NEWS

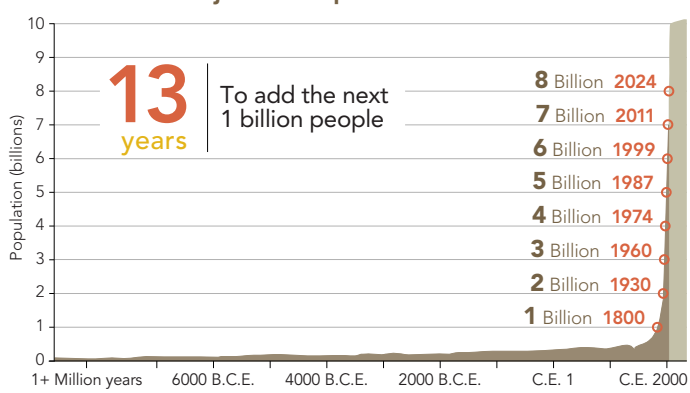
9 Billion?

IN 1900, THERE WERE 1.6 BILLION PEOPLE ON EARTH. By 2000, that number had skyrocketed to 6.1 billion. This astounding rate of growth has slowed, but the trend is still heading dramatically upward. It varies substantially by region, however, with the less developed countries growing rapidly and the more developed countries growing slowly, if at all. World population is expected to pass 7 billion in late October and is projected to top 9 billion by 2050; the latest U.N. projections put it at about 10 billion in 2100. In truth, no one knows exactly how high population will grow or when it might flat-line. All population projections are uncertain, as they are entirely dependent on assumptions about the future—for instance, how many children a woman will have 20 or 30 years hence. In that sense, these numbers can be considered best scientific guesses, not destiny. What's more, the further out one looks, the cloudier these projections become. Still, they offer a window into what the world might look like in 2050. **–LESLIE ROBERTS**

Population is growing—fast ...

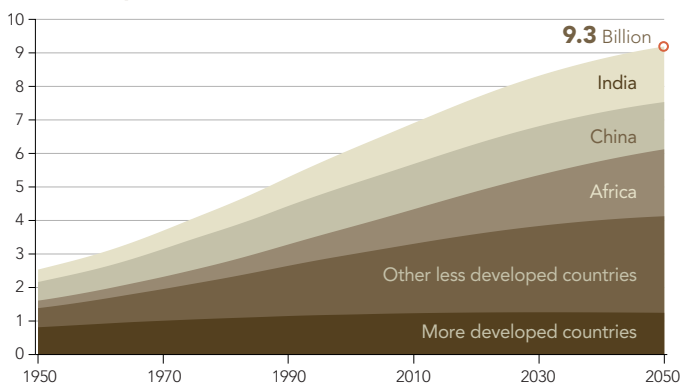
Going up. The world has never seen anything like the population explosion of the past century. Four billion people have been added to the planet since 1950, and the time it takes to add 1 billion people has dropped to 13 years. World population could reach 9.3 billion by 2050, according to U.N. projections.

Historic and Projected Population Growth



SOURCES: CARL HAUB, POPULATION REFERENCE BUREAU (PRB), 2010; U.N. POPULATION DIVISION (UNPD), 2011

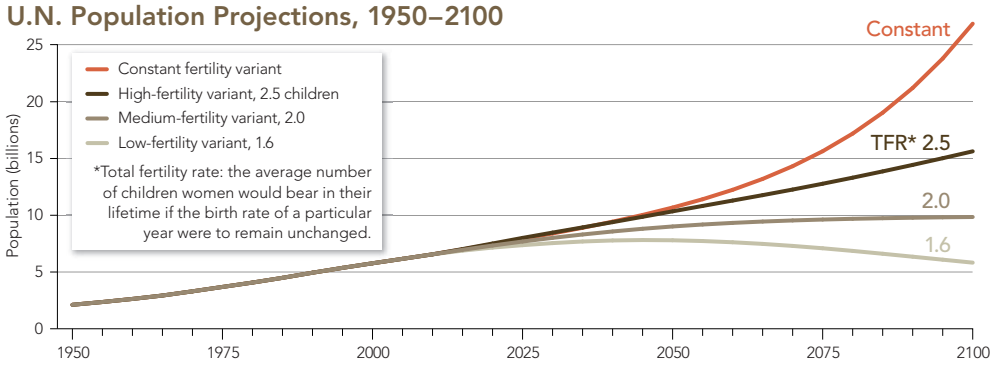
World Population Growth, 1950–2050 (medium variant)



SOURCES: UNPD, 2011

Different assumptions, different scenarios. The United Nations has peered out to 2100, but those projections are even more uncertain than those for 2050. The medium variant most commonly used assumes the average woman in 2100 will have two children. If she had half a child more, or less, the picture would change dramatically. And if fertility remained constant at current levels …

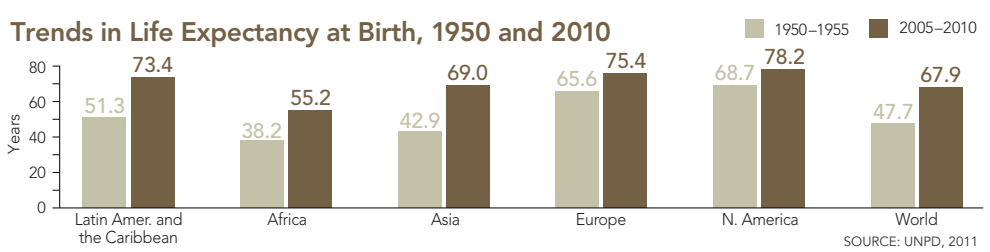
U.N. Population Projections, 1950–2100



SOURCE: UNPD, 2011

Behind the growth. Much of the population growth of the past 50 years is due to the spectacular gains in life expectancy in developing countries, reflecting advances in public health and medicine.

Trends in Life Expectancy at Birth, 1950 and 2010

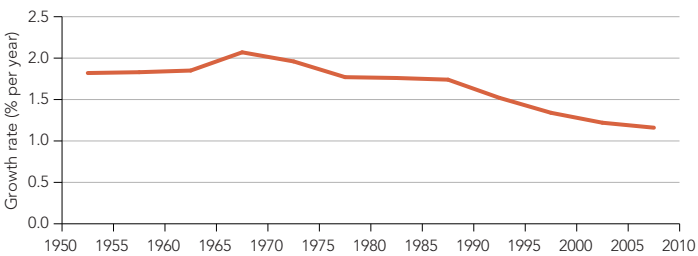


SOURCE: UNPD, 2011

... But more slowly than in the recent past

Tipping point. The period of most rapid population growth is behind us. Since its peak from 1965–70, the growth rate has declined, falling roughly by half in 40 years as women have had fewer children.

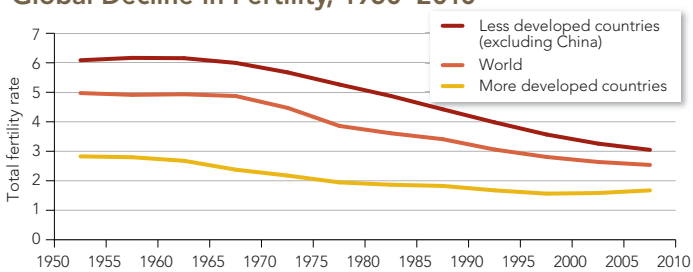
Population Growth Rate, 1950–2010



SOURCE: UNPD, 2011

More women, fewer kids. The global fertility rate has dropped from 5 to 2.5 in roughly 50 years, and the average woman in developing countries (outside of China) now has three children, down from six.

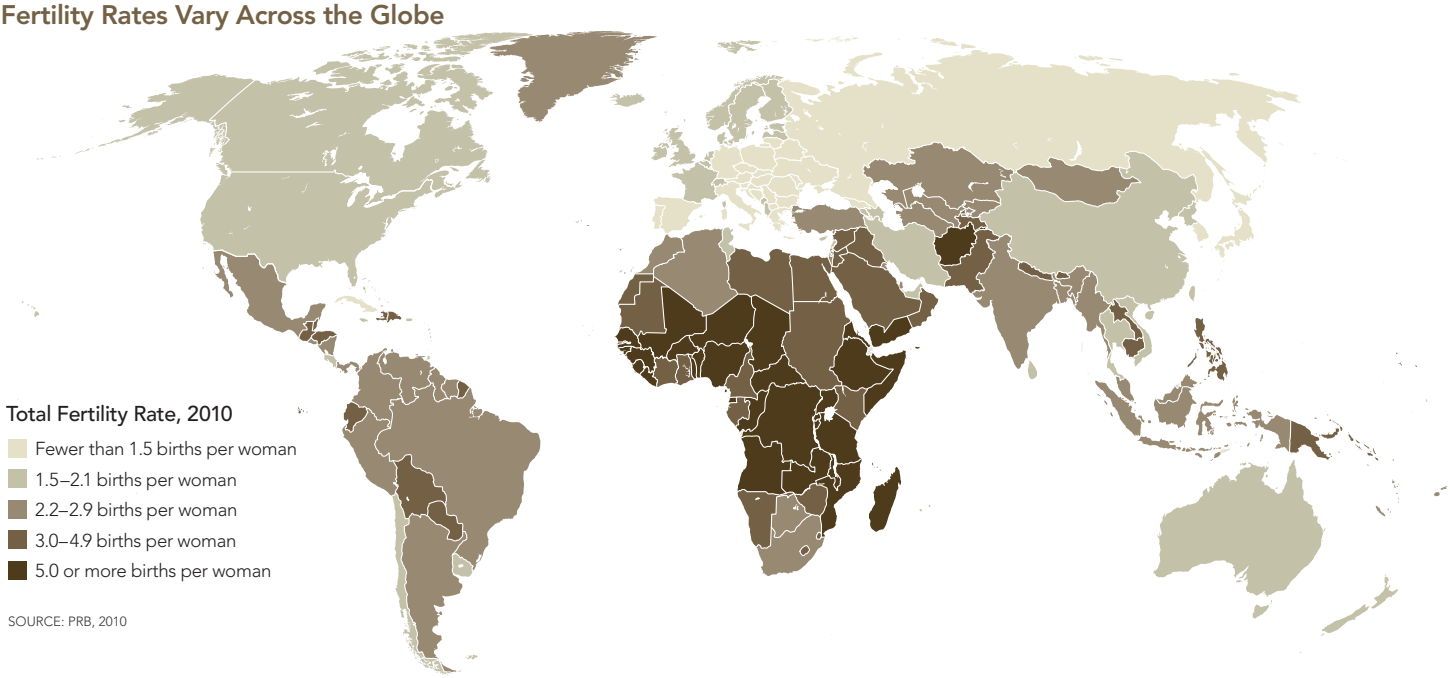
Global Decline in Fertility, 1950–2010



SOURCE: UNPD, 2011

Stark contrasts. But that downward trend masks sharp regional differences. Since 1970, Asia and Latin America have seen the steepest drops; in sub-Saharan Africa, fertility remains high, in part reflecting desired family size.

Fertility Rates Vary Across the Globe



SOURCE: PRB, 2010

By the numbers

How Many Children Do Women Say Are "Ideal"? (selected countries and dates*)

9.1 Niger	5.3 Uganda	3.2 Jordan
3.0 Egypt	2.4 U.K.	1.6 Austria

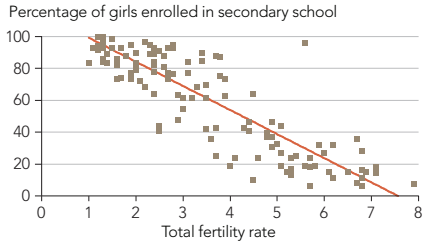
*Niger 2006, Uganda 2006, Jordan 2007, Egypt 2008, U.K. 2006, Austria 2006

SOURCES: DEMOGRAPHIC AND HEALTH SURVEYS; EUROBAROMETERS

Strong predictors. High fertility rates are associated with poverty and low levels of educational attainment for girls.

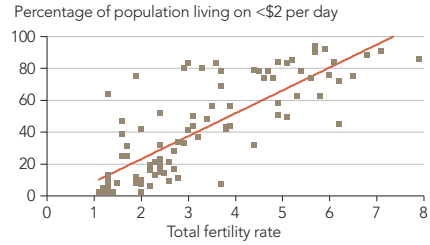
Fertility and Education, 2007

Percentage of girls enrolled in secondary school



Fertility and Poverty, 2007

Percentage of population living on <$2 per day



SOURCE: PRB, 2007

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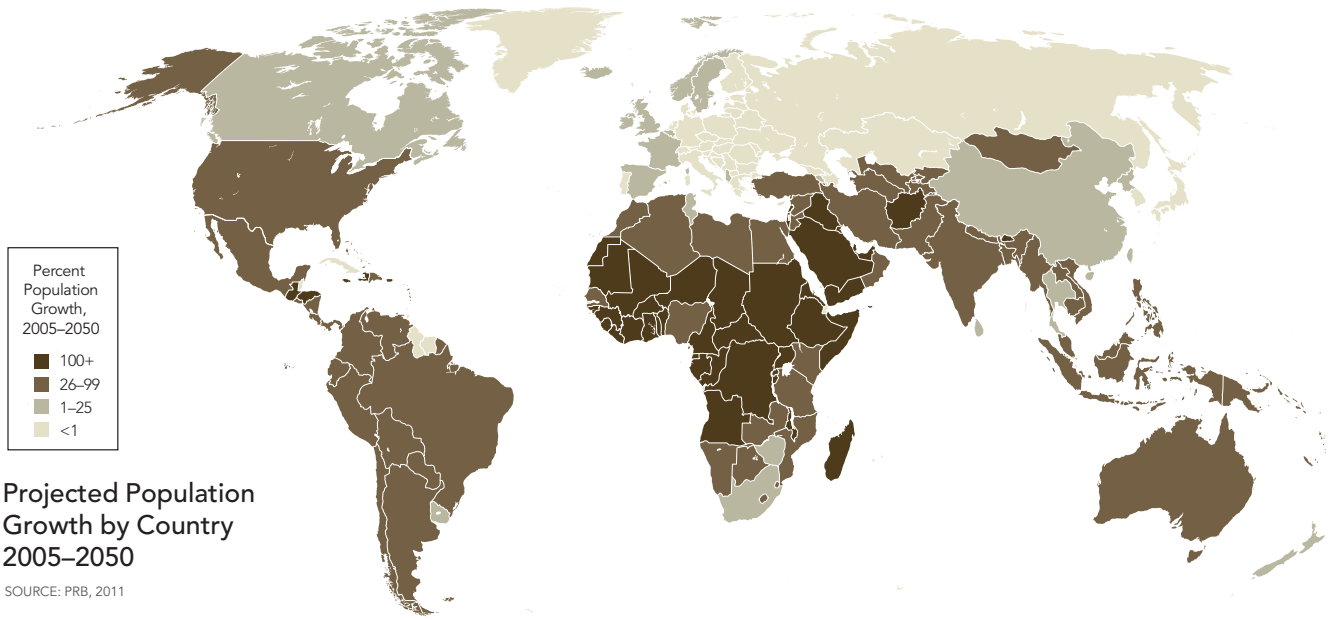
Where is it growing?

Different rates. Virtually all population growth from now until 2050 will occur in developing countries—with the largest growth concentrated in the poorest countries of the world.



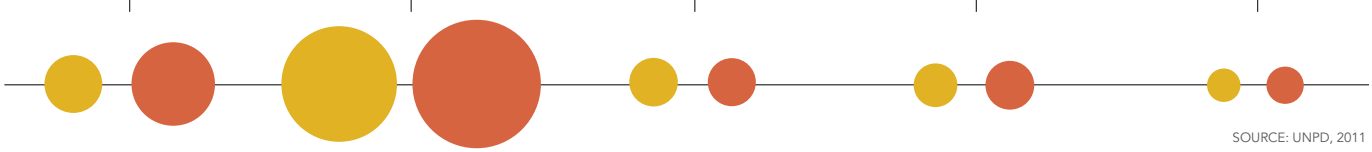
Projected Population Growth by Country 2005–2050

SOURCE: PRB, 2011

Sheer numbers.* Because of sub-Saharan Africa's high fertility rate, the fastest growth will occur there. But even with its slower growth rate, Asia—largely India and China—will still account for the bulk of the world's population in 2050.

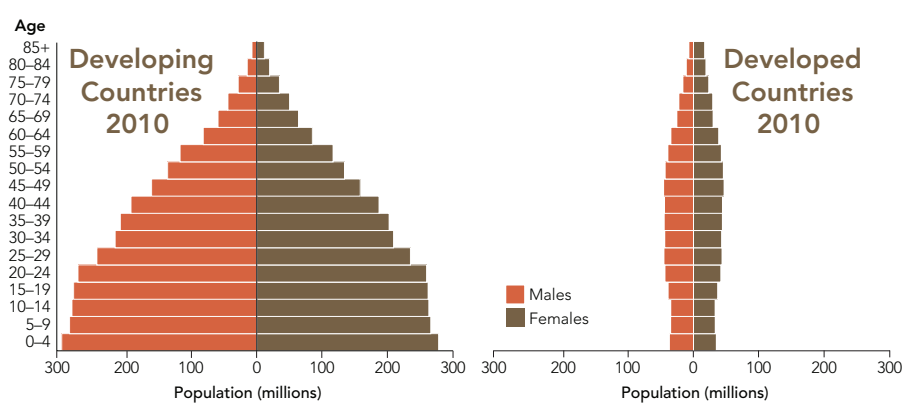
*Numbers in thousands

AFRICA		ASIA		EUROPE		LATIN AMERICA		NORTH AMERICA	
2010	2050	2010	2050	2010	2050	2010	2050	2010	2050
1,022,234 Population	2,191,599 Projected	4,164,252 Population	5,142,220 Projected	738,199 Population	719,257 Projected	590,082 Population	750,956 Projected	344,529 Population	446,862 Projected



SOURCE: UNPD, 2011

Young and growing; aging and stable. In developing countries, the large proportion of young people ensures rapid population growth. The aging population in more developed countries, with few future parents, spells little or no growth.



SOURCE: UNPD, 2011

By the numbers

43% Population <15, sub-Saharan Africa

3% Population 65+, sub-Saharan Africa

16% Population <15, Europe

16% Population 65+, Europe

SOURCE: PRB, 2010

The World Ahead

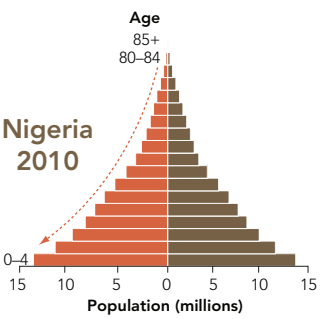
By the numbers

2:1 Population of developing to developed countries, 1950

6:1 Population of developing to developed countries, 2050

SOURCE: UNPD, 2011

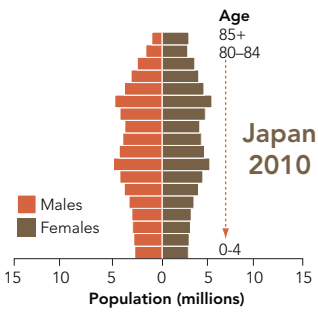
A tale of two countries. A look at Nigeria and Japan today suggests what's ahead. Given Nigeria's high birthrate and large number of women of childbearing age, the population is expected to more than double by 2050, while the population of Japan is expected to decline.



The Demographic Divide

NIGERIA		JAPAN
158	**Population 2010 (millions)**	**127**
5.7	**Lifetime births per woman**	**1.4**
6,700,000	Annual number of births	1,090,000
43	Percentage of population below age 15	13
3	Percentage of population over age 65	23
47	Life expectancy at birth	83
75	Infant death per 1000 births	2.6
500,000	Annual number of infant deaths	2,830
326	**Population 2050 (millions)**	**95**

SOURCES: (CHART) PRB, 2010; (POPULATION PYRAMIDS) UNPD, 2011



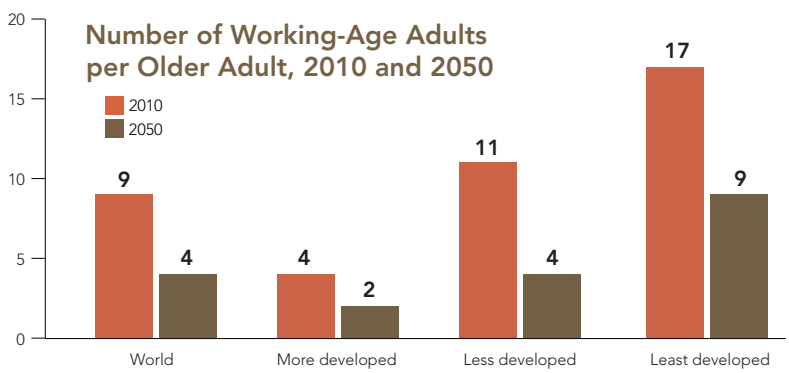
Higher costs, fewer workers. In 2050, developed countries will not have enough workers to support the higher costs of their aging populations. Developing countries with young populations will not have enough jobs. International migration is set to increase.

By the numbers

37 Million Number of people that developing countries could be adding each year in 2050

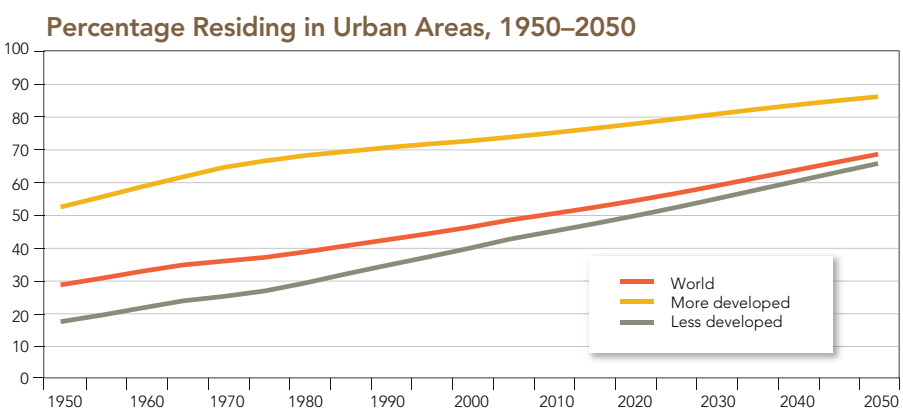
0 Number of people that developed countries could be adding each year in 2050

SOURCE: PRB, 2010



SOURCE: PRB, 2010

City bound. More and more people will be living in cities and towns, with the fastest rate of urbanization occurring in less developed countries.



SOURCE: UNPD, 2009

12 Biggest Cities

1975		2025	
City	Population (millions)	City	Population (millions)
Tokyo	26.61	Tokyo	37.09
N.Y.-Newark	15.88	Delhi	28.57
Mexico City	10.69	Mumbai	25.81
Osaka-Kobe	9.84	São Paulo	21.65
São Paulo	9.61	Dhaka	20.94
L.A.-Long Beach	8.93	Mexico City	20.71
Buenos Aires	8.74	N.Y.-Newark	20.64
Paris	8.56	Kolkata	20.11
Kolkata	7.89	Shanghai	20.02
Moscow	7.62	Karachi	18.73
Rio de Janeiro	7.56	Lagos	15.81
London	7.55	Kinshasa	15.04

SOURCE: UNPD, 2009

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