Low Birth Rates: Good for the Planet, Good for People

POPULATION CONNECTION

Population and Environment

Hannah Evans, Senior Analyst

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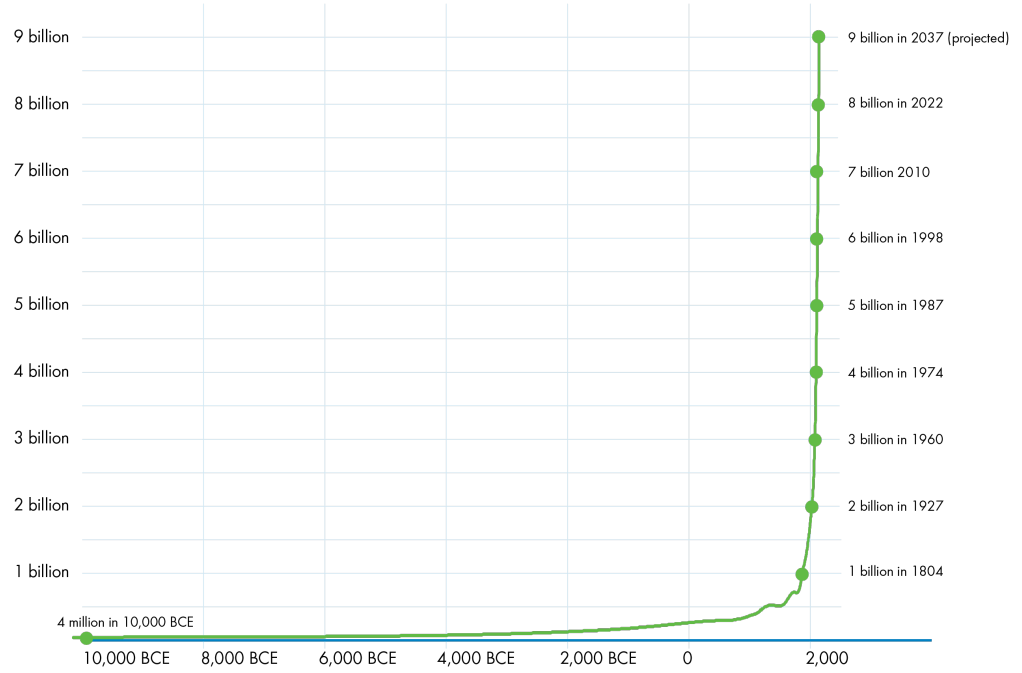
Population & environment

- 8 Billion Milestone, 2023
  - A blessing or a curse?
- Human Impacts on the Environment
  - Agriculture
  - Mining
  - Industrial Infrastructure
  - Urban Development
- Climate Change
- 6th Mass Extinction

Population growth throughout history

World Population Milestones Over 12,000 Years of Human History



Estimates and projections from the History Database of the Global Environment (HYDE) and the United Nations Population Division
Design based on a visualization created by OurWorldinData.org

popconnect.org

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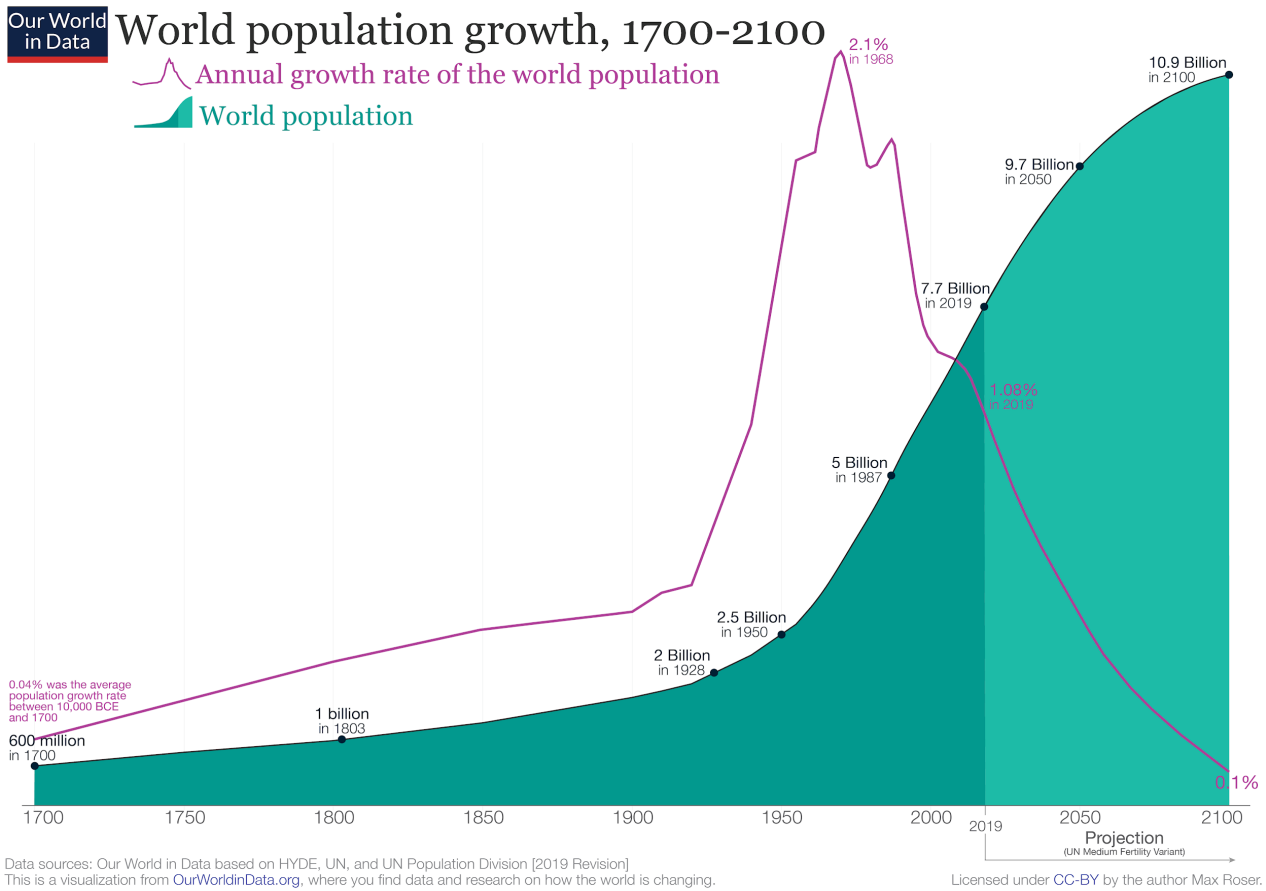
Population growth rate vs. actual population growth



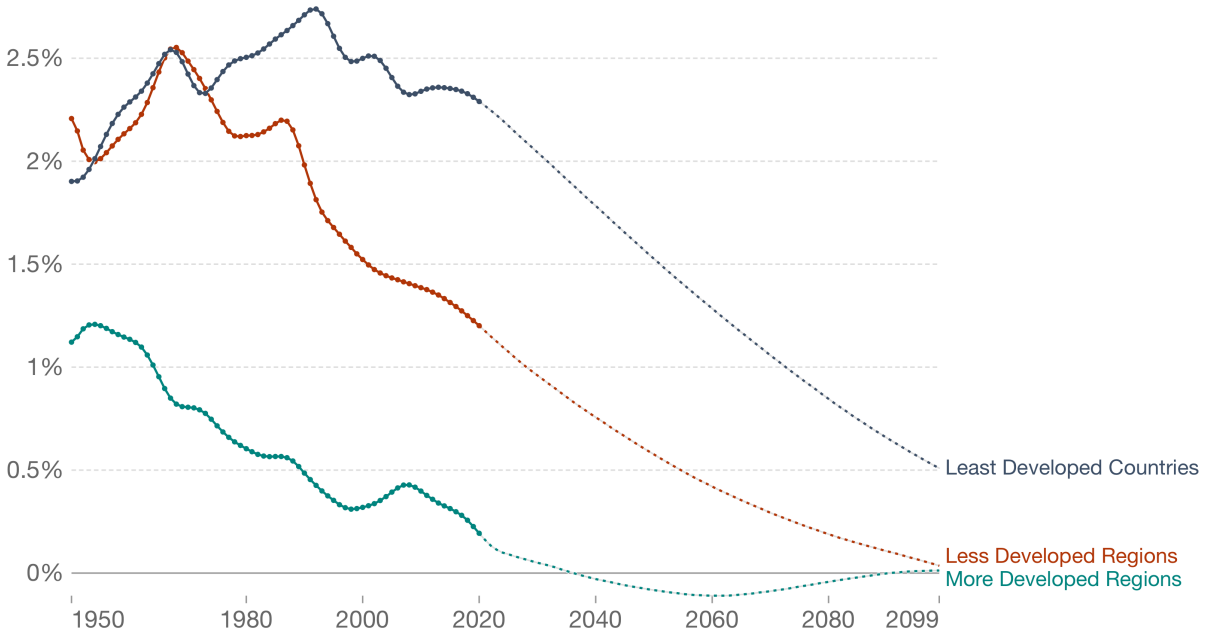
Data sources: Our World in Data based on HYDE, UN, and UN Population Division [2019 Revision]
This is a visualization from OurWorldinData.org, where you find data and research on how the world is changing.

Population & development

Population growth rate by level of development

Historic population growth rates by the level of development of the region, with projections to 2099 using the UN medium scenario.

Our World in Data



Source: United Nations – Population Division (2019 Revision)

OurWorldInData.org/world-population-growth/ • CC BY

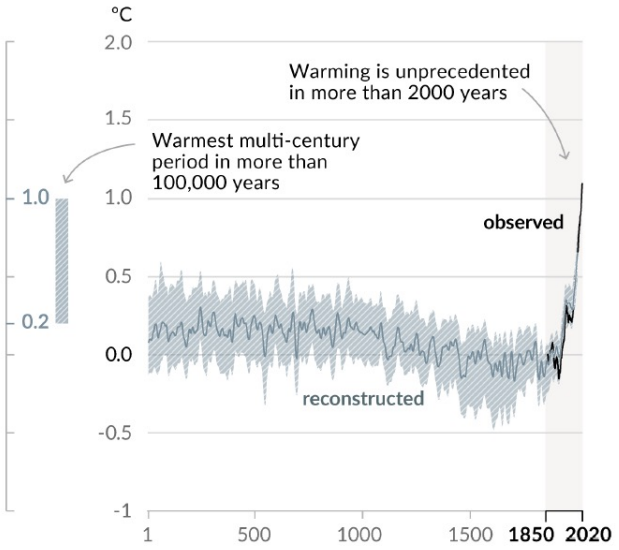
Note: More developed regions comprise Europe, Northern America, Australia/New Zealand and Japan; less developed regions comprise all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia; least developed countries are 48 countries, 33 in Africa, 9 in Asia, 5 in Oceania plus one in Latin America and the Caribbean.

Human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years

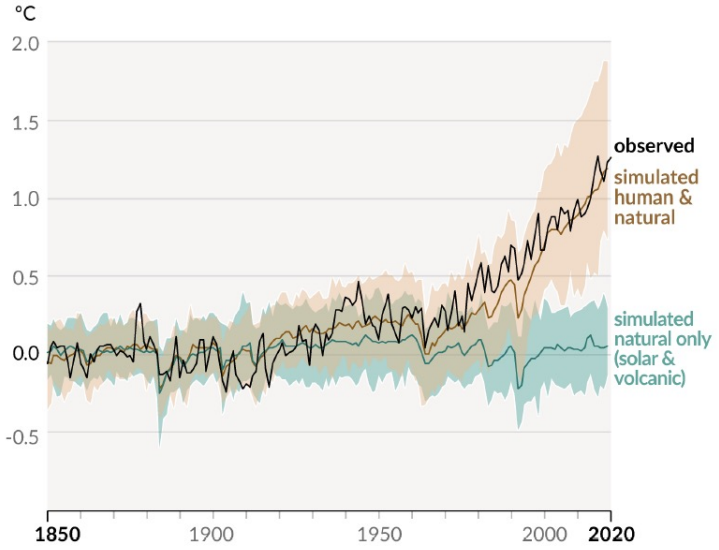
Figure SPM.1

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average) as reconstructed (1-2000) and **observed** (1850-2020)



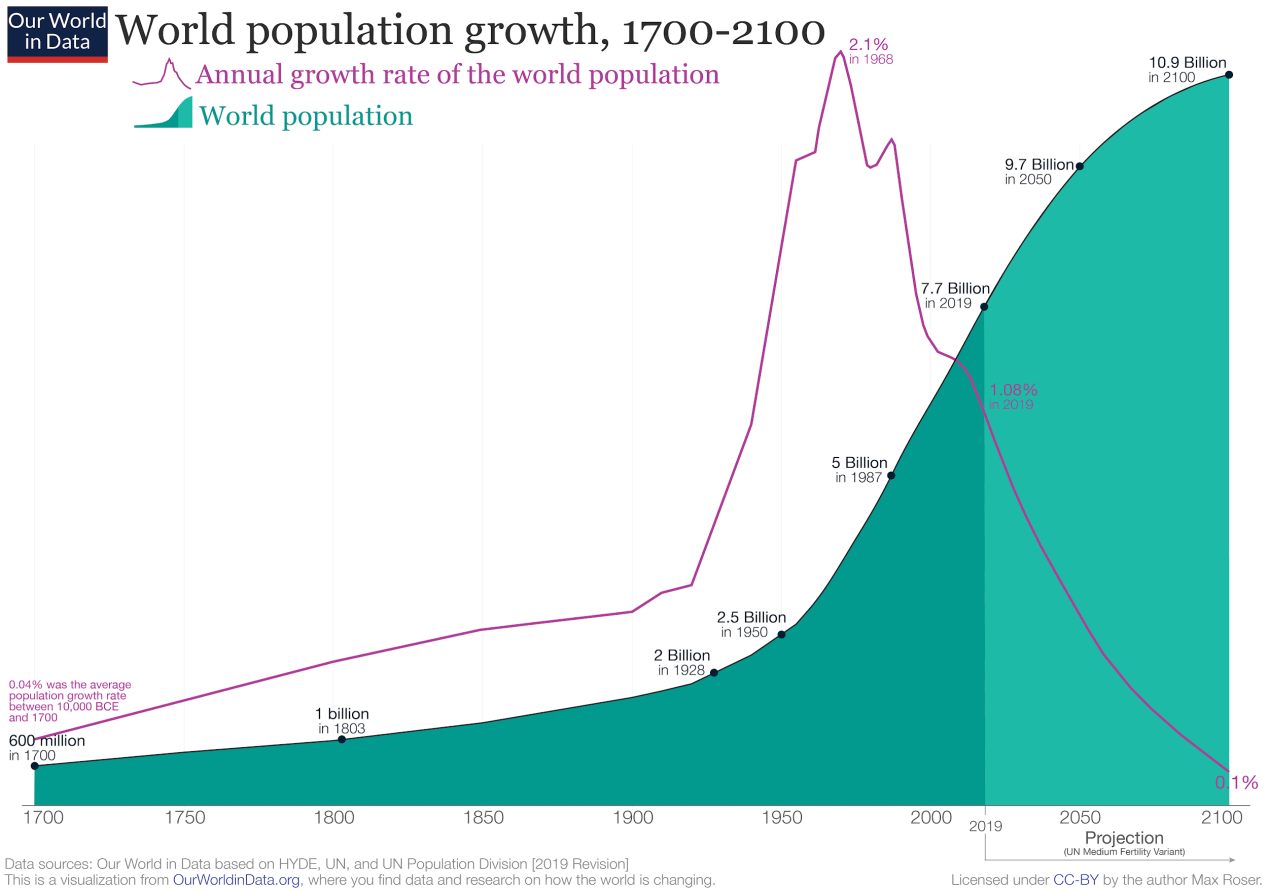
b) Change in global surface temperature (annual average) as **observed** and simulated using human & natural and only natural factors (both 1850-2020)



Population & environment

- Human activities are to blame for the highest concentration of carbon dioxide emissions in at least 2 million years.
- Global temperatures are increasing at the fastest rate in at least 2,000 years because of human activities.
- The impacts of climate change are widespread and global. Unless drastic cuts to emissions are made, climate disasters will continue to intensify.

Population growth rate vs. actual population growth



Data sources: Our World in Data based on HYDE, UN, and UN Population Division [2019 Revision]
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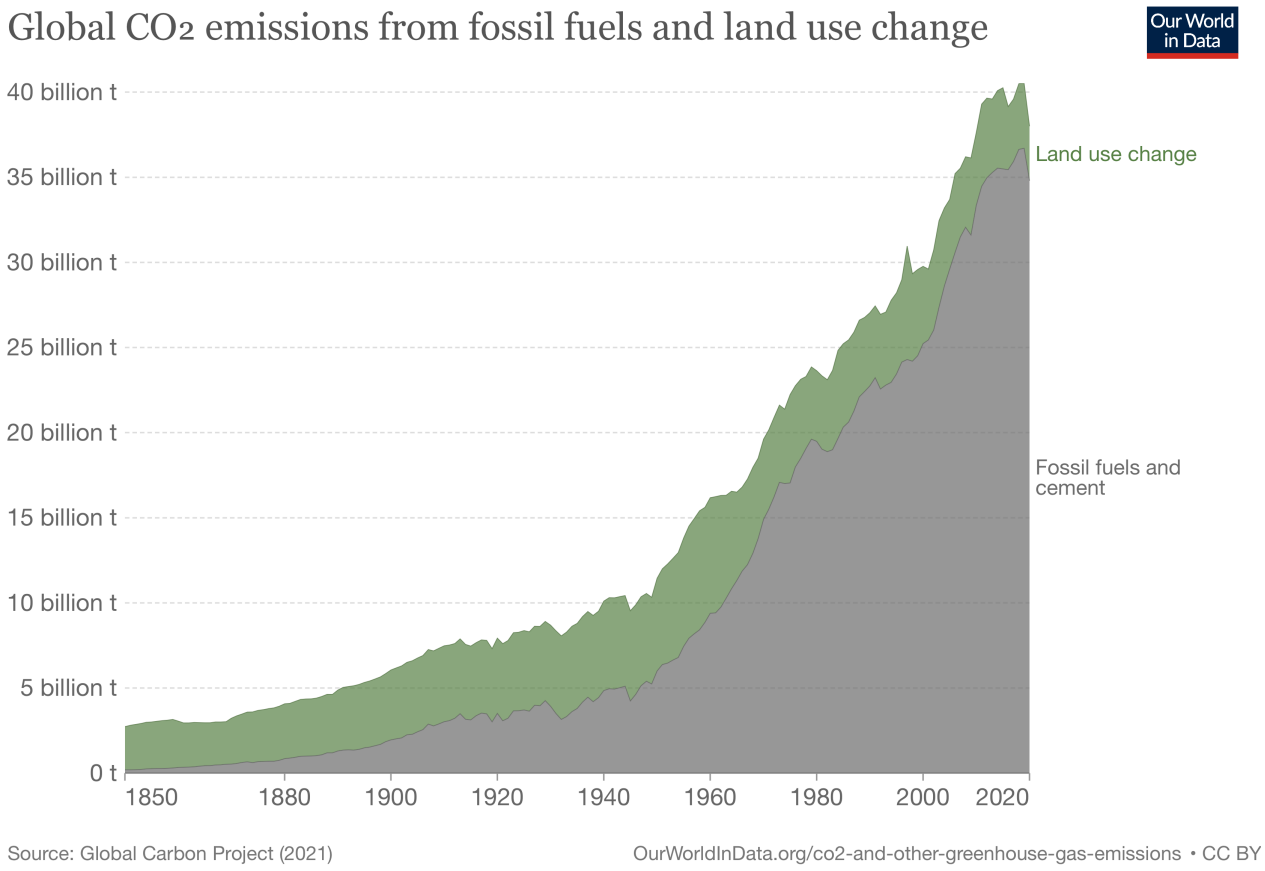
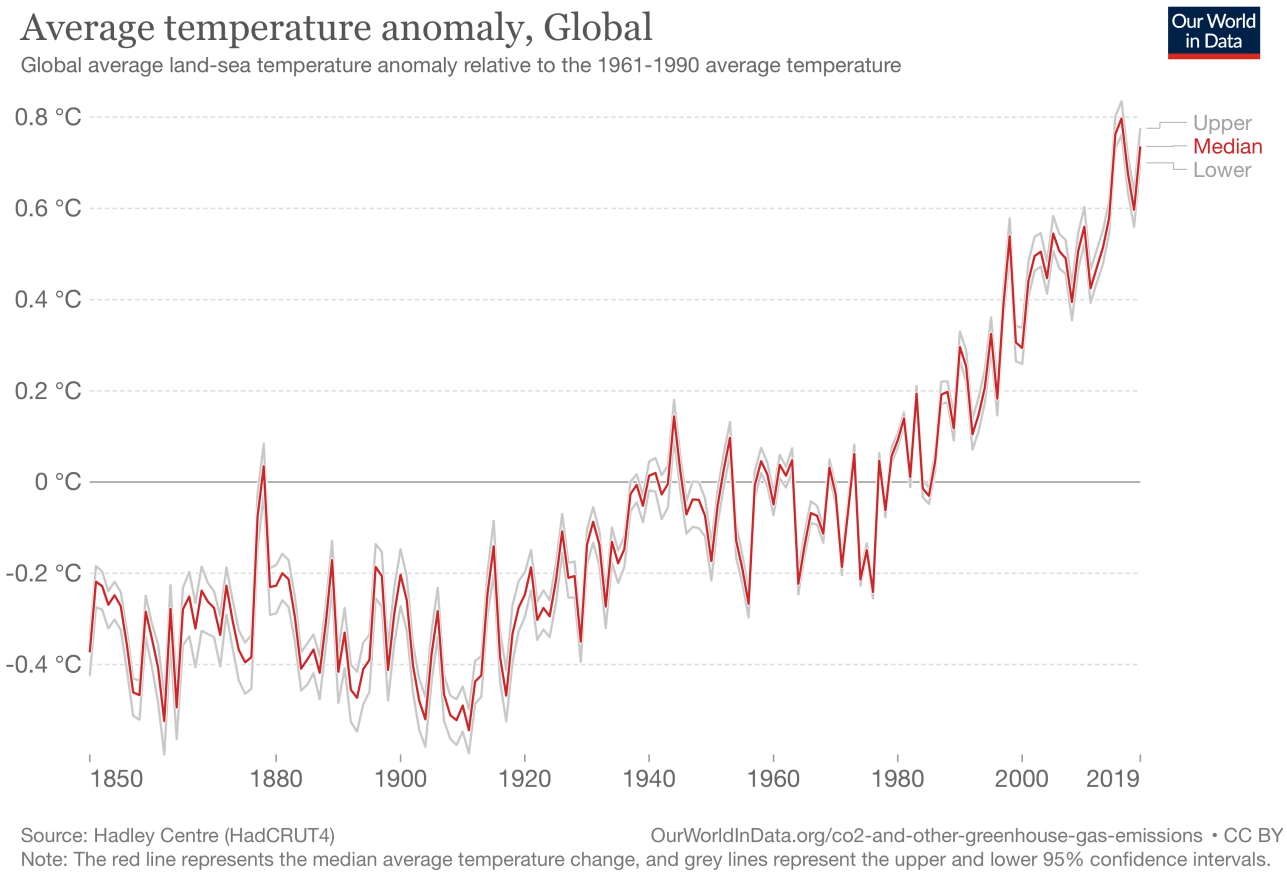
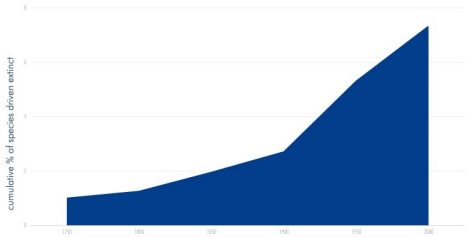
Global CO2 emissions



Global average temperature relative to 1961-1990 average

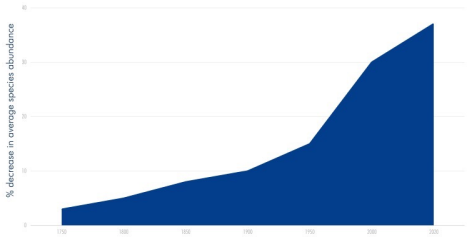


Species Extinction, 1750–2000



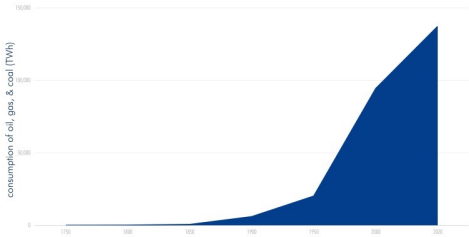
Source: IPBES

Terrestrial Biosphere Degradation, 1750–2020



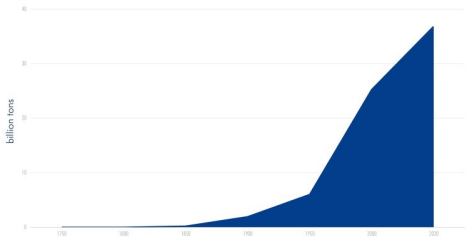
Source: WWF 2018

Fossil Fuel Consumption, 1750–2020



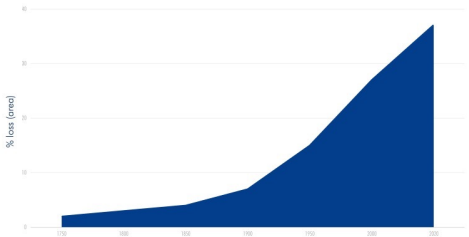
Source: Our World in Data, 2019

Co Emissions from Fossil Fuels, 1750–2020



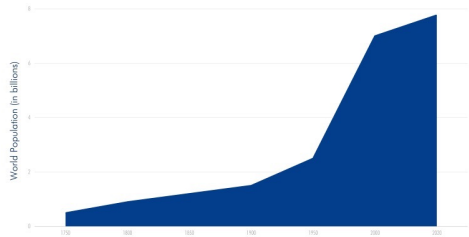
Source: Our World in Data, 2020

Tropical Forest Loss, 1750–2020



Source: World Wildlife Fund, 2018, Global Forest Watch 2020

World Population 1750–2020



Source: World Wildlife Fund, 2018, World Bank, 2020

6th Mass Extinction

- While previous mass extinction events were caused naturally, the 6th mass extinction is driven by human activity, like unsustainable land, water, and energy use, and climate change.
  - 40% of all land on Earth has been converted for food production.
  - Agriculture accounts for 90% of global deforestation and 70% of the planet's fresh water use.
  - Unsustainable food production contributes to climate change.
- Already, about one million plant and animal species are nearing extinction, and at least 1,000 breeds of mammals used for human food and agriculture are threatened.
- Mass extinctions matter for many reasons, including the fact that species exist and interact in interconnected webs of life called ecosystems.

Population aging – the facts

Olivia Nater, Communications Manager

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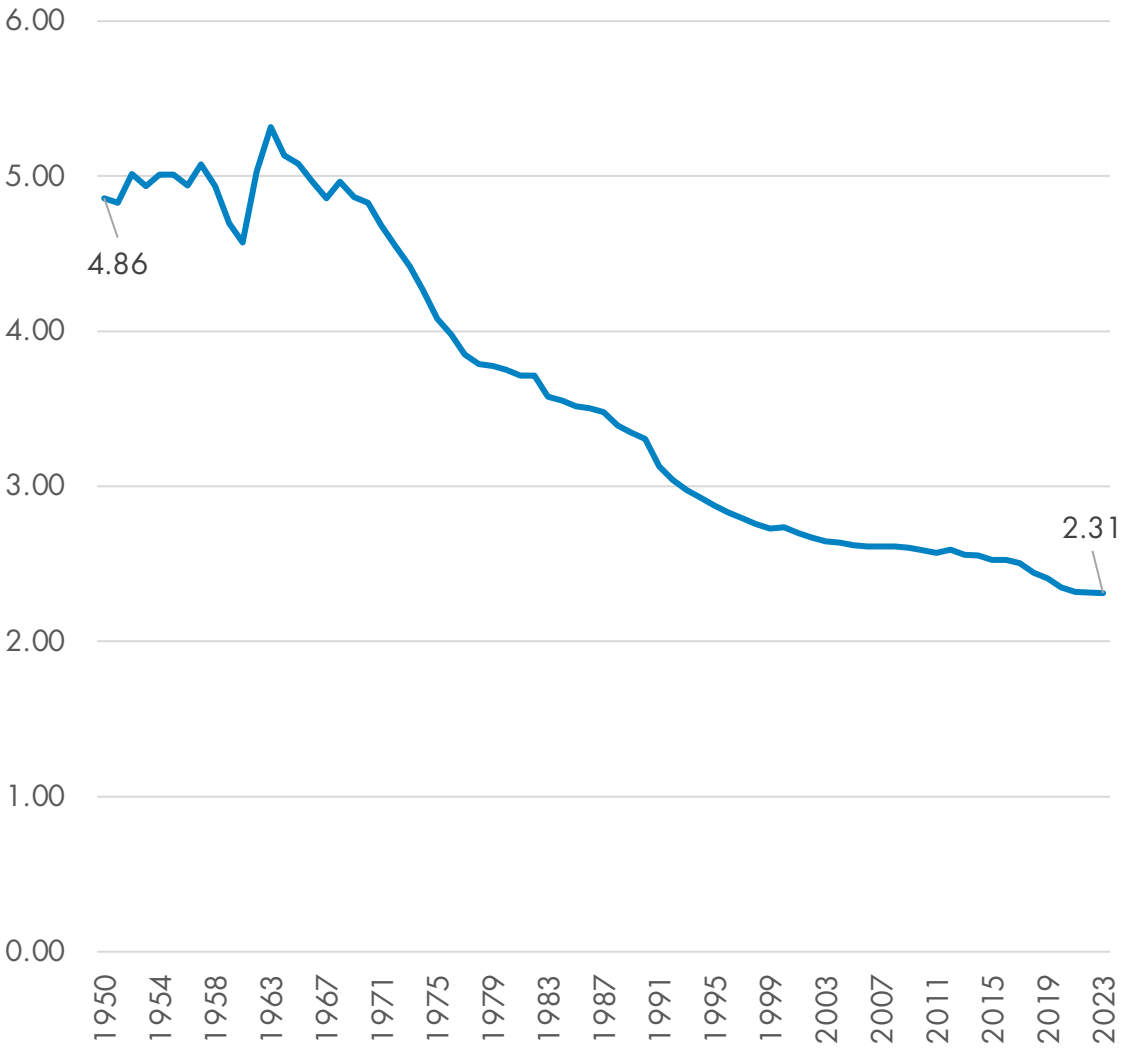
What is population aging?

Increase in the average age of a population as a result of decreasing fertility rates and increasing longevity.

Global fertility rate (1950-2023)



Source: United Nations Population Division (2022)

How economists, the media and some influencers talk about it

The Economist

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The great global baby bust is under way

Fertility rates are tailing off sooner than expected

Jun 14th 2023

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The New York Times

China's Population Falls, Heralding a Demographic Crisis

Deaths outnumbered births last year for the first time in six decades. Experts see major implications for China, its economy and the world.

Elon Musk
@elonmusk

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Population collapse due to low birth rates is a much bigger risk to civilization than global warming

10:27 PM · Aug 25, 2022

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Pro-natalist policies on the rise

- 127 "countries" (out of 237) at or below replacement level fertility
- Oldest countries: Monaco (36% 65+), Japan (29%), Italy (24%), Finland (23%), Greece (23%), Portugal (23%)
- Proportion of governments implementing policies to boost births increased from 9% in 1976 to 28% in 2019

Sources: United Nations Population Division (2021,2022), Population Reference Bureau (2022)

Family-friendly policies have little effect on fertility

Top 10 countries	Fertility rate, 2022
1. Sweden	1.67
2. Norway	1.51
3. Iceland	1.73
4. Estonia	1.68
5. Portugal	1.37
6. Germany	1.53
7. Denmark	1.72
8. Slovenia	1.63
9. Luxembourg	1.39
10. France	1.79

Sources: UNICEF (2019), United Nations Population Division (2022)

What's going on in South Korea?

South Korea has the world's lowest fertility rate, at only 0.78 in 2022.

The government has spent more than $200 billion on trying to boost births over the past 16 years, but the fertility rate keeps falling.

Sources: Statistics Korea (2023), AP News (2023)

What's going on in South Korea?

"The birth strike is women's revenge on a society that puts impossible burdens on us and doesn't respect us."

- Jiny Kim, 30, Seoul office worker

The New York Times

OPINION

GUEST ESSAY

Women in South Korea Are on Strike Against Being 'Baby-Making Machines'

Jan. 27, 2023

Low fertility rates are here to stay

In general, when women are free to use contraception and pursue education and careers, small families become the norm.

In countries with very low fertility, modest increases could likely be achieved by improving financial security and ending expectations and customs that penalize mothers, but new baby booms are improbable.

Low Fertility and the U.S. Economy

Marian Starkey, VP for Communications

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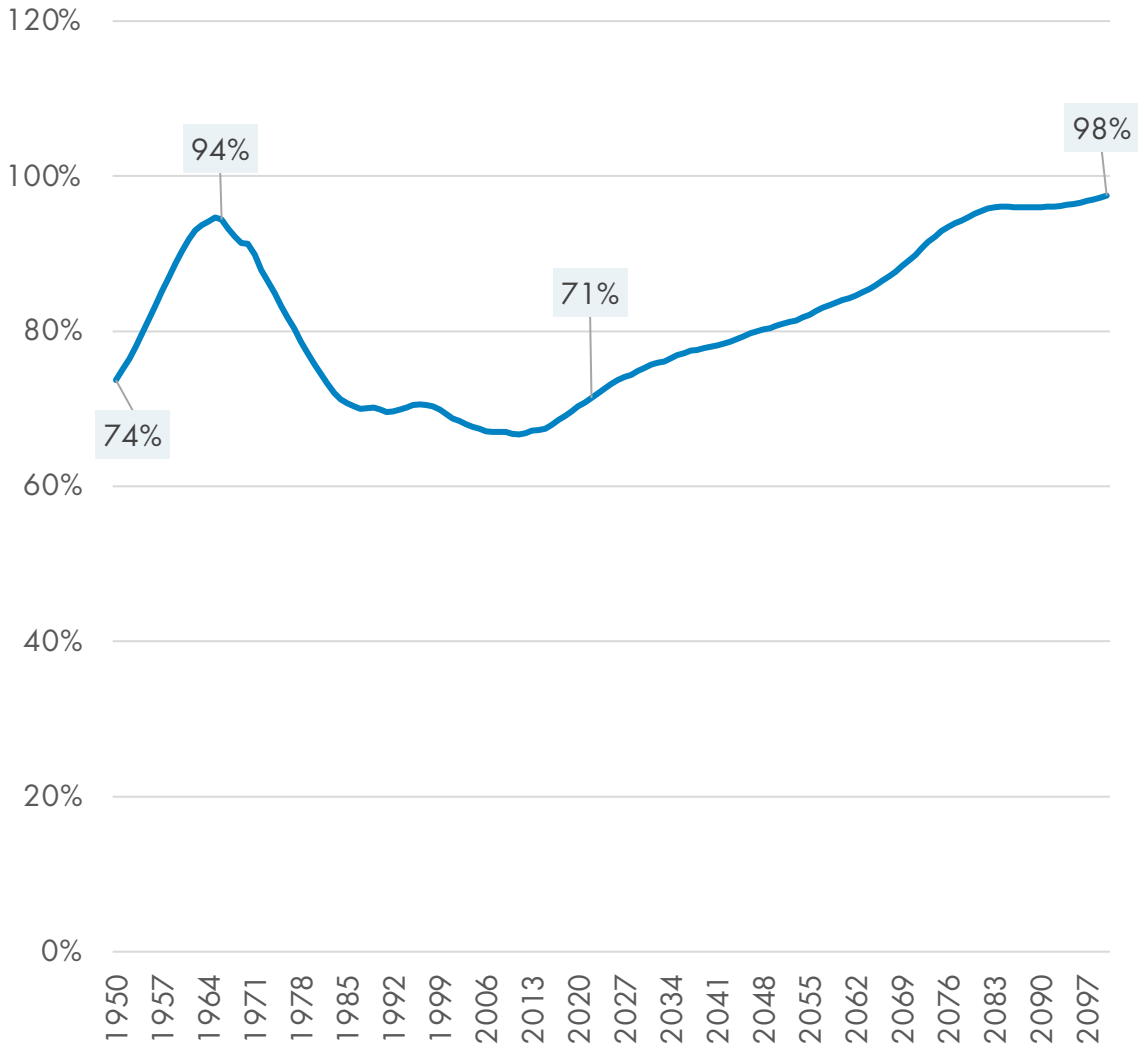
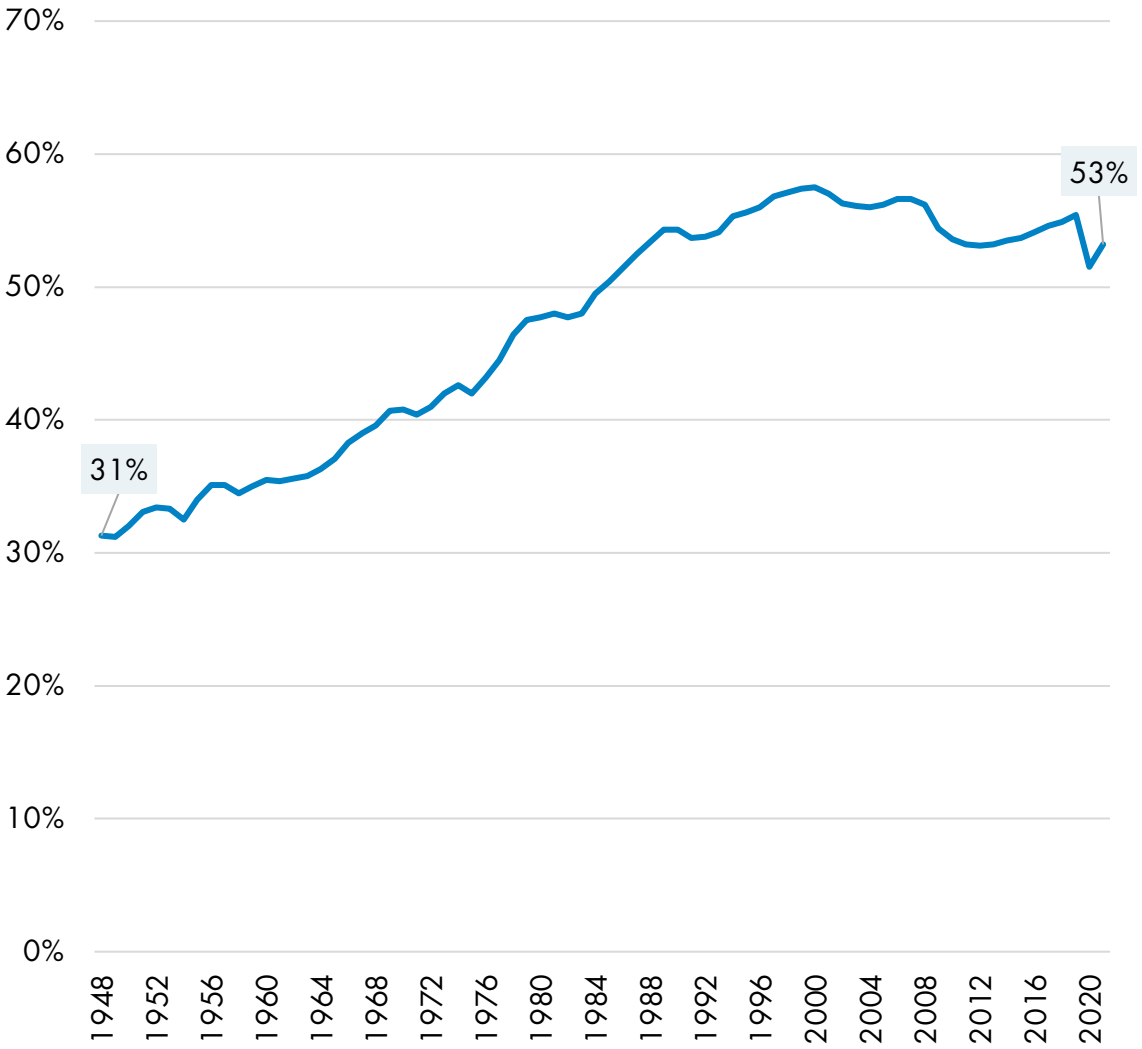
U.S. total dependency ratio (people ages 0-19 and 65+ per 100 people ages 20-64)



Source: United Nations Population Division (2022)

U.S. women's labor force participation



*Percentage of female civilian noninstitutional population employed

Source: U.S. Bureau of Labor Statistics

U.S. disabled people's labor force participation

- 19% of women with a disability participate in the labor force
- 24% of men with a disability participate in the labor force
- unemployment rate for people with disabilities is around 10%, compared to around 5% for people without a disability
- workplace accommodations could raise labor force participation among people living with disabilities

Immigration

- 3% of world population is made up of migrants
  - 12% of population of advanced economies
- immigrants tend to be mostly young and working-age
- immigrants have higher fertility than native-born populations, although assimilation happens quickly, often within one generation

Productivity

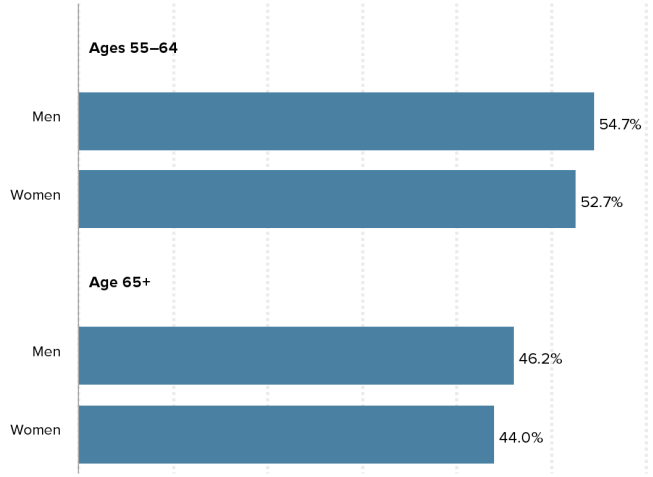
- increase investment in human capital (education, skills training, preventive health care)
- workforce automation and digitization "wildcard"
  - could displace workers and/or suppress wages
  - could allow older people to stay in workforce longer by making jobs less physically demanding

Involuntary retirement

1H

Older men and women both face high rates of involuntary retirement

Share of retired older workers who retired involuntarily, by gender and age (2014–2018 pooled data)

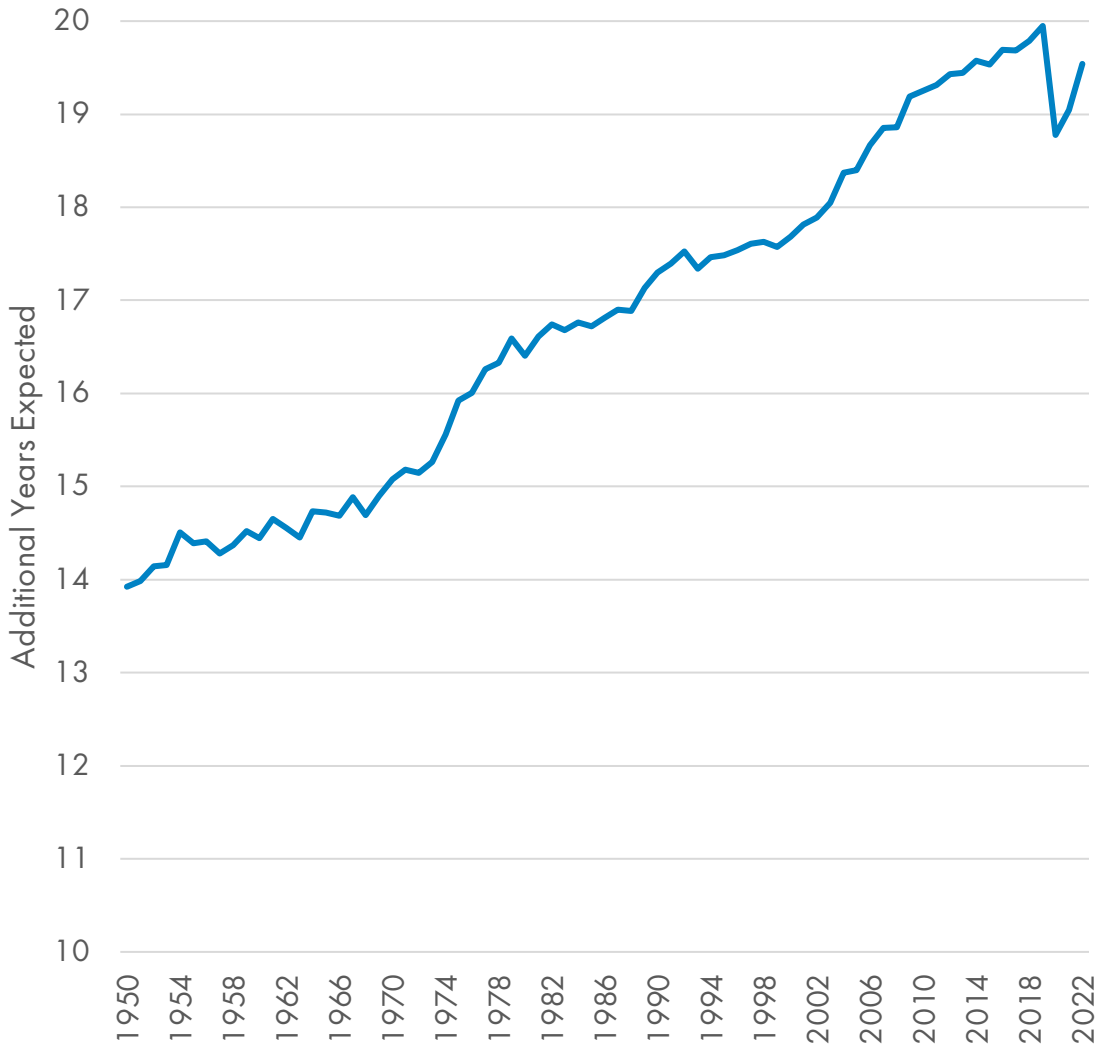


Notes: The sample includes individuals who reported being retired in the current survey but working as employees in the previous one. Involuntary retirement is defined as retirement preceded by poor health or disability (including poor mental health or stress); by a layoff, business closure, or ownership change; or by changes in working conditions or compensation.

Source: Economic Policy Institute (EPI) and Schwartz Center for Economic Policy Analysis (SCEPA) analysis of Health and Retirement Study data (RAND 2022; University of Michigan 2022).

Economic Policy Institute | The New School Schwartz Center for Economic Policy Analysis

U.S. life expectancy at age 65



Source: United Nations Population Division (2022)

Old-Age, Survivors, and Disability Insurance (OASDI), AKA Social Security

- Social Security and Medicare set up as trust funds, both projected to run out of money in early 2030s
- SS tax on earnings is 6.20%, up to the applicable taxable maximum amount
- which is only $160,200 in 2023

Thank you for attending!

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