Demographics & Migration

Figures current as of October 2026

The slow system beneath every other: how many people there are, where they live, how old they are, and where they are moving. The history, the fall in births, aging, the young world, migration's numbers and its politics, the displaced, the cities and the emptying countryside, the economics, power, and what to watch.

MODULE 1 — A Brief History

Goal: Trace how the world reached 8 billion and why its growth is slowing.

From a few million farmers to the billion of 1804; Malthus; Europe's transition and its emigrants; the baby boom; the fastest growth in history in the 1960s; the population scares and the coercion; the peak in births in 2012; and three confident predictions that failed.

MODULE 2 — The Fertility Collapse

Goal: Understand the decade's defining demographic fact, and weigh why it happened and whether policy can reverse it.

Where fertility stands, from Taiwan's 0.7 to Nigeria's 4.8; the children people want and the children they have; the causes argued; what governments have tried; and what a baby bonus buys, worked from Spain's cheque.

MODULE 3 — Aging

Goal: Follow the fall in births into the pension, the hospital, and the workplace.

The old world and the young in one table; the pension as a ratio, worked to its break-even; the retirement-age fights of 2025-26; health and care; and Japan as the frontier.

MODULE 4 — The Young World

Goal: Read the half of the world still growing.

Africa from 1.5 billion to about 2.5 billion by 2050; the dividend and the youth bulge; the protests of 2025; India below replacement and its jobs question; the Middle East's transition.

MODULE 5 — Migration: The Numbers

Goal: Map who moves, where, and why.

About 304 million international migrants, 3.7% of humanity; about $729 billion of remittances; the corridors; why people move, and the findings that cut against common assumptions.

MODULE 6 — Migration: The Politics

Goal: Understand the turn of 2025-26, and weigh how much immigration a rich country should admit.

America's enforcement campaign and its disputed net migration; Britain from 944,000 to 171,000; the EU's Pact and its returns law; Canada's and Australia's cuts; the cases for more and for less, with the evidence; a country that needs migrants and votes against them, worked.

MODULE 7 — The Displaced

Goal: Count the people who did not choose to move.

117.8 million forcibly displaced, the first fall in a decade; Sudan, Ukraine, Syria's returns, Afghanistan's forced ones, Gaza, and Myanmar; a refugee system funded at 37% of its needs; and the climate question.

MODULE 8 — Cities and the Emptying Countryside

Goal: Follow the largest migration of all, from village to city.

45% of humanity in cities on the UN's new measure; Jakarta, Dhaka, and the 33 megacities; China's and India's internal migrants; and the places that empty, from Japan's towns to Bulgaria, inland Spain, Italy's south, and rural America.

MODULE 9 — The Economics

Goal: Connect the numbers to growth, labor, and money, and weigh whether a shrinking population must grow slowly.

Eight channels, from labor supply to migration; the growth argument made from both sides, with Japan's record as the test; and growth arithmetic, worked.

MODULE 10 — Demography and Power

Goal: Read the numbers strategically, and weigh whether demography is destiny.

China's shrinking, India's peak, America's growth and the policy choice behind it, Europe, Russia, Japan, and the young giants; armies and markets; peak humanity; and the destiny argument.

MODULE 11 — Where Things Stand, and What to Watch

Goal: Close with the argument, the turning points, the contradictions, and the dates.

The course in one argument; seven turning points and one lesson; five contradictions; what the arguments share; a dated watch list from October 2026 on; and a last word.

A note on the sources: demography counts better than most subjects, because births and deaths are registered and censuses are taken. It forecasts worse than its reputation, because every projection assumes a path for fertility, and fertility has surprised forecasters for two centuries. Population figures come from UN DESA, the UN Department of Economic and Social Affairs, whose *World Population Prospects 2024* remains the newest edition, and from national statistics offices. Displacement figures come from the UN refugee agency (UNHCR), the International Organization for Migration (IOM), and the Internal Displacement Monitoring Centre (IDMC). Migration figures come from UN DESA, Eurostat, the Census Bureau, the Congressional Budget Office (CBO), and national statistics. Where the field argues, over why fertility fell, whether policy can raise it, how much immigration a country should admit, whether a shrinking population must grow slowly, and whether demography is destiny, the course makes each case as its advocates make it, gives the evidence, and then states its own reading once.

Key Numbers, as of October 2026

The counts, rates, and projections the course relies on

Measure	Figure	Period	Source and release
World population	About 8.3 billion, growing about 0.8% a year, or about 70 million people	Mid-2026	UN DESA, *World Population Prospects 2024* (July 11, 2024), medium variant
Births and deaths	About 132 million births and 64 million deaths a year; births peaked at about 146 million in 2012	2026	UN DESA, *World Population Prospects 2024*
World fertility	2.23 children per woman on the UN's estimate (2.25 in 2024); no higher than 2.19 on a September 2026 study, below the roughly 2.2 the world needs to replace itself	2026	UN DESA; Fernández-Villaverde and Norrick, 'Terra Incognita: The Economics of a Shrinking World,' National Bureau of Economic Research working paper 35809 (September 2026)
Life expectancy	73.3 years at birth, up 8.4 years since 1995	2024	UN DESA, *World Population Prospects 2024*
The peak	About 10.3 billion in the mid-2080s, then 10.2 billion in 2100 (UN); about 10.1 billion in 2080 (Wittgenstein Centre); 9.7 billion in 2064 (Institute for Health Metrics and Evaluation)	Projections	UN DESA (2024); Wittgenstein Centre (February 14, 2024); *The Lancet* (July 2020)
Countries past their peak	63 countries and areas, holding 28% of humanity	2024	UN DESA, *World Population Prospects 2024*
Among the lowest fertility	Taiwan 0.695; South Korea 0.80 (0.72 in 2023); Japan 1.14; Italy 1.14; Spain 1.10 (2024); China about 1.0	2025	National statistics offices (January-June 2026)
United States	3.61 million births, down 1%; fertility 1.60 in 2024, a record low; deaths to exceed births from 2030	2024-25; projection	National Center for Health Statistics; CBO, *Demographic Outlook* (January 2026)
China	7.92 million births and 11.31 million deaths; 1.405 billion people, down 3.39 million; 851 million aged 16-59 (60.6%); 15.9% aged 65 or over	2025	National Bureau of Statistics (January 2026)
Japan	Census count of 123.0 million, down 3.1 million (2.5%) since 2020; 119.7 million Japanese citizens, down 917,000 in a year; 107,677 people aged 100 or over	2025-26	Census, preliminary (May 29, 2026); Internal Affairs Ministry (January 1, 2026 count); Health Ministry (September 2026)
European Union	452.0 million on January 1, 2026, up 706,000, all of it from migration; deaths have exceeded births since 2012; fertility 1.34 in 2024	2024-26	Eurostat (July 28, 2026, and March 2026)
International migrants	About 304 million people living outside their country of birth, 3.7% of humanity	Mid-2024	UN DESA, *International Migrant Stock 2024*
Remittances	About $729 billion sent to low- and middle-income countries in 2025, more than four times foreign aid and more than foreign direct investment; $685 billion in 2024 on the World Bank's count	2024-25	The UN's International Fund for Agricultural Development (IFAD), *Sending Money Home 2026* (September 2026); World Bank
American net immigration	2.7 million in the year to July 2024 and 1.3 million in the year to July 2025; for calendar 2025, between −295,000 and −10,000 on Brookings' estimate and +410,000 on the CBO's	2024-25	Census Bureau (Vintage 2025); Brookings (January 13, 2026); CBO (January 2026)

Measure	Figure	Period	Source and release
British net migration	171,000 (immigration 813,000, emigration 642,000), down from a record 944,000 in the year to March 2023	2025	Office for National Statistics (May 2026)
Forcibly displaced	117.8 million, down 5.4 million, the first fall in a decade: 41.6 million refugees, 9 million asylum-seekers, and 68.7 million displaced inside their own countries by conflict (the categories overlap)	End of 2025	UNHCR, *Global Trends* (June 11, 2026)
Cities	45% of humanity in cities, 36% in towns, and 19% in rural areas on the UN's harmonized measure (58% urban on national definitions); 33 cities of 10 million or more	2025	UN DESA, *World Urbanization Prospects 2025* (November 18, 2025)
American Social Security	The retirement trust fund projected to run out in the last quarter of 2032, after which 78% of scheduled benefits are payable; the combined funds in 2034 (83%)	June 2026	Social Security Trustees' report (June 9, 2026)

Dollars are US dollars. Conversions use the Federal Reserve's September 2026 averages: 1,359 won, 156 yen, and 6.71 yuan to the dollar, and $1.15 to the euro. Fertility is the total fertility rate; population projections are the UN's medium variant unless named otherwise.

Terms the Course Uses

Term	Meaning	Why it matters
Total fertility rate (TFR)	The number of children a woman would have over her life at the current age-specific birth rates	The course's central number
Replacement fertility	The rate at which each generation replaces itself: about 2.1 in rich countries, higher where more children die	About 2.2 for the world as a whole
Demographic transition	The move from high births and high deaths to low births and low deaths	The five stages below, and the map of the world
Momentum	A young population keeps growing after fertility falls below replacement, because large cohorts are still reaching parenthood; an old one keeps shrinking after fertility recovers	Why China grew for three decades after its fertility fell below 2.1
Dependency ratio	People under 15 and over 64 for every 100 of working age; the old-age ratio counts only the old, here per 100 people aged 20-64	Pensions, taxes, and growth turn on it
Net migration	Immigrants minus emigrants	The only source of growth left in many rich countries
Demographic dividend	The lift to growth while the working-age share of the population rises	East Asia's boom, and India's and Africa's chance
Cohort	Everyone born in the same span of years	Each cohort's size against the next drives pensions, schools, and housing
Refugee, asylum-seeker, internally displaced person	Someone recognized as fleeing persecution or war across a border; someone whose claim is pending; someone displaced within their own country	The categories of Module 7
Medium variant	The UN's central projection, between its high and low variants	Most projections in the course are this one

The Transition in Five Stages

Every society that has modernized has passed through the same sequence, and where a country stands in it explains most of what the course says about that country. In the first stage births and deaths are both high and population barely grows; in the second, deaths fall with clean water, vaccines, and steadier food while births stay high, so population surges. In the third, births fall as children survive, girls go to school, cities replace farms, and contraception spreads, so population growth slows but continues. The theory expected a fourth stage, balance near replacement, to be the end, but much of the world has entered a fifth instead: fertility below replacement that stays there, so that populations age and then shrink.

Stage	Births	Deaths	Population	Where in 2026	Median age
1. Pre-transition	High	High	Barely growing	The world before about 1800	Under 20
2. Early transition	High	Falling	Growing fast	Niger, Chad, Somalia, and the Democratic Republic of the Congo, at around six children per woman	15-17
3. Late transition	Falling	Low	Still growing fast	Most of sub-Saharan Africa, Pakistan, and Afghanistan, at 2.5-5	17-25
4. Near replacement	About 2.1	Low	Slowing	Indonesia, Bangladesh, and Egypt (2.4)	24-30
5. Below replacement	Under 2.1, often under 1.5	Rising as the population ages	Aging, then shrinking	Europe, East Asia, most of the Americas, India (1.9), Iran, Turkey, and Thailand	28-50

UN DESA; national statistics. India's rate of 1.9 is from its Sample Registration System for 2023; Egypt's 2.4 is the Health Ministry's figure for 2024.

The transition's timing is the world's map: the countries in the second and third stages are young, mostly poor, and growing, while those in the fifth are older, mostly richer, and beginning to shrink. Migration runs from the young countries to the old ones, and the politics of 2025-26 turned on whether the old ones would let it in.

Module 1 — A Brief History

How the World Reached 8 Billion, and Why Growth Is Slowing

Recommended Reading / Reference

Book: Paul Morland, *The Human Tide: How Population Shaped the Modern World* (2019)

Reference: Angus Maddison's historical population series; UN DESA's estimates from 1950 in *World Population Prospects 2024*

1a. The Long Run

Date	World population	Event	What it established
About 10,000 BC	A few million; estimates vary widely	Farming begins	The first expansion: farming fed more people, at the price of harder work and more disease
AD 1	About 230-300 million	The Roman and Han empires	Growth of a few hundredths of a percent a year, the pattern of most of history
1347-51	Falls by about a fifth from roughly 450 million	The Black Death	The last sustained fall in the world's population
1798	About 1 billion, reached around 1804	Thomas Malthus's *Essay on the Principle of Population*	The argument that population outruns food and is checked by famine, war, and disease
1800-1900	1 billion to 1.6 billion	Europe's transition: sanitation, vaccination, and steadier food; about 50 million Europeans emigrate between 1815 and 1930, most to the Americas	The second stage reaches the West, and emigration populates the New World
1900-50	1.6 billion to 2.5 billion	Two world wars, the 1918 influenza, and the Depression	Catastrophes slow growth but do not stop it
1946-64	—	The Western baby boom: American fertility peaks at about 3.7 in 1957	The large cohort whose retirement is the pension question of the 2020s
1950-2000	2.5 billion to 6.1 billion	Antibiotics, vaccines, and the Green Revolution cut deaths across Asia, Latin America, and Africa; growth peaks above 2% a year in the 1960s	The second stage everywhere, and Paul Ehrlich's *The Population Bomb* (1968)
1975-80	—	India's forced sterilizations during the Emergency of 1975-77; China's one-child policy from 1980	The high tide of coercion
1972-2005	—	Fertility falls below replacement in the United States (1972), most of Europe (1970s), Japan and then South Korea (1970s-80s), China (early 1990s), Iran (about 2000), and Brazil (mid-2000s)	The fifth stage arrives ahead of the theory
2012	About 7.2 billion	World births peak at about 146 million	The turn
2021-26	About 7.9 billion to 8.3 billion	China peaks in 2021 and shrinks from 2022; the world passes 8 billion in November 2022; India passes China in 2023; South Korea's fertility reaches 0.72 in 2023	The reversal nobody planned

Angus Maddison; UN DESA. Figures before 1950 are reconstructions with wide margins of error.

For almost all of history the human population grew so slowly that no one would have noticed it in a lifetime, because high births were matched by high deaths, and famine, plague, and war erased whatever the good years added. The Black Death of 1347-51 killed perhaps a fifth of humanity and remains the last time the world's population fell for any length of time, and humanity reached its first billion only around 1804.

What changed was death, not birth: sanitation, vaccination, better food, and later antibiotics cut mortality, first in Europe in the nineteenth century and then across the world after 1945. Births stayed high for a generation or two after deaths fell, and population surged in the gap, so that while the second billion took 123 years, to 1927, each billion since 1960 has taken between eleven and fourteen. Growth peaked above 2% a year in the 1960s and has since fallen to about 0.8%.

1b. The Population Scares

The surge of the 1950s and 1960s produced a generation of alarm, and Paul Ehrlich's *The Population Bomb* (1968) predicted that hundreds of millions would starve in the 1970s whatever was done. Western governments, foundations, and the UN funded family-planning programs across Asia, Africa, and Latin America, and some of them turned coercive: India's government sterilized millions of men during the Emergency of 1975-77, many of them by force or under threat. China's one-child policy, from 1980, enforced birth quotas with fines, forced abortions, and sterilizations until it was relaxed to two children in 2016 and three in 2021.

The coercion is now widely judged a moral failure, and the record suggests it was also largely unnecessary, since China's fertility had already fallen from about six children per woman in 1970 to under three by 1979, under a campaign for later marriage and fewer, more widely spaced births. Fertility in countries that never coerced on China's scale fell as fast or faster: Iran went from above six children in the mid-1980s to about two by 2000 under a voluntary program, and Bangladesh, Brazil, and Thailand followed similar paths. What cut fertility everywhere was schooling, especially of girls, the move to cities, women's paid work, falling child deaths, and contraception that made each child a choice.

1c. Three Wrong Predictions

The subject's history is a history of confident forecasts that failed in the same way, beginning with Malthus, who predicted in 1798 that population would outrun food and be checked by catastrophe. Instead, food production grew faster than population for two centuries, and the check that finally arrived was choice. Ehrlich, in turn, predicted mass starvation within a decade; instead, new seeds and fertilizers helped roughly triple cereal yields between the 1960s and the 2010s, and the famines that did occur, from Ethiopia in the 1980s to North Korea in the 1990s, were made largely by war and politics.

The third failure belonged to the population controllers, who believed that fertility would not fall without pressure, yet it fell anyway, and fastest where development was fastest. Each generation extrapolated the curve it was standing on, and each time the curve bent, so today's projections should be read with that record in mind. The UN expects a peak of about 10.3 billion in the mid-2080s, the Wittgenstein Centre about 10.1 billion in 2080, and the Institute for Health Metrics and Evaluation (IHME) 9.7 billion in 2064. Every forecaster now agrees on the direction, and what they argue about is the timing and the height of the peak.

Module 1 Key Points

A Brief History

• Humanity reached 1 billion around 1804, 2 billion in 1927, and 8 billion in 2022; growth peaked above 2% a year in the 1960s.

• Falling death rates reached Europe in the nineteenth century and the rest of the world after 1945; births stayed high, so population surged.

• World births peaked at about 146 million in 2012; China began shrinking in 2022, and India passed it in 2023.

• Coercion, from India's Emergency to China's one-child policy, was not the main cause of the fall; schooling, cities, women's work, and contraception were.

• Malthus, Ehrlich, and the population controllers each extrapolated the curve they stood on; read today's projected peaks with that record in mind.

Module 1 Quiz

Check Your Understanding

1. When did the world population last fall for any length of time?

A) During the Great Depression
B) During the Second World War, 1939-45
C) During the Black Death of 1347-51
D) During the Napoleonic Wars

2. What did Malthus predict in 1798?

A) That falling births would empty Europe's countryside
B) That population would outrun food and be checked by catastrophe
C) That emigration to the Americas would end Europe's famines for good
D) That machines would put most farm laborers out of work for good, ending in riots

3. Where did China's fertility stand when the one-child policy began in 1980?

A) Already halved since 1970
B) Near six children, where it had been in 1970
C) Rising after a baby boom in the late 1970s
D) Already below replacement and still falling

4. In which year did world births peak, on the UN's 2024 estimates?

A) 1968
B) 1990, at about 140 million
C) 2016, the two-child year
D) 2012, at about 146 million births

5. What lesson does the module draw from the three failed predictions?

A) Each extrapolated its curve, and the curve bent
B) Population forecasts usually run too low
C) Coercion works only for strong states
D) Population always grows faster than forecasters expect it to

Module 2 — The Fertility Collapse

The Decade's Defining Demographic Fact

Recommended Reading / Reference

Book: Dean Spears and Michael Geruso, *After the Spike: Population, Progress, and the Case for People* (2025); Darrell Bricker and John Ibbitson, *Empty Planet* (2019)

Reference: UN Population Fund (UNFPA), *State of World Population 2025: The Real Fertility Crisis* (June 2025); Melissa Kearney and Phillip Levine's 2025 working paper on low fertility in rich countries

2a. Where Fertility Stands

Country or group	Fertility	Births	Note
Taiwan	0.695 (2025)	107,812	The lowest of any country
South Korea	0.80 (2025), up from 0.72 in 2023	254,457, up 6.8%	The rise followed a post-pandemic rebound in marriages, which rose a further 8.1% in 2025; Seoul's rate is 0.63
China	About 1.0	7.92 million (2025), from about 18 million in 2016	More than halved in nine years, despite the three-child policy of 2021 and a subsidy of 3,600 yuan (about $540) a year per child under three from 2025
Japan	1.14 (2025)	671,236, a record low	Births have already fallen to the level government demographers expected about fifteen years from now
Italy; Spain	1.14 (2025); 1.10 (2024)	355,000; 321,000	Italy recorded 652,000 deaths, a natural decline of about 296,000; Spain grows only through migration
Germany; England and Wales	1.32; 1.39 (2025, provisional)	654,241; 585,396	Germany's fewest births since the war; in England and Wales 34.6% of babies have mothers born abroad
France	1.56 (2025)	645,000	651,000 deaths: the first natural decline since the Second World War
European Union	1.34 (2024)	3.55 million	The lowest since 2001; Bulgaria highest at 1.72, Malta lowest at 1.01
Hungary	1.31 (2025)	About 72,000	The fewest on record, after a rise from 1.23 in 2011 to 1.59 in 2021
United States	1.60 (2024)	3.61 million (2025), down 1%	A record low; the general fertility rate is down 23% since 2007
Iran; Turkey; Thailand; Chile	1.35; 1.42; about 1.0; about 1.0	—	Below replacement in Muslim, Buddhist, and Catholic countries alike
India	1.9 (2023)	—	Below replacement nationally: Delhi 1.2, Bihar 2.8
Egypt; Nigeria	2.41 (2024); 4.8 (2023-24 survey)	1.97 million; —	Egypt's births fell below 2 million for the first time in nearly two decades; Nigeria's rural rate is 5.6

National statistics offices and health ministries; Eurostat; India's Sample Registration System; Nigeria's Demographic and Health Survey. Recent figures are provisional and revise.

2b. The Children Wanted and the Children Had

The UN Population Fund (UNFPA) surveyed about 14,000 adults in 14 countries for its 2025 report, from South Korea and Italy to Nigeria and India, and one in five said they had not had, or did not expect to have, the number of children they wanted. Asked what stood in the way, 39% cited financial limits, 21% job insecurity, and 12% infertility or difficulty conceiving, and the agency concluded that the real crisis is not that people refuse children but that many cannot have the families they say they want.

Behind the averages, the fall in rich countries is increasingly a matter of fewer people having children, or having them later: in the United States, close to half of women in the youngest cohorts studied had no child by age 30, on Kearney and Levine's figures. In East Asia the decline runs through marriage, because few children are born outside it, and South Korea's marriages fell from about 435,000 in 1996 to about 194,000 in 2023 before a rebound in weddings brought the small rise in births of 2024-25.

2c. Why Fertility Fell: The Argument

The case that it is affordability: on this reading, people still want children but cannot afford the ones they want, because housing in the big cities, childcare, the years of schooling a child now needs, and insecure first jobs all push parenthood later, and later parenthood means fewer children. UNFPA's survey is the main evidence, since money is the reason respondents give most often, and the policy conclusion is that cheaper housing, childcare, and leave would close much of the gap.

The case that priorities have shifted: Kearney and Levine examined the American decline since 2007 and found that the measurable economic factors, from income and housing costs to childcare and student debt, explain little of it, since the fall is broad, across incomes, education levels, and states. They conclude that adults now place more weight on careers, leisure, and their own pursuits and less on early parenthood, so cheaper children would help only at the margin.

The case that it is modernity itself: Fernández-Villaverde and Norrick's September 2026 paper argues that modern life makes a third child expensive and childlessness cheap, wherever it arrives. Its estimate that world fertility is already below replacement rests on births falling fastest in low- and middle-income countries, where the UN may be overcounting them. Spears and Geruso make a similar point from history: once people have real choices about children, low fertility has been the norm everywhere.

The evidence: fertility fell in countries with very different housing costs and very different welfare states, which weakens the affordability case as a full explanation. The Nordic countries, with universal childcare and long paid leave, saw their rates fall by between a fifth and a third after 2010, to between 1.25 and 1.56 in 2024. Yet money does move births a little, as the next sections show, and the reasons people give in surveys are real constraints at the margin. **The course's reading:** affordability shapes the timing of births and some of their number, but the long fall is mostly a change in what adults want and in what modern life rewards, which is why money has moved it so little.

2d. What Governments Have Tried

Country	Policy	Scale	Result
Hungary	A lifetime income-tax exemption for mothers of four (2020), extended to mothers of three from October 2025 and to mothers of two from 2026 in stages by age; subsidized loans forgiven per child; housing grants	About 5% of GDP on family support, by the Orbán government's count	1.23 (2011) to 1.59 (2021), then back to 1.31 (2025); births the fewest on record
South Korea	Childcare, cash, housing, and leave since 2006	More than 360 trillion won (about $265 billion)	0.72 (2023) to 0.80 (2025), after a post-pandemic rebound in marriages
Japan	Larger child allowances from 2024; an extra 3.6 trillion yen (about $23 billion) a year by fiscal 2028	About 0.6% of GDP in new spending	Births lower in every year since 2016
China	A three-child limit, with fines for extra births scrapped (2021); 3,600 yuan a year per child under three (2025)	About $540 a child a year	Births of 7.92 million in 2025, the fewest on record
France	Crèches, allowances, and taxes scaled to family size, for generations	About 3.5% of GDP on family benefits	2.0 in 2010; 1.56 in 2025
The Nordic countries	Universal childcare, long paid leave, and leave reserved for fathers	About 3% of GDP	Between 1.8 and 2.2 in 2010; 1.25 (Finland) to 1.56 (Iceland) in 2024
Russia	'Maternity capital' since 2007 (728,922 rubles for a first child in 2026); curbs on abortion	About 0.5% of GDP	1.31 (2006) to 1.78 (2015), then down to about 1.4
Spain	€2,500 for every birth, 2007-10	About €1.25 billion a year	Births up about 3%; down about 6% after the payment ended
United States	A child tax credit of $2,200 from 2025; $1,000 accounts for babies born in 2025-28	Small	1.60 in 2024, a record low

Government and Eurostat data; Nordic Statistics (2025); Libertad González and Sofia Trommlerová, *Journal of Human Resources* (2023), for Spain. Shares of GDP are approximate and counted differently by each government.

2e. Can Policy Raise Fertility? The Argument

The case that it can: money and services do change behavior, since Spain's universal payment of €2,500 per birth raised births by about 3% and its cancellation in 2011 cut them by about 6%. Hungary's fertility rose by nearly a third in a decade of generous incentives, and France and the Nordic countries held near replacement for decades with family policy. The economist Lyman Stone estimates that the United States could buy its way to replacement for between about $50 billion and $950 billion a year, depending on how lasting the effects proved.

The case that it cannot: the effects are small, and much of them is timing, as families have a planned child sooner while their completed family is barely larger. Hungary's gains reversed after 2021, the Nordic model did not stop the fall after 2010, and South Korea's 360 trillion won coincided with the lowest fertility on record. No country that has fallen far below replacement has climbed back to it.

The evidence: the best studies, such as González and Trommlerová's on Spain and Kevin Milligan's on Quebec's allowance of the late 1980s and 1990s, find real but modest effects, at a cost per additional birth from about C$15,000 in Quebec in the 1990s to about $99,000 in Spain, as worked below. The policies' effects on completed fertility are smaller than their effects on the timing of births. **The course's reading:**

policy can buy births at the margin, a few percent, at a high price per child; nothing yet shows that it can restore replacement once a country has fallen far below it.

Worked example — What a Baby Bonus Buys, From Spain's Cheque

Spain paid €2,500 for every birth from 2007 to 2010, when it had about 500,000 births a year, so the payment cost about €1.25 billion a year before it changed anything. Suppose it raised births by 3%, the best estimate: that is about 15,000 extra births, and the payment then goes to 515,000 babies, about €1.29 billion. The cost per additional birth is €1.29 billion divided by 15,000, about €86,000, or about $99,000 at $1.15 to the euro, and if part of the 3% was timing, families moving a planned birth earlier, the cost per additional lifetime birth is higher still. Now scale it: Spain's fertility in 2024 was 1.10, so reaching 2.1 would take about 90% more births, thirty times the effect the cheque produced. Even if the effect grew in proportion to the money, which the evidence does not suggest, that would mean a payment of about €75,000 per birth. That is why such programs, though they visibly help families, have never restored replacement.

Module 2 Key Points

The Fertility Collapse

• Fertility in 2025: Taiwan 0.695, South Korea 0.80, Japan and Italy 1.14, and China about 1.0; the United States was 1.60 in 2024.

• One in five adults in UNFPA's 2025 survey had not had, or expected not to have, the children they wanted; 39% cited money.

• Why fertility fell is argued: affordability, shifting priorities, or modernity itself; the course reads the long fall as mostly the latter two.

• Policy buys births at the margin: Spain's €2,500 cheque raised births about 3%, at roughly $99,000 per additional birth.

• No country far below replacement has returned to it: Hungary rose to 1.59, then fell to 1.31; Korea spent over 360 trillion won.

Module 2 Quiz

Check Your Understanding

1. Which of these had the lowest fertility rate in 2025?

A) South Korea, at 0.80
B) Japan, at a record 1.14
C) Taiwan, at 0.695
D) China, at about 1.0

2. What did the UN Population Fund's 2025 survey find?

A) Most adults now want no children at all
B) One in five fell short of the children they wanted, and money was the main reason
C) Infertility is the main reason for low fertility
D) People in poor countries want fewer children than people in rich ones

3. What do Kearney and Levine conclude mainly drove the American decline since 2007?

A) Rising housing costs
B) The cost of childcare and student debt, which together explain most of it
C) A decline in fecundity caused by environmental chemicals
D) Shifting priorities, not measurable costs

4. What happened to Spain's births when the €2,500 cheque began, and when it ended?

A) No change either time
B) Up about 30%, then back to where they began
C) Up about 3%, then down about 6%
D) Up about 3% at first, and unchanged after the cancellation

5. What happened to Hungary's fertility after a decade of generous incentives?

A) It reached replacement by 2020
B) It never moved from 1.23
C) It rose steadily and passed France's rate, becoming the EU's highest by 2025
D) It rose to 1.59 in 2021, then fell to 1.31

Module 3 — Aging

The Fall in Births Reaches the Pension, the Hospital, and the Workplace

Recommended Reading / Reference

Book: Charles Goodhart and Manoj Pradhan, *The Great Demographic Reversal* (2020)

Reference: The Organisation for Economic Co-operation and Development (OECD), *Pensions at a Glance 2025*; the Social Security Trustees' report (June 9, 2026)

3a. The Old World and the Young

Measure	World	Japan	Italy	Germany	China	United States	India	Nigeria
Median age	31	49	48	46	40	39	29	18
Share aged 65 or over	10%	30%	25%	23%	16%	18%	7%	3%
Old-age ratio: people 65 or over per 100 aged 20-64	17	55	42	40	25	30	12	6
Share aged 65 or over in 2050, projected	17%	38%	36%	30%	30%	24%	15%	5%
Statutory pension age	—	65	67	Rising to 67 by 2031	Rising over 2025-40 to 63 for men and 55-58 for women	67	60 for federal staff	60 in the civil service

UN DESA, *World Population Prospects 2024*, estimates for 2025 and medium-variant projections; China's share aged 65 or over from its statistics bureau; national pension laws. Figures are rounded.

The table holds the course's two worlds side by side. Japan and Italy have a quarter or more of their people over 65 and Germany almost a quarter, with median ages of 46 to 49, while Nigeria's median age is 18 and India's, at 29, is still young even though its fertility is now below replacement. China sits between them and is aging fast, with its share over 65 projected to nearly double by 2050.

3b. The Pension as a Ratio

Nearly every rich country pays its pensions on a pay-as-you-go basis, with today's workers' contributions paying today's retirees, so the system's health is a ratio: the number of workers for each pensioner, multiplied by the contribution rate, must cover the benefit. When the baby boomers were working and their parents were few, there were four or five workers per pensioner and the systems were cheap. As the boomers retire and the cohorts behind them are smaller, the ratio falls toward two, and the arithmetic leaves a short list of exits.

System	Workers per pensioner	Reforms to date	The gap
United States (Social Security)	About 2.7, falling to about 2.3 by the mid-2030s	Full retirement age raised to 67 by a 1983 law; little since	The retirement trust fund projected to run out in late 2032, after which 78% of benefits are payable; the combined funds in 2034

System	Workers per pensioner	Reforms to date	The gap
Germany	About 2	Pension age rising to 67 by 2031; a 2025 law holds the benefit level at 48% of average pay to 2031	Contributions of 18.6% of wages, projected to rise
France	About 1.7	The 2023 law raising the age from 62 to 64, frozen at 62 years and 9 months until the end of 2027 by the 2026 social security budget	The budget fights that brought down two governments in 2024-25
Italy	About 1.4	Pension age of 67, indexed to life expectancy	Pension spending of about 15% of GDP, among Europe's highest
Japan	Under 2, falling	Benefits indexed below wages; employers must offer work to 65 and try to 70	The developed world's largest public debt relative to its economy
China	Under 3, falling fast	Ages rising from 60 to 63 for men and from 50 or 55 to 55 or 58 for women, from January 2025 over fifteen years	The urban workers' fund projected empty by 2035 in a 2019 Chinese Academy of Social Sciences study
South Korea	About 3, falling faster than anywhere else	Contributions rising from 9% to 13% of wages and the replacement rate set at 43% (March 2025)	Old-age poverty near 40%, the highest in the OECD

Social Security Trustees (June 2026); national pension authorities; OECD. Workers per pensioner are approximate and measured differently in each system.

Worked example — A Pension System's Break-Even

A pay-as-you-go system pays each pensioner a benefit equal to a share of the average wage, the replacement rate, and finances it with a contribution rate on every worker's wage, so it balances when the contribution rate equals the replacement rate divided by the number of workers per pensioner. With five workers per pensioner and a benefit of half the average wage, the rate is 0.5 divided by 5, or 10% of wages; at 2.5 workers per pensioner it is 20%. At 1.7, France's ratio today and where many rich countries are heading on their own births, it is 0.5 divided by 1.7, or 29%, a rate few electorates have accepted. Now price the exits at 1.7: cutting the benefit to 40% of the wage brings the rate to 24%. Raising the retirement age by about three years takes roughly 15% of pensioners off the rolls, and if half of them keep working, 1.78 workers support 0.85 pensioners, a ratio of about 2.1, and the rate is 24%. Admitting enough working-age migrants to hold the ratio at 2.5 keeps the rate at 20%, but it needs a workforce almost half as large again (2.5 divided by 1.7 is 1.47). Faster productivity growth leaves the rate unchanged but makes it bearable: if productivity lifts real wages by 1.5% a year for fifteen years, a worker keeps 71% of a wage 25% higher, which is about 89% of today's wage, against the 80% a worker keeps today at 2.5 workers per pensioner. That is the only exit without a loser, and the only one no government controls.

Governments have tried higher contributions, lower benefits, and later retirement, and found the political limit of each. France's rise from 62 to 64 brought the largest protests in a generation in 2023 and was frozen in late 2025 as the price of passing a budget, while China's increase, the first in decades, was announced in September 2024 and began in January 2025, phased over fifteen years. South Korea legislated higher contributions in March 2025 after years of deadlock, but in the United States Congress has not acted, and the law already provides for a cut of about a fifth when the retirement fund runs out in late 2032.

3c. Health and Care

Pensions are the visible bill, but health and long-term care can be the larger one, because health spending per person rises steeply with age and the fastest-growing age group in most rich countries is the over-80s. The World Health Organization (WHO) counted about 57 million people living with dementia in 2021, with nearly 10 million new cases a year. Much of the care is unpaid, given by spouses and by adult children, mostly daughters, many of whom cut their hours or leave work to give it, and that lost work is part of the bill that no budget shows.

3d. Japan as the Frontier

Japan has been where other rich countries are going for long enough to show what it looks like. Its population peaked in 2008 at about 128 million, and the 2025 census counted 123.0 million; on the register of residents, foreign residents passed 4 million and Japanese citizens fell by 917,000 in the year to January 2026. About 30% of the population is 65 or over, and 107,677 people were 100 or older in September 2026. In 2025 the country recorded 671,236 births against about 1.6 million deaths, and 9 million homes stood empty in the 2023 housing survey.

What Japan has done is adapt: just over half of people aged 65 to 69 work, and employers must offer work to 65 and try to offer it to 70. Japan has 446 industrial robots for every 10,000 manufacturing workers, fourth in the world after South Korea, Singapore, and Germany, and it raised the consumption tax to 10% in 2019, partly to pay for social security. It employed 2.57 million foreign workers in October 2025 under programs it avoids calling immigration. Life expectancy at birth is 81 for men and 87 for women, among the highest in the world.

What Japan has not done is reverse anything: fertility kept falling through every policy, the countryside empties while Tokyo grows, and the public debt is the largest of any rich country relative to its economy. Japan's lesson is double: a society can age without crisis, with order and rising living standards, but aging is a condition to manage, not a problem to solve, as Europe, China, and South Korea are now learning.

Module 3 Key Points

Aging

• Japan is 30% aged 65 or over, Italy 25%, the United States 18%, India 7%, and Nigeria 3%; the world's median age is 31.

• A pay-as-you-go pension balances when the contribution rate equals the replacement rate divided by workers per pensioner.

• As workers per pensioner fall toward two, the exits are higher contributions, lower benefits, later retirement, more workers, or faster productivity.

• In 2025 France froze its rise in the pension age, China began its first rise in decades, and South Korea legislated contributions rising to 13%.

• Japan shows aging can be managed without crisis, with older workers, robots, and foreign workers, but its citizens still fall by about 900,000 a year.

Module 3 Quiz

Check Your Understanding

1. In the worked example, what contribution rate balances a pension paying half the average wage with 1.7 workers per pensioner?

A) About 29% of every worker's wage
B) About 10%
C) About 20% of wages
D) About 50% of each wage

2. When does the Social Security retirement fund run out, on the Trustees' June 2026 report?

A) Not until 2041
B) Late 2032
C) Not before 2050, on current law
D) It already ran out in 2025

3. What did France do to its rise in the pension age in late 2025?

A) Repealed it and returned the age to 60
B) Froze it until 2028
C) Accelerated it to reach 64 by 2026
D) Raised the target from 64 to 67 by 2035

4. Which exit from the pension arithmetic does the module call the only one without a loser?

A) Faster growth in productivity
B) Cutting benefits
C) Raising the age
D) Admitting enough migrants to hold the ratio steady

5. What share of Japanese people aged 65 to 69 work?

A) About a tenth
B) About a quarter
C) Just over half of them
D) Nearly all

Module 4 — The Young World

The Half of the World Still Growing

Recommended Reading / Reference

Book: Edward Paice, *Youthquake: Why African Demography Should Matter to the World* (2021)

Reference: UN DESA, *World Population Prospects 2024*, the Africa projections; the African Development Bank's *African Economic Outlook*

4a. Africa

Measure	Now	2050, projected	Note
Population	More than 1.5 billion (2024)	About 2.5 billion, about a quarter of humanity	About 950 million added; Africa's share of the world rises faster than any other region's
Fertility	About 4.3 in sub-Saharan Africa (2024)	Falling, but still well above replacement	Around six in Niger, Chad, Somalia, and the Democratic Republic of the Congo; 4.8 in Nigeria; 2.4 in Egypt
Working-age population (20-64)	883 million (2024)	1.6 billion, almost a quarter of the world's	The largest addition of working-age people anywhere in the coming decades
Young people (15-24)	—	138 million more than in 2024	More young people looking for their first job every year
Nigeria	238 million (2025)	359 million, the fifth-largest country	477 million by 2100 on the UN's projection, more than the United States
Cities	Lagos and Kinshasa among the world's megacities	Addis Ababa and Dar es Salaam projected to pass 10 million	Module 8
Jobs	About 3 million formal jobs a year against 10-12 million young people entering the labor force	—	The gap is filled by informal work, farming, migration, and unemployment

UN DESA, *World Population Prospects 2024*, medium variant, via the UN Economic Commission for Africa (2024); UN DESA, *World Urbanization Prospects 2025*; the African Development Bank's jobs estimate; Nigeria's 2023-24 Demographic and Health Survey; Egypt's Health Ministry.

4b. The Dividend and the Bulge

The demographic dividend is the growth a country can earn while its working-age share rises, after the children of a baby boom have grown up and before the old become numerous, and it is not automatic. East Asia turned its dividend into the boom of 1965-2000 because it had the schools, the factories, the exports, and the savings to employ a generation, while much of Latin America and the Middle East captured far less of theirs, because the jobs did not come.

Africa's dividend is the largest on offer anywhere in the coming decades, since its working-age population rises by about 700 million between 2024 and 2050, but the evidence so far is mixed at best. Formal job

creation runs at perhaps a quarter or a third of the number of young people looking for work, on the African Development Bank's estimate, and the labor-intensive manufacturing that employed Asia's cohorts is being automated before it arrives at scale. Most young Africans work in farming or the informal economy, and some move to cities, to the migration routes north, or into the armed groups of the Sahel and the eastern Congo.

The 'youth bulge' is the political name for a large young population without enough work, and political scientists have found that such bulges raise the risk of unrest and conflict, though most young societies never revolt. The protests of 2025 fit the pattern: young protesters organized online toppled Nepal's government in September and helped bring down Madagascar's president in October, when the army took power, and others filled the streets of Morocco, Kenya, Indonesia, and the Philippines over corruption, jobs, and public services.

4c. India and the Middle East

Country	Population (2025)	Fertility	Median age	The question
India	1.46 billion, the largest; peaks at about 1.7 billion in the early 2060s	1.9 (2023): 1.2 in Delhi, 2.8 in Bihar	29	Jobs: about 7.85 million new non-farm jobs needed a year to 2030, on the government's estimate; the census, whose main count is in February 2027 after house-listing in April-September 2026, will count caste for the first time since 1931
Pakistan	255 million	About 3.5	21	One of the fastest-growing large countries; 40% of children under five stunted in the 2018 nutrition survey
Bangladesh	176 million	About 2	27	The transition's success story, from above six children in the 1970s
Egypt	118 million	2.41 (2024)	24	Births below 2 million in 2024 for the first time in nearly two decades
Iran	92 million	1.35	33	One of the fastest falls on record, from above six in the mid-1980s
Turkey	86 million	1.42 (2025)	34	2.28 million Syrians under temporary protection in 2026; about 650,000 returned after December 2024
The Gulf states	About 60 million, roughly half of them foreign residents	—	About 30	The world's most migrant-dependent societies (Module 5)
Indonesia; Philippines; Vietnam	286; about 115; 101 million	About 2.1; 1.9; 1.9	30; 26; 33	Dividends in progress; about 10 million Filipinos live abroad

UN DESA, *World Population Prospects 2024*; India's Sample Registration System and its *Economic Survey 2023-24*; Egypt's Health Ministry; Iran's and Turkey's statistics offices; Turkey's migration directorate (May 2026); UNHCR.

India passed China as the most populous country in 2023, and its fertility has already fallen below replacement, to 1.9 in 2023 on its own sample survey, though its population will still grow for about four decades on momentum, peaking at about 1.7 billion. The divide inside it is wide, with the southern states and the cities at European levels of fertility while Bihar and Uttar Pradesh remain above replacement. India's question is less how many people it will have than whether its economy can employ them, and the census, whose main count takes place in February 2027, will give the first full count since 2011.

The Middle East's transition has been among the fastest anywhere: Iran's fertility fell from above six children in the mid-1980s to about two by 2000, under a family-planning program the Islamic Republic itself promoted, and it is now 1.35, while Turkey's has more than halved since the early 1980s, to 1.42. Egypt, with 118 million people, is the region's large exception, but its births are now falling quickly, and the Gulf states are a different case altogether, with foreign workers and their families making up roughly half of their residents.

Module 4 Key Points

The Young World

• Africa has more than 1.5 billion people and will have about 2.5 billion by 2050, about a quarter of humanity, on UN projections.

• Africa's working-age population rises from 883 million to 1.6 billion by 2050, while formal jobs grow by about 3 million a year.

• The dividend is not automatic: East Asia turned its young workforce into growth with schools, factories, and exports, and others did not.

• Youth bulges raise the risk of unrest, and 2025's protests from Nepal to Madagascar fit the pattern, though most young societies stay stable.

• India's fertility is 1.9, below replacement, but it needs about 7.85 million non-farm jobs a year; Iran fell from above six to 1.35.

Module 4 Quiz

Check Your Understanding

1. On UN projections, about how many people will Africa have in 2050?

A) 1.6 billion
B) About 4 billion, half of humanity
C) About 1.8 billion, as fertility falls fast
D) About 2.5 billion

2. Which country is the world's fifth most populous in 2050 on the UN's medium projection?

A) Pakistan
B) Indonesia
C) Bangladesh
D) Nigeria

3. Roughly how many formal jobs does Africa create a year, against how many young entrants?

A) About 12 million, matching entrants
B) About 1 million, against 30 million entrants a year
C) About 3 million, against 10-12 million
D) About 20 million, more than the number of young entrants

4. What does the module say about youth bulges and unrest?

A) They raise the risk, but most young societies stay stable
B) They explain most revolutions since 1945
C) They have no measurable effect
D) They lower the risk, because young societies grow faster and give the young work

5. What was India's fertility rate on its 2023 sample survey, and what follows from it?

A) 2.8, still well above replacement
B) 1.9, below replacement, though the population grows for decades on momentum
C) 1.2, the lowest in Asia
D) 2.1, exactly at replacement nationally

Module 5 — Migration: The Numbers

Who Moves, Where, and Why

Recommended Reading / Reference

Book: Hein de Haas, *How Migration Really Works* (2023)

Reference: UN DESA, *International Migrant Stock 2024*; the International Organization for Migration (IOM), *World Migration Report 2026*; the World Bank's *Migration and Development* briefs

5a. The Stock and the Flows

Measure	Figure	Note
International migrants	About 304 million people living outside their country of birth, 3.7% of humanity (mid-2024)	Up from 154 million, 2.9% of humanity, in 1990; the share is the highest in the UN's records, though it has risen slowly
Where they live	Europe and North America 155 million (51%); North Africa and West Asia 54 million; sub-Saharan Africa 24 million; East and Southeast Asia 23 million; Central and South Asia 20 million; Latin America and the Caribbean 18 million; Australia and New Zealand 10 million	Half of all migrants live in Europe and North America
Largest hosts	United States 52 million, 17% of the world's migrants; Germany 16.8 million; Saudi Arabia 13.7 million; Britain 11.8 million; France 9.2 million	The United States has hosted the most for decades
Largest origins	India 18.5 million; China 11.7 million; Mexico 11.6 million; Ukraine 9.8 million; Russia 9.1 million	India's is the largest diaspora on earth
Migrants' share of population	Qatar 77% and the United Arab Emirates 74%, among the highest; Switzerland 31%; Australia 30%; Canada 22%; the United States 15%	Japan's foreign residents are about 3% of its population
Migrant workers	167.7 million in 2022, 4.7% of the world's labor force	International Labour Organization estimate
Remittances	About $729 billion to low- and middle-income countries in 2025 on IFAD's count; $685 billion in 2024 on the World Bank's, of about $905 billion in all	In 2024, more than foreign aid and foreign direct investment combined; India $129 billion, Mexico $68 billion, China $48 billion, the Philippines $40 billion, Pakistan $33 billion; about 45% of Tajikistan's economy
Refugees and asylum-seekers	About 51 million at the end of 2025	About a sixth of all migrants (Module 7)
Students abroad	6.9 million in 2024	United States 1.1 million, Canada 843,000, Britain 759,000, Australia 437,000
Unauthorized residents of the United States	About 14 million in 2023, a record	Pew Research Center; fewer since the enforcement of 2025-26 (Module 6)

UN DESA, *International Migrant Stock 2024*, via the Migration Policy Institute (August 26, 2025); International Labour Organization; IFAD (September 2026); World Bank; Institute of International Education; UNHCR; Pew Research Center (August 2025). Unauthorized migration is the least certain figure.

5b. The Corridors

Corridor	Size	Who moves and why	2025-26
Mexico and Central America to the United States	11.6 million Mexican-born people abroad, nearly all in the United States	Wages several times higher; family networks; in the early 2020s, Venezuelans, Haitians, and Cubans too	Border Patrol made 237,565 arrests at the southwest border in fiscal 2025, the fewest since 1970, and 89,760 in October 2025 to August 2026
South Asia to the Gulf	Tens of millions of Indians, Pakistanis, Bangladeshis, and Nepalis	Construction, services, and domestic work under the sponsorship (kafala) system; remittances that sustain whole regions	The American-Israeli war with Iran from February 28, 2026; Saudi Arabia's cuts to its giga-projects
Africa and the Middle East to Europe	1.14 million asylum applications in the EU, Norway, and Switzerland in 2023, the most since 2016; about 0.8 million in 2025	War in Syria, Sudan, and Afghanistan; poverty; the routes across the central Mediterranean, the Balkans, and the Channel	Applications falling; the EU's new asylum rules apply from June 12, 2026
Central Asia to Russia	Millions of Uzbeks, Tajiks, and Kyrgyz	Construction and services; remittances worth about 45% of Tajikistan's economy	Russia's wartime labor shortage against the backlash after the March 2024 Crocus City Hall attack
Venezuela to the rest of the Americas	About 7.9 million left after 2015; Colombia hosts about 2.8 million	Economic collapse and repression	Maduro's removal in January 2026 and the question of return
Ukraine to Europe	4.43 million under temporary protection in the EU in July 2026	The war, now in its fifth year	Protection extended to March 2028; new applicants must meet Ukraine's military-service rules
Afghanistan, Iran, and Pakistan	More than 6 million Afghans returned from Iran and Pakistan after September 2023	Expulsions and pressure to leave	The largest forced return of the decade (Module 7)
The skilled corridors	Indian engineers to the United States (Indians receive about 70% of H-1B work visas); students; nurses from the Philippines, India, and Nigeria to Britain and the Gulf	The global market for skills	A $100,000 fee on new H-1B petitions from September 2025; visa cuts in Britain, Canada, and Australia

UN DESA; US Customs and Border Protection; EU asylum agency; World Bank; UNHCR; Eurostat (September 10, 2026); US Citizenship and Immigration Services.

5c. Why People Move

• **Development raises emigration before it lowers it:** the poorest countries send relatively few migrants, because leaving costs money, so emigration rises as incomes grow, peaks at middle incomes, around $7,000-10,000 a person in purchasing-power terms on Michael Clemens's estimates, and falls as countries get rich, a pattern known as the 'migration hump.' Africa's coming emigration is therefore a likely consequence of its growth, not a sign of its failure.

• **Wages pull and networks steer:** the gap in pay between countries is the main motive, and the network of relatives and neighbors who went first decides the destination, which is why corridors persist for decades, from Turkey to Germany, from Mexico to the United States, and from the Philippines to the Gulf.

• **War and climate move fewer people across borders than often assumed:** refugees and asylum-seekers are about a sixth of international migrants, most displacement by floods, storms, and drought is internal and short-distance, and most migrants move for work, family, or study.

• **The share is at a high, but it has risen slowly:** the 3.7% living abroad is the highest share in the UN's records, up from 2.9% in 1990, and it still means that about 96% of people live in the country where they were born.

• **The economic effects are real but mostly modest:** reviews of the research, such as the US National Academies' in 2017, find small average effects on wages, with losses concentrated among earlier immigrants and workers without a high-school diploma. The effects on housing and local services are more visible, which is where much of the politics lies (Module 6).

• **Aid is a weak brake:** aid that raises incomes in poor countries is unlikely to cut emigration in the short run and may at first increase it, by the logic of the first point. What has cut migration quickly is raising its cost and closing its channels, which is what several rich countries did in 2025-26.

Module 5 Key Points

Migration: The Numbers

• About 304 million people, 3.7% of humanity, live outside their country of birth; the United States hosts 52 million.

• Remittances to low- and middle-income countries reached about $729 billion in 2025, more than foreign direct investment and over four times foreign aid.

• Corridors persist for decades on wages and networks: Mexico to the United States, South Asia to the Gulf, Africa and the Middle East to Europe.

• Emigration rises with development before it falls, peaking at middle incomes, because leaving costs money; the poorest countries send few.

• Refugees and asylum-seekers are about a sixth of migrants; most migrants move for work, family, and study.

Module 5 Quiz

Check Your Understanding

1. About what share of humanity lives outside its country of birth?

A) 2.4%
B) About 10% of humanity
C) About 3.7%
D) About a quarter, mostly in cities

2. Which country hosts the most international migrants?

A) Germany, 16.8 million
B) Saudi Arabia
C) The United Arab Emirates, where they are about three-quarters of residents
D) The United States, about 52 million

3. What does the 'migration hump' describe?

A) Emigration rising with income, then falling
B) Migration rising in war years and falling in peacetime cycles
C) The bulge of young adults among migrants compared with stay-at-homes
D) The seasonal peak in border crossings each spring, when farm work begins

4. How did remittances to low- and middle-income countries compare with other flows in 2024?

A) About a tenth of foreign aid
B) More than foreign aid and foreign direct investment combined
C) Roughly equal to foreign aid alone
D) About half of foreign direct investment

5. About what share of international migrants are refugees and asylum-seekers?

A) Half
B) About a sixth
C) About 2%
D) About two-thirds, after the wars of 2022-25

Module 6 — Migration: The Politics

The Turn of 2025-26

Recommended Reading / Reference

Book: Paul Collier, *Exodus: How Migration Is Changing Our World* (2013)

Reference: The National Academies of Sciences, Engineering, and Medicine, *The Economic and Fiscal Consequences of Immigration* (2017); Brookings' net-migration update (January 13, 2026); the CBO's *Demographic Outlook* (January 2026)

6a. The Turn, by Country

Country	Before	2025-26	Instruments
United States	Net immigration of 2.7 million in the year to July 2024; 2.1 million encounters at the southwest border in fiscal 2024; about 14 million unauthorized residents in 2023	Net immigration of 1.3 million in the year to July 2025, and for calendar 2025 between −295,000 and −10,000 on Brookings' estimate and +410,000 on the CBO's; 356,389 removals by Immigration and Customs Enforcement (ICE) in fiscal 2026 to July 21; detention at a record of about 73,000 in January 2026; border arrests the fewest since 1970 in fiscal 2025, and fewer still in fiscal 2026	Asylum closed at the border; faster removals; about $170 billion for enforcement and the border over four years (July 2025); travel bans; a $100,000 fee on new H-1B petitions; refugee ceilings of 7,500 for fiscal 2026 and 17,500 for fiscal 2027; National Guard deployments in several cities
United Kingdom	Net migration of 944,000 in the year to March 2023, a record, on work, student, and humanitarian visas	171,000 in 2025, with British citizens' net emigration of 136,000; 100,625 asylum claims, down 4%; 41,472 small-boat arrivals, after 36,816 in 2024 and a record 45,774 in 2022	Limits on dependants and higher salary thresholds from 2024; the overseas care-worker route closed in July 2025; the 'one in, one out' returns deal with France (August 2025); the Border Security, Asylum and Immigration Act (December 2, 2025); the Rwanda plan scrapped in July 2024
European Union	1.14 million asylum applications in the EU, Norway, and Switzerland in 2023, the most since 2016	About 0.8 million in 2025, the second fall in a row; the Pact on Migration and Asylum applied from June 12, 2026; a returns law allowing 'return hubs' outside the EU, approved by Parliament on June 17, 2026	Border screening and fast-track procedures; a mandatory but flexible solidarity mechanism; Germany's border controls since 2024; Italy's centers in Albania; Denmark's deterrent model, adopted by its Social Democrats
Canada	Population growth of about 3% in 2023, mostly temporary residents	Temporary residents cut to 6.6% of the population; reported quarterly declines erased by Statistics Canada's September 2026 revisions; about 41.8 million people	Caps on study permits from 2024; 380,000 permanent residents a year for 2026-28; a target of temporary residents below 5% of the population
Australia	Net overseas migration of 538,000 in 2022-23, a record	306,000 in 2024-25	Limits on student visas and higher fees
The Gulf states	About 30 million foreign residents, roughly half the population, most of them workers under the sponsorship (kafala) system	Labor reforms on paper; quotas for citizens' employment	Sponsorship rules, quotas, and fees

Country	Before	2025-26	Instruments
Japan and South Korea	The rich world's least migrant-dependent societies	Japan's foreign workers at a record 2.57 million in October 2025 and its foreign residents above 4 million; South Korea's seasonal and care visas expanded	New skilled-worker categories, without calling them immigration

Census Bureau (Vintage 2025); Brookings; CBO; ICE; Office for National Statistics and Home Office (2026); EU asylum agency; Statistics Canada; Australian Bureau of Statistics; Japan's Health Ministry.

6b. Why the Turn Came

• **Volume:** the flows of 2022-24 were among the largest in the rich world's history in absolute terms: 2.7 million net into the United States in a single year, 944,000 into Britain, 1.14 million asylum applications in the EU, Norway, and Switzerland, and about 3% of Canada's population in one year.

• **Housing:** rents and house prices rose with population in Canada, Australia, Britain, and Ireland, and the young blamed the newcomers; the research supports a local effect: Albert Saiz found that an inflow equal to 1% of a city's population raises its rents and house prices by about 1%.

• **The asylum channel:** many arrivals used asylum because it was the only route open to them, and slow decisions and few returns discredited the system with voters who accepted planned labor migration.

• **The vote:** Reform UK, the Alternative for Germany (AfD), France's National Rally, Austria's Freedom Party, and the American election of 2024 made control a condition of power, and center parties adopted tougher policies, though the far right's support often rose anyway.

• **Control more than numbers:** publics that reject the boats accept the visa, and in Gallup's June 2026 poll 73% of Americans said immigration is good for the country, while the share wanting less of it fell to 29%, from 55% in 2024, as the border closed.

6c. How Much Immigration? The Argument

The case for more: every rich country's working-age population is shrinking or about to, and its shortages are in the work migrants do, in care, construction, farming, and hospitality. Migrants arrive mostly as adults of working age, so they pay taxes before they draw pensions, and the CBO estimated that the surge of 2021-26, about 8.7 million people above the previous trend, would raise American output by $8.9 trillion and cut deficits by $0.9 trillion over 2024-34. The children of immigrants are among the strongest net contributors to public budgets.

The case for less: the gains are national, but the costs are local and fall on particular people, as rents rise where newcomers settle and schools, clinics, and transport are stretched before budgets catch up. Low-paid workers, including earlier immigrants, compete most directly with new arrivals, and while total output rises with population, what matters to residents is output per person, which rises much less. Collier adds that integration takes time, and that a country's consent depends on its sense of control over who arrives and how fast.

The evidence: the National Academies' 2017 review found small average effects on wages, with any losses concentrated among earlier immigrants and workers without a high-school diploma. It found fiscal effects that depend on age and education: positive for the skilled, negative at first for adults with little schooling, and strongly positive for the second generation. Saiz's work shows the housing effect is real and local, and surveys show that support depends on order, since Americans' wish for lower immigration fell sharply once the border was closed.

The course's reading: aging rich countries will need continued immigration to keep their workforces from shrinking, and the aggregate gains are real, but the costs are concentrated in housing and in particular places. The level a country can sustain is therefore set by how fast it builds homes and how visibly it controls entry, and the useful question is less how many than how fast, and who chooses.

Worked example — A Country That Needs Migrants and Votes Against Them

A rich country of 60 million has a fertility rate of 1.4, with 36 million people of working age (20-64) and 14 million aged 65 or over, an old-age ratio of 39 per 100. Each year about 800,000 people turn 65 and about 450,000 turn 20, so on its own births the working-age population shrinks by about 350,000 a year, while after deaths the population over 65 grows to about 17 million by 2036. Scenario one, the vote's demand, is zero net migration: by 2036 there are 32.5 million people of working age, and the ratio is 52. Scenario two is net migration of 350,000 a year, mostly aged 20 to 35, enough to hold the working-age population at 36 million, yet the ratio still rises to 47, and the newcomers form about 150,000 households a year, which the housing market must absorb. Scenario three, the compromise most governments chose, is 150,000 a year, giving 34 million of working age, a ratio of 50, and about 65,000 extra households a year. The lesson is that migration slows aging but cannot stop it, since even holding the workforce flat lets the ratio climb from 39 to 47; the choice was never between migration and none, but about the pace, the price in housing, and who decides.

Module 6 Key Points

Migration: The Politics

• American net immigration fell from 2.7 million (year to mid-2024) to 1.3 million; estimates for 2025 range from below zero to +410,000.

• Britain's net migration fell from 944,000 to 171,000 in under three years; the EU's asylum applications fell from 1.14 million to about 0.8 million.

• The turn came from record volumes, housing pressure, a discredited asylum channel, and voters who wanted control more than lower numbers.

• The gains from immigration are real in aggregate, while the costs fall on housing and particular places; the course reads the sustainable pace as housing-limited.

• Even holding the workforce flat, migration only slows aging: in the worked example the old-age ratio still rises from 39 to 47.

Module 6 Quiz

Check Your Understanding

1. What did the Census Bureau estimate for American net immigration in the year to July 2025?

A) About 3 million
B) Below zero
C) About 410,000
D) About 1.3 million, down from 2.7 million a year earlier

2. What did Albert Saiz's research find about immigration and housing?

A) Rents rise about 1% per 1% added to a city
B) No effect on rents
C) Rents fall, because immigrants build more housing than they use
D) Rents rise about 10% for each 1% inflow, mainly in the suburbs

3. What did Britain and France agree in August 2025?

A) A joint asylum court sitting in Calais to hear claims
B) A shared quota of skilled-worker visas for EU citizens
C) A 'one in, one out' returns deal
D) An agreement to process British asylum claims in Rwanda

4. In the worked example, what happens to the old-age ratio if migration holds the workforce flat?

A) It stays at 39
B) It falls to about 30
C) It still rises, from 39 to about 47 per 100 by 2036
D) It doubles to 78

5. What did Gallup's June 2026 poll find?

A) A majority wanted immigration cut, as in 2024 when 55% did
B) 73% said immigration is good for the country
C) Support for immigration fell to its lowest level since the 1990s
D) Most Americans wanted immigration stopped entirely until 2030

Module 7 — The Displaced

The People Who Did Not Choose to Move

Recommended Reading / Reference

Book: Alexander Betts and Paul Collier, *Refuge: Transforming a Broken Refugee System* (2017)

Reference: UNHCR, *Global Trends: Forced Displacement in 2025* (June 11, 2026); IDMC, *Global Report on Internal Displacement 2026* (May 12, 2026)

7a. The Count

Category	End of 2024	End of 2025	Note
Forcibly displaced, in all	123.2 million, a record, about one person in 67	117.8 million, down 5.4 million	The first fall in a decade, mainly on returns to Syria, Afghanistan, and Sudan, many of them under pressure
Refugees	42.7 million	41.6 million	28.5 million under UNHCR's mandate, 6 million Palestinians registered with the UN agency for Palestine refugees (UNRWA), and 7.2 million others in need of international protection, mostly Venezuelans
Asylum-seekers	8.4 million	9 million	Waiting for decisions on their claims
Displaced inside their own countries by conflict	73.5 million	68.7 million	Sudan, Colombia, Syria, the Democratic Republic of the Congo, Yemen, Myanmar, Ukraine, and Gaza
New displacements by disasters during the year	45.8 million	29.9 million	Mostly short and within borders, from floods and storms
Refugees resettled with UNHCR's help	116,000	About 37,000	Down about two-thirds, as the United States and others cut their programs; 2.37 million people are projected to need resettlement in 2027
UNHCR's funding	—	$3.9 billion of the $10.6 billion it sought, 37%	About 5,000 jobs cut

UNHCR, *Global Trends* (June 2026) and resettlement projections (June 16, 2026); IDMC (May 2026). The counts overlap and are revised.

7b. The Crises

Crisis	Displaced	Where they are	2026
Sudan	About 13 million, the world's largest displacement crisis: about 9 million displaced inside, from a peak near 12 million, and more than 4 million refugees abroad; about 4 million returned	Chad, Egypt, South Sudan, Uganda	Famine confirmed in El Fasher and Kadugli in November 2025; returns to a damaged Khartoum
Syria	4.9 million refugees abroad after 1.3 million returned in 2025; about 6 million displaced inside, after 2 million went home in 2025	Turkey 2.28 million (May 2026); Germany about 1 million; Lebanon; Jordan	Returns after Assad's fall in December 2024, into a country still short of housing, power, and work

Crisis	Displaced	Where they are	2026
Ukraine	About 3.9 million displaced inside (June 2026); 4.43 million under temporary protection in the EU	Germany 1.29 million, Poland 953,000, Czechia 395,000	The war's fifth year; protection in the EU extended to March 2028
Afghanistan	More than 6 million returned from Iran and Pakistan after September 2023, 2.9 million of them in 2025	Back in Afghanistan; millions more remain in Iran and Pakistan	The decade's largest forced return, into a country under the Taliban
Venezuela	About 7.9 million abroad	Colombia about 2.8 million; Peru, Brazil, Chile, and the United States	Maduro's removal in January 2026 and the question of return
Gaza	About 1.9 million, 90% of the population, displaced at least once	Inside the strip	A ceasefire since October 2025; a staged disarmament plan announced on July 30, 2026, not publicly accepted by Israel; reconstruction, estimated at $50-70 billion, waiting on it
Myanmar	About 3.5 million displaced inside; about 1.2 million Rohingya in Bangladesh	Cox's Bazar, the world's largest refugee settlement	The war's sixth year; monthly food aid cut from $12 to $7 a person from April 2026, with the most vulnerable kept at $12
The Democratic Republic of the Congo	9.7 million new displacements by conflict in 2025	The east, after the M23 (March 23 Movement) rebels took Goma and Bukavu in early 2025	The second-largest number of new conflict displacements in 2025, after Iran's during its June 2025 war with Israel

UNHCR; IOM (Sudan, Ukraine); IDMC; Eurostat (September 10, 2026); Turkey's migration directorate; the UN and World Bank (Gaza); the World Food Programme (Rohingya).

7c. The System Under Strain

The refugee system rests on four things: the 1951 Refugee Convention's promise that no one will be returned to persecution for their race, religion, nationality, political opinion, or membership of a social group; UNHCR's mandate to protect refugees; resettlement to third countries; and camps paid for by donors. It was built for Europe's postwar displaced, but UNHCR now counts more than 100 million people forcibly displaced, most of them by wars that do not end, and most refugees are hosted by poor and middle-income countries next door to the one they fled.

The strains of 2025-26 come from three directions. The first is money: UNHCR received $3.9 billion of the $10.6 billion it sought in 2025 and cut about 5,000 jobs after its largest donor, the United States, cut its funding, while the World Food Programme (WFP) cut rations in camps from Bangladesh to East Africa. The second is the resettlement channel, which shrank by about two-thirds in a year after the United States suspended refugee admissions in January 2025, later setting ceilings of 7,500 for fiscal 2026 and 17,500 for fiscal 2027, and other countries cut or suspended their quotas.

The third is returns under pressure: Afghans have been expelled from Iran and Pakistan in their millions, Syrians are leaving Turkey and Lebanon for a war-damaged country, and Sudanese are going back to a damaged Khartoum. Some of these returns are chosen and many are pushed by hunger, debt, or expulsion, and together they explain most of 2025's fall in the global count, which is why UNHCR greeted it with caution rather than relief.

7d. The Climate Question

The Convention protects people fleeing persecution, not floods or drought, and no institution has a mandate for people displaced by the weather, although IDMC counted 29.9 million new displacements by disasters in 2025 and 45.8 million in 2024, most of them short and within national borders. The World Bank's *Groundswell* report (2021) projected that up to 216 million people could move within their own countries by 2050 because of climate change, in its most pessimistic scenario. Such projections are as uncertain as every long-range population forecast, but their direction is clear: the countries most exposed to heat, drought, and floods are mostly young and growing, and their young are the people most likely to move.

Module 7 Key Points

The Displaced

• Forcibly displaced people fell to 117.8 million at the end of 2025, the first fall in a decade, mostly through returns, many under pressure.

• Sudan is the largest crisis: about 9 million displaced inside and more than 4 million abroad, with famine confirmed in El Fasher and Kadugli.

• More than 6 million Afghans returned from Iran and Pakistan after September 2023, the decade's largest forced return.

• UNHCR received 37% of the funds it sought in 2025, and resettlement fell from 116,000 people to about 37,000.

• Disasters caused 29.9 million new displacements in 2025, mostly within countries; the 1951 Convention does not cover such people.

Module 7 Quiz

Check Your Understanding

1. How many people were forcibly displaced at the end of 2025, on UNHCR's count?

A) About 50 million
B) 123.2 million, up 3 million, a new record
C) About 250 million, counting all migrants abroad
D) 117.8 million, down 5.4 million

2. Which is the largest displacement crisis in 2026?

A) Sudan's, with about 13 million displaced
B) Ukraine's
C) Syria's
D) Venezuela's, with nearly 8 million abroad since 2015 and more leaving

3. How did resettlement with UNHCR's help change between 2024 and 2025?

A) It doubled
B) It held steady at about 116,000 places
C) It rose after the United States raised its refugee ceiling
D) It fell by about two-thirds

4. Who hosts most of the world's refugees?

A) The United States and Europe, through resettlement programs
B) The Gulf states, through their sponsorship labor systems
C) Neighboring, mostly poorer countries
D) Australia and Canada, through their large humanitarian quotas

5. Whom does the 1951 Refugee Convention not cover?

A) People fleeing religious persecution
B) People displaced by floods or drought
C) Persecuted dissidents
D) Anyone who crosses a border without papers, whatever the reason

Module 8 — Cities and the Emptying Countryside

The Largest Migration of All

Recommended Reading / Reference

Book: Edward Glaeser, *Triumph of the City* (2011)

Reference: UN DESA, *World Urbanization Prospects 2025* (November 18, 2025); UN-Habitat, *World Cities Report 2026* (May 2026)

8a. The Numbers

Measure	Figure	Note
Where humanity lives	Cities 45%, towns 36%, and rural areas 19% of 8.2 billion people (2025)	On the UN's new harmonized measure, which classifies places by size and density the same way everywhere; national definitions, which differ by country, give 58% urban
Change since 1950	The cities' share has more than doubled; the towns' fell from 40%; the rural share roughly halved	The rural population is expected to peak in the 2040s and then decline
Megacities of 10 million or more	33 in 2025, up from 8 in 1975, 19 of them in Asia; 37 projected by 2050	Jakarta about 42 million, then Dhaka (almost 40 million) and Tokyo (33 million); Cairo, seventh, is the only city outside Asia in the top ten
Growth to 2050	Two-thirds of the world's population growth in cities, most of the rest in towns	Dhaka projected to become the largest city by mid-century; Tokyo to fall to seventh; Addis Ababa and Dar es Salaam to pass 10 million
Slums	About 1.1 billion people, about a quarter of city dwellers	Mostly in sub-Saharan Africa and South Asia
Housing	About 3.4 billion people, about 40% of humanity, affected by inadequate or unaffordable housing	UN-Habitat calls it a global housing crisis, in rich and poor countries alike
China's internal migrants	About 300 million rural migrant workers	Bound by household registration (hukou), which ties public services to a person's home district
India's internal migrants	About 450 million in the 2011 census, mostly within their own state	The 2027 census will give the first new count

UN DESA, *World Urbanization Prospects 2025*, summary and key messages, and press release (November 18, 2025); UN-Habitat, including *World Cities Report 2026*; China's National Bureau of Statistics; Census of India 2011.

Cities have lower fertility than the countryside almost everywhere, and below-replacement fertility outside much of Africa and parts of South Asia, so in most of the world they grow mainly by drawing people from the countryside and from abroad, and by absorbing villages as they spread. In Africa, natural increase still supplies much of their growth. The roughly 1.4 billion people the world adds by 2050 will live mostly in the cities and towns of Africa and South Asia, which must build housing, water, and transport faster than any cities have before. The rural population, which the UN now expects to peak in the 2040s, is already falling in most rich countries and in China.

8b. The Emptying

The other side of urbanization is the countryside it leaves behind, and in low-fertility countries it has reached a condition with little precedent: regions that do not repopulate. A 2024 study by Japan's Population Strategy Council found that 744 of the country's 1,729 municipalities could disappear by 2050, as their women aged 20-39 fall by half or more, and Japan's 2025 census found 45 of its 47 prefectures shrinking, with Akita down 8.1% in five years, while Tokyo grew 1.4%. Schools, clinics, bus routes, and shrines close in a sequence that speeds up once the young have gone.

Eastern Europe is the continent's sharpest case: Bulgaria has fallen from about 9 million people in 1989 to 6.42 million, Latvia has lost about 30% of its people since 1990, and Lithuania more than a fifth, as emigration to the west added to low fertility. Inland Spain, Italy's south, rural France and Germany, and the American Great Plains and Appalachia follow the same curve, and about half of American counties lost population in 2010-20. Meanwhile the capitals keep growing, so that the Seoul region holds about half of South Korea's people and Tokyo grows while Japan shrinks.

Place	Population change	Cause	Response
Bulgaria	About 9 million (1989) to 6.42 million at the end of 2025, down more than a quarter	Emigration west; one of the EU's highest death rates, at 15.5 per 1,000; fertility of 1.63 in 2025	EU funds; net immigration of about 35,000 in 2025
The Baltic states	Latvia down about 30% since 1990, Lithuania more than 20%	Emigration to Britain, Ireland, and the Nordic countries after EU entry in 2004	Return programs; Ukrainian refugees partly filled the gap
Japan's regions	744 of 1,729 municipalities could disappear by 2050; Akita down 8.1% in 2020-25	Fertility of 1.14; the young leave for Tokyo	Regional revitalization grants; mergers of towns; foreign workers
Inland Spain	Municipalities with fewer than 12.5 people per square kilometer cover 48% of the land; the 6,815 municipalities under 5,000 people hold 12% of the population	The move to the cities and the coast after the 1950s; fertility of 1.10	Rural broadband, tax breaks, and settlement programs for immigrants
Italy's south	A net loss of about 1.1 million people to migration in 2002-21, including 808,000 under 35, on the count of SVIMEZ, the South's development research association	Emigration to the north and abroad; Italy's deaths exceed its births by about 296,000 a year	One-euro houses and tax incentives to return; SVIMEZ projects the south losing more than 8 million residents by 2080
Rural America	About half of counties lost population in 2010-20, especially on the Plains and in Appalachia	The young move to the metro areas; overdose deaths	Opportunity zones; remote work's brief reversal in 2020-22; the immigrant meatpacking towns as exceptions
China's villages	Natural villages fell from about 3.6 million in 2000 to about 2.4 million in 2017	About 300 million rural migrant workers; fertility near 1	'Rural revitalization' programs
Ukraine	48.5 million at the 2001 census; about 29 million in government-held territory in 2026	War, occupation, emigration, and fertility near 1	Reconstruction as the condition for return

Bulgaria's National Statistical Institute (April 2026); Japan's Statistics Bureau (May 2026); Spain's government (2020 count); SVIMEZ (December 2023); Census Bureau; China's official village counts as reported; Ella Libanova, Ukraine's Institute of Demography (July 17, 2026).

What a region does when it empties is the same almost everywhere: it merges towns and services, lets farmland return to forest, and tries the policies in the table, from Japan's revitalization grants to Italy's one-euro houses. None has reversed a decline, because the causes, low fertility and the pull of the cities, are stronger than any subsidy, and the end state, already visible in Japan, is a country of a few large cities and a landscape slowly returning to nature.

Module 8 Key Points

Cities and the Emptying Countryside

• 45% of humanity lives in cities, 36% in towns, and 19% in rural areas on the UN's new measure; there are 33 megacities.

• Outside Africa, cities grow mainly by drawing people from the countryside and abroad; the world's rural population peaks in the 2040s.

• Japan's 2024 study found 744 of 1,729 municipalities could disappear by 2050; its 2025 census found 45 of 47 prefectures shrinking.

• Bulgaria has lost more than a quarter of its people since 1989, Latvia about 30%, and about half of American counties shrank in 2010-20.

• No policy has reversed a regional decline, because low fertility and the pull of the cities are stronger than any subsidy.

Module 8 Quiz

Check Your Understanding

1. On the UN's harmonized measure, how was humanity split in 2025?

A) 45% in cities, 36% in towns, and 19% in rural areas
B) 58% urban, 42% rural
C) Half in cities, half not
D) 70% in cities, 30% elsewhere

2. When does the UN expect the world's rural population to peak?

A) It peaked in the 1990s
B) In the 2040s
C) Not until the 2080s, with the world
D) In 2026, as cities absorb all growth

3. What did Japan's 2024 Population Strategy Council study find?

A) Tokyo would shrink fastest
B) Every one of the 47 prefectures would grow
C) Remote work had refilled the villages
D) 744 of 1,729 municipalities could disappear by 2050 as young women leave

4. How much of its population has Bulgaria lost since 1989?

A) About 5%
B) About half
C) More than a quarter, to 6.42 million
D) It grew, with returning emigrants and refugees from Ukraine

5. According to the module, why has no subsidy reversed a regional decline?

A) Low fertility and the cities' pull are stronger
B) The subsidies were too new
C) The regions refused the money because of local politics and pride
D) The subsidies went mostly to the cities rather than to the villages

Module 9 — The Economics

Growth, Labor, and Money

Recommended Reading / Reference

Book: Paul Morland, *Tomorrow's People: The Future of Humanity in Ten Numbers* (2022)

Paper: Jesús Fernández-Villaverde, Gustavo Ventura, and Wen Yao, 'The Wealth of Working Nations' (2023); Charles Jones, 'The End of Economic Growth? Unintended Consequences of a Declining Population,' *American Economic Review* (2022)

Reference: International Monetary Fund (IMF), *World Economic Outlook* (April 2025), chapter 2, 'The Rise of the Silver Economy'

9a. The Channels

Channel	Mechanism	Evidence and the 2026 reading
Labor supply	Output is workers times output per worker, so fewer workers subtract from growth directly	Japan's real growth has averaged well under 1% a year since the mid-1990s; China's population aged 16-59 is down about 60 million since 2015; America's workforce growth now depends on immigration
The dividend and its end	A rising share of working-age people adds to growth, and a falling share subtracts	East Asia's boom; India's dividend now; Africa's if the jobs come; Europe's and China's are over
Savings and interest rates	Workers save and retirees spend down their savings; Goodhart and Pradhan argue that the boomers' saving held rates down and their retirement will push them up	Contested: Japan aged for decades with falling rates; long-term rates have risen since 2022, with the ten-year Treasury yield at 5.24% in October 2026, for many reasons besides demography
Inflation	Fewer workers and more consumers can push up wages and prices, but the old spend less, which can push the other way	Labor shortages in care and construction; Japan's two decades of falling prices and China's near-zero inflation of 2023-25
Productivity	Capital, automation, and artificial intelligence (AI) substitute for missing workers; older workforces may adopt new ideas more slowly	South Korea has 1,220 industrial robots per 10,000 manufacturing workers, the world's highest density; AI's effect is the largest unknown
Housing	Each cohort's size drives demand for homes when it forms households	Japan's 9 million empty homes; shortages in the growing cities; a mismatch of place more than of number
Public finance	Pensions, health, and care rise with the share of the old while the tax base shrinks	Japan carries the largest public debt of any rich country relative to its economy; American federal debt is about $40 trillion
Migration	Migrants add workers, taxpayers, and demand; the fiscal effect depends on age and skills	The CBO found the 2021-26 surge would add $8.9 trillion to output and cut deficits by $0.9 trillion over 2024-34

National statistics offices; International Federation of Robotics (April 2026); CBO (July 2024); Treasury market data (October 9, 2026).

9b. Growth With a Shrinking Population: The Argument

The pessimists' case: fewer workers mean slower growth, and more pensioners mean heavier taxes on a shrinking base, and the IMF estimated in April 2025 that demographic change would cut world output growth by about 1.1 percentage points a year through 2050, compared with the recent past. Goodhart and Pradhan add higher interest rates and inflation as the boomers stop saving, and the economist Charles Jones makes

the deepest version of the case: new ideas come from people, so a shrinking population may produce fewer of them, and growth in living standards could slowly stall.

The optimists' case: what matters for living standards is output per person, not total output, and capital, automation, and AI can substitute for missing workers, while healthier aging lets people work longer. The IMF found that a 70-year-old in 2022 had the cognitive ability of a 53-year-old in 2000, so 'the 70s are the new 50s.' Japan is the test, and it has passed it better than its reputation suggests: Fernández-Villaverde, Ventura, and Yao found that its output per working-age adult grew 1.5% a year in 2008-19, faster than America's 1.3%.

The evidence: the effect on totals is nearly mechanical and already visible, since Japan's economy has grown slowly for three decades while its weight in the world has shrunk. The effect on output per person has been far smaller, and so far a shrinking workforce has not stopped rich countries from getting richer per head, while the IMF's own estimates find that healthier aging, later retirement, and more women at work could recover a large part of the demographic drag. Jones's worry about ideas is a long-run argument that no country has yet tested.

The course's reading: a shrinking workforce lowers the growth of total output, and with it a country's markets, tax base, and weight in the world, but output per working-age adult can keep rising, as Japan shows. The long-run risk the evidence cannot yet settle is fewer people producing fewer ideas, and whether AI and automation offset that is the variable no one can forecast, one that matters more to the arithmetic than any birth rate.

Worked example — The Growth Arithmetic of a Shrinking Workforce

Output growth is roughly the growth of the workforce plus the growth of output per worker, so take two countries whose output per worker rises 1.5% a year. In country A, like Japan, the workforce shrinks 0.7% a year and the population 0.5%, so its output grows about 0.8% a year and its output per person about 1.3%, the 0.8% plus 0.5% because there are fewer people to share it. In country B, like the United States with immigration, the workforce and the population both grow 0.5% a year, so its output grows about 2.0% and output per person about 1.5%. Over twenty years, B's output rises 49% and A's only 17%, so B's economy, its tax base, and its weight in the world pull far ahead. But output per person rises 35% in B and 29% in A, a much smaller gap, and A's gap comes entirely from aging, as its workers become a smaller share of its people. Now suppose AI adds one point a year to A's productivity: its output grows 1.8% a year and its output per person 2.3%, faster than B's 1.5%, which is why productivity, not fertility, decides whether a shrinking country grows richer.

Module 9 Key Points

The Economics

• Demography reaches the economy through labor supply, the dividend, savings and rates, inflation, productivity, housing, public finance, and migration.

• A shrinking workforce lowers total output growth almost mechanically; output per person suffers much less, as Japan's record shows.

• Japan's output per working-age adult grew 1.5% a year in 2008-19, faster than America's 1.3%, on Fernández-Villaverde, Ventura, and Yao's figures.

• The pessimists add fiscal strain and, in Jones's argument, fewer ideas; the course reads totals as hurt and income per person as resilient.

• Productivity, including automation and AI, is the variable that most changes the arithmetic, and the one no one can forecast.

Module 9 Quiz

Check Your Understanding

1. What did 'The Wealth of Working Nations' find about Japan in 2008-19?

A) Output per person fell
B) Its total output grew fastest among rich countries
C) Its workforce grew, thanks to record immigration and later retirement
D) Output per working-age adult grew faster than America's

2. In the worked example, how fast does country A's output grow, with its workforce shrinking 0.7% a year and productivity rising 1.5%?

A) About 2.2% a year, the two added together
B) About 0.8% a year
C) About −0.7% a year, the workforce's fall alone
D) About 1.5% a year, since productivity decides everything

3. What is Goodhart and Pradhan's thesis?

A) Aging permanently lowers interest rates
B) Migration has no effect on wages or prices
C) The boomers' saving held interest rates down, and their retirement will push rates and inflation up
D) Rates are set by central banks alone

4. What is Charles Jones's worry about a shrinking population?

A) Fewer people produce fewer new ideas
B) Higher pension costs
C) Interest rates will fall below zero and stay there for good
D) Cities will empty faster than the countryside, wasting their infrastructure

5. What did the CBO estimate the 2021-26 immigration surge would add to American output over 2024-34?

A) $89 billion
B) About $8.9 trillion
C) $0.9 trillion
D) About $40 trillion, the size of the federal debt

Module 10 — Demography and Power

Reading the Numbers Strategically

Recommended Reading / Reference

Book: Peter Zeihan, *The End of the World Is Just the Beginning* (2022); Jennifer Sciubba, *8 Billion and Counting* (2022)

Reference: UN DESA, *World Population Prospects 2024*; the CBO's *Demographic Outlook* (January 2026)

10a. The Powers

Power	Population (2025)	Peak	2050	2100	Strategic reading
China	1.42 billion (1.405 billion on its own count)	2021	1.26 billion	633 million	Its population aged 16-59 is down about 60 million since 2015; the 2020s and 2030s are its window before the workforce shrinks much faster
India	1.46 billion	About 1.7 billion in the early 2060s	1.68 billion	1.5 billion	The century's largest workforce, if it can employ it
United States	347 million	Growth stops in 2056 on the CBO's projection; the UN has it growing to 2100	381 million (UN)	421 million (UN)	The only rich great power still growing, and its growth depends on immigration
European Union	452 million (January 2026)	About 453 million in 2026, on Eurostat's 2023 projection	—	About 420 million	Growth by migration or not at all
Russia	144 million (146 million with Crimea, on Russia's count)	About 148 million in 1993	136 million	126 million	1.22 million births in 2024, the fewest since 1999; an army recruited from small cohorts
Japan	123 million	About 128 million in 2008	105 million	77 million	The frontier of decline, managed
South Korea	51.8 million	2020	45 million	22 million	The fastest-aging large society; an army already shrinking
Nigeria	238 million	After 2100	359 million, fifth largest	477 million	Weight without, so far, the economy to carry it
Pakistan; Ethiopia; Democratic Republic of the Congo	255; 135; 113 million	After 2100	372; 225; 218 million	511; 367; 431 million	The young giants, none yet able to employ all its young

UN DESA, *World Population Prospects 2024*, medium variant, via France's National Institute for Demographic Studies (INED); national statistics; CBO (January 2026); Eurostat.

10b. What the Numbers Mean for Power

• **Armies:** a country recruits from its 18-year-olds, and those cohorts are shrinking across the rich world, in China, and in Russia. Russia pays large enlistment bonuses, Germany has passed a new military-service law, and South Korea's active forces have fallen to about 450,000, with drones partly a

substitute for the missing soldier.

• **Markets:** a country's weight in trade and finance follows its workers and consumers, and China's shrinking workforce and India's growing one are the century's largest shift in economic weight, with Africa's rise perhaps the next.

• **The window argument:** a power whose demography is turning may act before it weakens, as Hal Brands and Michael Beckley argued about China in *Danger Zone* (2022). The counter-argument, which Mark Haas called a 'geriatric peace,' is that aging societies are cautious and that the cost of their pensions crowds out their armies.

• **The migration edge:** because of immigration, the United States has kept growing while China, Russia, and Japan began to shrink and the EU grows only through migration. The CBO's January 2026 projection, with lower immigration and fertility, has deaths exceeding births from 2030 and growth ending in 2056, and without immigration the population would shrink from 2030.

• **Peak humanity:** the UN expects the world's population to peak at about 10.3 billion in the mid-2080s, the Wittgenstein Centre at about 10.1 billion in 2080, and IHME at 9.7 billion in 2064. If world fertility is already below replacement, as the September 2026 study argues, the earlier dates become more likely.

10c. Is Demography Destiny? The Argument

The case that it is: Peter Zeihan argues that aging and shrinking populations will undo the economies of China, much of Europe, and Russia, while the United States, with more young people and immigrants, keeps its strength. Nicholas Eberstadt has long argued that China's and Russia's demographic decline will constrain their power. On this reading, the size of a country's workforce sets the ceiling on its economy, its tax base, and its army, and no policy can move the numbers fast enough to matter.

The case that it is a trend, not a fate: Jennifer Sciubba argues that demography shapes what countries can do but does not decide it, because policy, institutions, and productivity determine how a country handles its numbers. Japan has shrunk for nearly two decades and remains rich, stable, and technologically advanced, and China's workforce is shrinking while its output per worker keeps rising. A young population without jobs is a liability rather than an asset, as much of the young world shows.

The evidence: the size of an economy does follow its population over time, as Japan's loss of second place to China in 2010 showed, and armies shrink with their cohorts, as South Korea's has. Yet Japan's people kept getting richer per head, and it remains a major power in technology and finance, while young countries have not converted their numbers into power without schools, investment, and institutions. **The course's reading:** demography is close to destiny for the size of economies, markets, and armies, and a trend for living standards, which institutions and productivity decide, so the shrinking powers will lose weight relative to the growing ones unless they add workers through immigration or output through productivity.

Module 10 Key Points

Demography and Power

• China peaked in 2021, and the UN projects it at 633 million in 2100; India peaks at about 1.7 billion in the early 2060s.

• The United States is the only rich great power still growing, and its growth depends on immigration; the CBO sees growth ending in 2056.

• The window argument says a peaking China is dangerous now; the geriatric-peace argument says aging societies are cautious.

• Peak humanity comes between 2064 and the mid-2080s on the major projections, and earlier if fertility is lower than the UN assumes.

• The course reads demography as close to destiny for the size of economies and armies, and as a trend for living standards.

Module 10 Quiz

Check Your Understanding

1. What does the UN project for China's population in 2100?

A) About 633 million, less than half today's
B) 1.2 billion
C) About 1.26 billion
D) Roughly 900 million

2. When does American population growth stop, on the CBO's January 2026 projection?

A) 2030
B) Not this century, on immigration
C) In 2056
D) Already, in 2025, as deportations rose

3. What is the 'window' argument about China?

A) China will grow younger as its fertility rebounds after 2030
B) A shrinking China will close its borders to trade and capital
C) China's huge army offsets any decline in its workforce
D) A peaking power may act before it weakens

4. What does the course conclude about whether demography is destiny?

A) Pure destiny: the young always win
B) Irrelevant: technology decides everything
C) Destiny only for countries without immigration
D) Close to destiny for the size of economies and armies, a trend for living standards

5. What is the 'geriatric peace' argument?

A) Old leaders start wars
B) Aging societies tend to be cautious
C) Pension costs force aging states to disarm completely
D) Peace treaties now include pension guarantees for veterans of both sides

Module 11 — Where Things Stand, and What to Watch

The Argument, the Turning Points, and the Dates

Recommended Reading / Reference

Book: Sarah Harper, *How Population Change Will Transform Our World* (2016)

Reference: The annual birth and death releases of the national statistics offices; UNHCR's mid-year and annual counts; the next edition of UN DESA's *World Population Prospects*

11a. The Argument in One Page

Humanity is at or near the point where it no longer replaces itself: on the UN's estimate world fertility is 2.23 children per woman in 2026, barely above the roughly 2.2 the world needs, and on a September 2026 study it is already below. Either way, the turn took a century of modernization to produce, as children became expensive, girls went to school and women to work, cities replaced villages, contraception made each child a choice, and adults came to want other things as well. No government has reversed the fall once fertility dropped far below replacement: not Hungary's tax exemptions, not South Korea's 360 trillion won, and not the Nordic welfare states.

The consequences arrive slowly and then all at once: more than half of all countries, home to about two-thirds of humanity, are below replacement on the UN's figures, and the world's median age is 31. The pension, the hospital, and the workforce of every rich country run the same arithmetic as workers per pensioner fall toward two. The births that remain are concentrating in Africa, whose working-age population rises by about 700 million by 2050 while formal jobs grow by about 3 million a year.

The second fact of the decade is political: in 2025-26 the countries that most need migrants (the United States, Britain, much of Europe, Canada, and Australia) cut their intake sharply, on volume, housing, and a discredited asylum channel, and each settled on a mix of cutting and admitting that it rarely names. Meanwhile 117.8 million people were displaced by force at the end of 2025, in a system funded at 37% of its needs. The century belongs to an older, more urban species that stops growing, and the countries that manage the transition well, with productivity, institutions, housing, and the migrants they choose to admit, will keep their weight in it.

11b. Seven Turning Points and One Lesson

When	Turning point	What it showed
About 1804	Humanity reaches 1 billion	Deaths had begun to fall, and growth accelerated
1960s	World growth peaks above 2% a year	The surge that produced the population scares
1972	American fertility falls below replacement, after much of Europe's	The fifth stage arrives in rich countries, ahead of the theory
1980	China's one-child policy	Coercion was not what cut fertility; development was
2012	World births peak at about 146 million	The number of babies turns, decades before the population does
2021-23	China peaks; India passes it; South Korea's fertility reaches 0.72	The great powers' demography turns

When	Turning point	What it showed
2025-26	The rich world's turn against migration; the first fall in forced displacement in a decade; a study puts world fertility below replacement	The political consequences arrive

The lesson: each turning point was missed by the forecasts of its moment, which extrapolated the curve they stood on, and while the direction of world population is now agreed, its pace is argued. Policy has proved far better at moving people across borders than at moving the number of births.

11c. Five Contradictions

- **Wanted and had:** people say they want more children than they have, yet the money that would seem to close the gap barely moves births.
- **Needed and rejected:** the countries whose workforces most need migrants have turned against them, and they resolve it by admitting workers they rarely call immigrants.
- **Young and idle:** the half of the world still growing adds young workers faster than it adds jobs, and the surplus goes into informal work, migration, and sometimes protest.
- **Old and stable:** the oldest societies are among the calmest and the richest per head, and also the least able to grow, defend, or renew themselves; Japan is both the warning and the reassurance.
- **Shrinking and crowded:** the species slows while its cities grow, and rich countries have empty homes in one place and housing shortages in another.

11d. What the Arguments Share

The course has argued five questions, each after making the opposing cases: why fertility fell (Module 2), whether policy can raise it (Module 2), how much immigration a rich country should admit (Module 6), whether a shrinking population must grow slowly (Module 9), and whether demography is destiny (Module 10). The thread through them is that the totals are close to fixed for decades by births that have already happened, while what those totals mean for people depends on choices. Productivity, institutions, the supply of housing, and the management of migration decide whether an aging country stays prosperous and whether a young one turns its numbers into growth. The numbers set the problem, and the choices set the price.

11e. What to Watch

When	What	Why it matters
November 3, 2026	The American midterm elections	Immigration enforcement, the refugee ceiling, and the H-1B fee are on the ballot in effect
Late November 2026	Britain's net migration for the year to June 2026 (Office for National Statistics)	Whether the fall from 944,000 continues toward zero
Early 2027	The 2026 births in China, South Korea, Japan, Europe, and the United States	Whether South Korea's rebound holds and China's births fall again from 7.92 million
February 2027	India's census enumeration, with a reference date of March 1, 2027	The first count since 2011, and the first to record caste since 1931
2027	The EU's returns law, if adopted, applying in stages; Canada's target of temporary residents below 5% of the population	Whether Europe's new system raises returns, and whether Canada's cuts hold

When	What	Why it matters
The next edition	UN DESA's next *World Population Prospects* (the 2024 edition is still the latest)	Whether the UN lowers its fertility estimates, as the 2026 study argues it should, and moves the peak earlier
March 4, 2028	The EU's temporary protection for Ukrainians expires unless extended again	The return question for about 4.4 million people
2030	The American and Chinese censuses	The counts that show how far the projections missed
Last quarter of 2032	Social Security's retirement fund runs out on the Trustees' projection; the combined funds in 2034	A cut of about a fifth in law, or the reform that prevents it
2050	Africa's working-age population reaches about 1.6 billion; Nigeria becomes the fifth-largest country	The young world's weight, with or without the jobs
Mid-2080s	Peak humanity on the UN's projection; earlier on others	The first sustained fall in world population since the Black Death

11f. The Last Word

The throughline of eleven modules is the transition every society passes through, from many births and many deaths to few of each, and its last stage, the one the theory did not predict, is the one this century will be lived in: fertility below replacement that stays there. Its numbers are the ones every other subject rests on, deciding the pension that must be paid, the workforce that must be found, the region that empties, the army that must recruit, the housing that is in the wrong place, and the migration that the rich world's arithmetic requires and its politics resists.

The course ends where the species stands: near replacement or below it, older than it has ever been, and moving across borders less freely than a few years ago. The numbers are mostly set for decades, but how well each country lives with them is not, and that depends on what it does about productivity, homes, and the people it admits.

Module 11 Key Points

Where Things Stand, and What to Watch

• Humanity is at or near replacement: the UN puts world fertility at 2.23, a September 2026 study below 2.2.

• Seven turning points, from 1 billion in 1804 to the migration turn of 2025-26, were each missed by forecasts that extrapolated the curve.

• Five contradictions: wanted and had, needed and rejected, young and idle, old and stable, shrinking and crowded.

• The numbers set the problem for decades; productivity, institutions, housing, and the management of migration set the price.

• Watch the 2026 births, India's census in February 2027, the UN's next revision, and Social Security's date in late 2032.

Module 11 Quiz

Check Your Understanding

1. On the UN's estimate, what is world fertility in 2026?

A) About 2.23
B) About 3.0, as in 1990
C) About 1.5, like Europe
D) Roughly 2.19

2. Which of the course's contradictions describes the rich world's response to migration?

A) Wanted and had: births people want
B) Old and stable: calm aging societies
C) Needed and rejected: workers wanted, migrants refused
D) Shrinking and crowded: fewer people but too few homes in the growing cities

3. When is the main count of India's census, its first since 2011?

A) February 2027
B) 2025
C) It was cancelled until after 2031
D) April 2030, with the American count

4. Until when does the EU's temporary protection for Ukrainians now run?

A) 2029
B) March 2027
C) Indefinitely, until the war ends and Ukraine is rebuilt
D) March 4, 2028

5. What does the course's last word say decides how well each country lives with its numbers?

A) The size of its army
B) Its share of the world's trade
C) Productivity, homes, and the people it admits
D) Raising its birth rate back to replacement

Answer Sheet

Answers to every module's Check Your Understanding quiz.

Module	Answers
Module 1 Quiz	1. C 2. B 3. A 4. D 5. A
Module 2 Quiz	1. C 2. B 3. D 4. C 5. D
Module 3 Quiz	1. A 2. B 3. B 4. A 5. C
Module 4 Quiz	1. D 2. D 3. C 4. A 5. B
Module 5 Quiz	1. C 2. D 3. A 4. B 5. B
Module 6 Quiz	1. D 2. A 3. C 4. C 5. B
Module 7 Quiz	1. D 2. A 3. D 4. C 5. B
Module 8 Quiz	1. A 2. B 3. D 4. C 5. A
Module 9 Quiz	1. D 2. B 3. C 4. A 5. B
Module 10 Quiz	1. A 2. C 3. D 4. D 5. B
Module 11 Quiz	1. A 2. C 3. A 4. D 5. C