

*Osher Lifelong Learning Institute, Fall 2005*

## Contemporary Economic Policy

Northwestern University

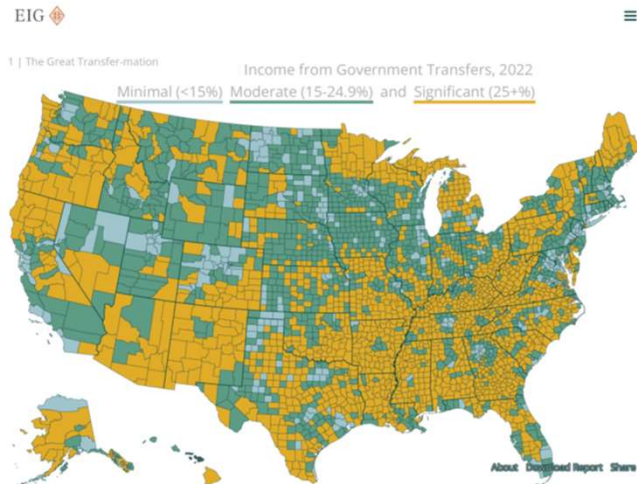
Host: Geoffrey Woglom, Ph.D.  
National Economic Education Delegation

## Course Schedule

### Inequality and Public Policy

- Week 1 (10/14): The New Inequality, Geoffrey Woglom, Amherst College
- Week 2 (10/21): Economics of Immigration, Robert Gitter, Ohio Wesleyan University
- **Week 3 (10/28): Trade and Inequality Geoffrey Woglom, Amherst College**
- Week 4 (11/04): The Black-White Wealth Gap, Jon Haveman, Exec. Director, NEED
- Week 5 (11/11): Climate Change Economics Sarah Jacobson, Williams College
- Week 6 (11/18): AI and Inequality Geoffrey Woglom, Amherst College

# Geographic Distribution of Government Transfers



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<https://eig.org/great-transformation>

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## Outline

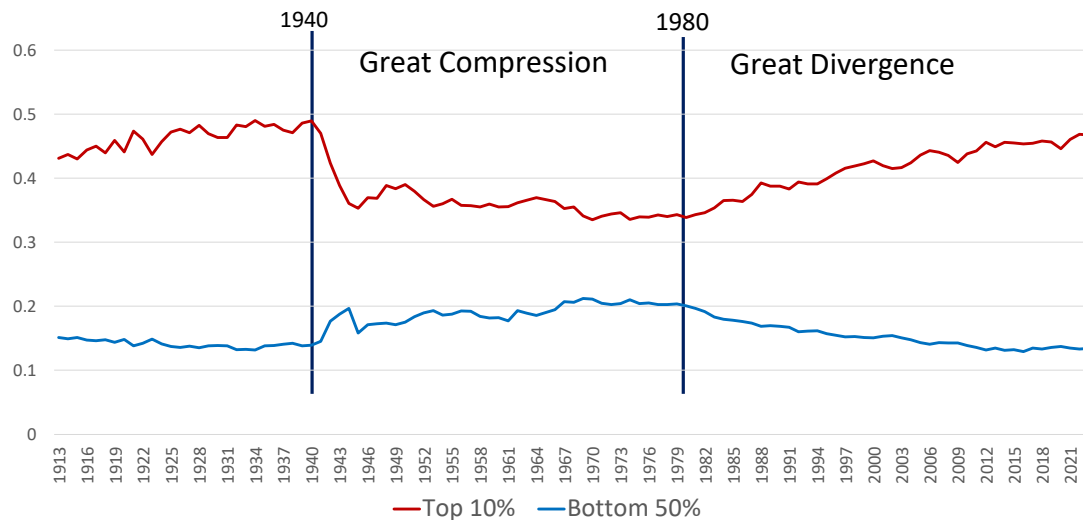
- Overview of the economic analysis of the causes of post 1980 rise in income inequality.
- Zero in on Trade and Manufacturing.
- The China shock of 2001-2005.
- Look at why trade dislocations are politically important.
- The interaction among the different factors that led to the relative decline in labor relative to corporate power.



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## Income Inequality: the Long View

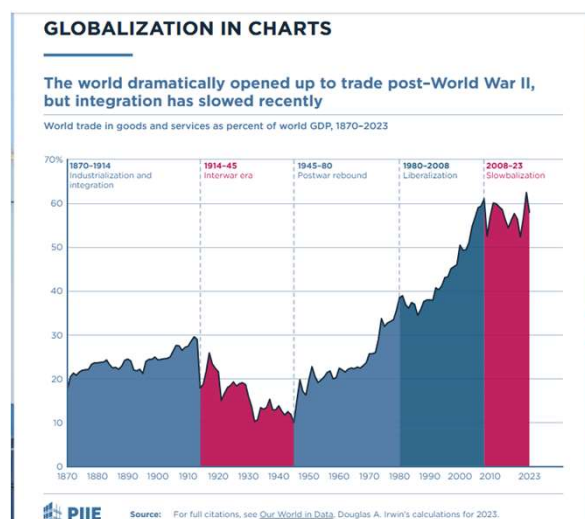


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Source: <https://wid.world/>

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## World Trade: the Long View



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The growth in income inequality does coincide with the period of rapid liberalization and high globalization

But income inequality was falling when globalization was rising, eventually reaching high levels

Trade as the sole source of inequality doesn't quite fit

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## Economist Views Post 1980 Wage Inequality

### Ranking of Causes

1. Skill-biased Technological Change.
2. Declining market power of unions relative to corporations,
3. International Trade.
4. Immigration.

But, there is substantial disagreement of relative importance.

There is an emerging agreement that growing wage inequality was related to the relative supply and demand for skilled workers



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## Supply and Demand for Skill

### • The “Race” between education and technology.

- Supply depends on educational attainment.
- Demand
  - o Skill-Biased Technological Change that raised the productivity skilled labor; e.g. spread sheets and financial services.
  - o Trade, where exports are more skill intensive and imports are less.

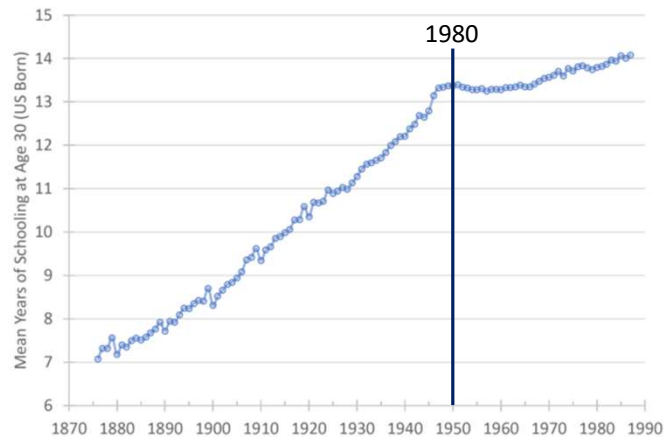


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## Supply of High-Skilled Workers

Figure 2: Mean Years of Schooling at Age 30 for the U.S. Born, 1876 to 1987 Birth Cohorts

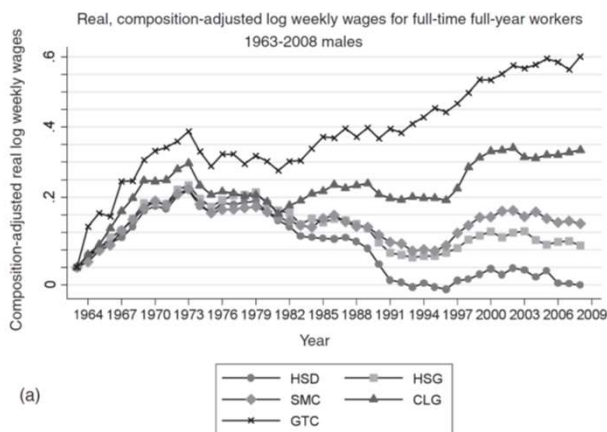


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D. Autor, C. Goldin, and L. Katz, Extending the Race between  
Education and Technology" NBER Working Paper, 1/11/2020

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## Wage Inequality is Associated with Skills



HSD = High School Dropout  
HSG = High School Graduate  
SMG = Some College  
CLG = College Graduate  
GTC = Greater Than College

Takeaways starting in 1980:

1. High Skill workers real wages rise.
2. Low Skill workers real wages fall.



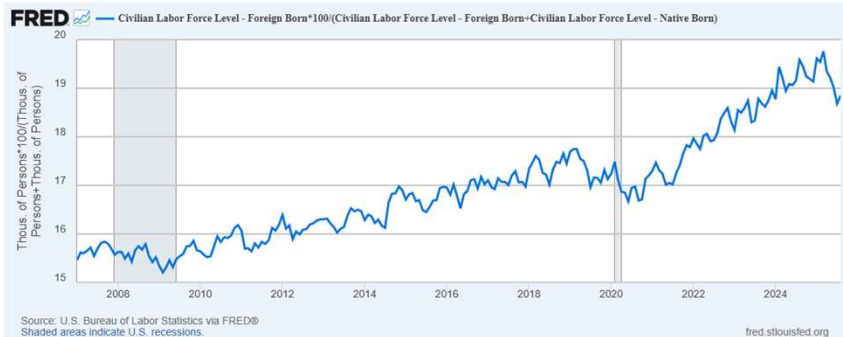
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<https://shapingwork.mit.edu/research/skills-tasks-and-technologies-implications-for-employment-and-earnings/>

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# Immigration & the Supply of low-skilled workers

## • Immigration ?



FYI: 40% of US Nobel Prize Winners are immigrants.

- In 1980, foreign-born population was 6%
- In 2023, immigrants more likely to lack less than HS, but as likely to hold a BA

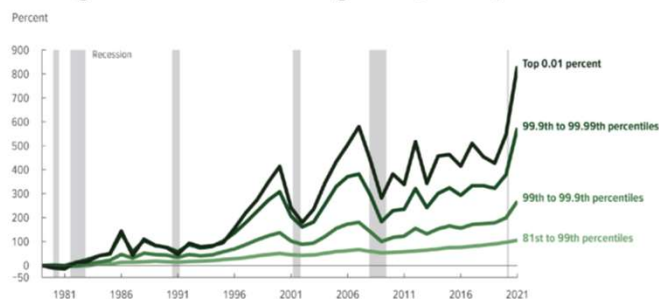


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# Problems with Skill & Education as the Main Factor.

## Cumulative Growth in Income Before Transfers and Taxes Among Households in the Highest Quintile, 1979 to 2021



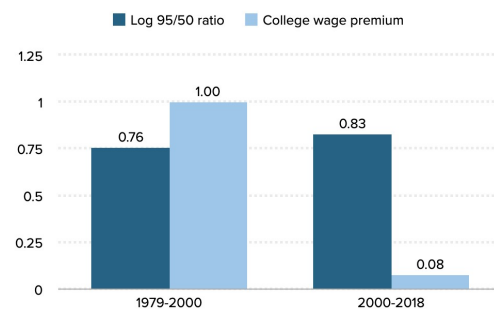
<https://www.cbo.gov/system/files/2024-09/60342-Trends-Income.pdf>



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## The college wage premium cannot explain growing wage inequality since 2000

Average annual percentage-point changes in wage gaps, 1979–2000 and 2000–2018



<https://www.epi.org/blog/higher-returns-on-education-cant-explain-growing-wage-inequality/>

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## The Economics of Trade

- **The Economics of International Trade is not different than trade within a country; shifting supply and demand.**
- Adam Smith and the Pin Factory: Given difference in workers, specialization leads to cost savings.
- David Ricardo generalized the gains to specialization by specifying workers should so what they do *relatively* the best (comparative advantage).
- Why does Patrick Mahomes hire a teenager to mow his lawn?
- Note specialization requires large markets to take advantage of specialization

## Example, Lesotho (2022 data)



Bilateral:  $(EX-IM)/EX = (\$236m - \$7m)/\$236m = 0.97$   
 "Reciprocal" Tariff =  $0.5(.97) = .485$ ,  
 49% tariff rate (actually, 50%)

Facts about Lesotho:

GDP/Pop = \$1,073;

Population 2.1 million

Trade balance **-\$349 million**

Average eff. tariff rate against US = 10%

PreTrump no tariffs on African countries

Lowered to 15% in July

## Generally Agreed On Effects of Opening to Trade

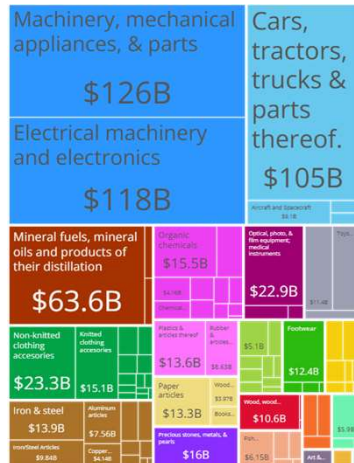
- Trade leads to winners and **losers**, but *eventually* the dollar gains exceed losses.
  - Winners:
    - Export industries and their workers.
    - Consumers and domestic firms importing intermediate goods due to lower prices.
  - Losers: Imports competing industries and their workers
- Without compensation from winners to losers there must be net losers.

## Why the “Eventually?”

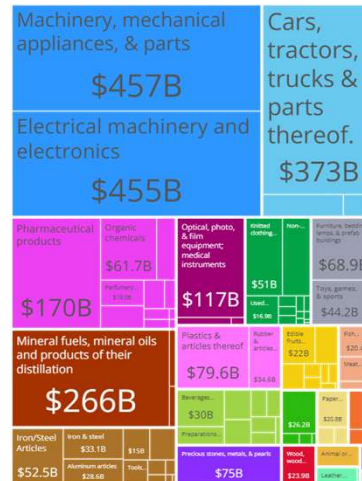
- Transition costs
  - Workers and capital have to be moved from import competing industries to export or to other domestic industries.
  - Temporarily unemployed labor and capital is an added costs.
  - “Generally agreed ...” looks at losers and winners after workers and capital have moved.

**Pre 2000 View: with Labor Mobility High (at least relative to Europe), transition costs not too high**

## Composition of US Goods Imports



1995, Total \$757B



2023, Total \$3T

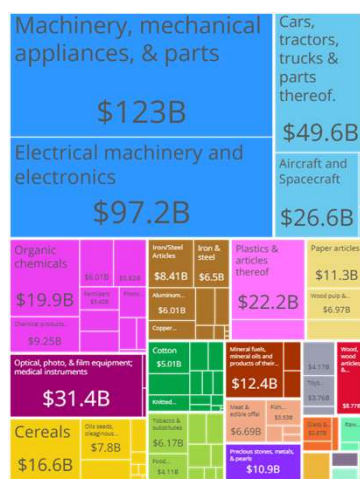
Only 40% of imports are on consumer goods. "Global Supply Chains."



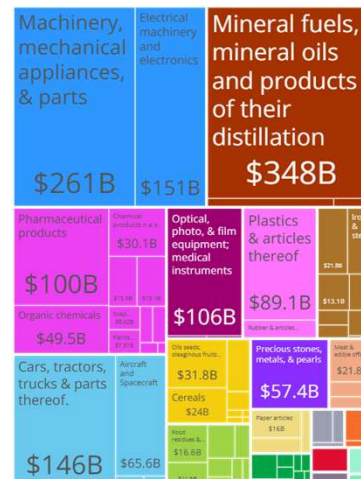
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## Composition of US Goods Exports



1995, Total \$615B



2023, Total \$1.86T



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<https://oec.world/en/profile/country/usa>

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## Don't Forget Services

Figure 1. U.S. Trade Balance as a Share of GDP, 1999-2023



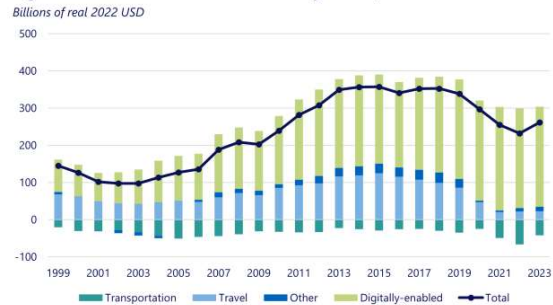
Council of Economic Advisers

Sources: Census; BEA; CEA calculations.

Note: Trade data are on a balance of payments basis. Gray bars indicate recessions.

As of May 30, 2024 at 3:00pm.

Figure 2. Real Services Trade Balance By Sector, 1999-2023



Council of Economic Advisers

Sources: BEA; CEA calculations.

Note: Digitally-enabled services are measured using BEA official statistics on potentially ICT-enabled services defined as services that can be delivered remotely over information and communications technology networks and includes insurance, financial, charges for the use of intellectual property, telecommunications/computer/information, and other business services. Other includes maintenance and repair services, construction services, personal, cultural and recreational services, and government goods and services.

As of May 30, 2024 at 3:00pm.



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## Changes in the Composition of Trade

- **Goods Exports:** Growth in Oil and Minerals.
- **Goods Imports:** Relative importance hasn't changed much, but...

The share of exports in GDP between 1995 and 2023 is about the same, while the share of imports has increased by over 2 percentage points.

**One Big exception:** Growth in service exports, particularly digitally enabled services, suggests service exports are more skill intensive.

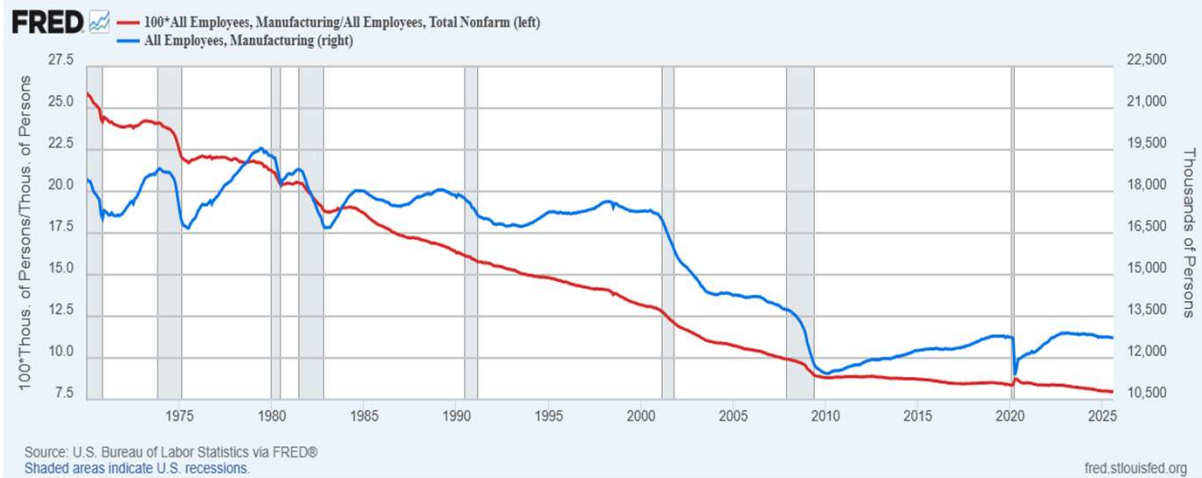
**But what about Manufacturing?**



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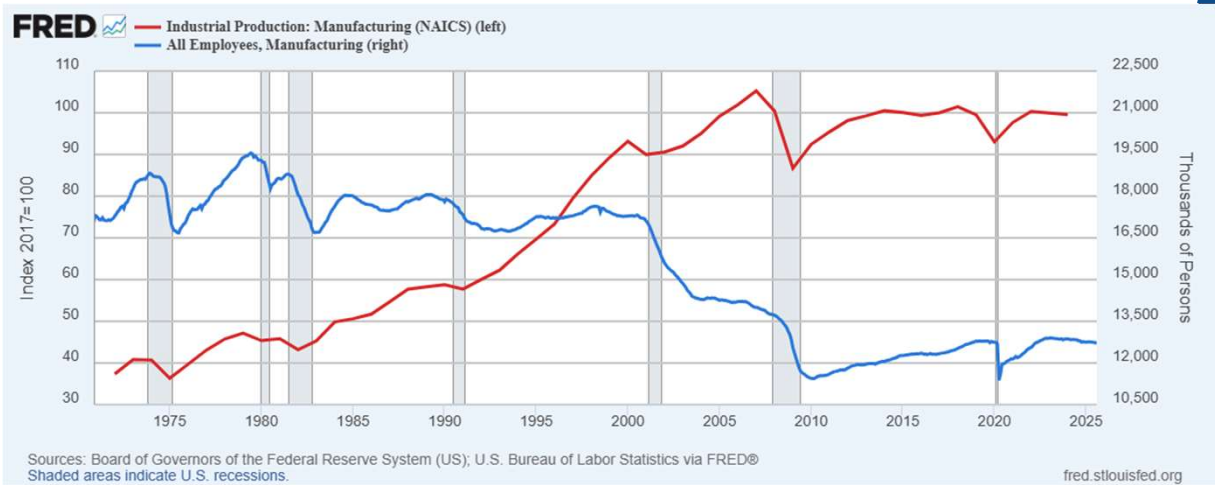
## Focus on Manufacturing: Employment



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## Real Output and Employment in Manufacturing



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## Summary: Post 1980 Changes in Manufacturing

1. Employment as a *share* of total employment falls throughout the period.
2. Employment doesn't decline much until 2000, and stabilizes at a much lower level in about 2019
3. Real manufacturing output *increases* continuously until 2008.

The last two points imply that from 2000 **productivity** in manufacturing grew rapidly. Due to:

1. Import competition?
2. Technological change and automation?
3. Change in the composition of workers to higher levels of skill?
4. Or, all 3?



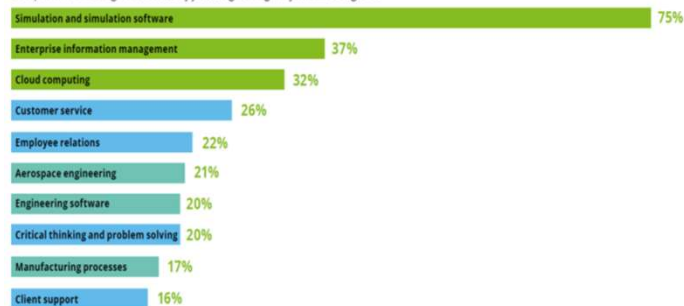
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## Evidence of Increasing Skill Levels

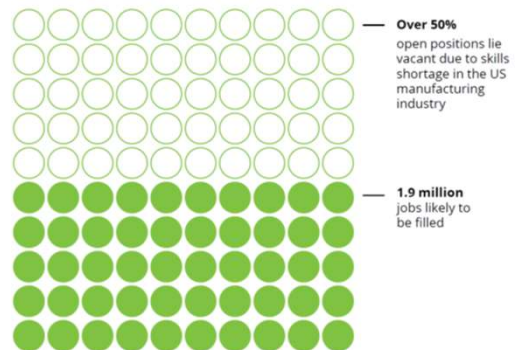
Figure 3. A combination of digital skills, soft skills, and high-level technical skills show the fastest compound annual growth rates in manufacturing between 2019 and 2023

Compound annual growth rates of fastest growing major skill categories



**1.9 million**

manufacturing jobs could remain unfilled due to the skills gap

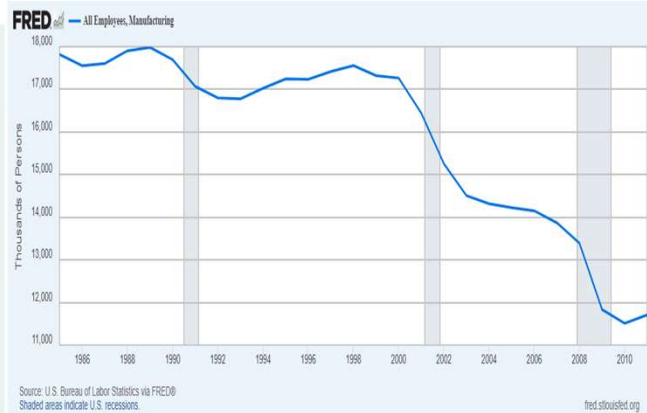
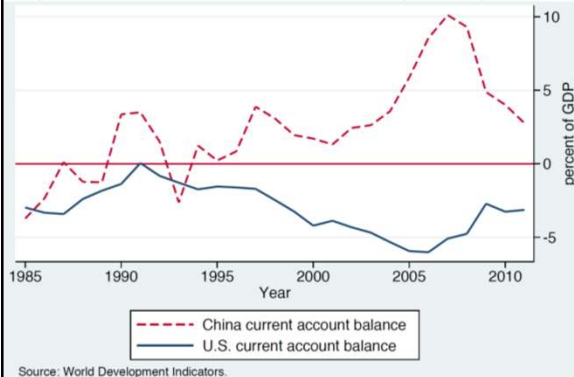


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## The China Shock: 2000-2010

Figure 5: U.S. and China Current Account Balances (% of GDP) 1985 - 2012



China Joins WTO in December of 2001



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[https://www.nber.org/system/files/working\\_papers/w21906/w21906.pdf](https://www.nber.org/system/files/working_papers/w21906/w21906.pdf)

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## Autor, Dorn, Hanson (2016); “Prevailing View”

### • 2000 Economist View of the Effects of Increasing Trade

1. Free Trade leads to more gains than losses
2. Trade was not the major cause of the decline in manufacturing employment nor in the rise of inequality.
3. Increasing trade would affect low-skilled wages generally and not by trade-exposed workers specifically.
4. Worker mobility was high.

### • Given 4, increasing trade should provide gains for most.



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## Author et. al.'s Conclusion

While these results do not at all suggest that international trade is in the aggregate harmful to nations-indeed, China's unprecedented rise from widespread poverty bears testimony to trade's transformative economic power-it makes clear that trade not only has benefits but also significant costs. These include distributional costs, which theory has long recognized, and adjustment costs, which the literature has tended to downplay.

**China shock showed that a rapid influx of imports can cause harm that is geographically concentrated and long lasting to communities with import competing industries.**

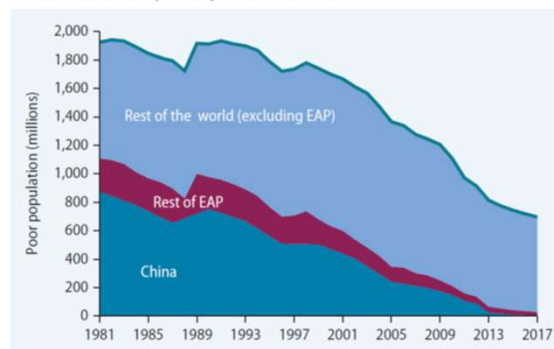


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## But, Here Is Another Fact to Keep in Mind

**FIGURE 1.2** China accounts for almost three-quarters of global extreme poverty reduction since 1981: Poverty headcount based on the international poverty line, 1981–2017



Sources: Lugo, Niu, and Yemtsov 2021, based on PovcalNet adapted from World Bank 2018.  
Note: EAP = East Asia and Pacific.

Growing Inequality within the US and most industrial countries coincided with a reduction in World Inequality



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## Autor, et. al. Reexamination (2021)

### Effects of the China Shock through 2019

- Only net migration out of affected areas are foreign born and native born aged 25-39, “implying that exit from work is a primary means of adjustment.”
- Many of the affected areas “have suffered absolute declines in average real incomes.”
- “Because of the distinctiveness of the China trade shock...some see it as holding few lessons for policymakers. Such characterizations are mistaken. Large, localized contractions in labor demand—for example, ..., and ongoing automation and roboticization—are unfortunately common events.”

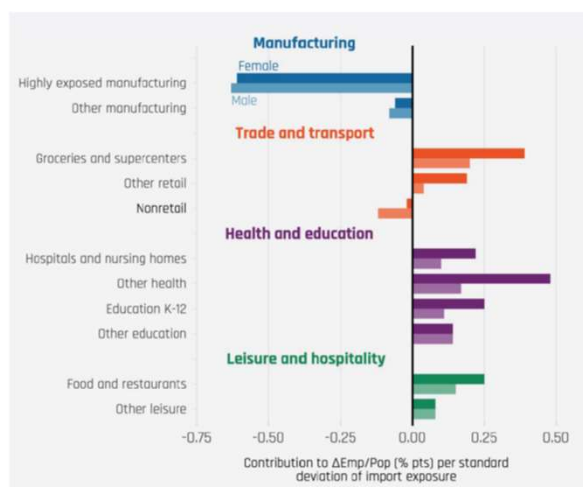


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<https://www.nber.org/papers/w29401>

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## China Shock and Change in Employment



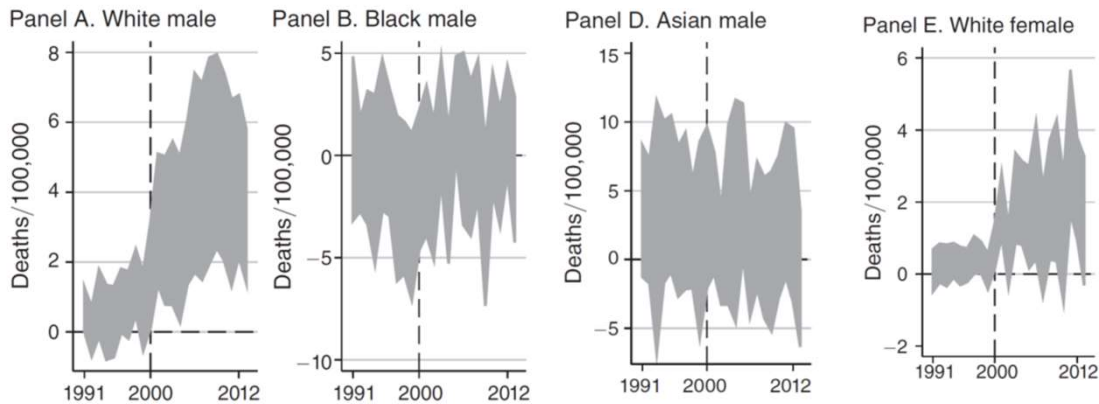
**FIGURE 3**  
The China trade shock increased places' employment in retail, health care, and education in the first two decades of the 21st century  
Impact of trade shock per one standard deviation exposure on U.S. employment in select industries, 2000-2019



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## The China Shock and Deaths of Despair



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[http://www.justinrpierce.com/index\\_files/pierce\\_schott\\_aeri\\_2020.pdf](http://www.justinrpierce.com/index_files/pierce_schott_aeri_2020.pdf)

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## How Did We Let This Happen?

- Partly, because of the “exorbitant” privilege combined with industrializing Asia.
- Japan, South Korea and China followed a similar playbook.
- Develop the industrial sector through subsidies, tariffs and an “undervalued” currency.
- Sort of an “Infant Industry” argument.



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## How to Undervalue Your Currency

1. Restrict domestic consumption to generate an increase in National saving and a trade surplus.
2. Normally a trade surplus would lead to an increase in the supply of dollars on foreign exchange markets and a fall in the value of the dollar (or rise in the value of your currency).
3. Offset the rise in the value of the your currency by buying US financial assets, e.g., US Treasury bonds. (which also helps to restrict domestic consumption).

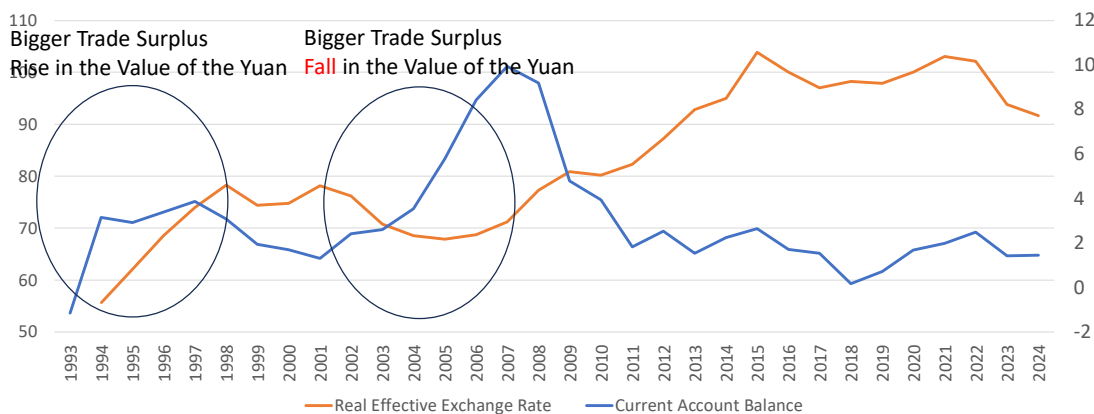


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## The Chinese Example

China's "Real" Exchange Rate and Current Account



Chinese Consumption: 2003, 46.0% of GDP; 2007, 39.9%

Holding of US Treasury Bonds: 2003, \$147b; 2007, \$471b



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## Why Didn't the US Respond?

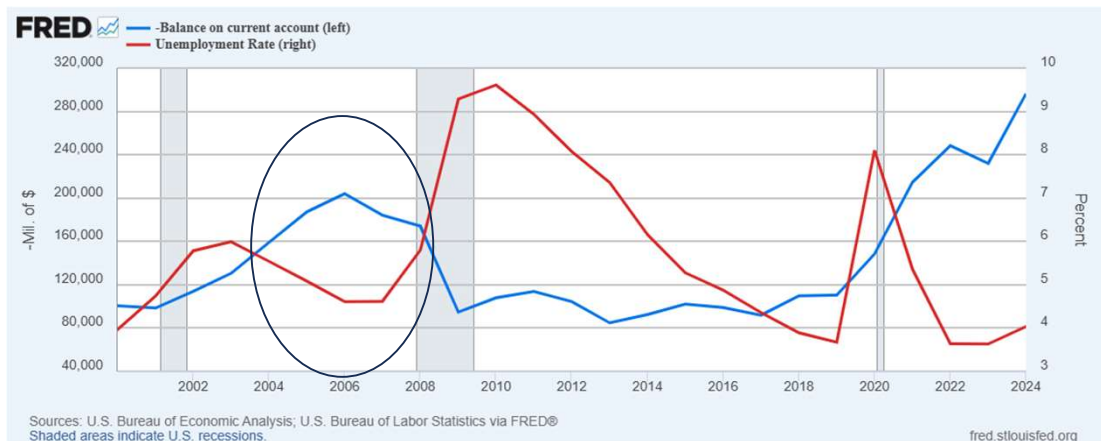
- Cheap Chinese goods kept US inflation low and benefited US consumers.
- Low US interest rates made the job of financing the deficit easier.
- Diplomatic reasons: "The US wants a prosperous China."
- Instead, the Fed cut interest rate to raise domestic spending enough to accommodate growing imports, while maintaining domestic production.
- But manufacturing took a big hit.



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## Doesn't the Rising Trade Deficit Cause Unemployment?

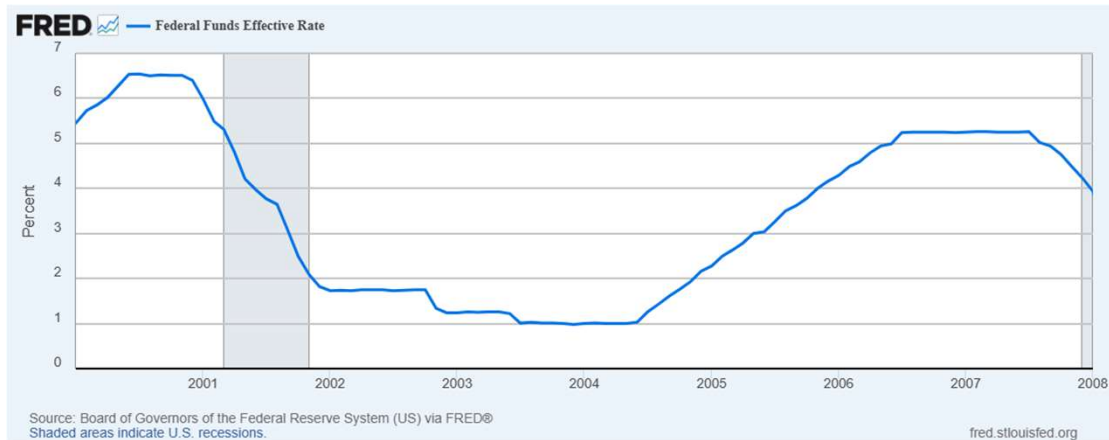


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How Could Unemployment Fall with Trade Deficit Rising?

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## The Fed to the Rescue



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## But Why Are Adverse Effects of Trade Different?

Autor, et. al. 2021:

- “Economists have long known that individuals are scarred by job loss. Displaced workers earn significantly less than similar workers who are not displaced, even years after displacement.”
- “Presumably, job loss is equally scarring no matter whether the underlying cause of displacement is import competition, technological change ..., government regulation, or some other factor.”

For example,...



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## The Sad Demise of the Fedora



The Culprit: JFK



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## Merrimack Valley Hat Company

- Founded in 1838 in Amesbury Massachusetts.
- In the 1940s, largest manufacturer of felt hats employing 500 workers locally and another 1500 at other locations.
- Post WWII the company struggles with declining demand eventually closing in 1970.
- The abandoned factory remains vacant until the late 1980s, when the factory is converted to luxury condominiums, a process that was ongoing in 2018.



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## How is the Plight of Merrimack different from that of Bethlehem Steel?

- In both cases, workers, firms and geographic locations suffer long lasting “scarring.”
- Dani Rodrik, heterodox Harvard trade economist, has what I think is the answer.

“There is broad consensus within the economics profession that technology and broad institutional changes (such as the decline in unionization or labor power) have played a larger role. Yet somehow the adverse effects of trade and globalization have become politically salient in a way that many of the other determinants have not.”



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[https://www.nber.org/system/files/working\\_papers/w29507/w29507.pdf](https://www.nber.org/system/files/working_papers/w29507/w29507.pdf)

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## Fairness and Inequality

Rodrik quoting Angus Deaton:

“inequality is not the same thing as unfairness ... it is the latter that has incited so much political turmoil in the rich world today. Some of the processes that generate inequality are widely seen as fair. But others are deeply and obviously unfair, and have become a legitimate source of anger and disaffection.”

Rodrik picks up the argument

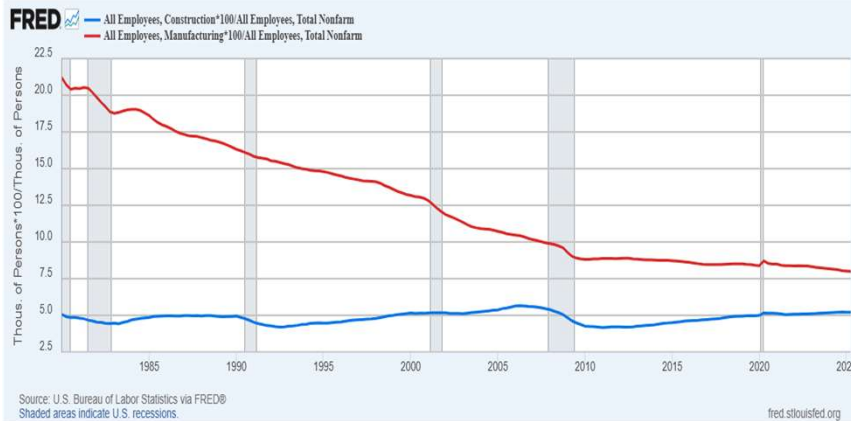
“But international trade renders what is illegal (and illegitimate) in a national setting to be suddenly legal (and, in the eyes of many economists and technocrats, fully legitimate). A firm cannot import child workers and put them to work at home; but it is perfectly able to do so when it employs those child workers abroad (directly, or through a subcontractor). An economist looks at this, and sees gains from trade.”



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## Interactive Effects



1980:

Man. 32.3 % unionized

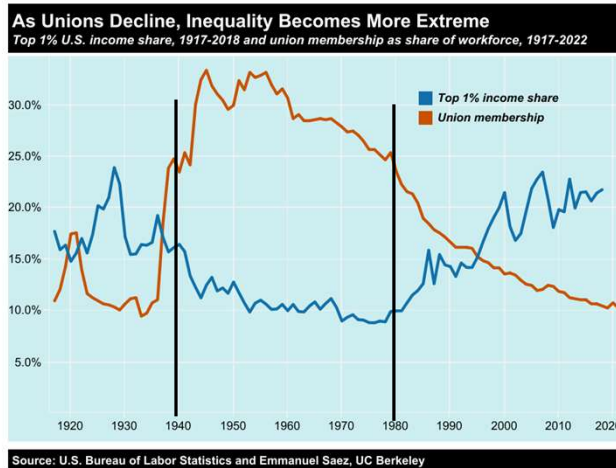
Const. 30.9% unionized

2024::

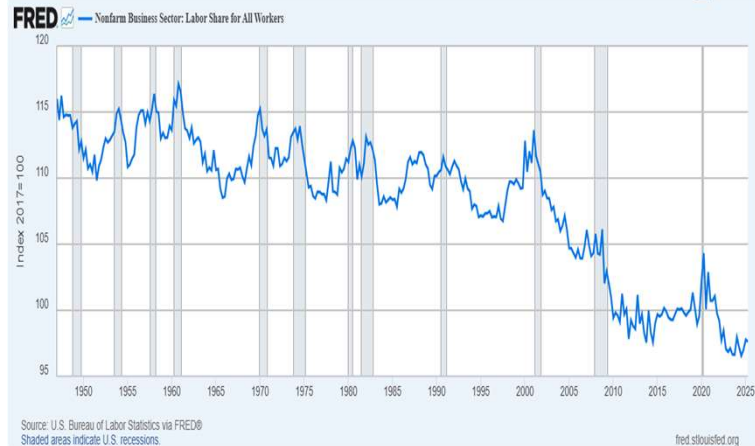
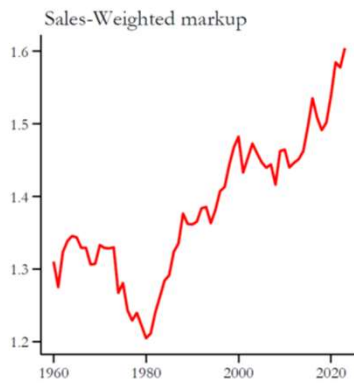
Man. 7.8% % unionized

Const. 10.3%% unionized

## An Indirect Effect of the Decline in Manufacturing



## Measures of Corporate and Labor Power



<https://www.janeeckhout.com/wp-content/uploads/ARE.pdf>



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## Characteristics of Union Households Changed

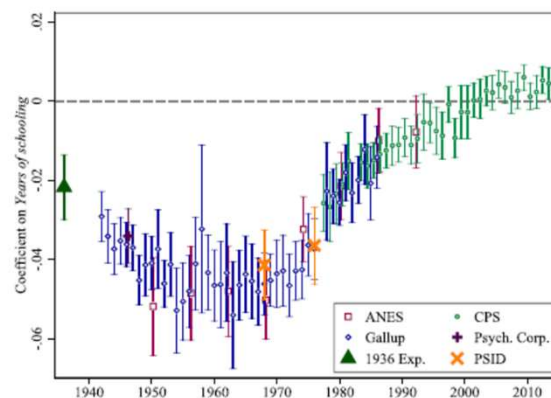


FIGURE III

How Does Years of Schooling Predict Union Household Status?



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H. Farber, et.al., *Quarterly Journal of Economics*, August 2021, v. 136, iss. 3, pp. 1325-138H.Farber, et.al.

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## Will Trump's Tariffs Create New Jobs?

- In some, protected industries, yes, e.g. steel and aluminum.
- But, the overall net effect on jobs is likely to be negative due to:
  1. Increased costs for business, remember consumer goods are less than 40% of all imports.
  2. Policy Uncertainty delaying investment decisions.
  3. Tariffs are a tax increase that will lead to some decrease in consumer spending.



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## What Should Be Done?

- Our massive trade deficits are unhealthy.
- But trade deficits are caused by too little national savings and most of this is due to government budget deficits.
- Find the political will to raise taxes and reduce government spending.
- Fed can maintain full employment by lowering interest rates
- Step in early to slowdown (perhaps not stop) large job displacements (AI effects?)
- Focus training efforts on the young,
- Wish I had something more concrete and more politically feasible.



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## The Rise of a Heterodox Critic

- **Michael Pettis (based in a Chinese University!), *The Great Rebalancing*, 2013.**

In the *WSJ*, April 30, 2025

Letting other countries take the lead in manufacturing harms the American economy. The U.S. accommodates other countries' successful industrial policies by absorbing their negative consequences—namely, by absorbing global savings imbalances, running trade deficits and offshoring manufacturing.

U.S. leaders must adopt a strategic approach to industrial policy...and, more important, by reversing the U.S. role in absorbing global trade and capital imbalances.

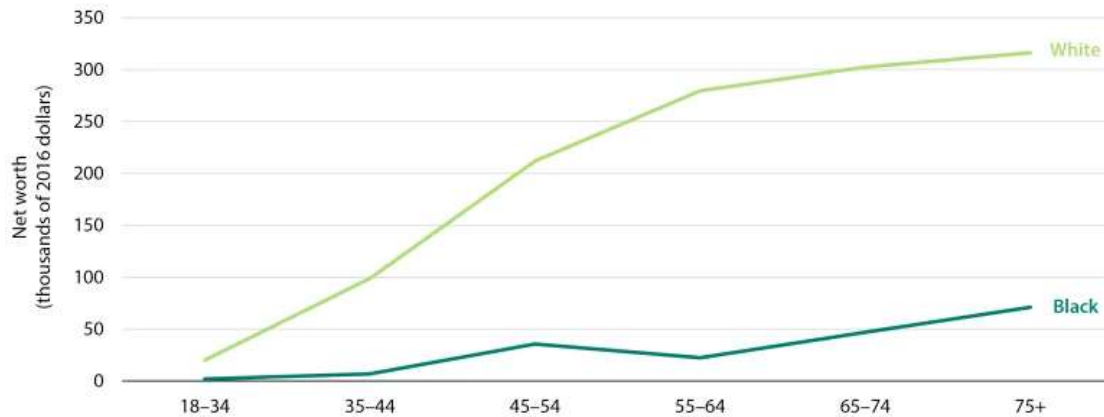
## Preview of AI

- **First, no one really knows the effects.**
- **Second, the big difference in the effects of AI is that it breaks the close link between “skill” and educational attainment.**

## Next Week: Net Worth by Age and Race

FIGURE 2.

Median Net Worth, by age of Household Head



Source: Survey of Consumer Finances 2016; authors' calculations.  
 Note: Data are from 2016. Net worth refers to the difference between assets and debt for a household head. Race and ethnicity are those of the survey respondent.



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HAMILTON  
BROOKINGS

Source: <https://www.brookings.edu/blog/up-front/2020/02/27/examining-the-black-white-wealth-gap/>

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## Let's Hear from You!

Geoffrey Woglom  
[grwoglom@amherst.edu](mailto:grwoglom@amherst.edu)

Contact NEED: [Info@NEEDEcon.org](mailto:Info@NEEDEcon.org)

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