

# 3.1 – Immigration

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 [tradeF20.classes.ryansafner.com](https://tradeF20.classes.ryansafner.com)



# Outline



Immigration to the United States

The Economic Effects of Immigration

Big Picture: The Economics of Population



# Immigration to the United States

# Immigration to the United States



- 1790–1920: immigration to the U.S. from Europe almost entirely unrestricted
- 1820–1911: Over 30,000,000 people arrived in the U.S. (largest migration in human history)
  - c.f. Australia & New Zealand (combined): 6,000,000
  - c.f. Canada: 2,000,000



# Historical Restrictions



- **Naturalization Act of 1790:** allowed “free white person[s] ... of good character” to become citizens
  - Expanded to blacks in 1860s, Asians in 1950s
  - One of the few countries that regulated immigration by race
- **Chinese Exclusion Act of 1882:** virtually banned all immigration from China until repeal in 1943
  - California Gold Rush had brought several 100,000s from China



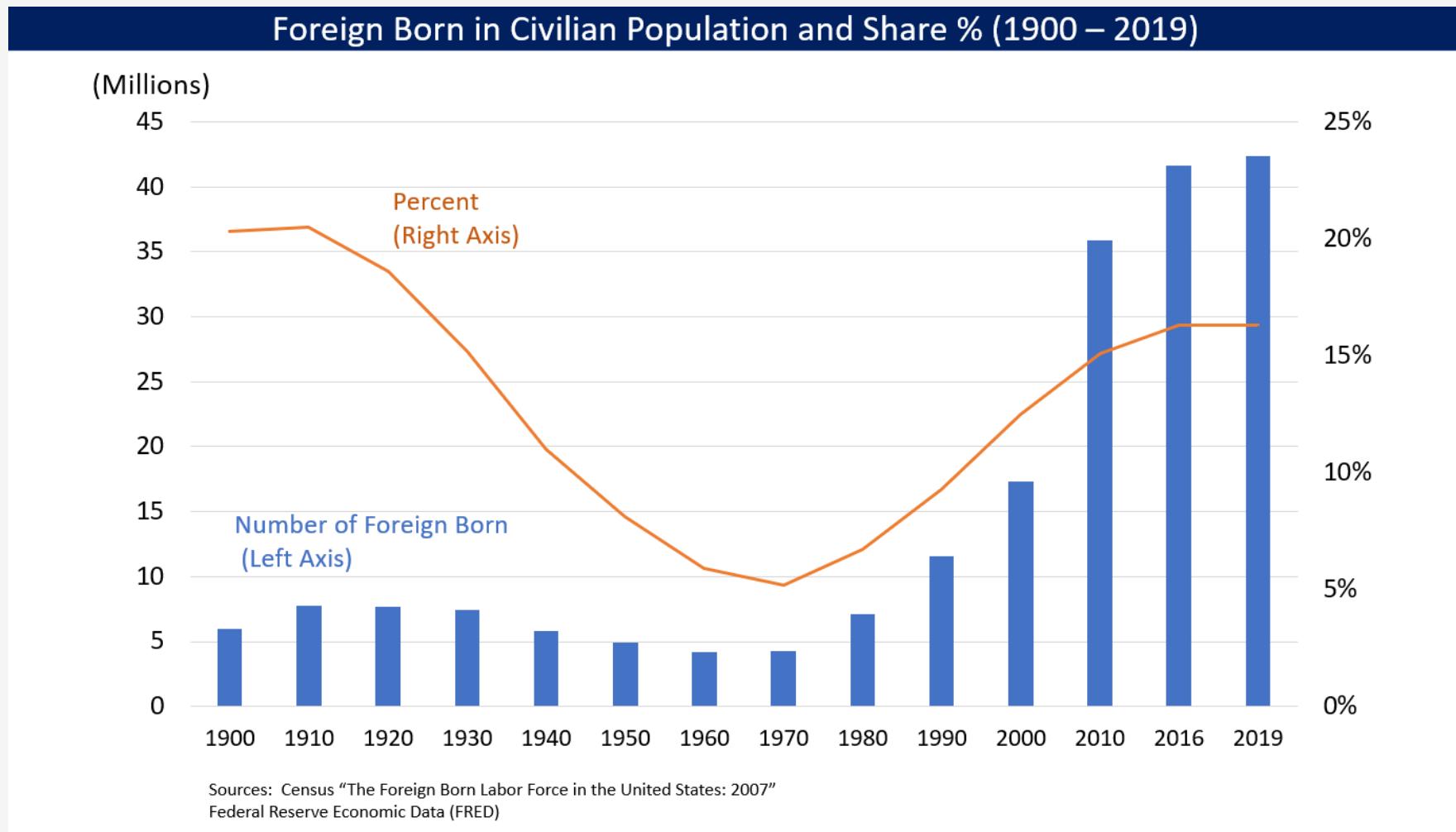
# Historical Restrictions



- **Emergency Quota Act of 1921:** restricted inflow of Southern & Eastern Europeans and other “undesirables”
  - Officially restricted number of immigrants allowed from any country annually to 3% of the number of U.S. residents from that country as of the 1910 Census
  - Implied Northern & Western Europeans had much higher quotas
  - No limits on immigration from Latin America; or for high-skilled individuals
- **Immigration and Nationality Act of 1965** abolished quotas
  - resulted in influx of non-European immigration



# Foreign Born Americans Over Time



# Birthright Citizenship



- U.S. guarantees “*jus soli*”, i.e. **birthright citizenship** to all individuals born on sovereign U.S. soil, regardless of their parents’ status

“All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside” — U.S. Constitution, Amendment XIV, Section I, Clause I

- Very few other countries grant unrestricted birthright citizenship
  - None in Europe or Asia
  - France abolished it in 1993, Ireland in 2005, New Zealand in 2006

# Asylum and Immigration



“Any alien who is physically present in the United States or who arrives in the United States (whether or not at a designated port of arrival and including an alien who is brought to the United States after having been interdicted in international or United States waters), irrespective of such alien’s status, may apply for asylum.” ([8 U.S.C. 1158](#))



# How to Legally Immigrate to the United States



[American Immigration Council: How the United States Immigration System Works](#)

# Illegal Immigration



- People entering the United States without going through the official immigration process
- Valid concerns about fairness and rule of law



# Illegal Immigration



- People entering the United States without going through the official immigration process
- Valid concerns about fairness and rule of law
- But to be sure, are opponents of illegal immigration really against the *illegal* part, or the *immigration* part?
  - The current administration seems to really be against the *immigration* part!



# Anti-Legal Immigration



Now the Trump administration wants to limit citizenship for legal immigrants

The most significant change to legal immigration in decades could affect millions of would-be citizens, say lawyers and advocates.

Trump's latest immigration proposal has one goal: Keep immigrants out

The Trump administration ramps up its war on legal immigration

The Trump administration's new plan to punish legal immigrants

Source: [NBC](#)

Source: [Washington Post](#)

Source: [Washington Post](#)

Source: [Washington Post](#)

# Illegal Immigration



“The decline in the unauthorized immigrant population is due largely to a fall in the number from Mexico – the single largest group of unauthorized immigrants in the U.S. Between 2007 and 2017, this group decreased by 2 million. Meanwhile, there was a rise in the number from Central America and Asia.”

# Illegal Immigration



"In 2017, about 29 million immigrants were working or looking for work in the U.S., making up some 17% of the total civilian labor force. Lawful immigrants made up the majority of the immigrant workforce, at 21.2 million. An additional 7.6 million immigrant workers are unauthorized immigrants, less than the total of the previous year and notably less than in 2007, when they were 8.2 million. They alone account for 4.6% of the civilian labor force, a dip from their peak of 5.4% in 2007."

---

## Total U.S. labor force grows since 2007, but number of unauthorized immigrant workers declines

*Labor force estimates, in millions*

	2017	2007	Change
U.S. total	164.4	153.3	+11.2
U.S. born	135.7	127.9	+7.8
Lawful immigrant	21.2	17.2	+4.0
Unauthorized immigrant	7.6	8.2	-0.6

Note: All numbers are rounded; changes calculated from unrounded numbers. Based on civilian labor force.

Source: Pew Research Center estimates based on augmented U.S. Census Bureau data.

PEW RESEARCH CENTER

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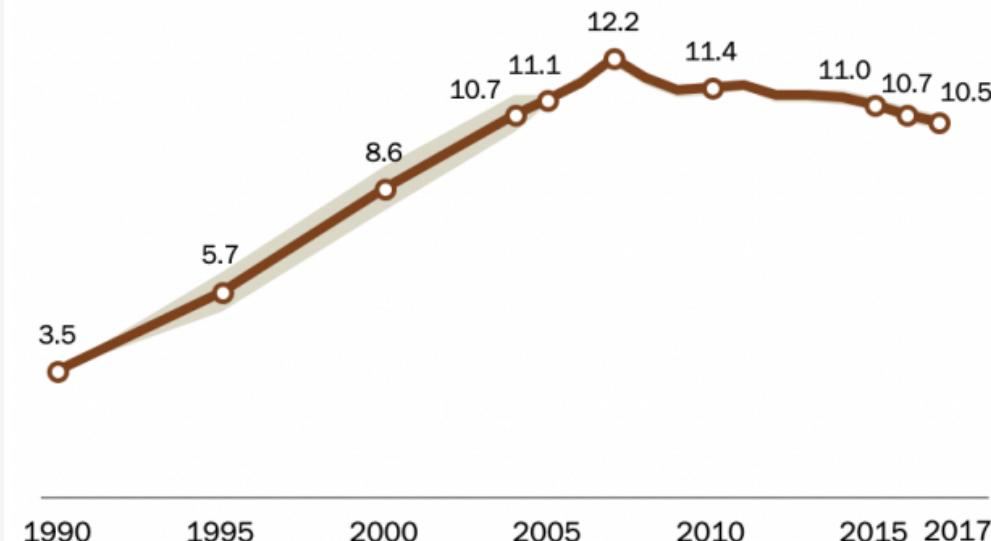
Source: [Pew Research \(2020\)](#).

# Illegal Immigration



## U.S. unauthorized immigrant total rises, then falls

*In millions*



Note: Shading shows range of estimated 90% confidence interval.

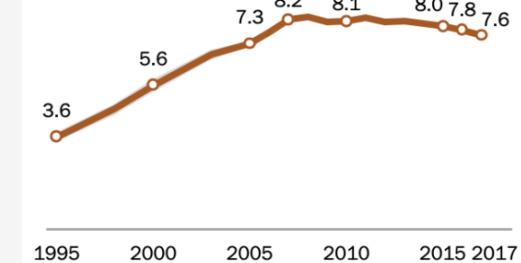
Source: Pew Research Center estimates based on augmented U.S. Census Bureau data.

PEW RESEARCH CENTER

Source: [Pew Research \(2019\)](#)

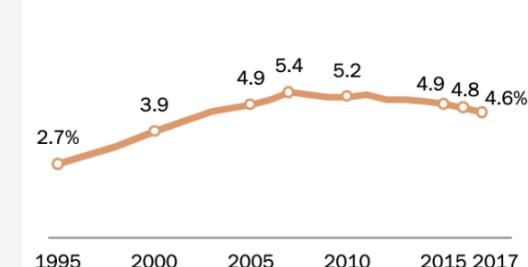
## Number of unauthorized immigrants in U.S. workforce ticks down

*In millions*



## Unauthorized immigrants decline as a share of the U.S. labor force

%



Note: Shading shows range of estimated 90% confidence interval.  
Source: Pew Research Center estimates based on augmented U.S. Census Bureau data.

PEW RESEARCH CENTER

Source: [Pew Research \(2019\)](#)

# Attitudes Towards Immigration



# Attitudes Towards Immigration



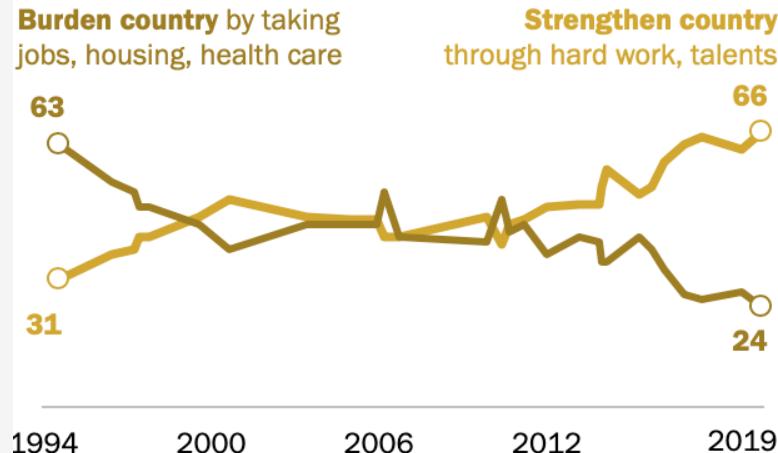
"While immigration has been at the forefront of a national political debate, the U.S. public holds a range of views about immigrants living in the country. Overall, a majority of Americans have positive views about immigrants. About two-thirds of Americans (66%) say immigrants strengthen the country "because of their hard work and talents," while about a quarter (24%) say immigrants burden the country by taking jobs, housing and health care."

"Yet these views vary starkly by political affiliation. Among Democrats and Democratic-leaning independents, 88% think immigrants strengthen the country with their hard work and talents, and just 8% say they are a burden. Among Republicans and Republican-leaning independents, 41% say immigrants strengthen the country, while 44% say they burden it."

"Americans were divided on future levels of immigration. A quarter said legal immigration to the U.S. should be decreased (24%), while one-third (38%) said immigration should be kept at its present level and almost another third (32%) said immigration should be increased."

## U.S. immigrants are seen more as a strength than a burden to the country

% who say immigrants today ...



Note: Don't know responses not shown.

Source: Phone surveys of U.S. adults conducted 1994-2019.

PEW RESEARCH CENTER

Source: [Pew Research \(2020\)](#).



# The Economic Effects of Immigration

# The Economic Effects of Immigration



- “**The Place Premium**” – people’s wages are determined by the place that they live
  - institutions and opportunities, productivity (complementary capital, land, etc)
  - entirely determined for an individual, through no fault of their own



# The Economic Effects of Immigration



- High-productivity countries with good institutions enable *the same people* to earn higher wages than if they were in low-productivity countries with poor institutions
- One estimate: opening U.S. borders would increase the average developing country worker's salary from \$8,903 to \$19,272

Pritchett, Lant, 2006, *Let Their People Come*

Keenan, John, 2012, "Open Borders", NBER Working Paper 18307

# The Economic Effects of Immigration



- **Immigration from low- to high-productivity countries multiplies a person's wages**
- This obviously benefits the immigrant & family, but also the country they immigrate to (improves productivity)



# The Economic Effects of Immigration



- Closed borders prevent people moving from low-productivity jobs to higher-productivity jobs
- It is widely estimated that removing *all* restrictions to immigration would **double world GDP** (Clemens, 2002)

The Economist Topics ▾ Current edition More ▾

If borders were open  
A world of free movement would be \$78 trillion richer

*Yes, it would be disruptive. But the potential gains are so vast that objectors could be bribed to let it happen*

Sébastien Thibault

Print edition | The World If >  
Jul 13th 2017

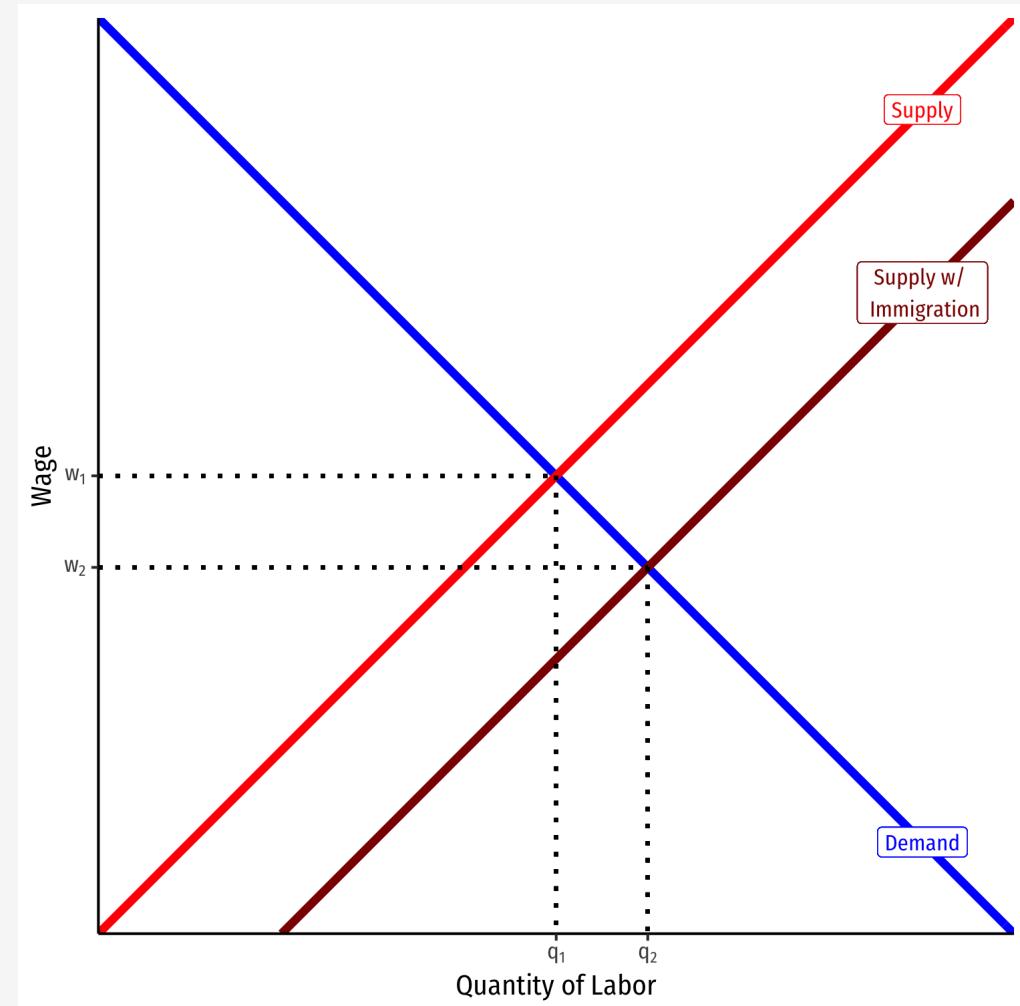
# The Economic Effects of Immigration



# The Economic Effects of Immigration



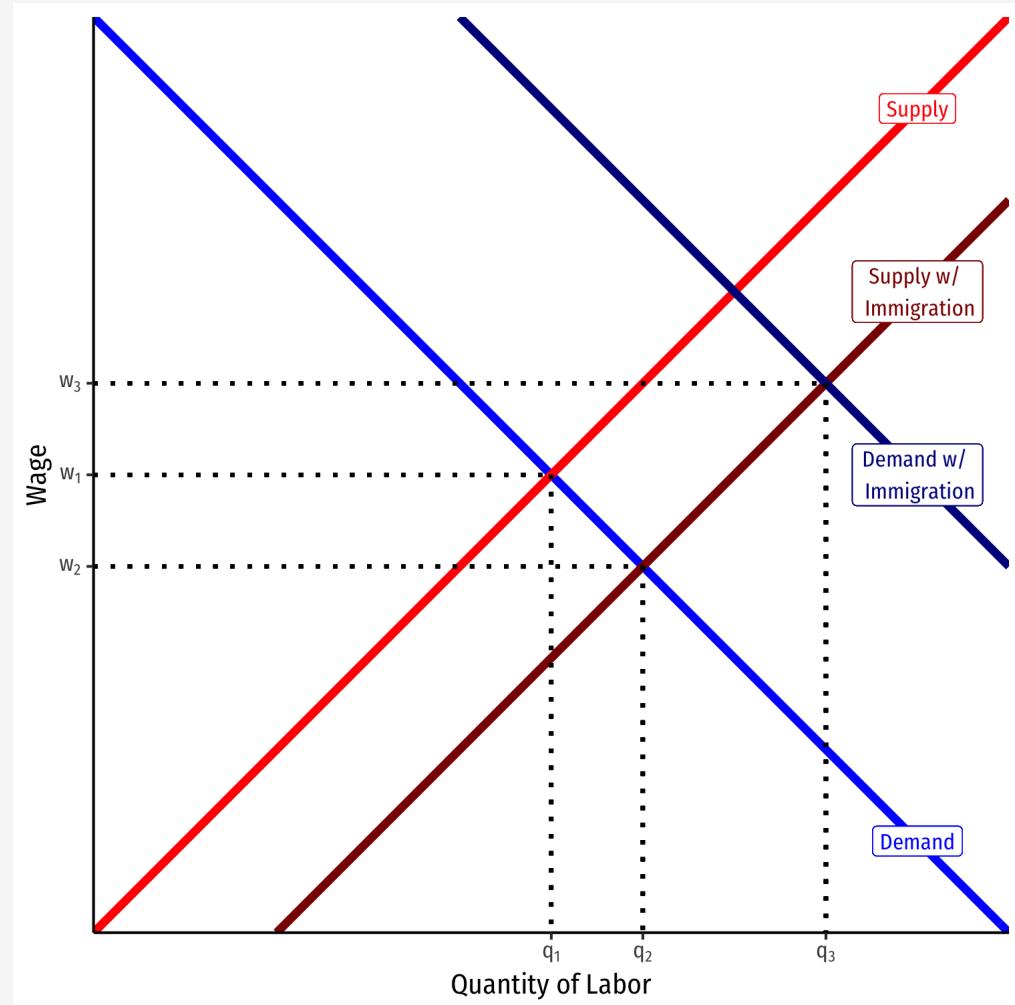
- Most people recognize that the “labor market” is affected by immigration as follows:
- Immigration increases the supply of labor
  - With a downward sloping demand for labor, this lowers wages  $w_1 \rightarrow w_2$



# The Economic Effects of Immigration



- Most people recognize that the “labor market” is affected by immigration as follows:
- Immigration increases the supply of labor
  - With a downward sloping demand for labor, this lowers wages  $w_1 \rightarrow w_2$
- However, immigrants are not just workers, they are consumers!
  - This can also *increase* the demand for labor
- Depending on the relative sizes of these two effects, wages might go up or down



# The Economic Effects of Immigration



- Furthermore, there is not a *single* labor market, but *many* labor markets depending on skills & education levels
  - Doctors don't directly compete with low skilled agricultural workers, etc.
- Think about **comparative advantage** and the **division of labor** across professions within a country
  - With more low-skilled immigrants, allows more specialization & division of labor
  - High-skilled workers can hire immigrants at lower wages, freeing them up to produce more high-skilled output



# The Economic Effects of Immigration



- Recall, even poor, low-skilled Americans are *relatively* “high-skilled” compared with much of the world!
  - A low-skilled worker in America still earns 2-15x more than equivalent labor in developing countries

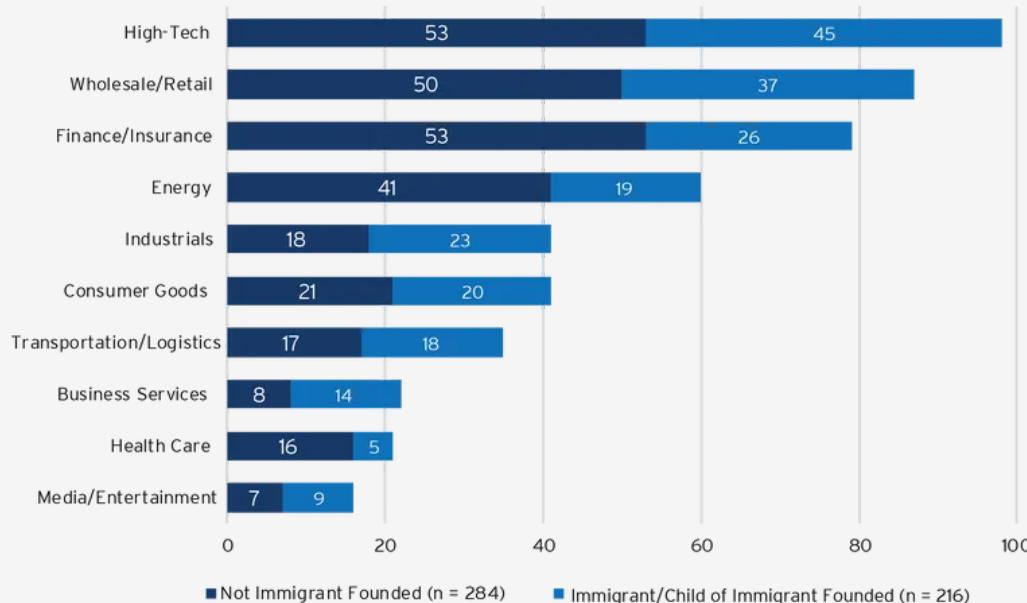


# The Economic Effects of Immigration



## Fortune 500 company counts, by sector and founder nativity

2017



Source: Center for American Entrepreneurship analysis of Fortune Magazine data

B | Metropolitan Policy Program at BROOKINGS

A screenshot of the Brookings website homepage. The top navigation bar includes links for ABOUT US, PRESS ROOM, EXPERTS, EVENTS, THE BROOKINGS PRESS, WASHU AT BROOKINGS, CAREERS, SUPPORT BROOKINGS, and a SEARCH bar. A banner at the top provides guidance for the community regarding COVID-19. The main headline on the page reads: "Almost half of Fortune 500 companies were founded by American immigrants or their children". Below the headline is a photo of a city skyline. The author of the article is Ian Hathaway, dated Monday, December 4, 2017. There are social media sharing icons (Facebook, Twitter, LinkedIn, Email, More) and an editor's note below the article. The note states: "Editor's Note: Editor's note: Ian Hathaway is a non-resident senior fellow at the Metro program and research director at the Center for American Entrepreneurship, which produced the study Immigrant Founders of the 2017 Fortune 500, released today."

Economists disagree about a lot of things, but two areas—the importance of entrepreneurship to [economic growth](#) and [job creation](#), and the [outsized role](#) that immigrants play in founding

Source: [Brookings](#)

# America Depends on Working Immigrants



Solorio is one of a growing number of agricultural businessmen who say they face an urgent shortage of workers....“Look, we are paying \$14.50 now, but we are going up to \$16.”

That has made California farms a proving ground for the Trump team’s theory that by cutting off the flow of immigrants they will free up more jobs for American-born workers and push up their wages.

So far, the results aren’t encouraging for farmers or domestic workers.

But the raises and new perks have not tempted native-born Americans to leave their day jobs for the fields. Nine in 10 agriculture workers in California are still foreign born, and more than half are undocumented, according to a federal survey.

**Wages rise on California farms. Americans still don't want the job**

Trump's immigration crackdown is supposed to help U.S. citizens. For California farmers, it's worsening a desperate labor shortage.

By NATALIE KITROEFF AND GEOFFREY MOHAN  
MARCH 17, 2017 | REPORTING FROM STOCKTON, CALIF.

**A**rnulfo Solorio's desperate mission to recruit farmworkers for the Napa Valley took him far from the pastoral vineyards to a raggedy parking lot in Stockton, in the heart of the Central Valley.

Carrying a fat stack of business cards for his company, Silverado Farming, Solorio approached one

**Solorio recruiting workers in Stockton**

Source: [LA Times](#)

# Economists on Immigration



"We view the benefits of immigration as myriad: Immigration brings entrepreneurs who start new businesses that hire American workers. Immigration brings young workers who help offset the large-scale retirement of baby boomers. Immigration brings diverse skill sets that keep our workforce flexible, help companies grow, and increase the productivity of American workers. Immigrants are far more likely to work in innovative, job-creating fields such as science, technology, engineering, and math that create life-improving products and drive economic growth.

Immigration undoubtedly has economic costs as well, particularly for Americans in certain industries and Americans with lower levels of educational attainment. But the benefits that immigration brings to society far outweigh their costs, and smart immigration policy could better maximize the benefits of immigration while reducing the costs."

Source: [Open Letter](#)

If you think the time for immigration reform is now, join us.

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Issue: [Entrepreneurship](#) • [Global Competitiveness](#) • [Innovation & STEM Fields](#) • [Voting & Demographics](#) Location: [National](#) Type: [Feature](#) Share:

## An Open Letter from 1,470 Economists on Immigration

Date: April 12, 2017

Dear Mr. President, Majority Leader McConnell, Minority Leader Schumer, Speaker Ryan, and Minority Leader Pelosi:

The undersigned economists represent a broad swath of political and economic views. Among us are Republicans and Democrats alike. Some of us favor free markets while others have championed for a larger role for government in the economy. But on some issues there is near universal agreement. One such issue concerns the broad economic benefit that immigrants bring to this country.

As Congress and the Administration prepare to revisit our immigration laws, we write to express our broad consensus that immigration is one of America's significant competitive



# Big Picture: The Economics of Population

# Big Picture: The Economics of Population



- Nationalism and culture clash aside, perhaps an underlying reason why many resist immigration is because they truly fear greater population growth
- View the world (or our country) as a fixed pie, the more people there are, the smaller everyone's piece
  - A zero-sum game



# Population Today I

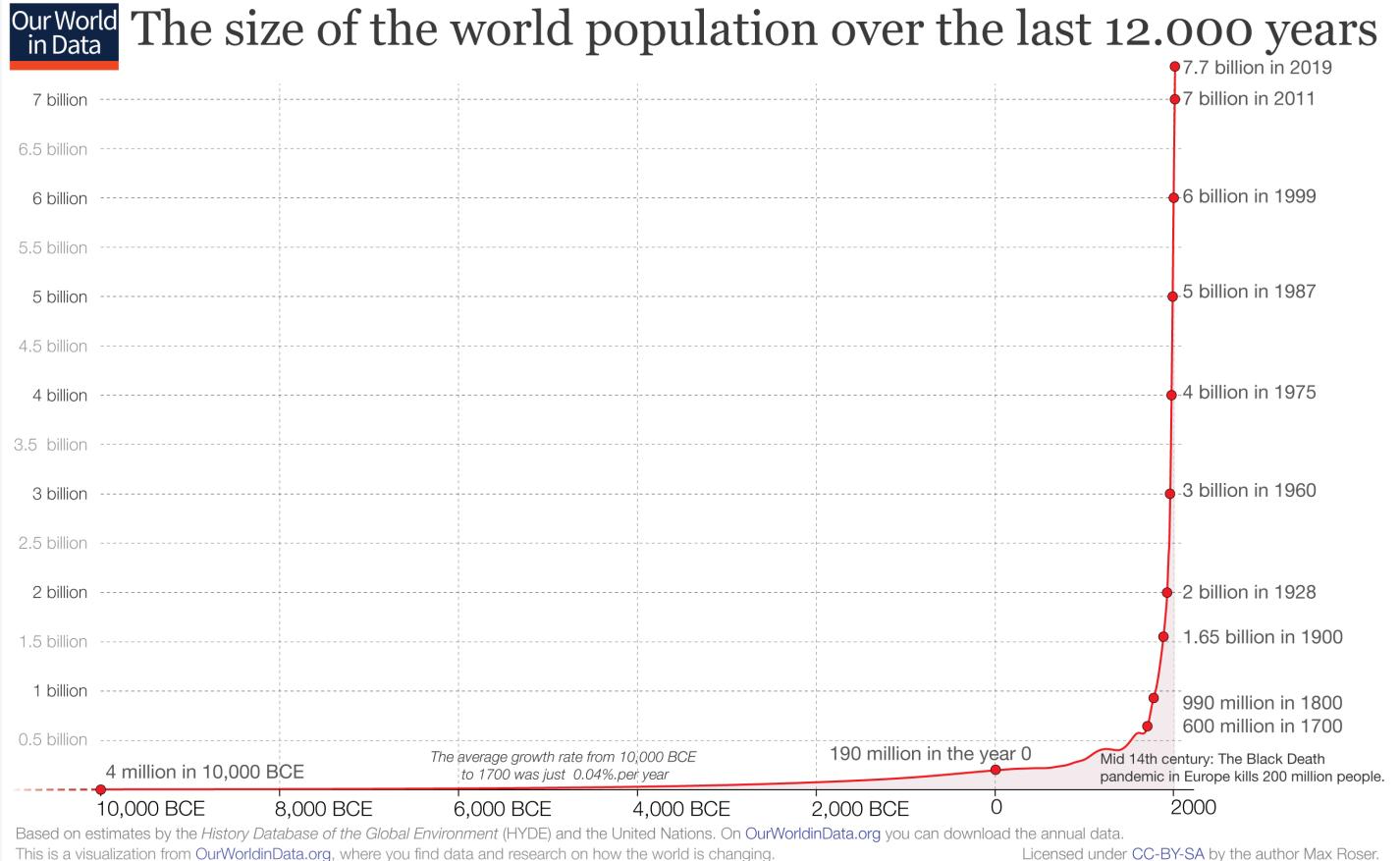


Source: [Our World in Data: Population Growth](#)

# Population Today II



# Population Growth Over 12,000 Years

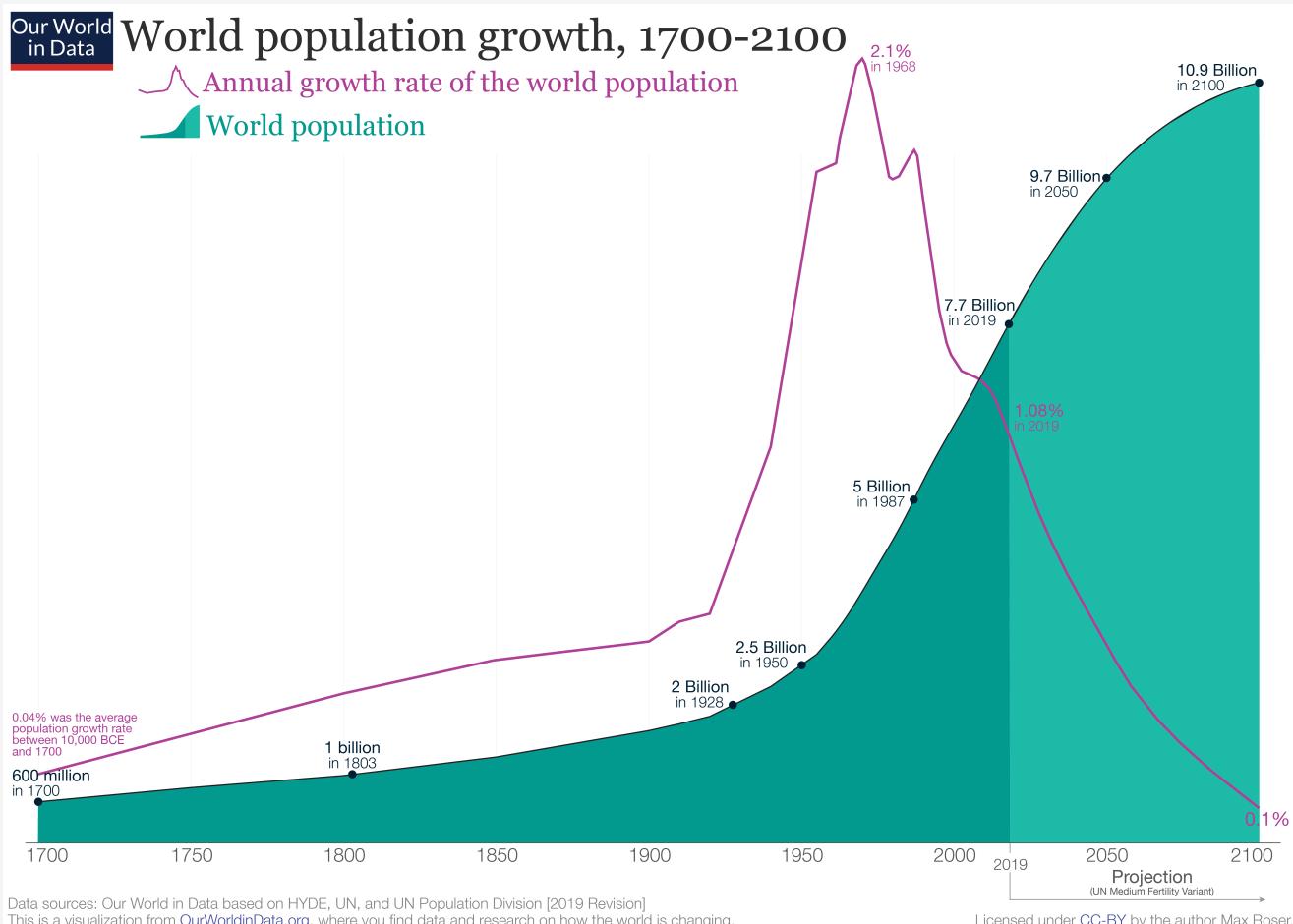


Source: [Our World in Data: Population Growth](#)

# Population Growth by Country

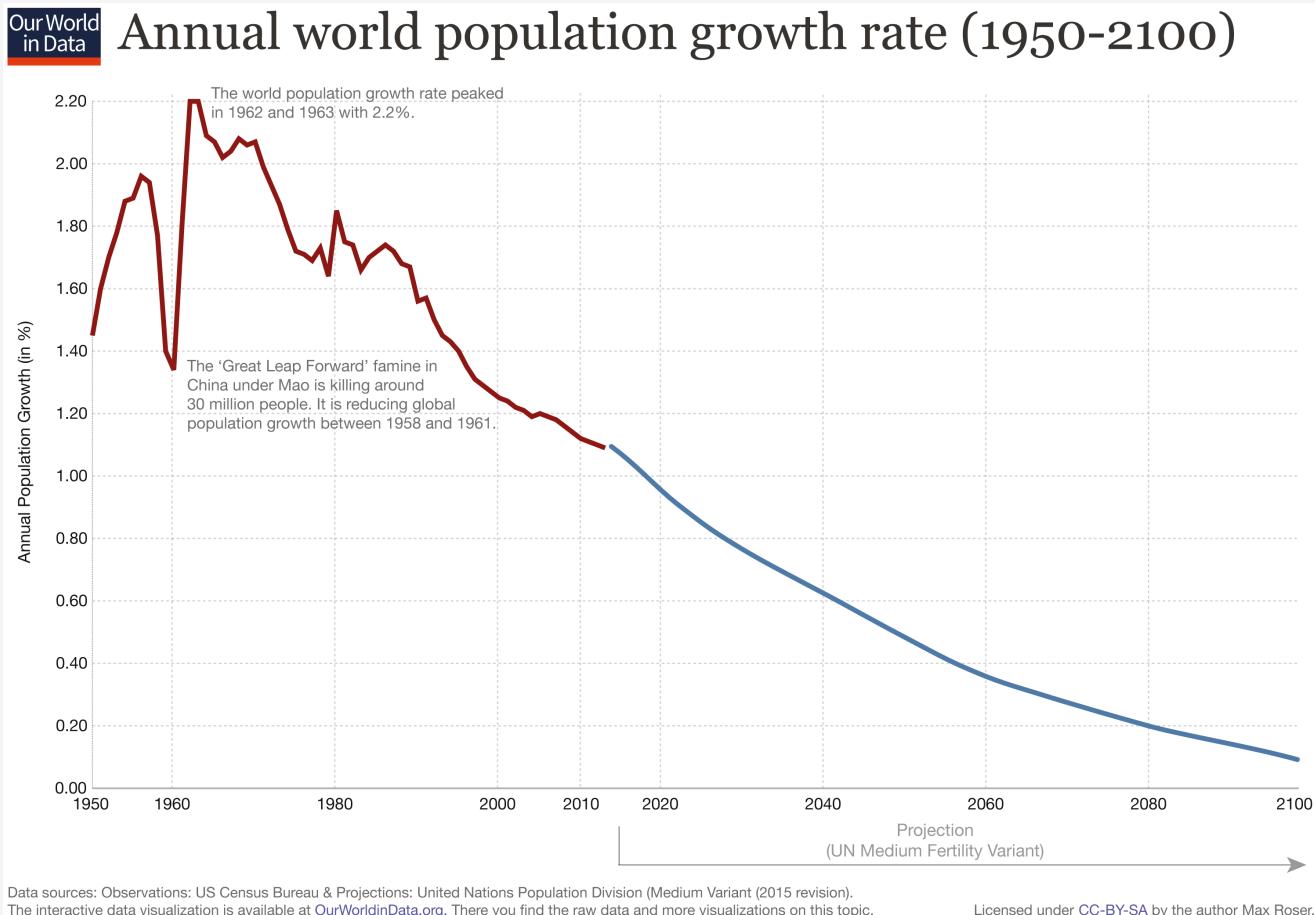


# Population Grew Rapidly in the Past but is Declining



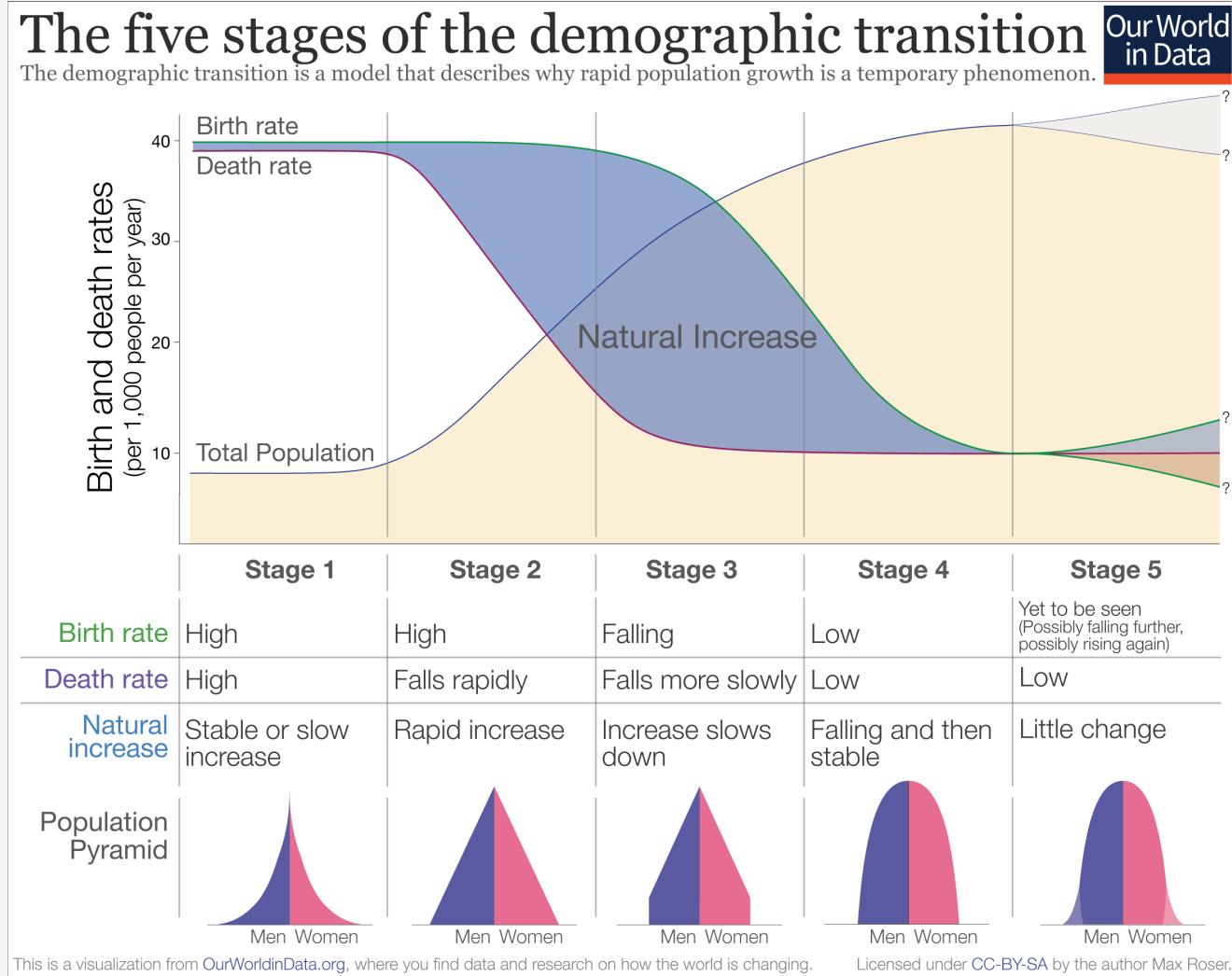
Source: [Our World in Data: Population Growth](https://OurWorldInData.org)

# World Pop. Growth Is Expected to Continue Declining



Source: [Our World in Data: Population Growth](http://OurWorldInData.org)

# Because of the "Demographic Transition"



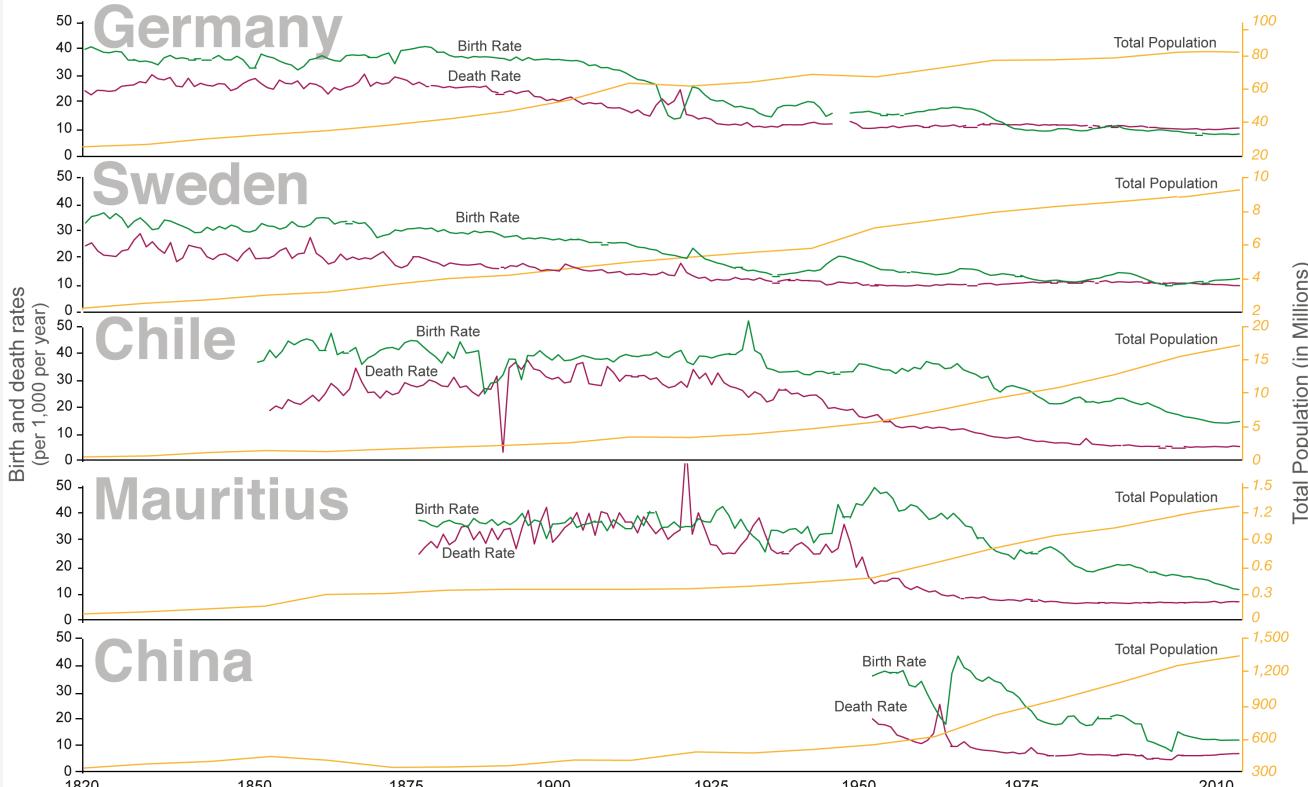
# Examples of the "Demographic Transition" I



OurWorld  
in Data

## The Demographic Transition in 5 Countries

The Demographic Transition refers to the transition from high birth & death rates to low birth & death rates. It is shown here for five countries that achieved the transition one after the other.



Data source: The data on birth rates, death rates and the total population are taken from the International Historical Statistics, edited by Palgrave Macmillan (April 2013).

The interactive data visualisation is available at [OurWorldinData.org](http://OurWorldinData.org). There you find the raw data and more visualisations on this topic.

Licensed under CC-BY-SA by the author Max Roser.

# Examples of the "Demographic Transition" II



# In Case You Missed It...Population and Development



# Thomas Malthus: On the Principle of Population



"Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with numbers will shew the immensity of the first power in comparison of the second."

Malthus, Thomas, 1798, *An Essay on the Principle of Population*

Thomas Robert Malthus

1766-1834

# Thomas Malthus: On the Principle of Population



Thomas Robert Malthus

1766-1834

“The power of population is so superior to the power of the earth to produce subsistence for man, that premature death must in some shape or other visit the human race. The vices of mankind are active and able ministers of depopulation. They are the precursors in the great army of destruction, and often finish the dreadful work themselves. But should they fail in this war of extermination, sickly seasons, epidemics, pestilence, and plague advance in terrific array, and sweep off their thousands and tens of thousands. Should success be still incomplete, gigantic inevitable famine stalks in the rear, and with one mighty blow levels the population with the food of the world.”

Malthus, Thomas, 1798, *An Essay on the Principle of Population*

# Thomas Malthus: On the Principle of Population



Thomas Robert Malthus

1766-1834

“Necessity, that imperious all-pervading law of nature, restrains [all plants and animals] within the prescribed bounds. The race of plants, and the race of animals shrink under this great restrictive law. And the race of man cannot, by any efforts of reason, escape from it. Among plants and animals its effects are waste of seed, sickness, and pre-mature death. Among mankind, misery and vice.”

Malthus, Thomas, 1798, *An Essay on the Principle of Population*

# Thomas Malthus: On the Principle of Population



Thomas Robert Malthus

1766-1834

- Malthus describes two types of “checks” on human fertility & population
  - 1. “**Preventative check**”: anything that limits people from having children
  - 2. “**Positive check**”: anything that reduces existing population
    - famine, disease, war

Malthus, Thomas, 1798, *An Essay on the Principle of Population*

# Two Views of the Economics of Population I



## "People as Stomachs"



Paul Ehrlich

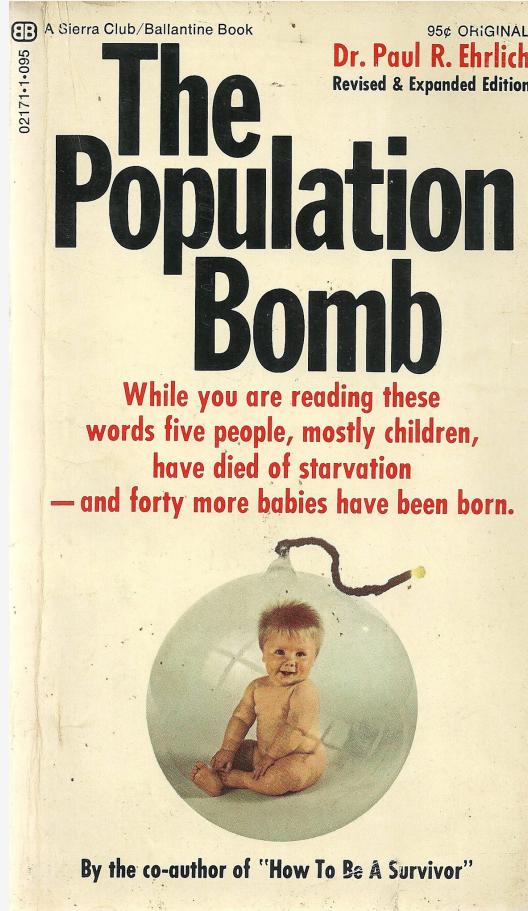
1932-

## "People as Brains"



Julian Simon

# People as "Stomachs" I



"The battle to feed all of humanity is over. In the 1970s hundreds of millions of people will starve to death in spite of any crash programs embarked upon now. At this late date nothing can prevent a substantial increase in the world death rate."

"We must have population control at home, hopefully through a system of incentives and penalties, but by compulsion if voluntary methods fail."

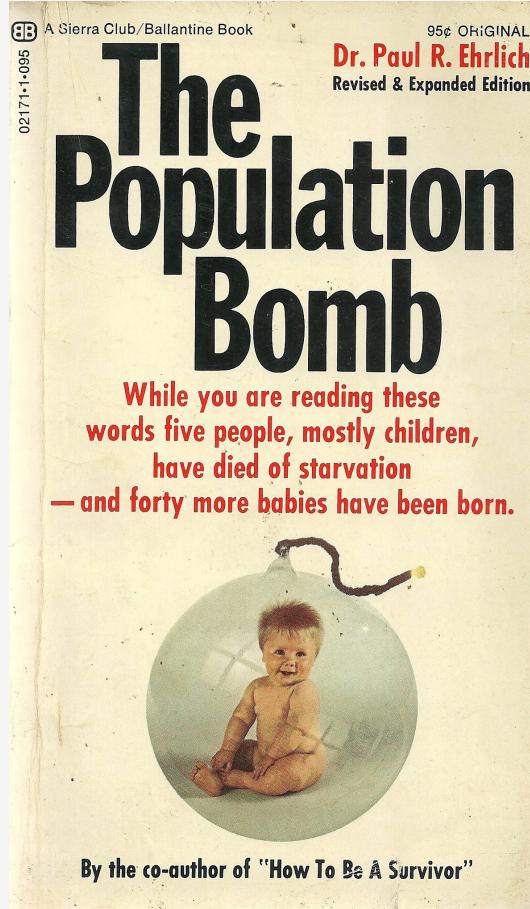
"65 million Americans will die of starvation between 1980-1989. By 1999, the US population will decline to 22.6 million."

"If I were a gambler, I would take even money that England will not exist in the year 2000."

Ehrlich, Paul, 1968, *The Population Bomb*

Donella Meadows et al., 1972, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*.

# People as "Stomachs" II

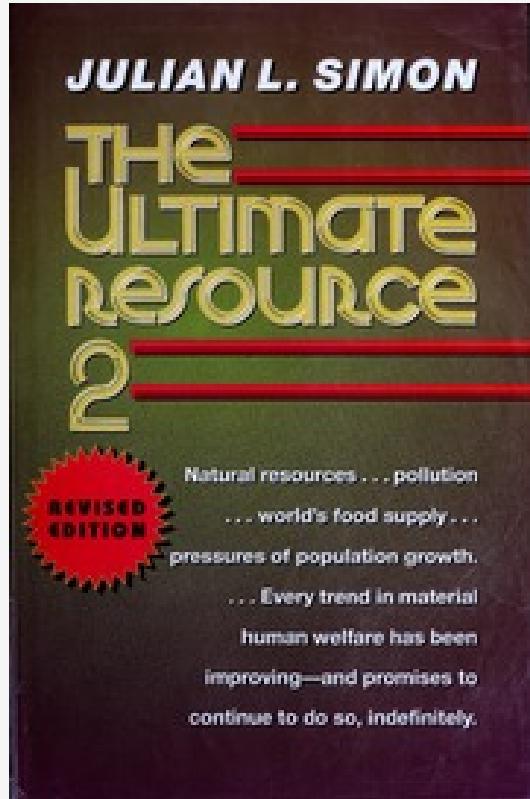


- Predictions: the world would run out of
  - gold by 1981
  - mercury and silver by 1985
  - tin by 1987
  - zinc by 1990
  - petroleum by 1992
  - copper, lead and natural gas by 1993
  - aluminum between 2005-2021

Ehrlich, Paul, 1968, *The Population Bomb*

Donella Meadows et al., 1972, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*.

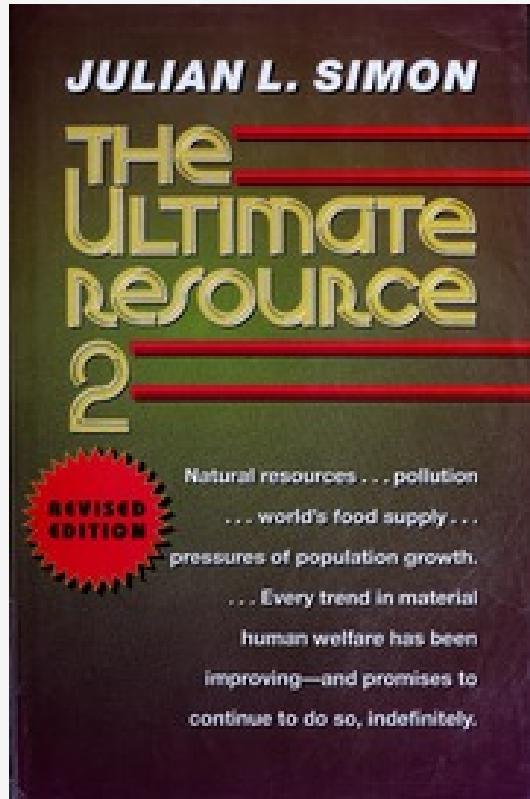
# People as "Brains" I



- Basic price theory: demand for resource raises its price
  - Induces recycling, more efficient utilization of resources, development of substitute goods and innovations
  - "It takes much less copper now to pass a given message than a hundred years ago."
- "Engineering" vs. "economic" forecasting:
  - "Engineering forecasting" takes the amount of physical resources known to be available and subtracts an extrapolation of current use rates from this
  - these are often famously wrong
  - "Economic" forecasting: need to include undiscovered sources, sources not yet economically feasible to extract, sources not yet technologically feasible to extract (note they are different!)

Simon, Julian L, 1981, *The Ultimate Resource*

# People as "Brains" II



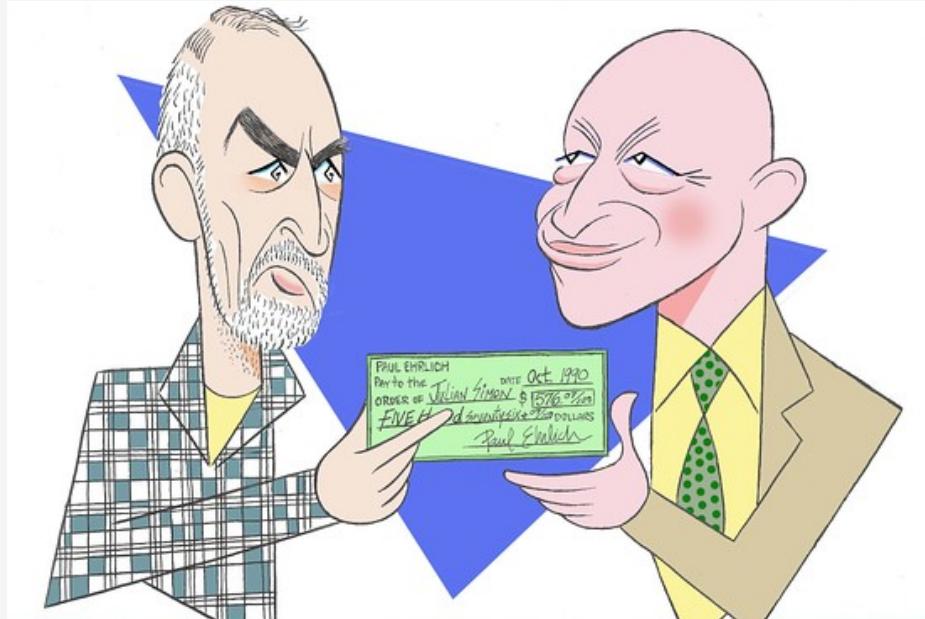
- The ultimate resource is *people!*
- More people  $\implies$  greater extent of the market  $\implies$  more division of labor  $\implies$  more specialization  $\implies$  more productivity
- More chances to have an Einstein or a Mozart

Simon, Julian L, 1981, *The Ultimate Resource*

# The Simon-Ehrlich Wager



- See this class' reading page for more on the [Simon-Ehrlich wager](#)



## Metal detector

*The Economist* industrial commodity-price index, real\* \$ terms, 1845-50=100



\*Adjusted by US GDP deflator

# People as Stomachs vs. Brains



"The nonrivalry of technology, as modeled in the endogenous growth literature, implies that high population spurs technological change. This paper constructs and empirically tests a model of long-run world population growth combining this implication with the Malthusian assumption that technology limits population. The model predicts that over most of history, the growth rate of population will be proportional to its level. Empirical tests support this prediction and show that historically, among societies with no possibility for technological contact, those with larger initial populations have had faster technological change and population growth," (p.681)

"[H]olding constant the share of resources devoted to research, an increase in population leads to an increase in technological change...This paper argues that the long-run history of population growth and technological change is consistent with the population implications of models of endogenous technological change...even if each person's research productivity is independent of population, total research output will increase with population due to the nonrivalry of technology. As Kuznets [1960] and Simon [1977, 1981] argue, a higher population means more potential inventors." (p.681-684)

Kremer, Michael, 1993, "Population Growth and Technological Change: One Million B.C. to 1990," *Quarterly Journal of Economics* 108(3): 681-716.

# The Causes of Economic Growth



- Consider a simple aggregate production function

$$Y = f(A, eL, K)$$

- $Y$ : GDP
- $A$ : technology
- $e$ : Education/human capital
- $L$ : labor
- $K$ : physical capital

- Population growth raises  $L$  and therefore raises  $Y$  (i.e. GDP)
  - Can come either from *births* or *immigration*



# The Demographic Transition



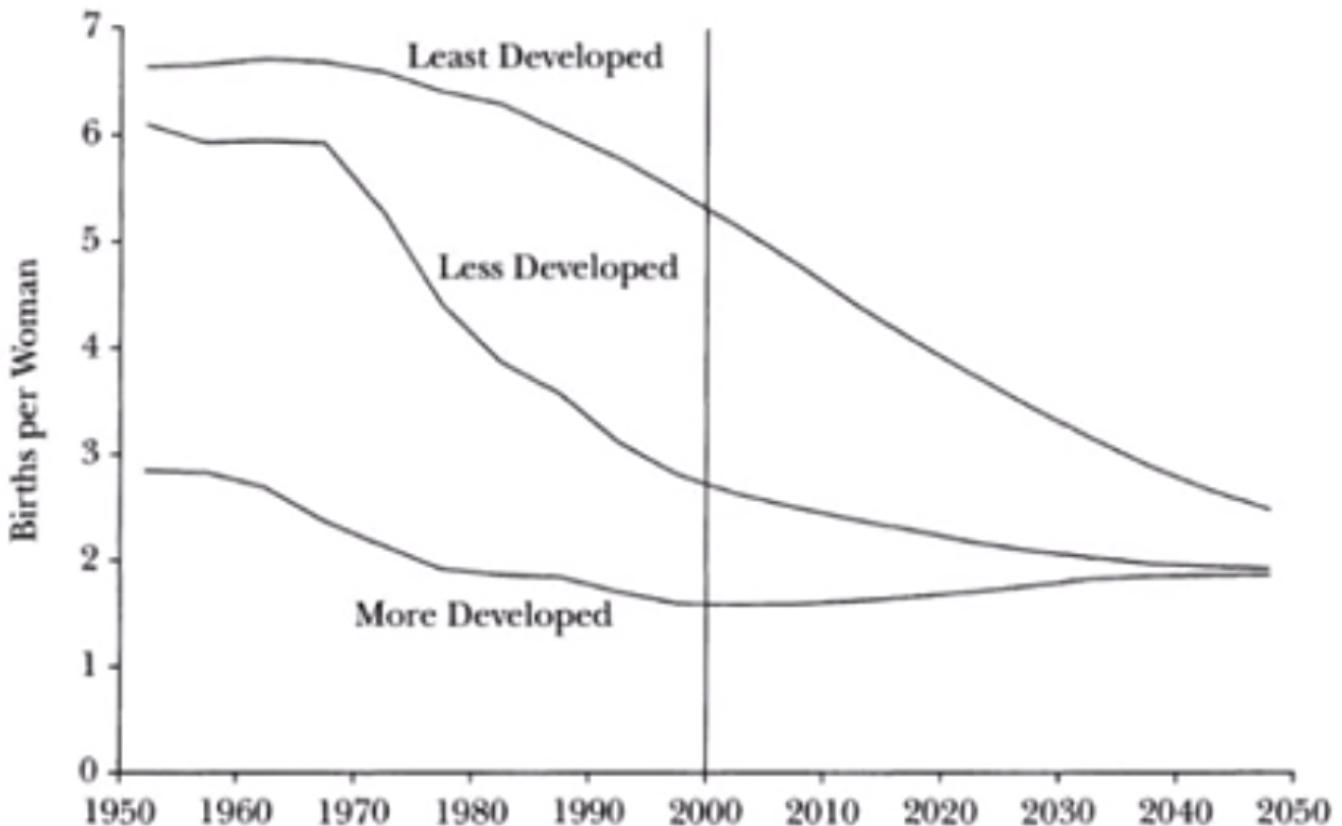
- The “**Demographic transition**”: as countries develop, their fertility rates (number of births per woman) tend to decrease
  - Lower infant mortality rate (more surviving children)
  - Higher opportunity cost for women to stay out of the work force
  - Children become an object of love more than a source of free (agricultural) labor



# The Demographic Transition



Past and Projected Total Fertility Rate by Major Development Groups, 1950–2050



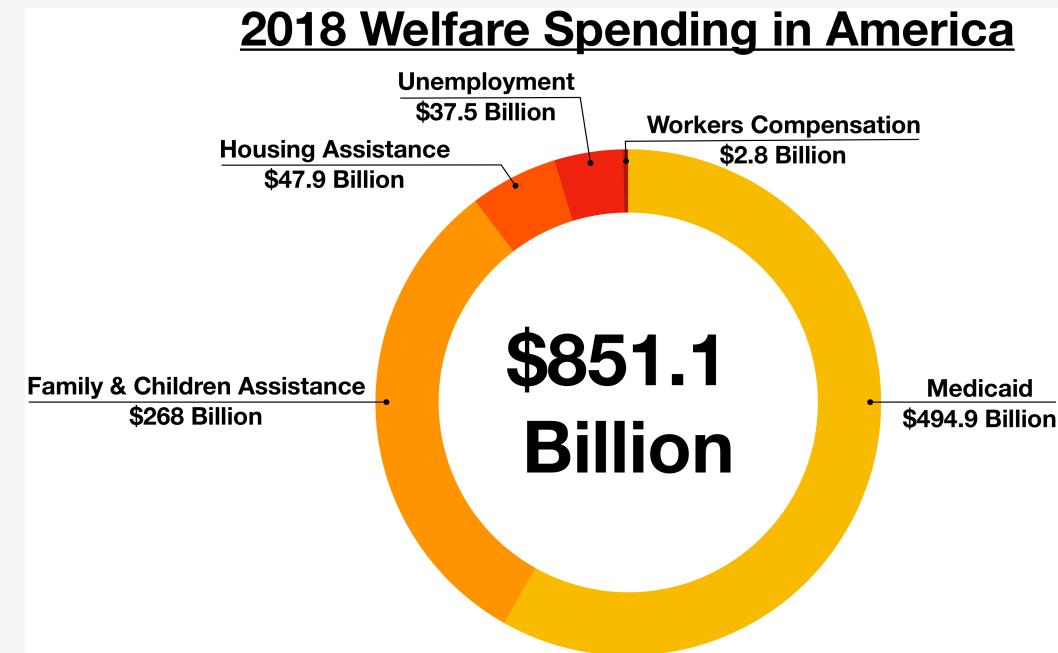
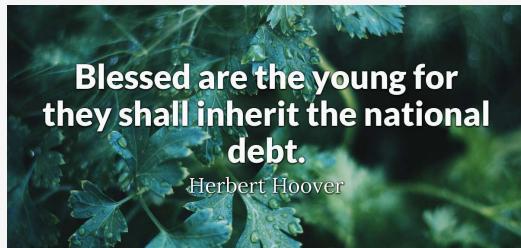
Source: Historical and Middle Series forecasts are taken from United Nations (2003).

# Lastly, The Welfare State and Immigration



- “**The Welfare State**” is financed by intergenerational debt on future generations
  - Benefits (Social Security, Medicare, Medicaid) to elderly today are paid by taxes on younger workers
  - Not a problem if there are plenty of working young people per beneficiary
    - In 1940: 159 workers paying into the system for every 1 beneficiary collecting payments
    - In 2013: 2.8 workers paying into the system for every 1 beneficiary

Source: [Social Security Administration](#)



# Lastly, The Welfare State and Immigration



THE WALL STREET JOURNAL.  
ECONOMY | CAPITAL ACCOUNT

## Trump's Hard Line on Immigration Collides With U.S. Demographics

As population ages and fertility rate falls, building up the labor force will be tougher without immigrants

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RESILIENCE IS A

Farm workers harvest lettuce in a field outside Brawley, Calif., on Jan. 31, 2017. Donald Trump aims to reduce immigration to the U.S., spurred by worries that foreign-born people are taking U.S. jobs, but the crackdown will complicate hitting his already hard-to-achieve economic targets.

PHOTO: SANDY HUFFAKER/AGENCE FRANCE-PRESSE/GETTY IMAGES

By [Greg Ip](#)  
Updated Feb. 22, 2017 5:53 pm ET

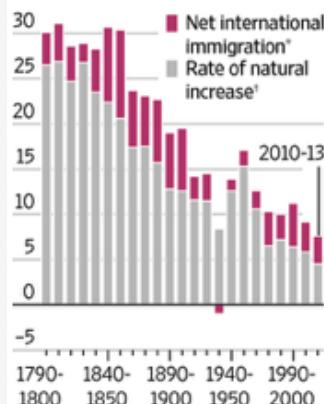
SAVE PRINT TEXT

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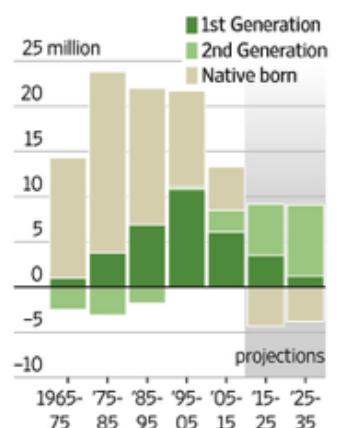
## An Antidote to Aging

With the U.S. birth rate declining, curtailing immigration will slash future population growth and make entitlements more burdensome.

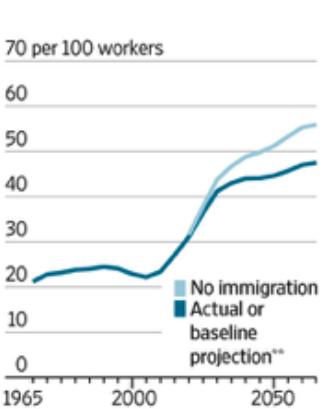
### Components of population increase per 1,000 residents, by decade



### Contributions to working age population\*



### Number of elderly-65 and over



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Source: [WSJ, 2017](#)