.



Nicholas Eberstadt (PhD, Harvard University) holds the Henry Wendt Chair in Political Economy at the American Enterprise Institute. Dr. Eberstadt is also a Senior Advisor to The National Bureau of Asian Research, a member of the visiting committee at the Harvard School of Public Health, and a member of the Global Agenda Council at the World Economic Forum. He researches and writes extensively on issues in demographics, development, and international security. Dr. Eberstadt has authored chapters on the Koreas and demography in the *Strategic Asia* series. His many books and monographs include *Poverty in China* (1979), *Foreign Aid and American Purpose* (1988), *The End of North Korea* (1999), and *Russia's Peacetime Demographic Crisis: Dimensions, Causes, Implications* (2010).

“Despite two decades of exceptionally rapid economic growth, material poverty is still widespread in India.”

Thus far, India's prospective population profile may sound more favorable than China's, at least regarding implications for economic development. However, China will retain a number of demographic advantages bearing directly on economic potential. Today, China is substantially more urbanized than India. The UNPD estimates 48% of the country is urban today, as against 30% for India, and it projects that this gap will actually widen over the next two decades. For another, China's overall public health conditions are substantially better. Life expectancy in China is about eight years higher than it is in India and is projected to remain significantly higher through 2030.

Perhaps most importantly, China has a dramatic edge over India on mass educational attainment. As of today, almost everyone in China's working-age population is at least literate. By contrast, roughly a third of India's working-age manpower has never been to school. India is about half a century behind China in eliminating illiteracy. Even posting steady educational progress, India will still lag far behind China in attainment levels twenty years from now.

What do India's current and projected demographics indicate about how the country might fare on the international stage going forward, both economically and militarily?

From a strategic standpoint, three aspects of a country's demographics are especially relevant to economic and military potential: (1) the pool of youth sufficiently educated to engage in modern warfare, (2) the pool of trained, or highly trained, working-age manpower, and (3) the scientific-technological capacities of the highly educated cadre within the workforce.

One can take the pool of men aged 15–24 with a high school education or better as the proxy for manpower suitable for

“Simply put, the coming surge in a relatively well educated Indian manpower implies India has the potential to become a much larger market for U.S. exports and finance, as well as a much larger supplier of well-priced goods and services for American consumers.”

mobilization for the wars of today and tomorrow. Twenty years ago, China could boast nearly two and a half times as many relatively educated young men as India. Given past birth trends and current education trends, however, India is on track to overtake China in this current decade. By 2030, according to estimates by researchers at the Vienna Institute of Demography (VID), India's pool of relatively well-educated young men will exceed 100 million, as opposed to fewer than 75 million in China.

What about men and women of working age with a high school education or better? Again, the ongoing shift in balance between India and China is remarkable. As recently as 1990, India was estimated to have fewer relatively well-educated men and women of working age than the United States and barely a third as many as China. Today it is estimated to have over half as many as China, on course to outstrip China by 2040.

Measuring scientific-technological capabilities is a complex proposition. One useful aperture on “knowledge production” is the number of international patents a country earns in relation to its manpower with higher education and its income level. In general, every doubling of per capita income tracks with a quadrupling of patents per person with a higher education. At this juncture, India is punching way above its weight in patent generation. Over the past decade and a half, the U.S. Patent and Trade Office (PTO) awarded India over three times as many patents as would have been predicted on the basis of its income level and educational profile. China, on the other hand, does not seem to be punching above its weight, but rather performing more or less as a country with its income and education profile would be predicted to perform. Whether China can emerge as an indigenous center of knowledge production is a huge question for the future of Asia, and the world. India, on the other hand, looks to be already on course to accomplish this.

You mention in NBR's *Strategic Asia 2010-2011: Asia's Rising Power and America's Continued Purpose* that India is seeing rapid growth in its manpower pool, especially in those with secondary or tertiary education. How might this trend alter U.S. prospects for business and trade with India?

Simply put, the coming surge in a relatively well-educated Indian manpower implies India has the potential to become a much larger market for U.S. exports and finance, as well as a much larger supplier of well-priced goods and services for American consumers.

Over the next 20 years, America's working-age manpower pool with a high school education or better will grow, but only modestly. VID projects it to increase from about 198 million in 2010 to 215 million in 2030, approximately 9%. Similarly, China's increase is projected at about 13% over those 20 years, while India's is seen as rising from about 360 million to roughly 660 million—a surge of over 80%. No other place on earth will see anything like this sort of jump in relatively educated manpower.

The growth of India's highly educated manpower has been—and will continue to be—especially explosive. Twenty years ago, only about 17 million working-age Indians had a post-secondary degree, roughly the same as in Russia at the time. Today India has about 60 million. This is more than the United States, nearly twice as many as Japan, and well over twice as many as Russia. By 2030, VID projects India will have about 125 million working-age men and women with tertiary educations—more than any other country on earth.


Naturally, such numbers cannot speak to the quality of education for India's current or future matriculates, much less the environment in which this training, talents, and skills are to be put to use. They do indicate, however, the enormous economic potential that India's human resource trajectory presages.

How might this trend in growing manpower affect Indian immigration to the United States, which has seen vast growth in the last decade?

In the 2010 census, the U.S. India-born population was almost 3 million, up nearly 70% from the 2000 census. It is one of the very fastest growing groups in the United States, and one of the very most successful. In 2009, the median household income for India-born Americans was over \$90,000—almost twice the level for the United States overall. Indian-Americans are also exceptionally well-educated, as nearly 70% of immigrant adults from India hold a bachelor's degree or higher and almost 40% hold higher degrees, compared to 30% and 11%, respectively, for Americans overall.

It is in the United States' interest to attract more of these highly skilled, highly productive, would-be citizens in the years ahead. Given the coming surge of highly skilled Indian manpower, there will be no shortage of such candidates.

Is there anything else you'd like to add?

One must remember that India is something of an arithmetic average, given its tremendous regional disparities. This includes serious disparities in education. Where birth rates are high, school enrollment tends to be low and educational attainment for girls is typically lowest. Despite other positive demographic prospects for India's development, an “educational deficit” has serious and adverse implications for health, well-being, social stability, economic growth, and even international security in the decades ahead. There are encouraging signs, however, as the government is moving to expand educational coverage. But until “education for all” is a reality rather than a slogan, India's rise will be slowed by the shortage of educational opportunities. 

ABOUT THE NATIONAL BUREAU OF ASIAN RESEARCH

Founded in the legacy of Senator Henry M. Jackson, NBR provides Members of Congress and their staff with the highest quality Asia expertise through policy-relevant research and private and public briefings with our network of experts. NBR is a non-profit, non-partisan research institution headquartered in Seattle, Washington with a second office in Washington D.C. More information on NBR can be found at www.nbr.org.

For information on NBR's programs on Capitol Hill, please contact Sonia Luthra, Assistant Director for Outreach, at NBRdc@nbr.org or (202) 347-9767.

