

Osher Lifelong Learning Institute, Winter 2022

Contemporary Economic Policy

Clemson University
January-February, 2022

National Economic Education Delegation



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National Economic Education Delegation

- **Vision**

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

- **Mission**

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.

- **NEED Presentations**

- Are nonpartisan and intended to reflect the consensus of the economics profession.



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Who Are We?

• Honorary Board: 54 members

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

• Delegates: 649+ members

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

• Global Partners: 48 Ph.D. Economists

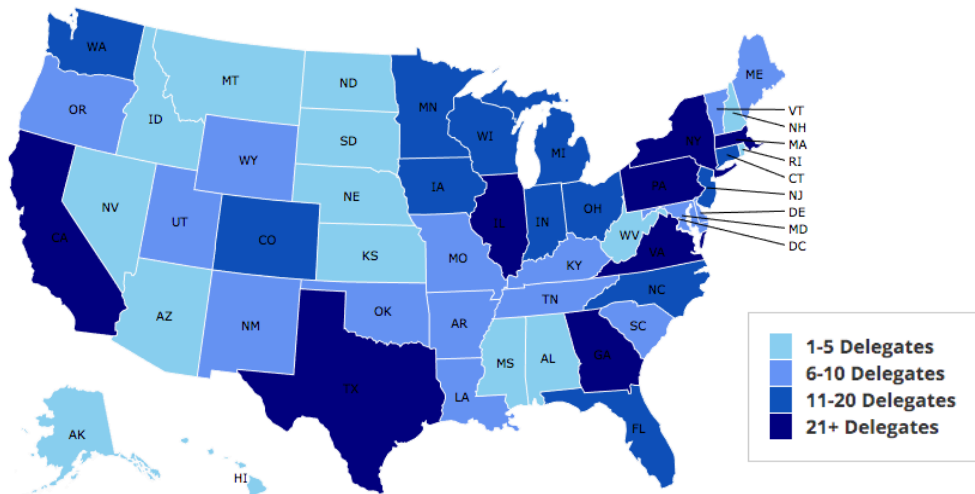
- Aid in slide deck development



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Where Are We?



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Available NEED Topics Include:

- Coronavirus Economics
- US Economy
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- US Social Policy



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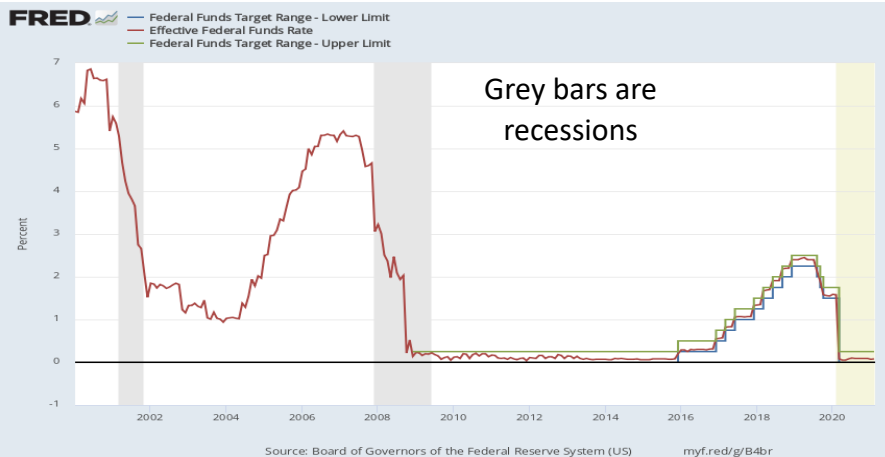
Course Outline

- **Contemporary Economic Policy**
 - **Week 1 (1/31): US Economy & Coronavirus Economics**
 - Week 2 (2/7): Monetary Policy (Geoffrey Woglom, Amherst College)
 - Week 3 (2/14): Trade (Alan Deardorff, University of Michigan)
 - Week 2 (1/21): Climate Change Economics (Sarah Jacobson, Williams College)



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Monetary Policy Is About the Interest Rate

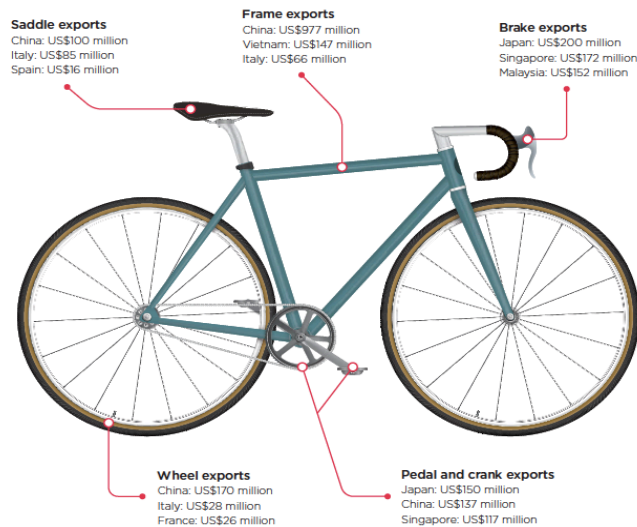


The FOMC does not set an exact number for the Federal funds rate. Instead, it sets an upper (green line) and lower (blue) range. “The Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent...” (4/28/2021)

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Trade: Bicycle Supply Chain

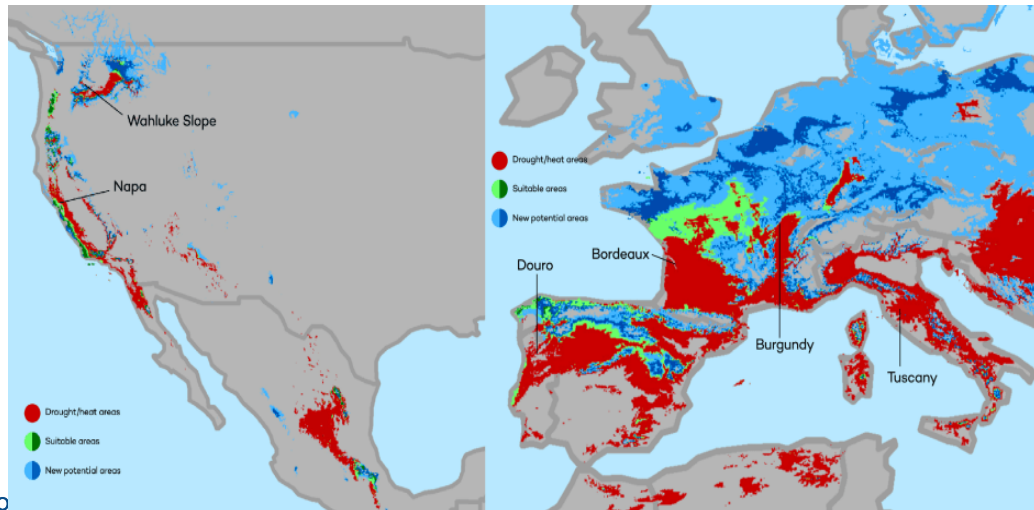
Figure 1.1 Where do bicycles come from?



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Climate Change Economics

The changing map of the world's wine-growing regions.



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Submitting Questions

- **Please submit questions in the chat.**
 - I will try to handle them as they come up, but may take them in a bunch as time permits.
- **We will do a verbal Q&A once the material has been presented.**
 - And the questions in the chat have been addressed.
- **OLLI allowing, we can stay beyond the end of class to have further discussion.**

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US Economy and Coronavirus Economics

Scott Baier, Ph.D.
Clemson University

National Economic Education Delegation



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Credits and Disclaimer

- **This slide deck was authored by:**
 - Jon D. Haveman, NEED
 - Scott Baier, Clemson University
 - Geoffrey Woglom, Amherst College (Emeritus)
 - Brian Dombeck, Lewis & Clark College
 - Doris Geide-Stevenson, Weber State
- **Disclaimer**
 - NEED presentations are designed to be nonpartisan.
 - It is, however, inevitable that the presenter will be asked for and will provide their own views.
 - Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).

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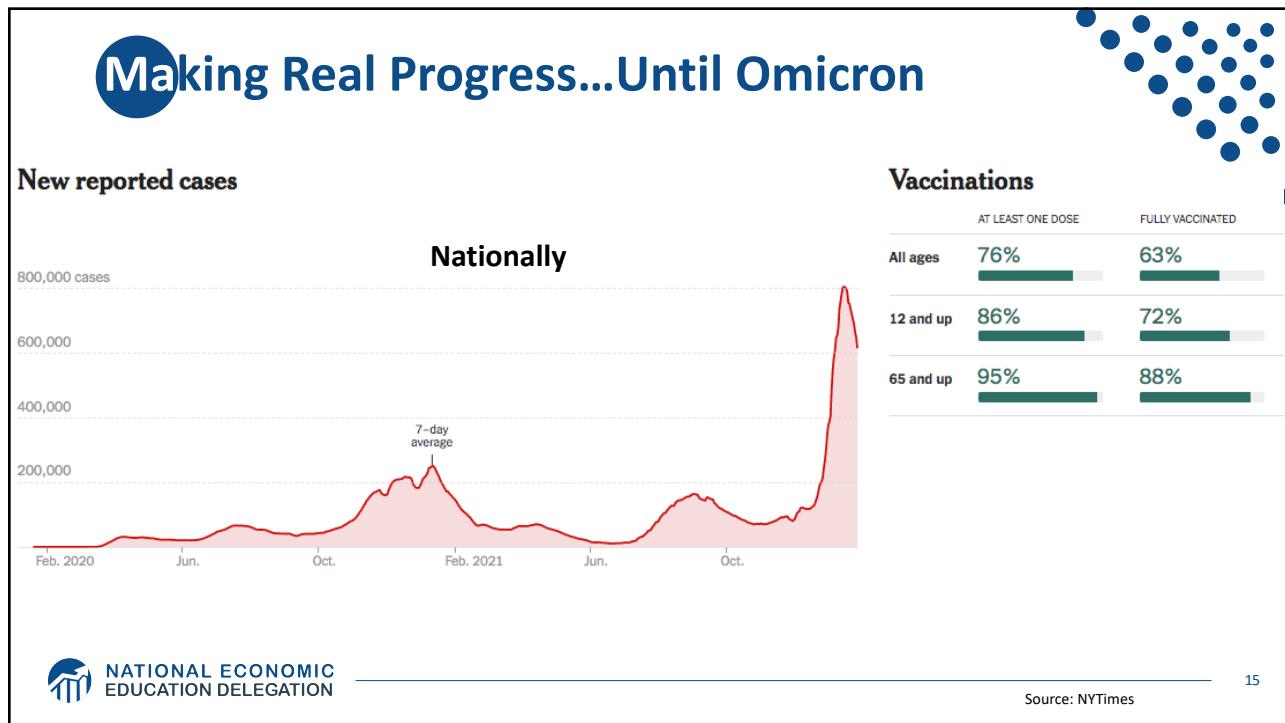
Outline

- State of the pandemic
- The U.S. Economy
- Hot Topics
 - Government policy
 - Debt
 - Inflation
 - Great resignation

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State of the Pandemic

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Omicron is Making Things Difficult

- Covid-related absences:
 - Are creating headaches for businesses that were struggling to hire workers even before Omicron.
 - Restaurants and retail stores have cut back hours.
 - Broadway shows called off performances.
 - Airlines canceled thousands of flights over the holidays because so many crew members called in sick;
 - on one day last month, nearly a third of United Airlines Workers at Newark Liberty International Airport, a major hub, called in sick.

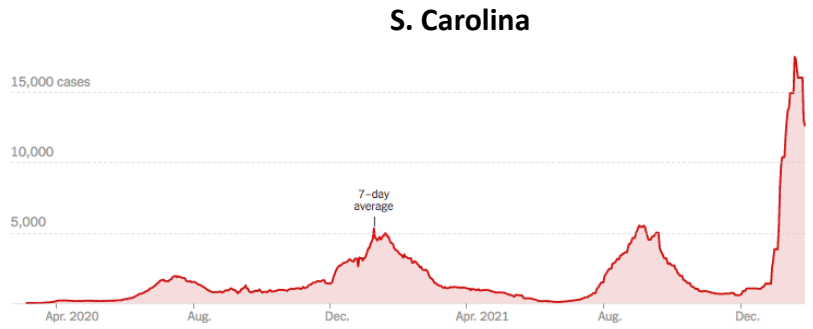
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Source: NYTimes.com

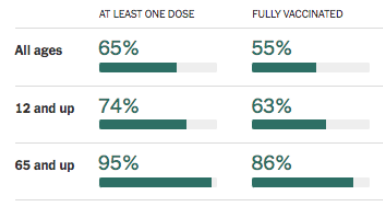
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South Carolina Cases Are Falling Nicely

New reported cases



Vaccinations



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The U.S. Economy

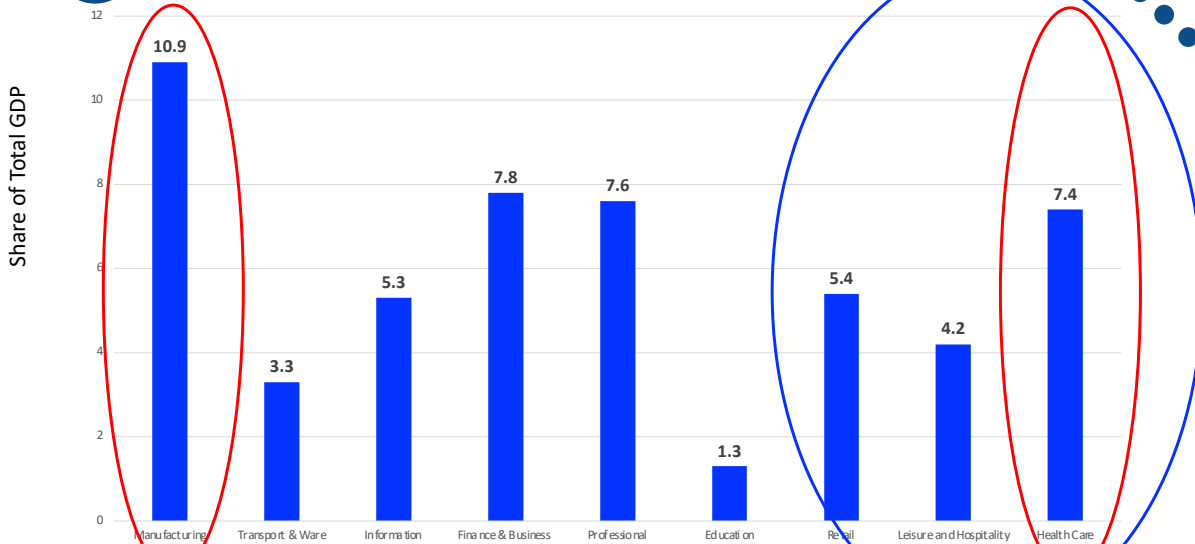
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Some Basic Statistics

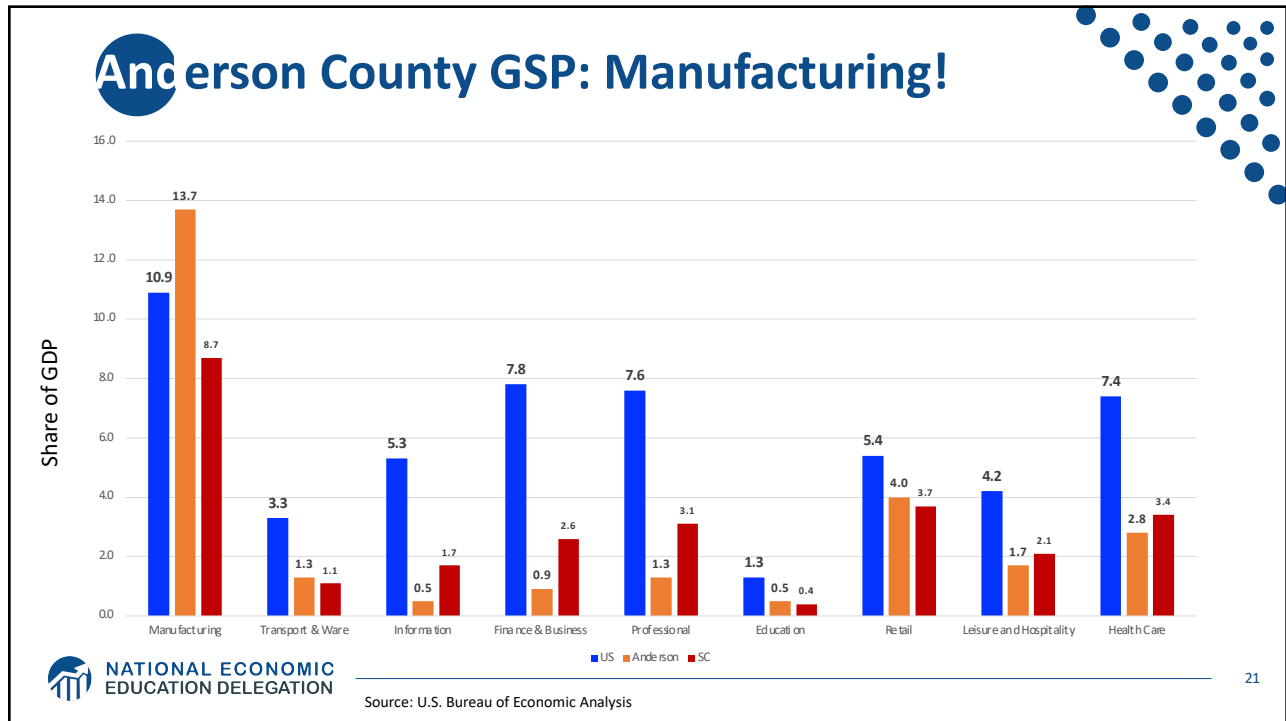
Statistic:	Value
Population	331.9 Million
Labor Force	162.3 Million
Employment	149.0 Million
Gross Domestic Product (GDP)	\$23.9 Trillion
Income per Capita	\$63,002
Ave. Hourly Earnings	\$31.31

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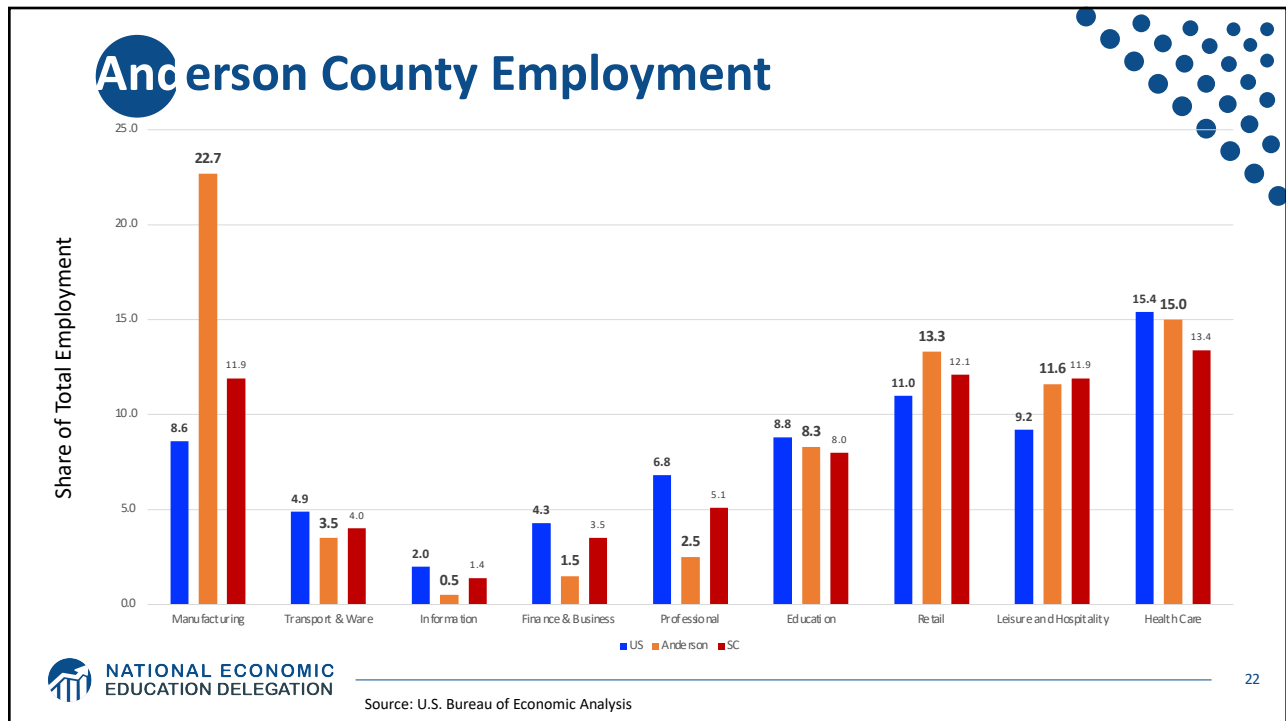
Composition of the U.S. Economy: GDP



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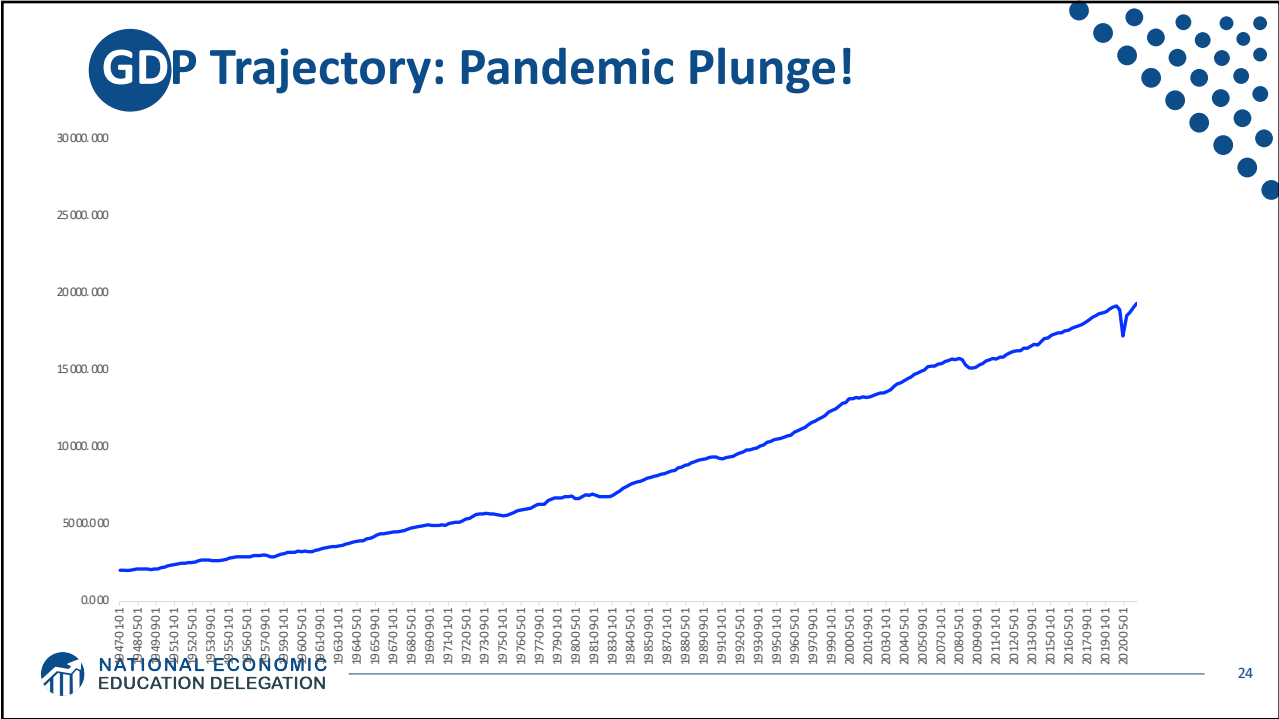
Evidence of Impact



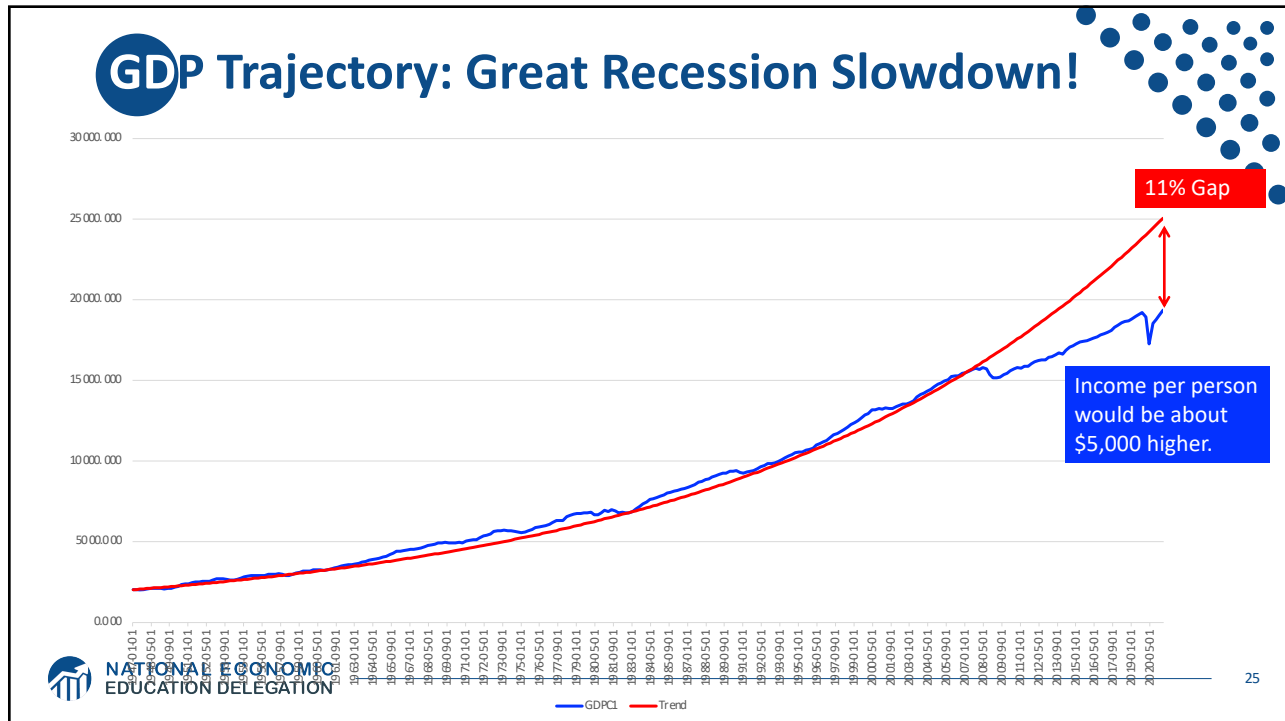
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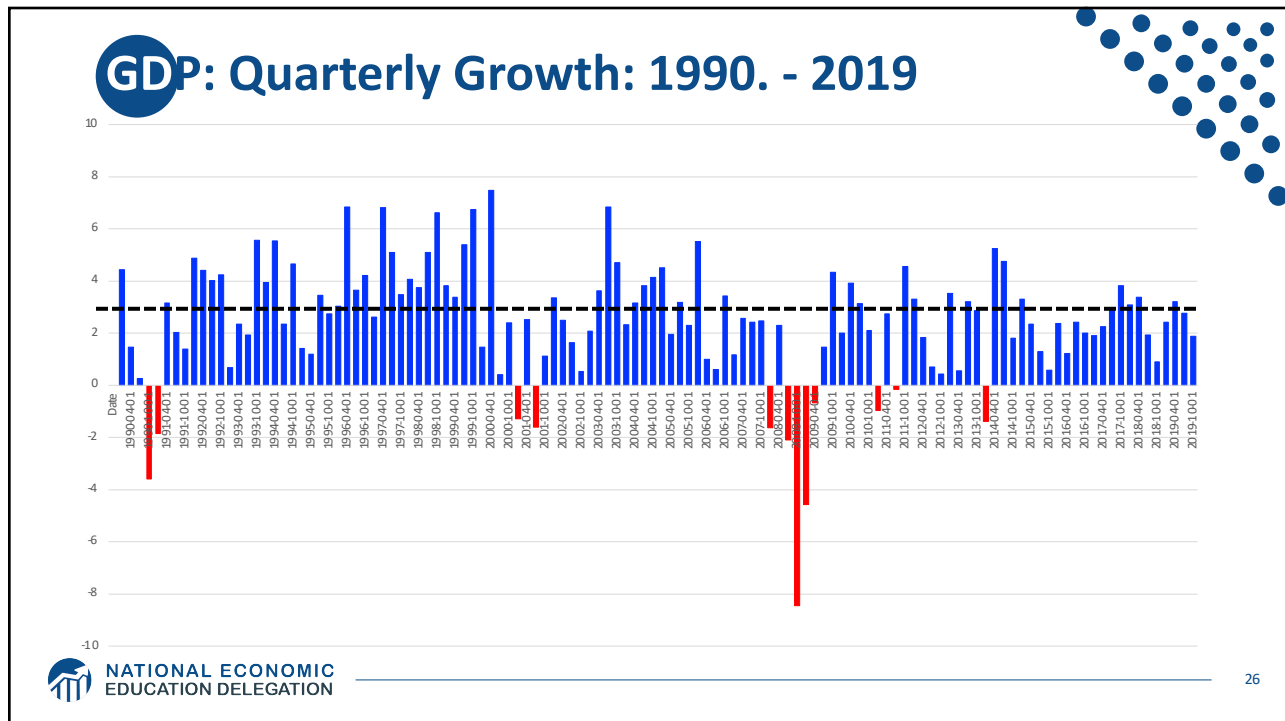
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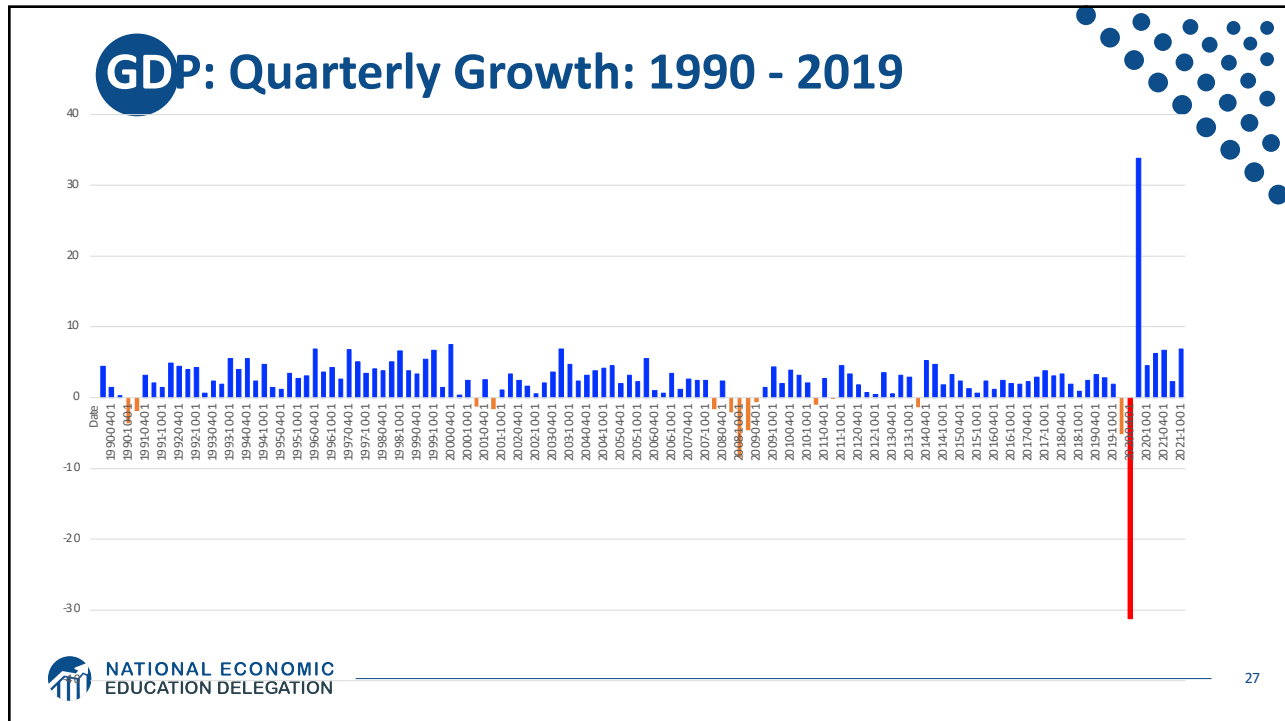
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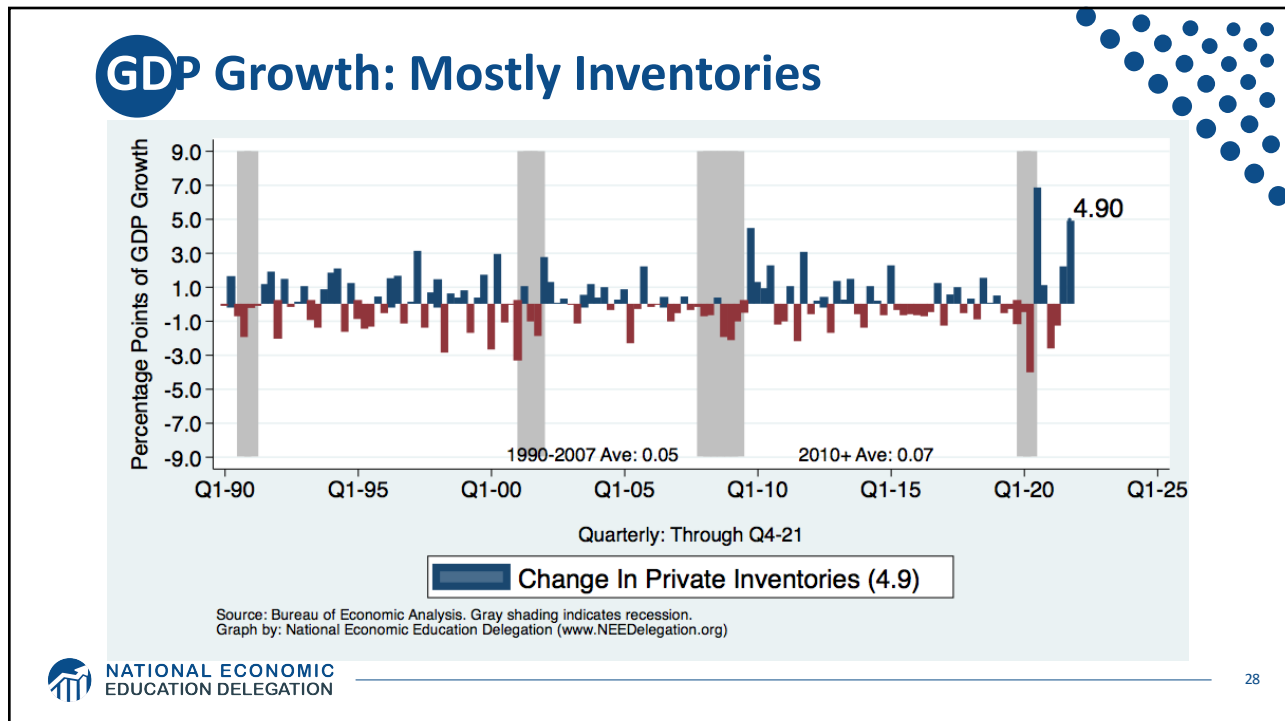
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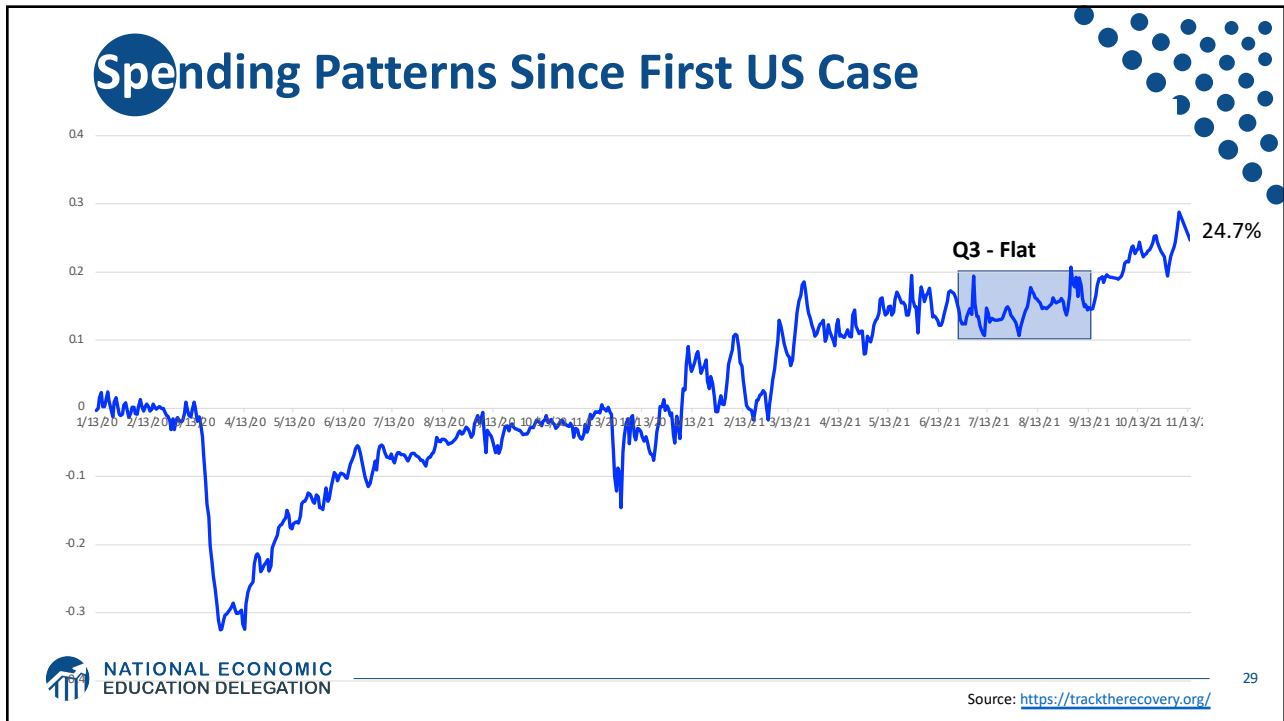
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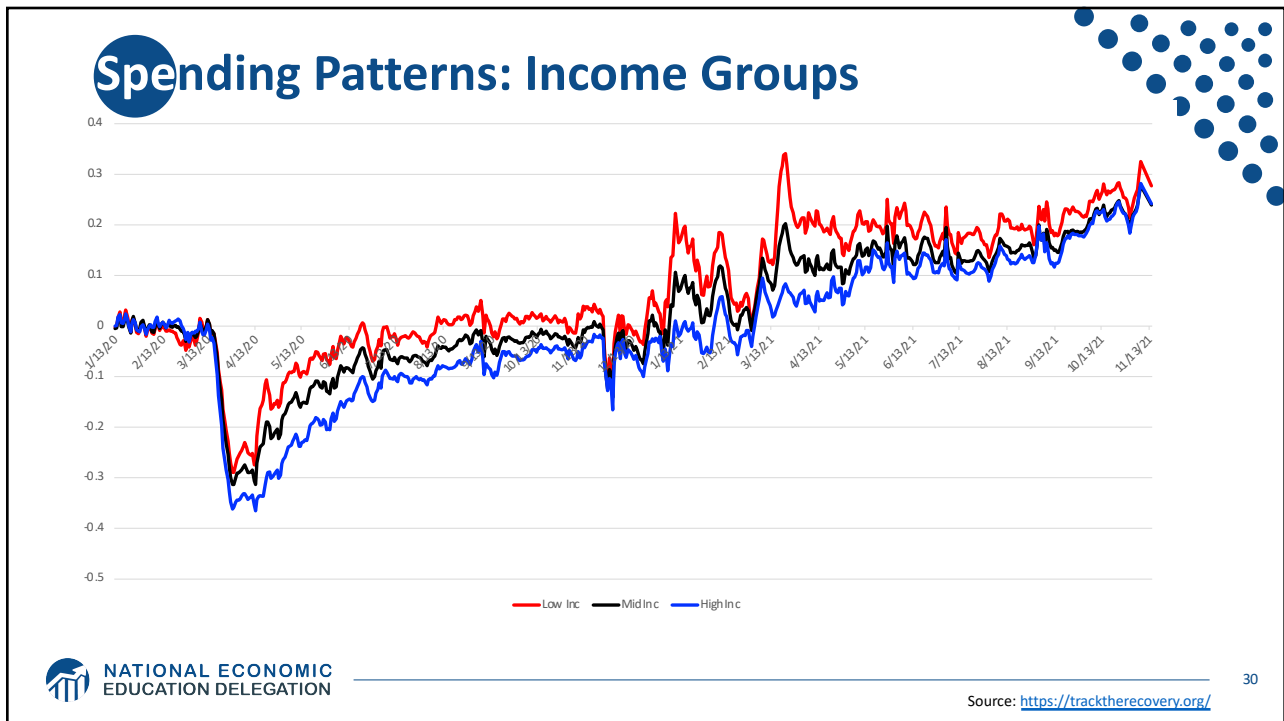
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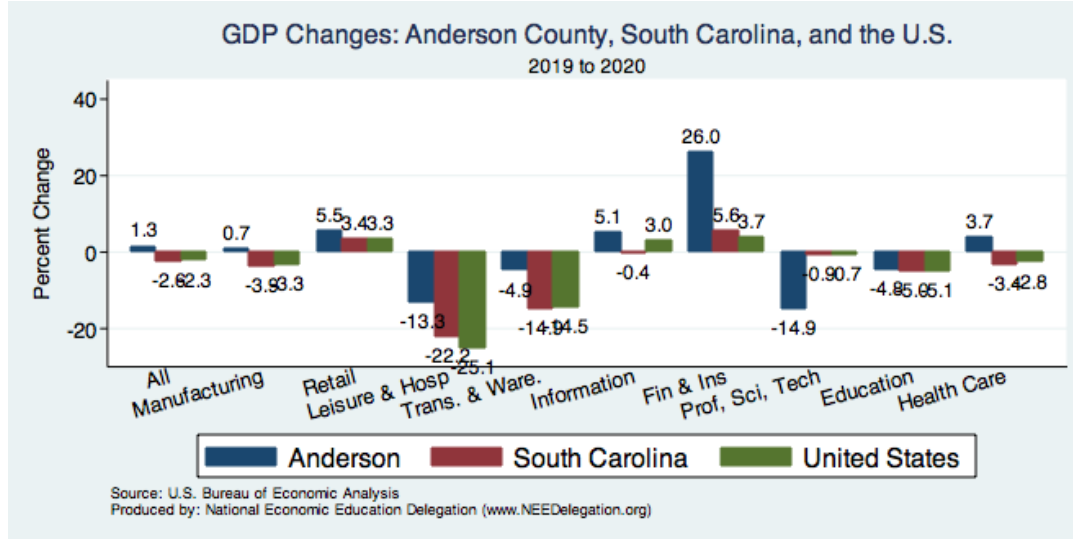


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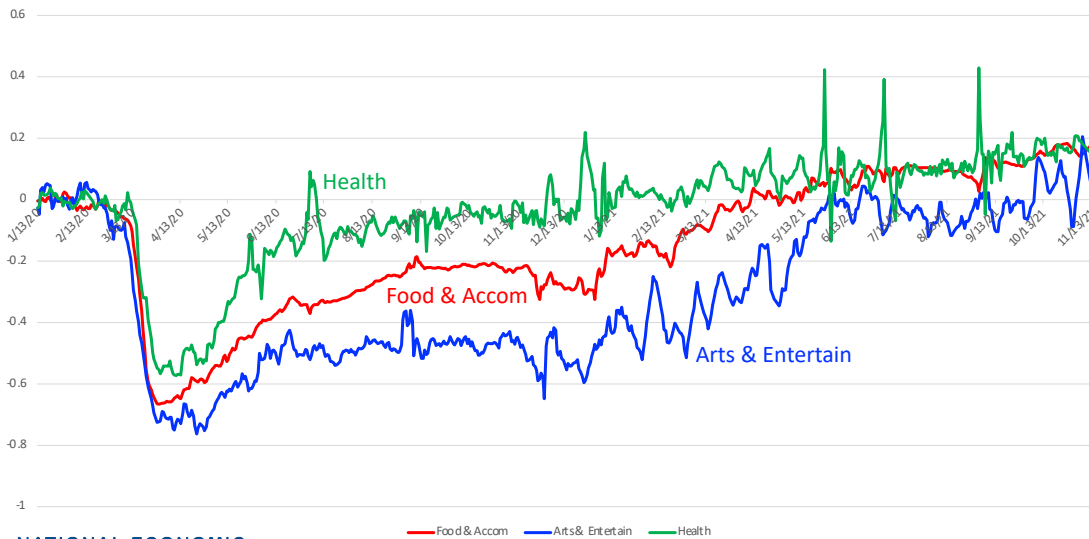
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But Not All Industries Were Equally Harmed

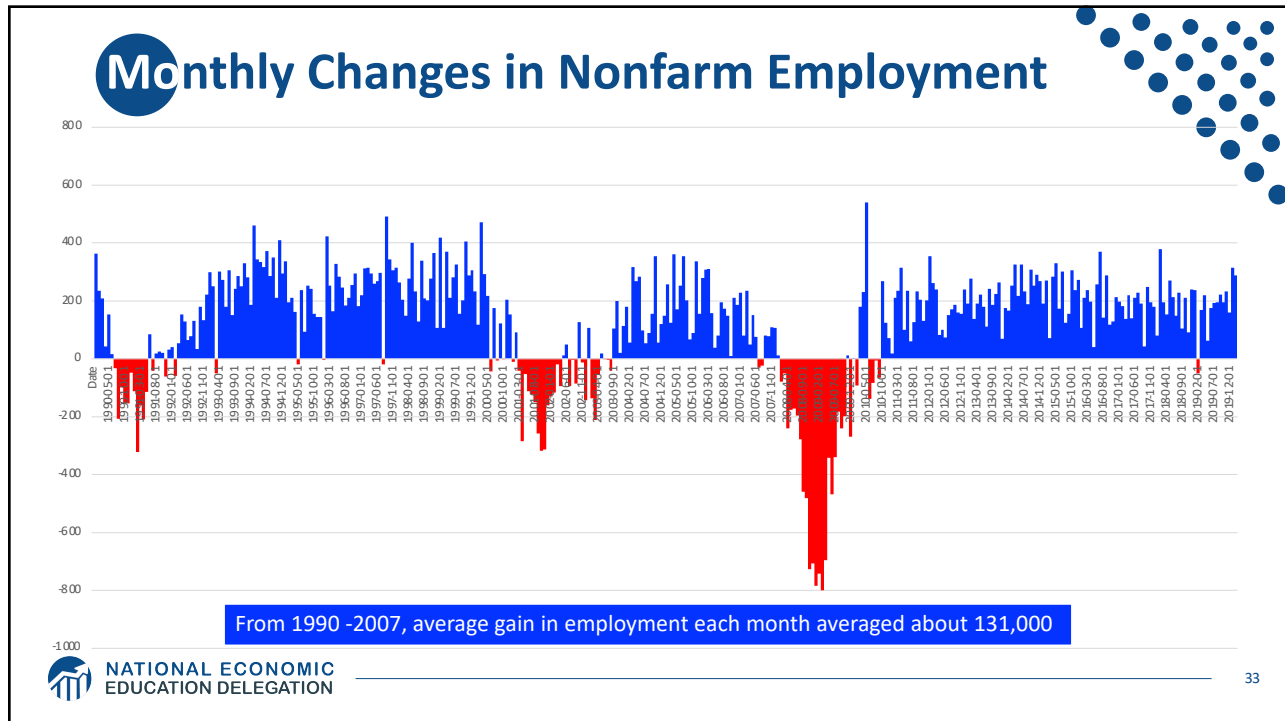


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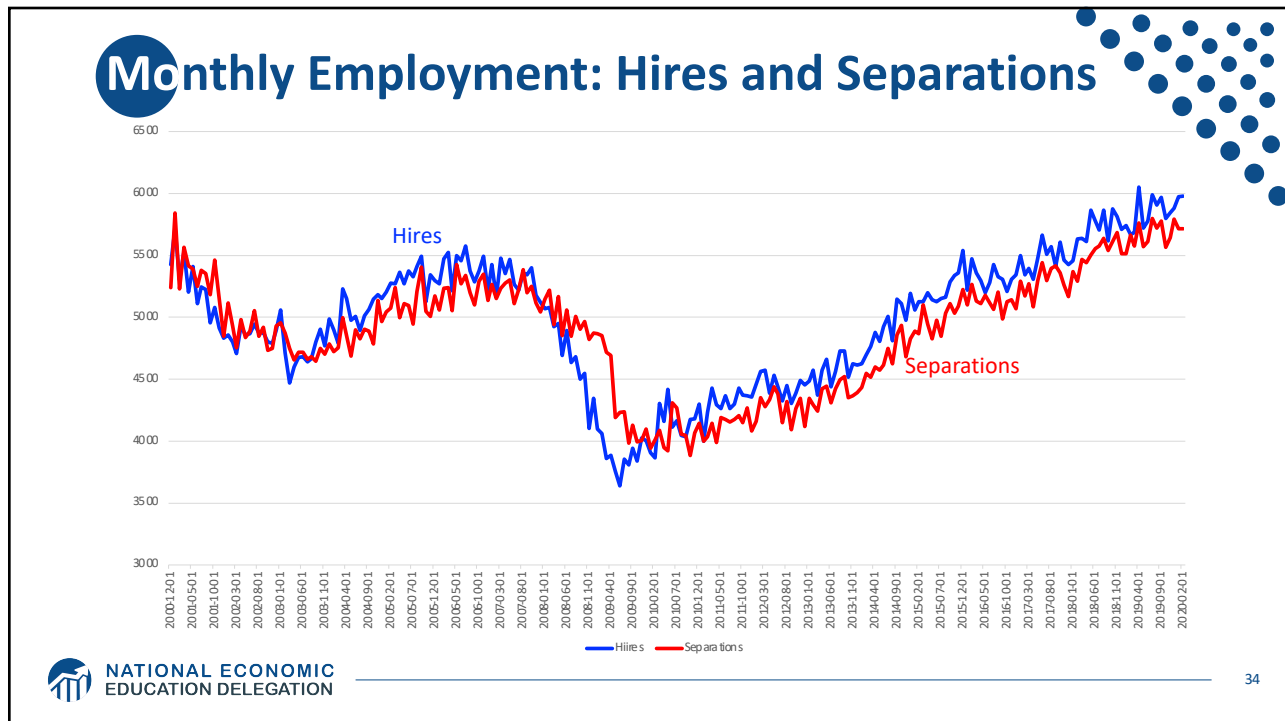
Spending Patterns – Hardest Hit Sectors



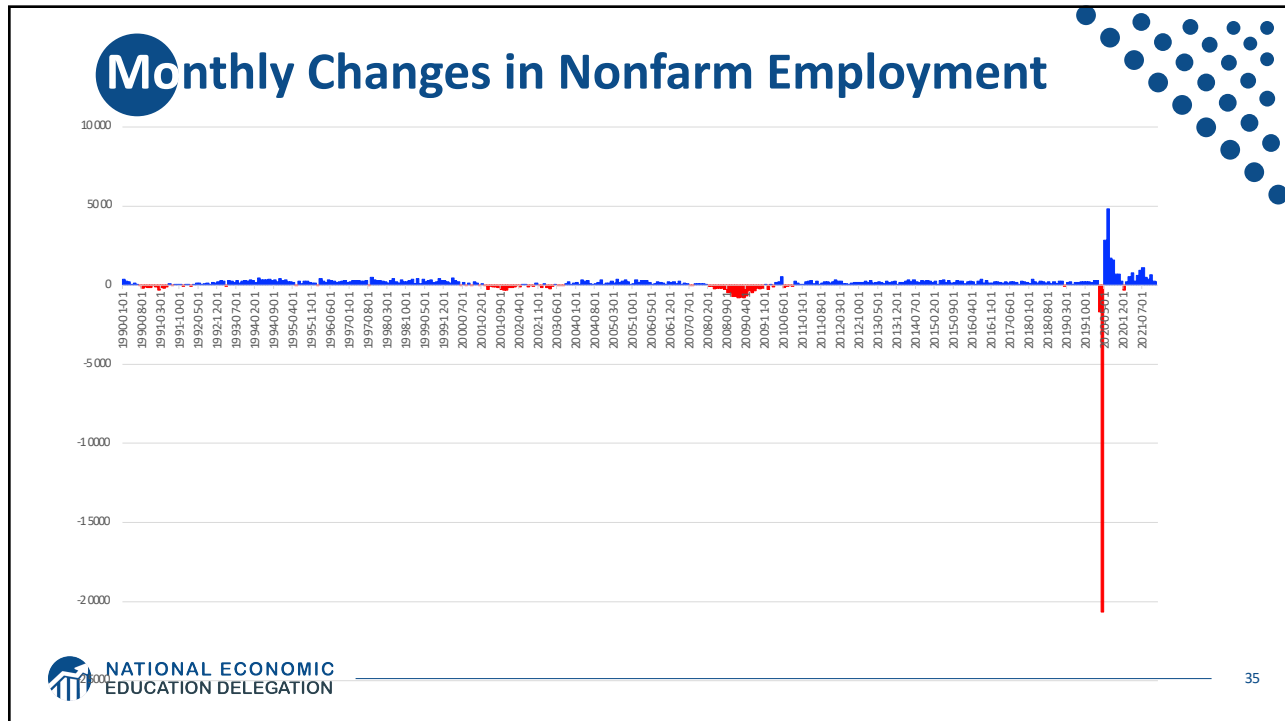
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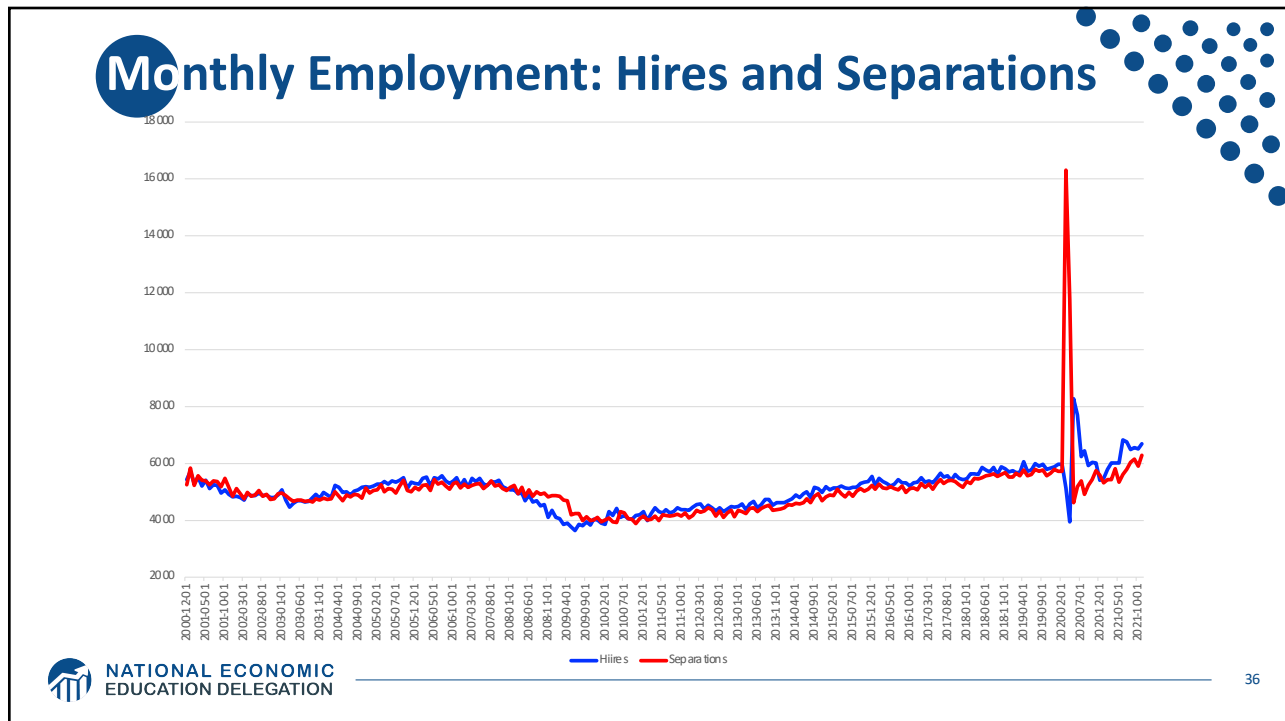
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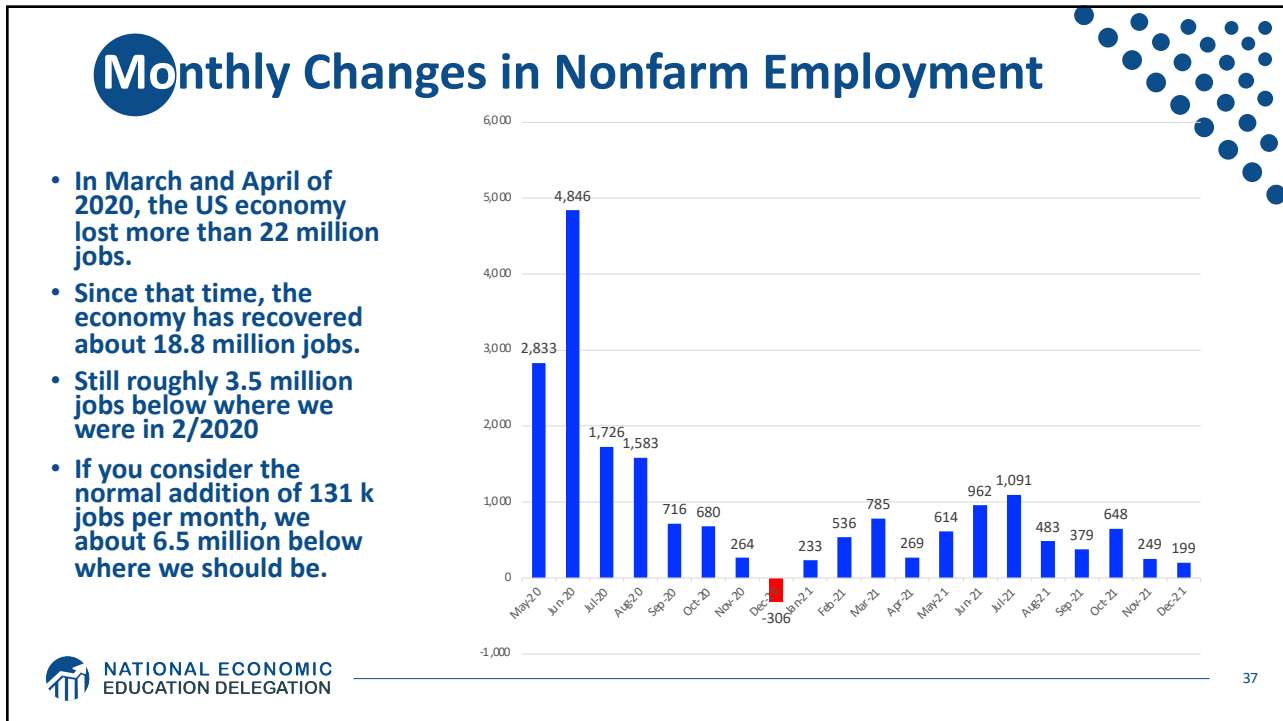
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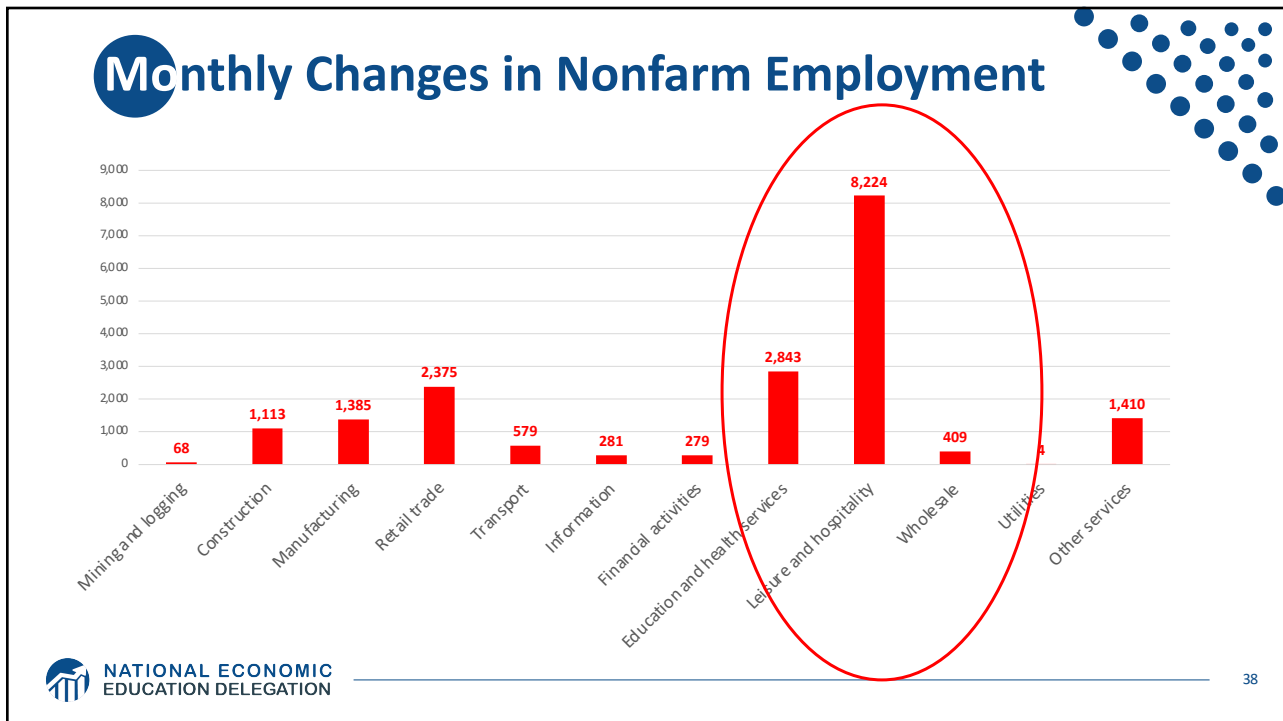
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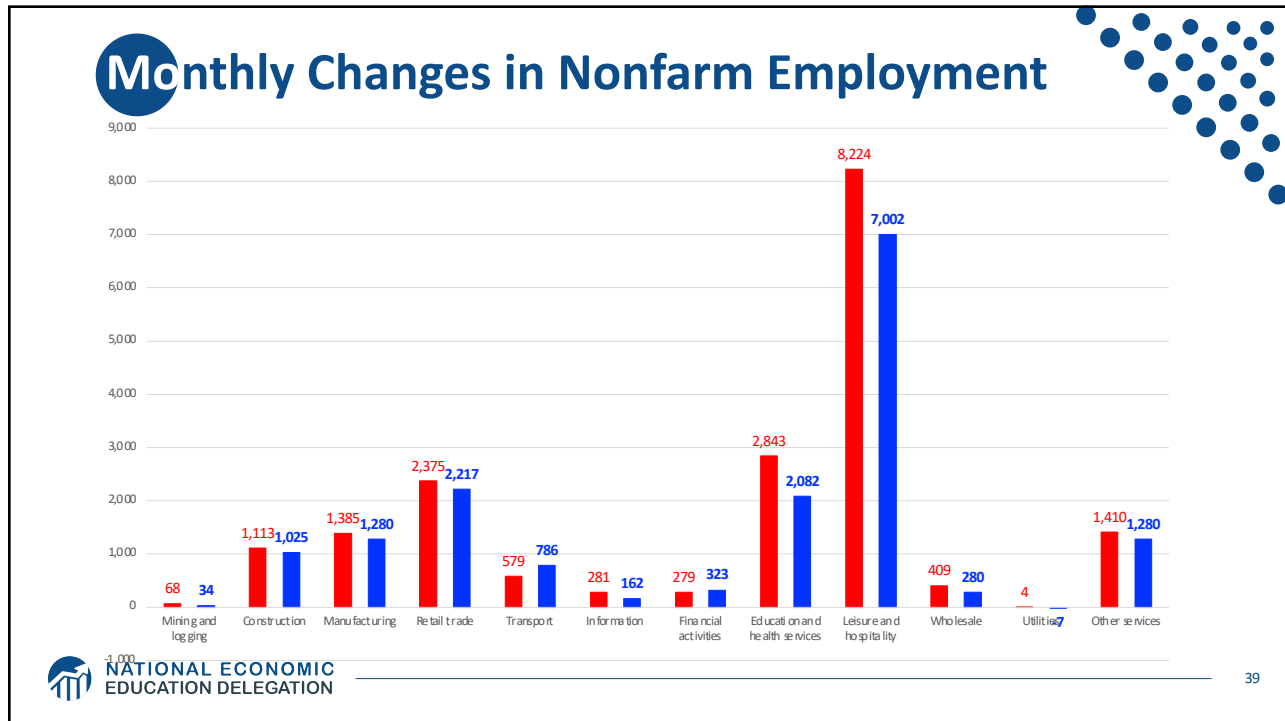
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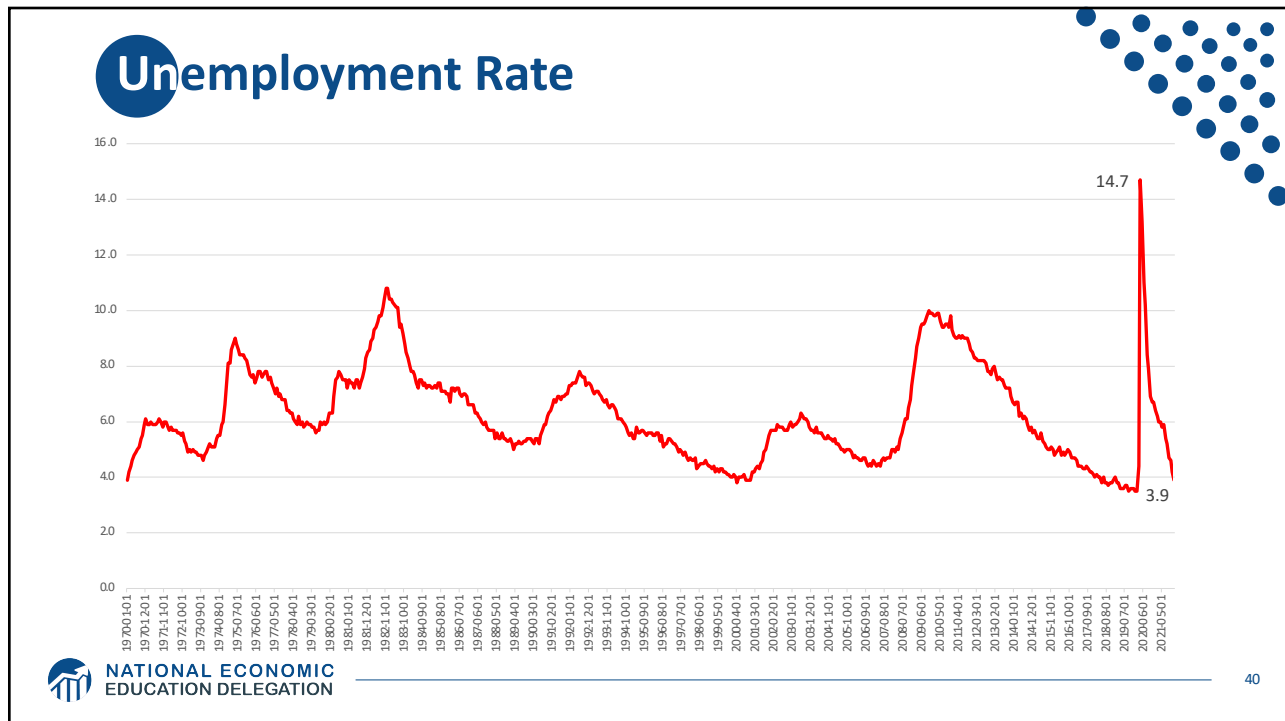
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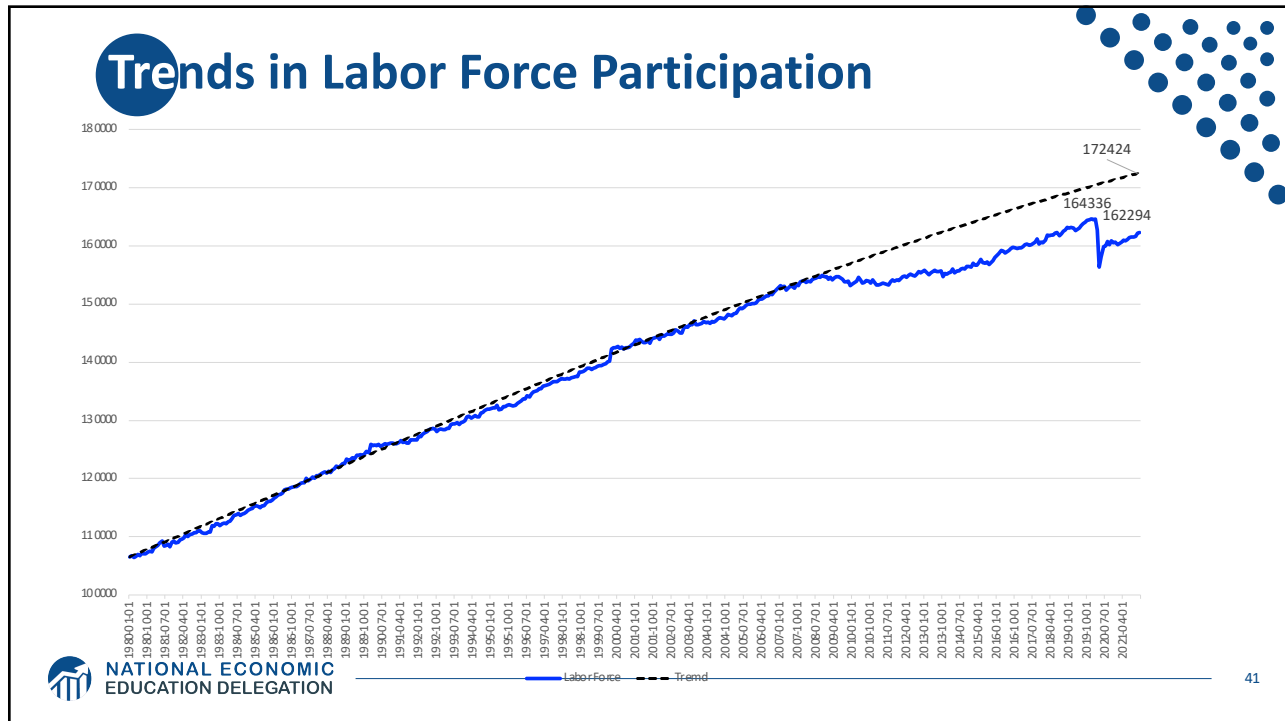
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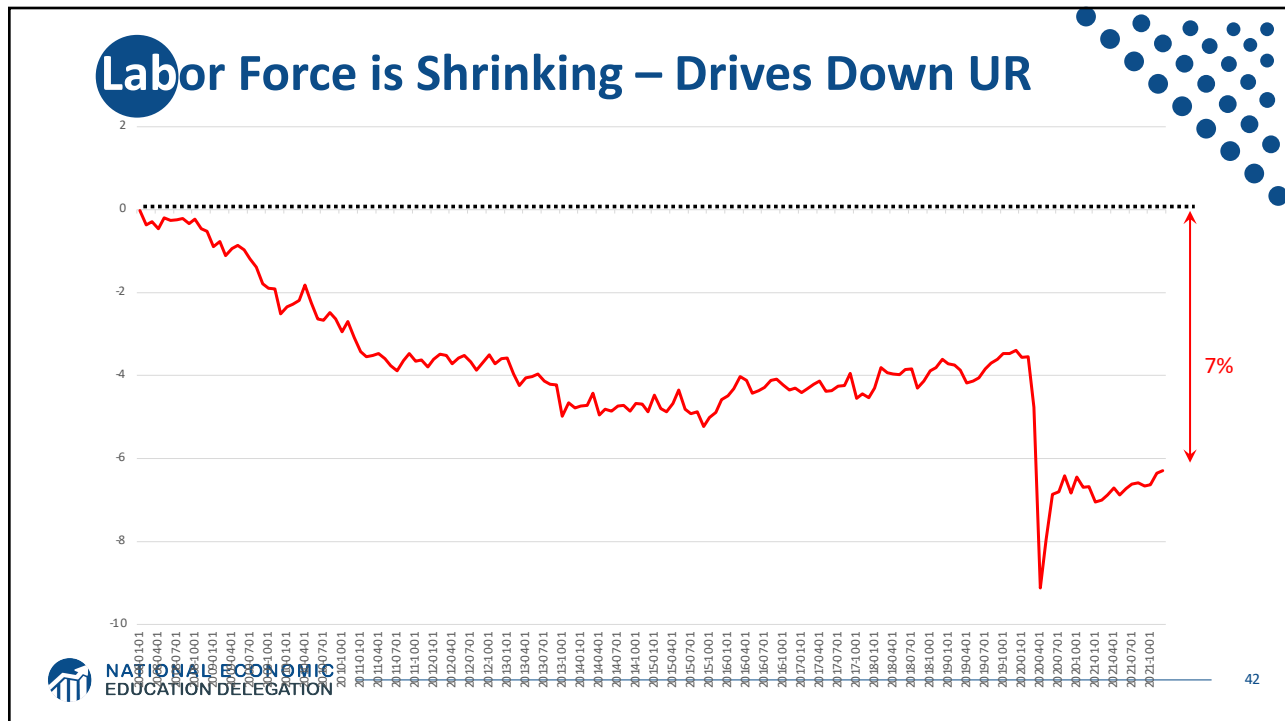
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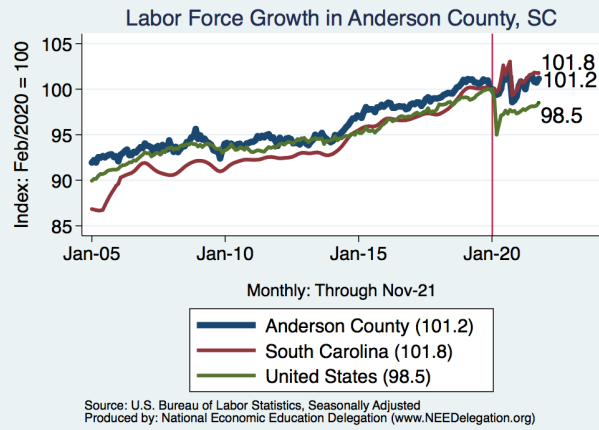
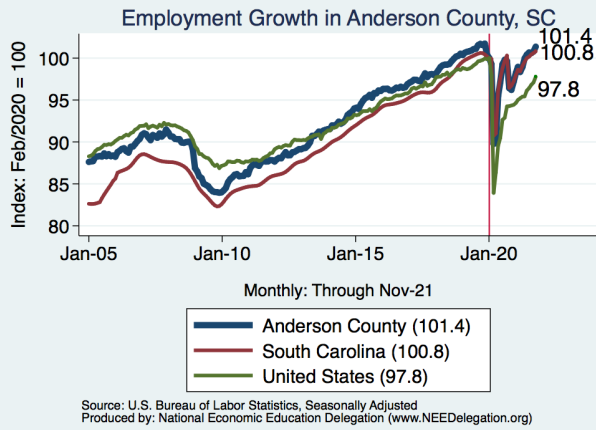


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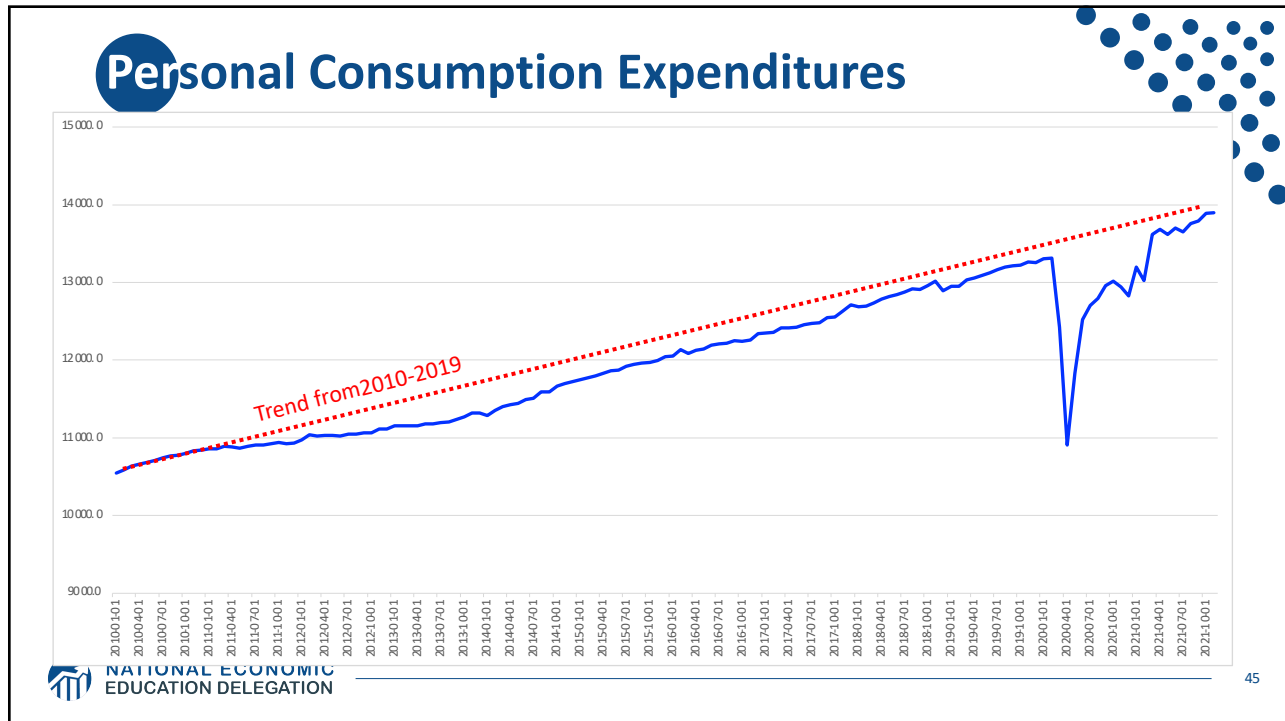
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Employment in Anderson County



Hot Topics

- Economic Recovery and Government policy
- Inflation
- Great resignation
- Government Deficit and Debt



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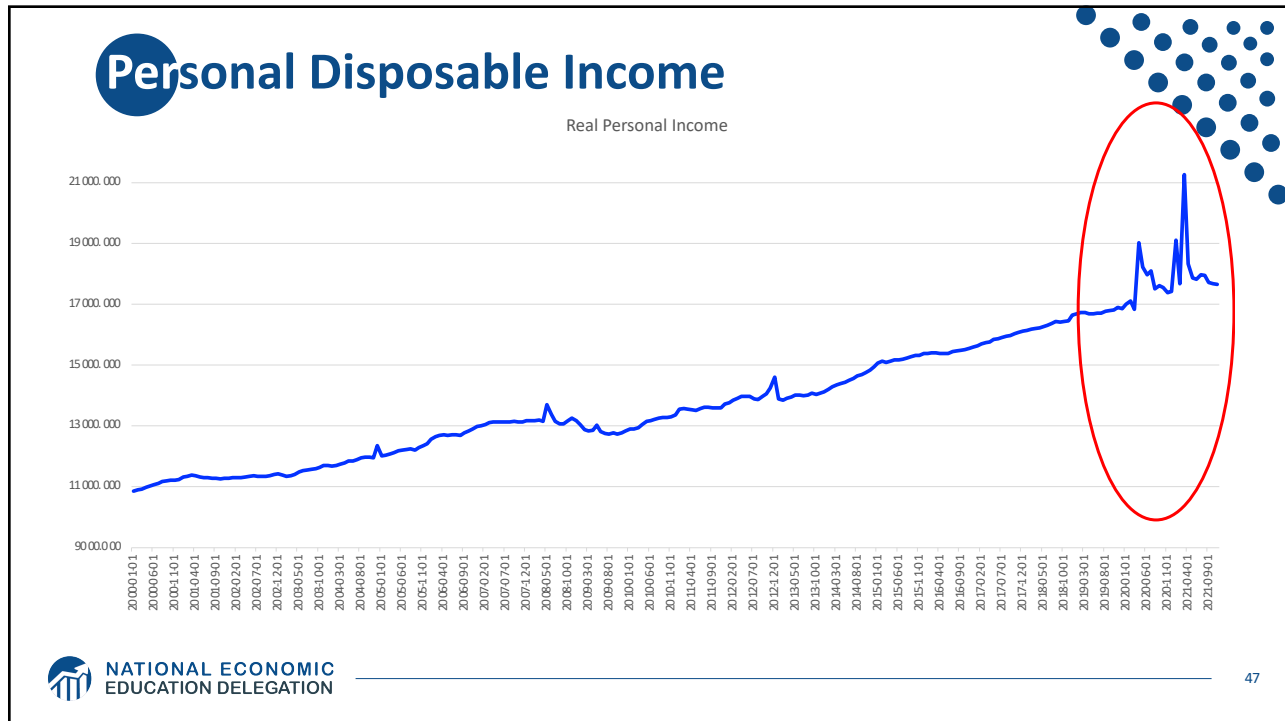
What Have Been Policy Effects?

- **MONETARY POLICY (Fed)** acted quickly and effectively to prevent a financial market meltdown and to keep credit flowing. But the Fed lends and does not spend.
- **FISCAL POLICY (Congress)** acted quickly, but inevitably made some mistakes.
 - Stimulus Checks, A (\$268b)
 - Expanded Unemployment, B (\$268b)
 - Paycheck Protection Program, C- (\$525b)

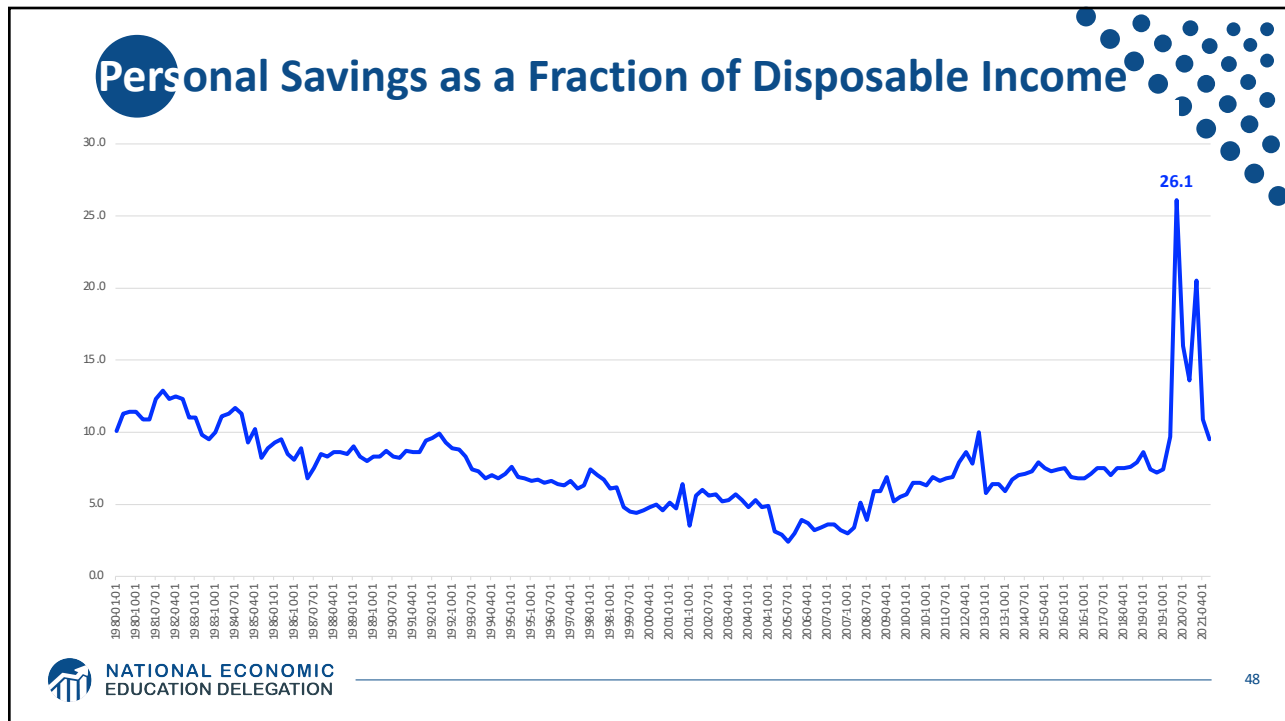
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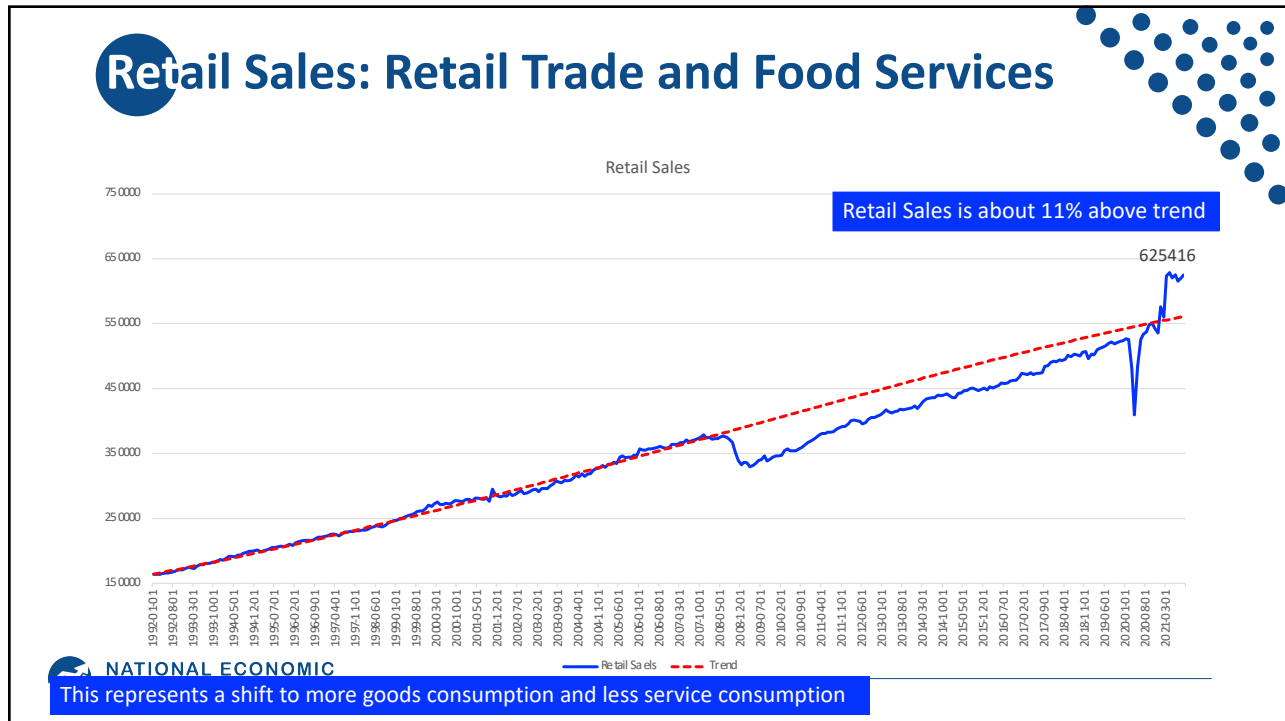
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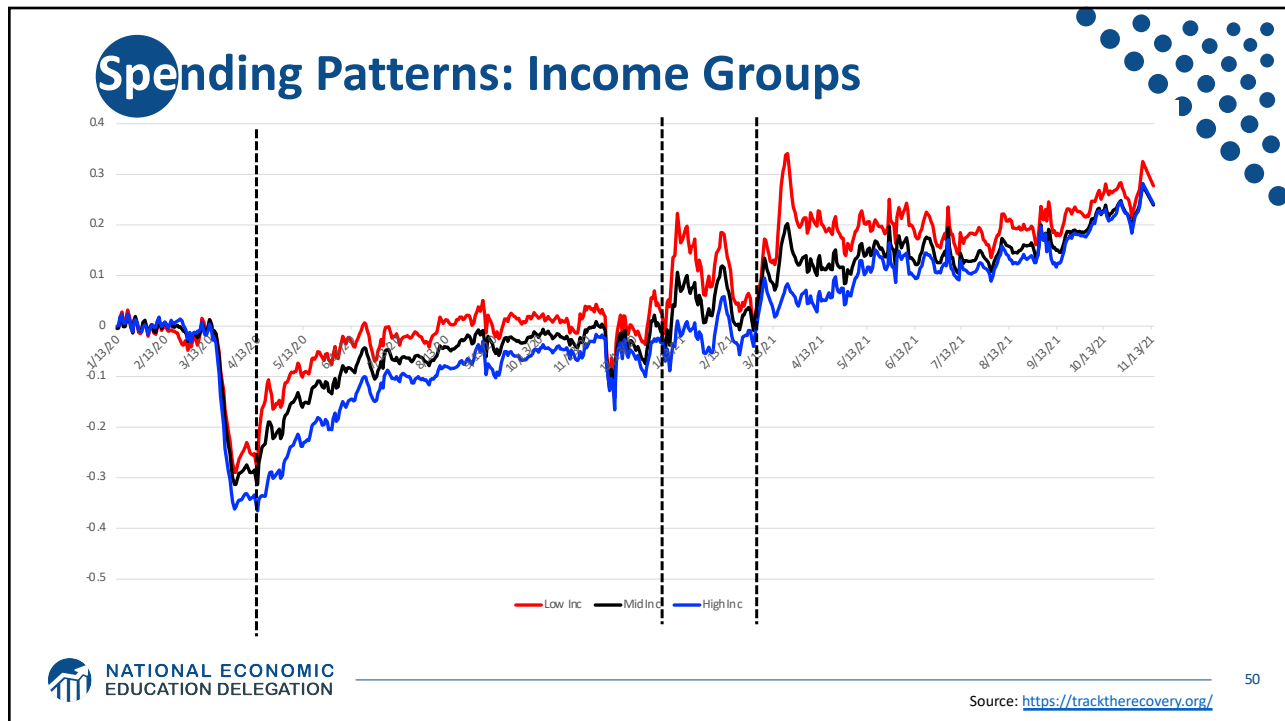
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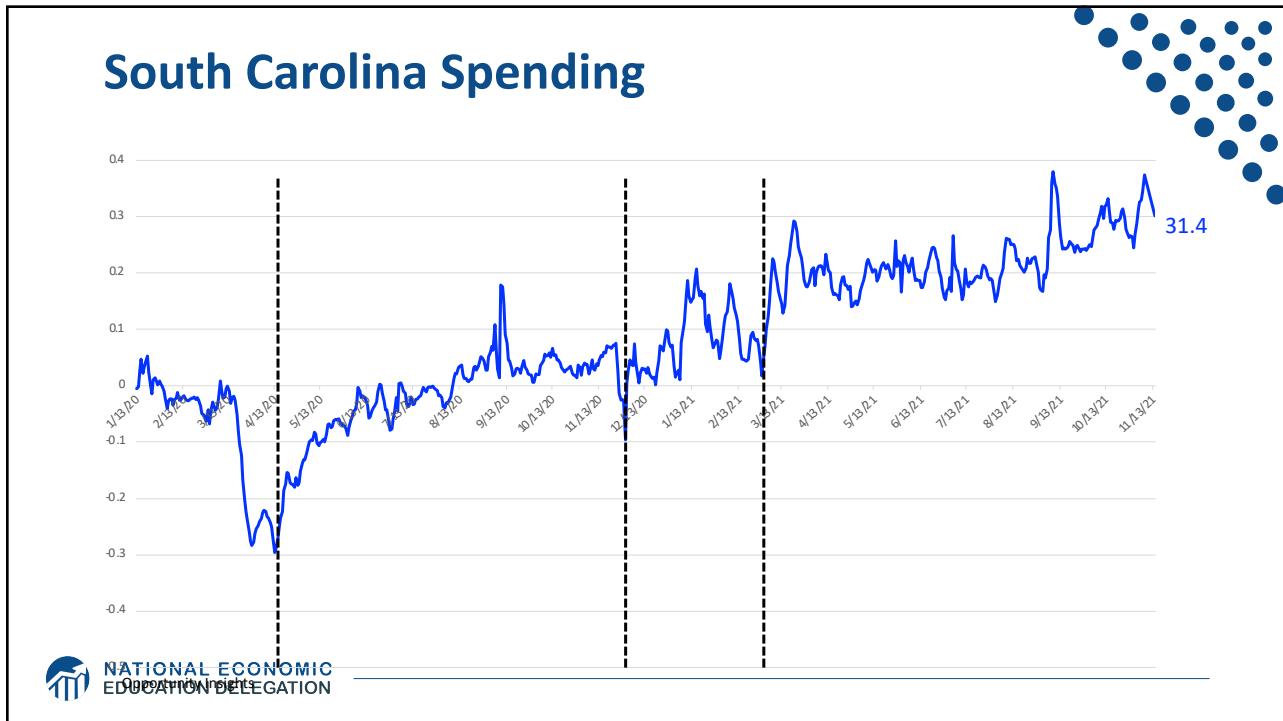
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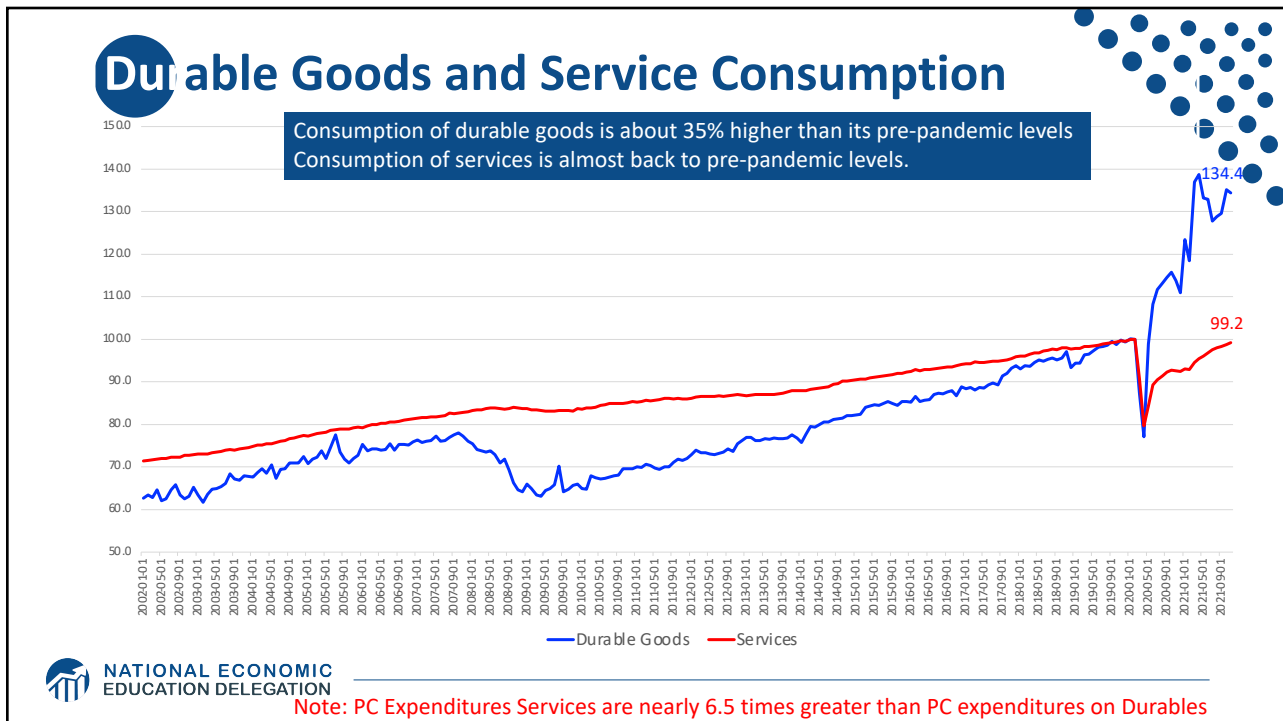
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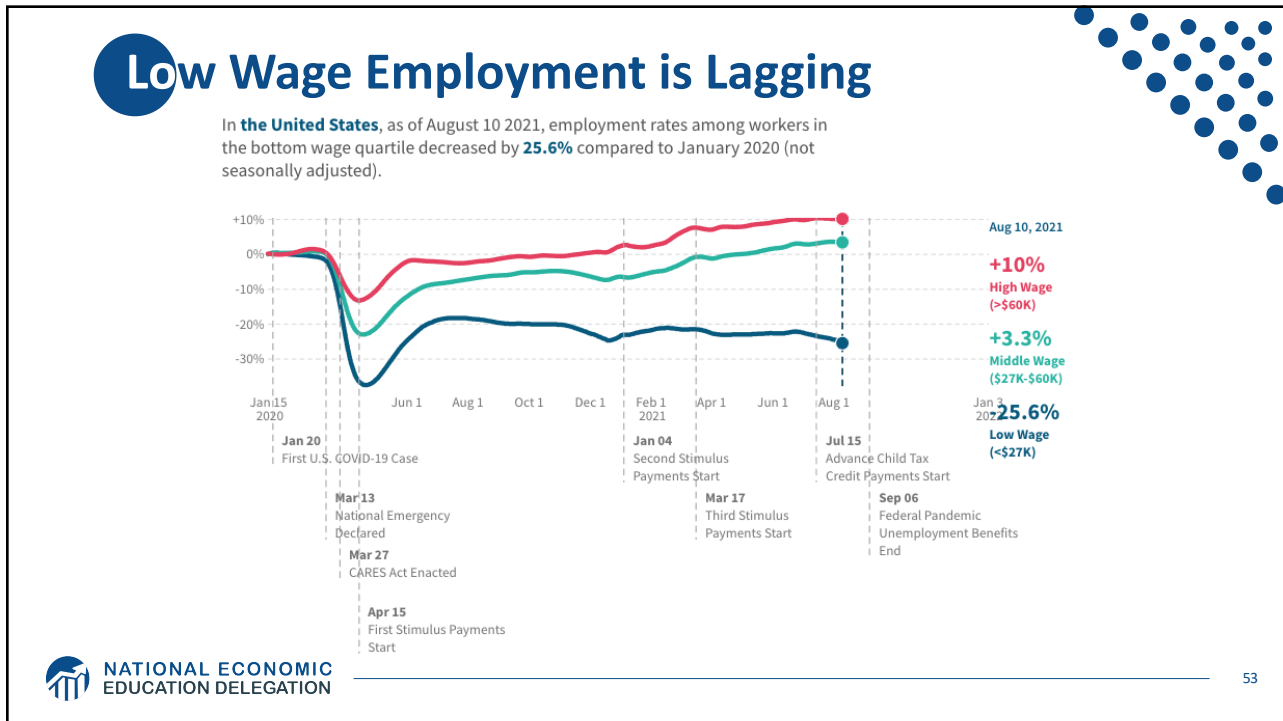
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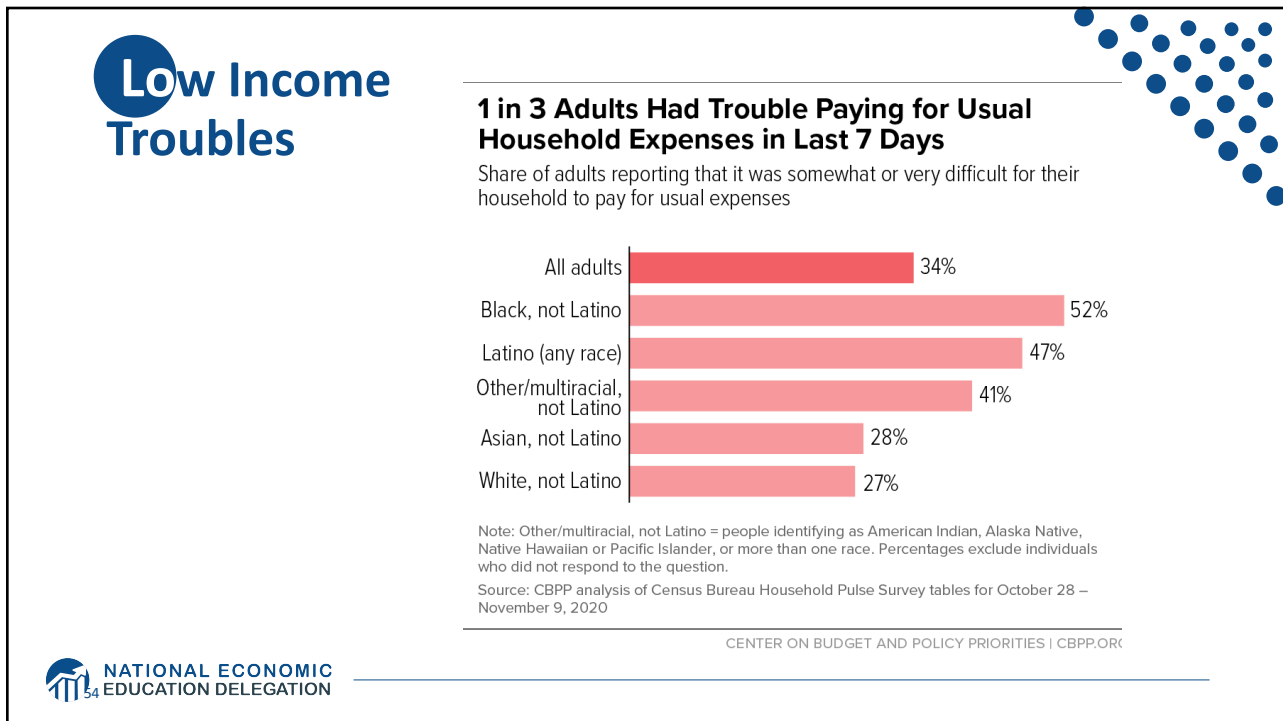
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Take Away: Consumption and the Recovery

- Consumption has rebounded rapidly coming out of the recession.
- The rebound in consumption was supported by the stimulus packages that were passed by the Trump and Biden Administration.
- Compared to before the pandemic consumption has shifted more toward the consumption of goods and away from services.
 - This a demand effect that is causing some of the supply chain disruptions



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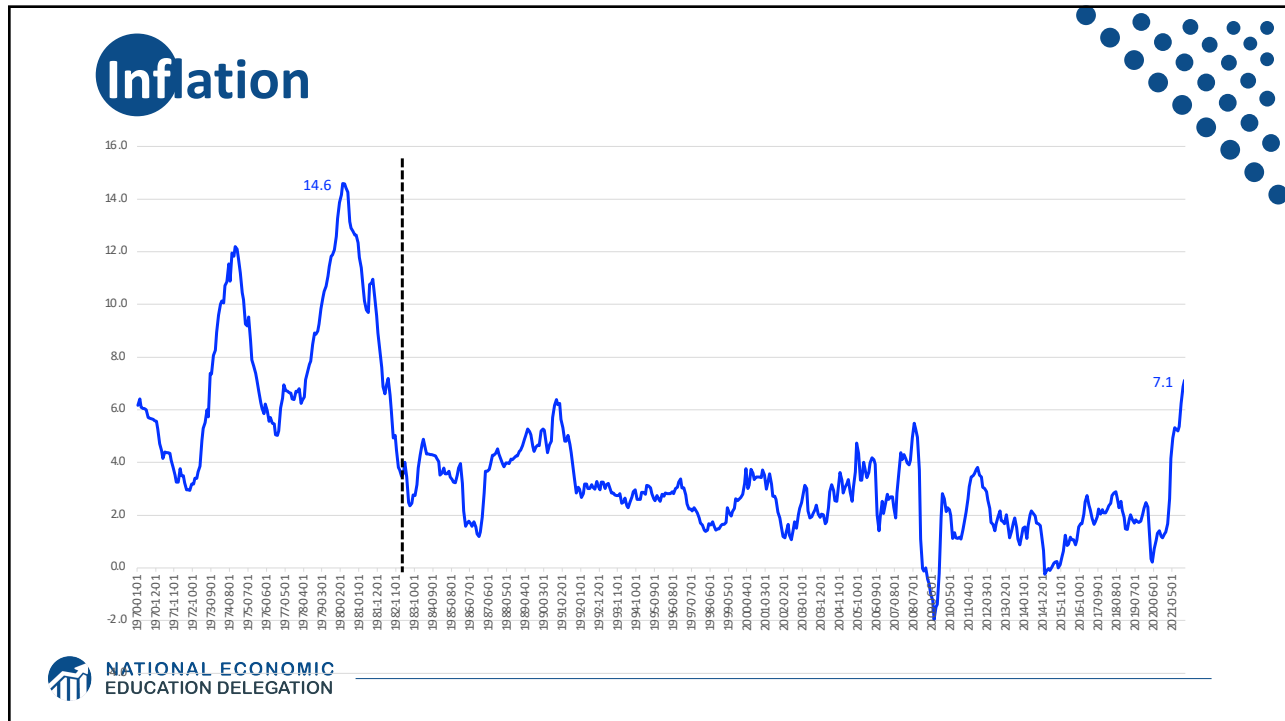
Inflation



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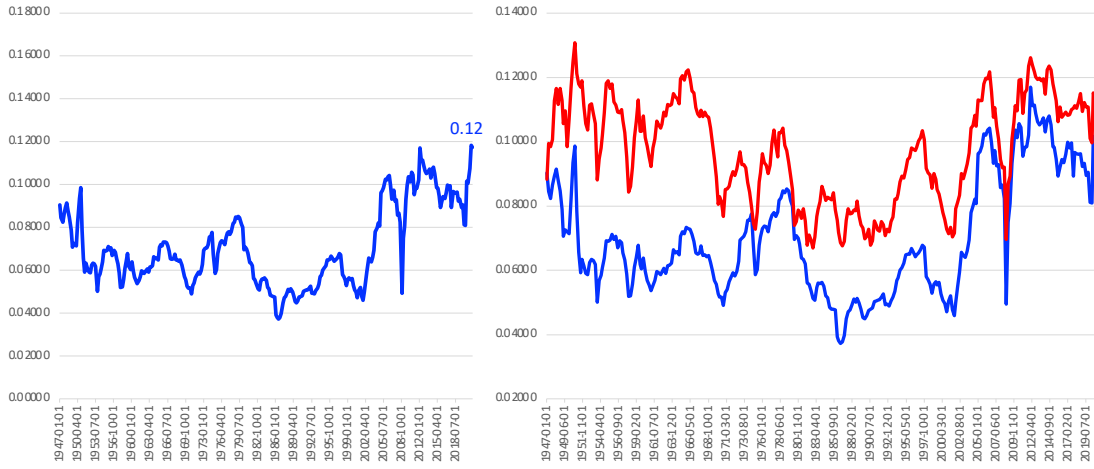
What is Driving Inflation?

- **Profiteering / Greed: President Biden and Senator Elizabeth Warren.**
- **Supply Chains Disruptions:**
 - the pandemic has impacted the ability to get parts and supplies.
 - Labor shortages and rising wages have raised costs and help push up prices.
- **Increased Demand:**
 - During the pandemic there has been an increase in demand for goods. For many of these goods, it is not easy to ramp up production.
 - The fiscal and monetary authorities have provided lots of stimulus.

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Profits: Profit Margins



After-Tax Profit Margins

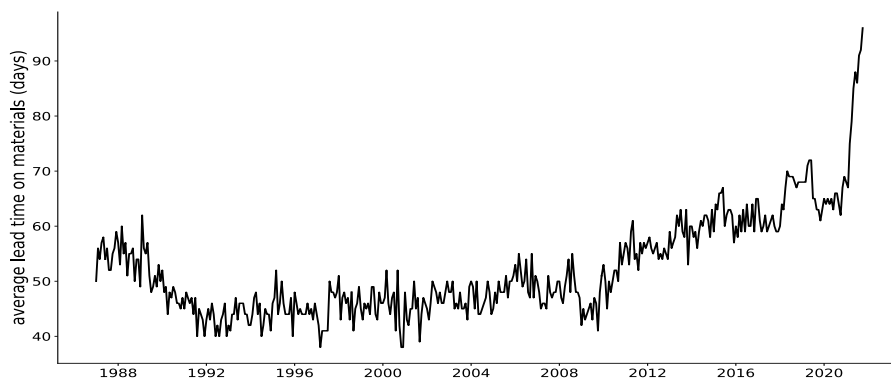
After-Tax and Before Tax Profit Margins



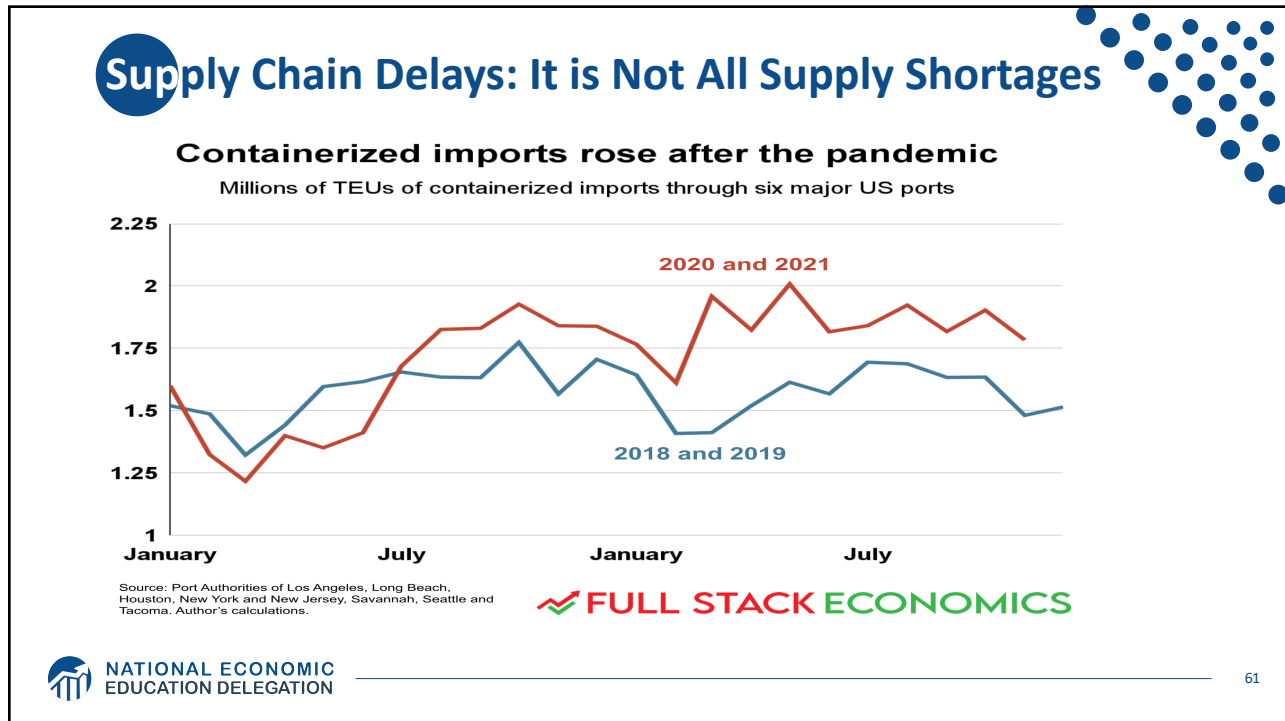
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Supply Chain Delays: ISM Delivery Days

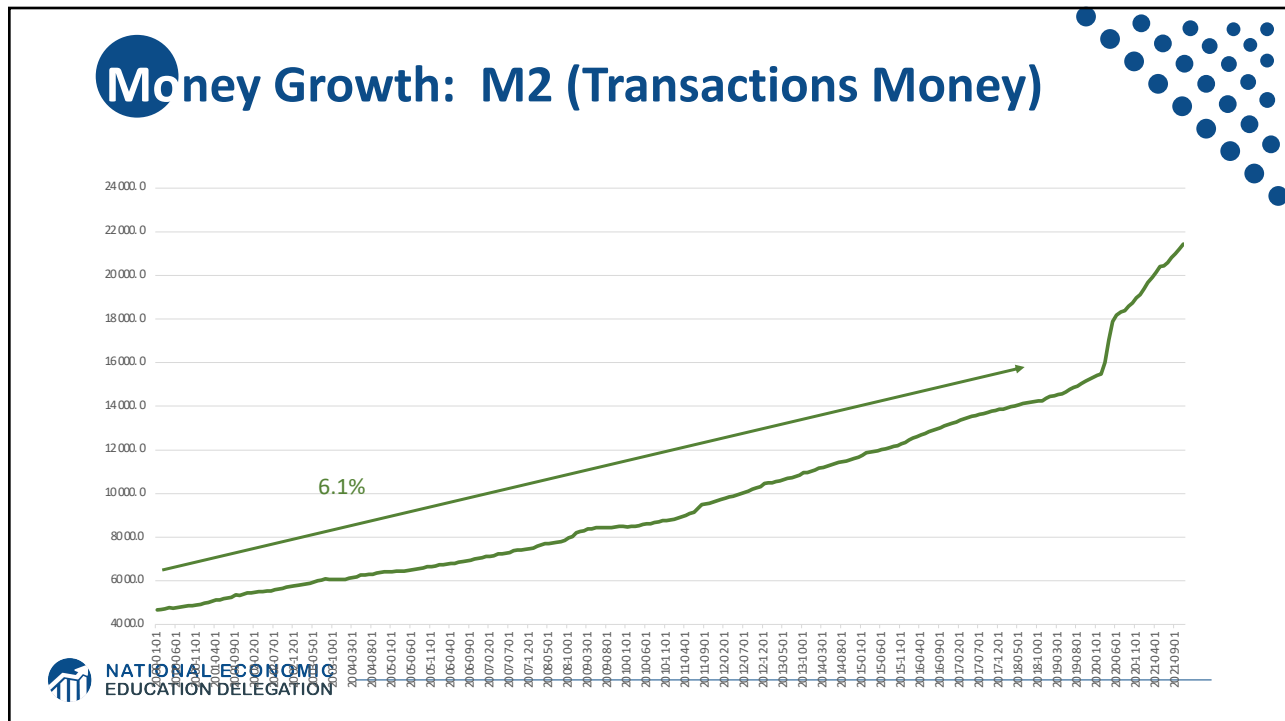
Figure 2: Delivery Delays



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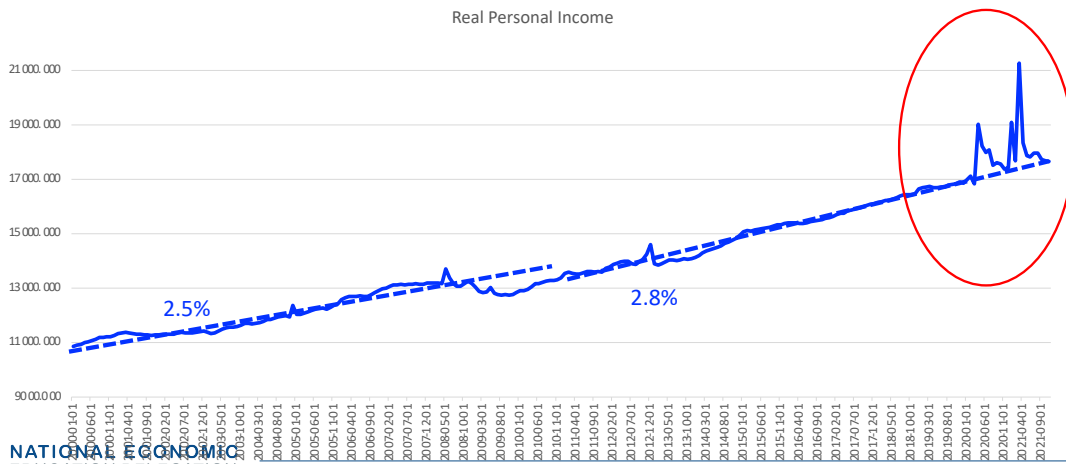
Annualized Money Growth

Growth Rate of Money Stock (percent per year)	Beginning of Period	End of Period
6.1	January 2000	March 2020
46.3	April 2020	June 2020
12.3	July 2020	November 2021

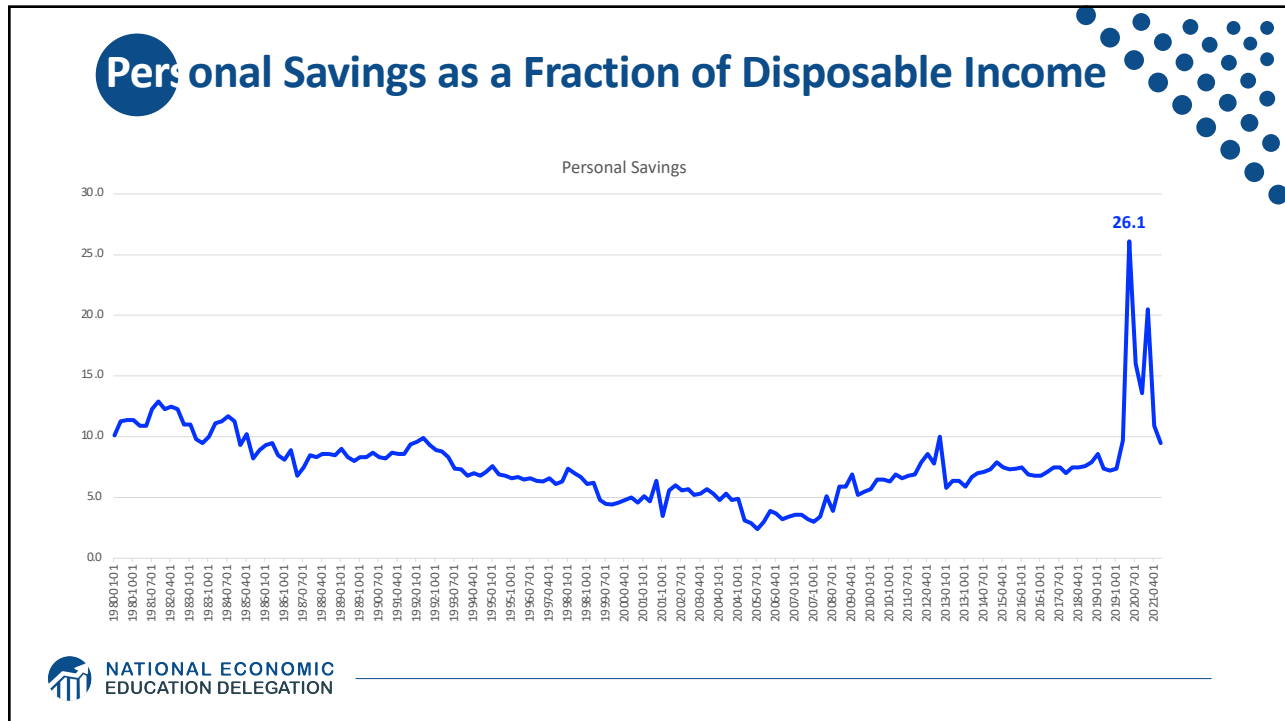


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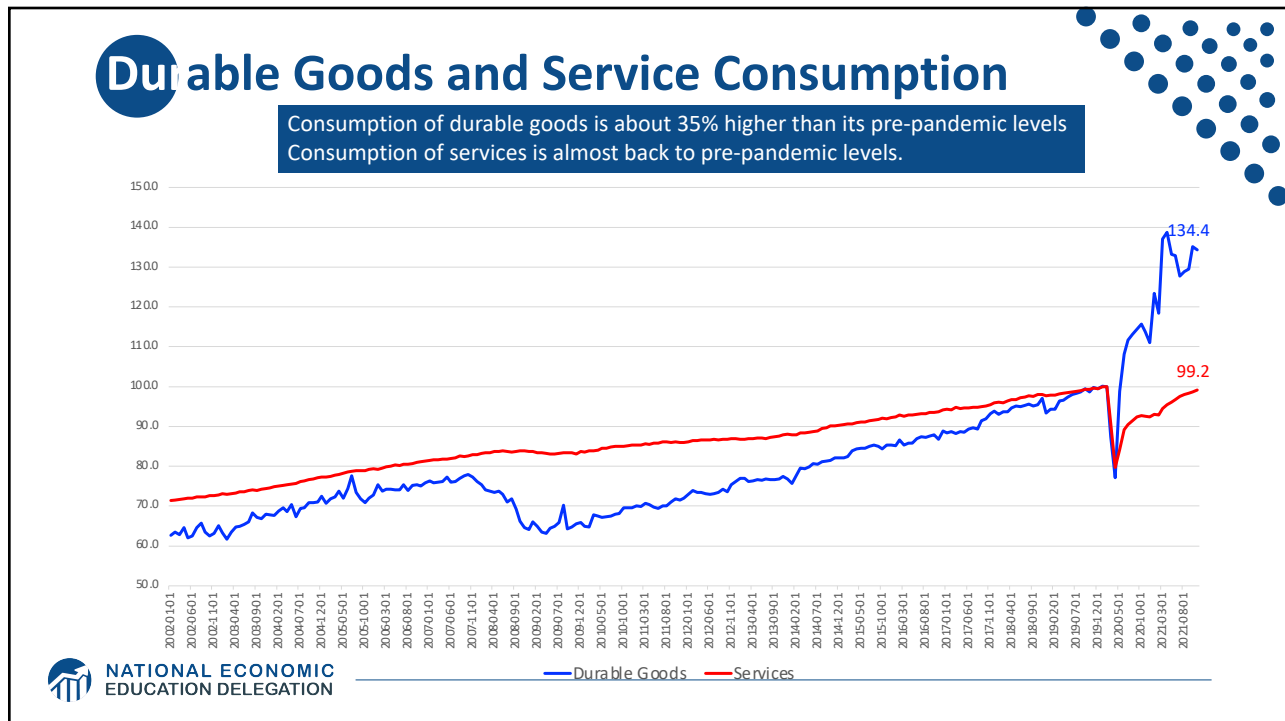
Real Personal Disposable Income



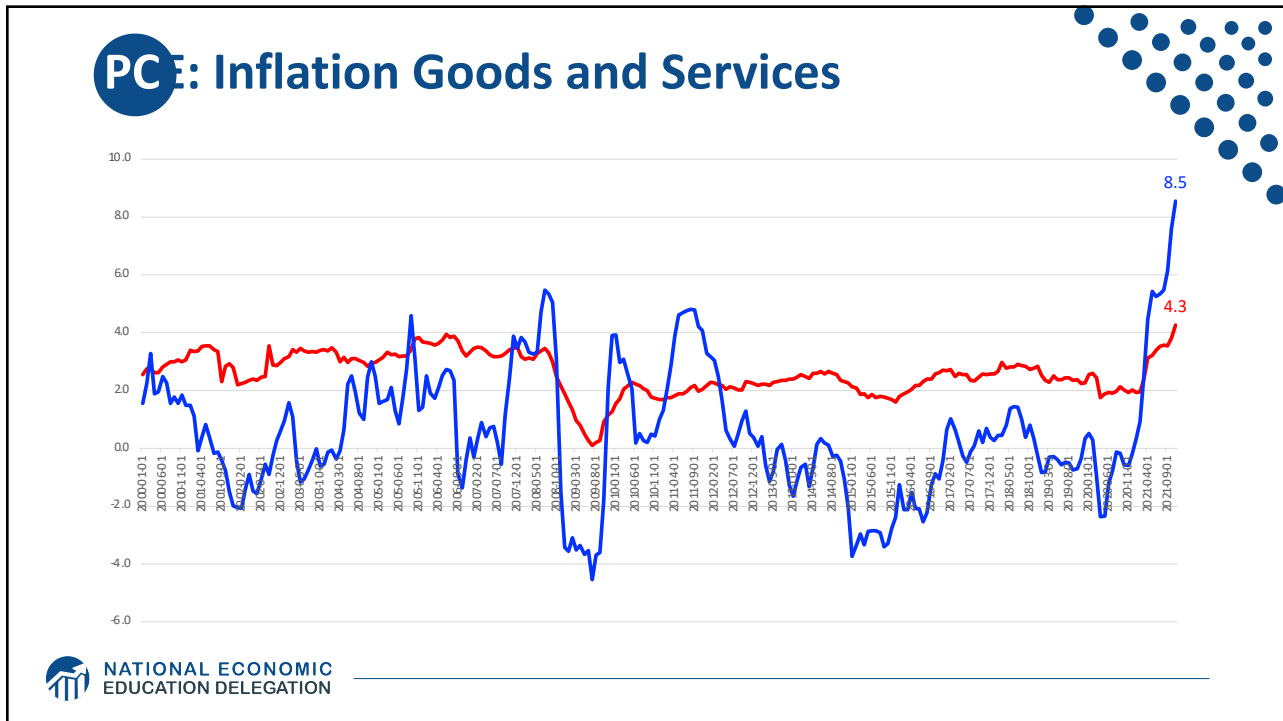
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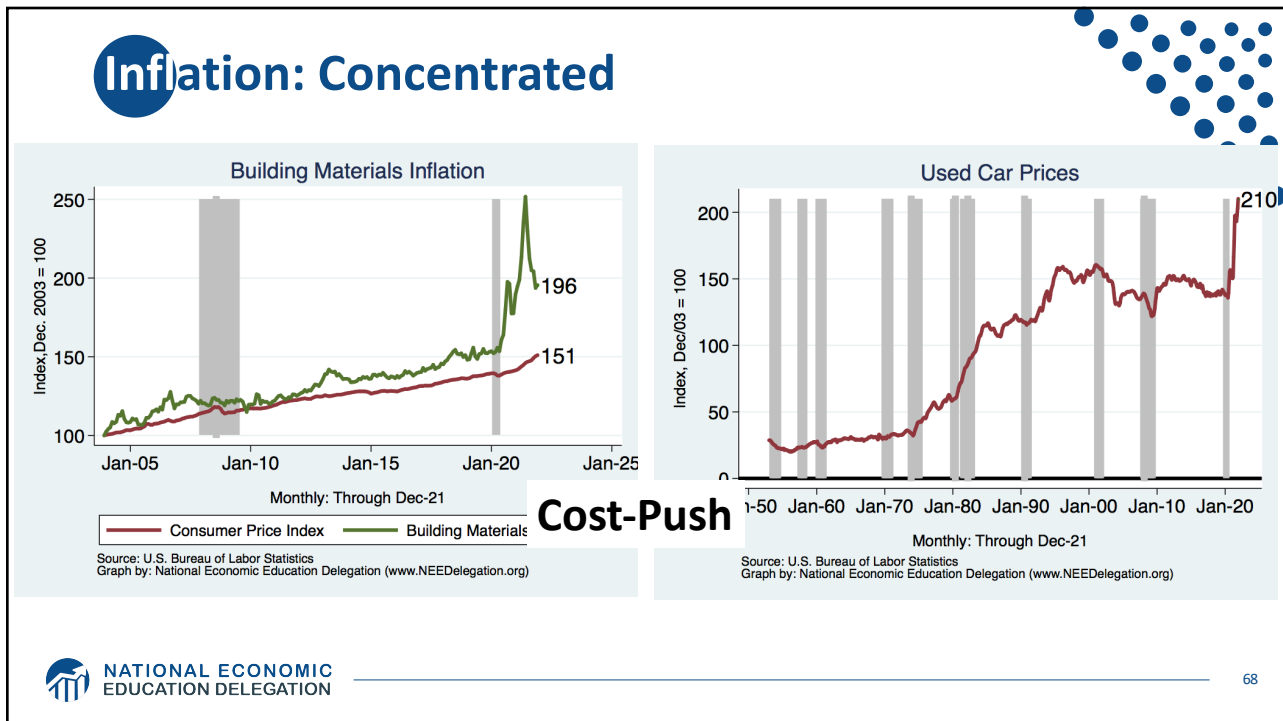
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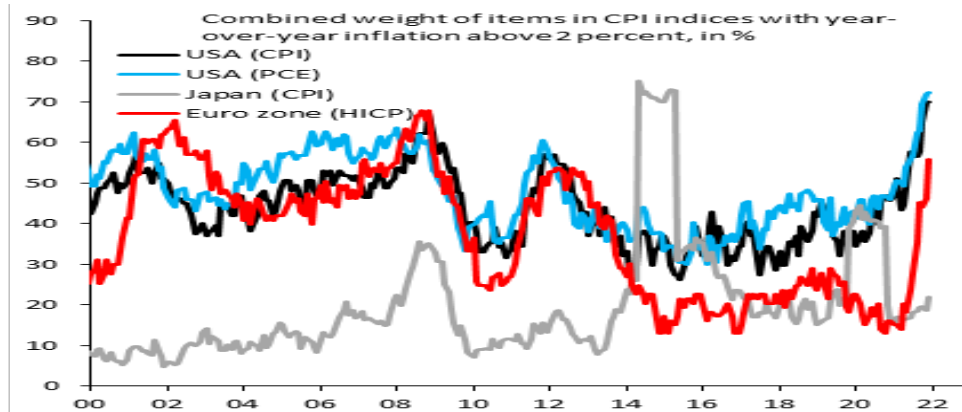


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Inflation: Or is it Broad Based?



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Is Inflation Permanently Higher?

- **Fed: Price increases may be:**
 - 1) rebound from low prices last year;
 - 2) temporary due to supply chain disruptions; e.g., used cars, bldg supplies.
 - 3) influenced by rising wages in the future.
- **Omicron:**
 - Lessen inflation in the short term.
 - Increase it in the long term by increasing supply chain issues.
- **Nobody knows, but Fed has wavered in its optimism.**
 - Uncertainty hurts both workers and businesses – hard to plan.



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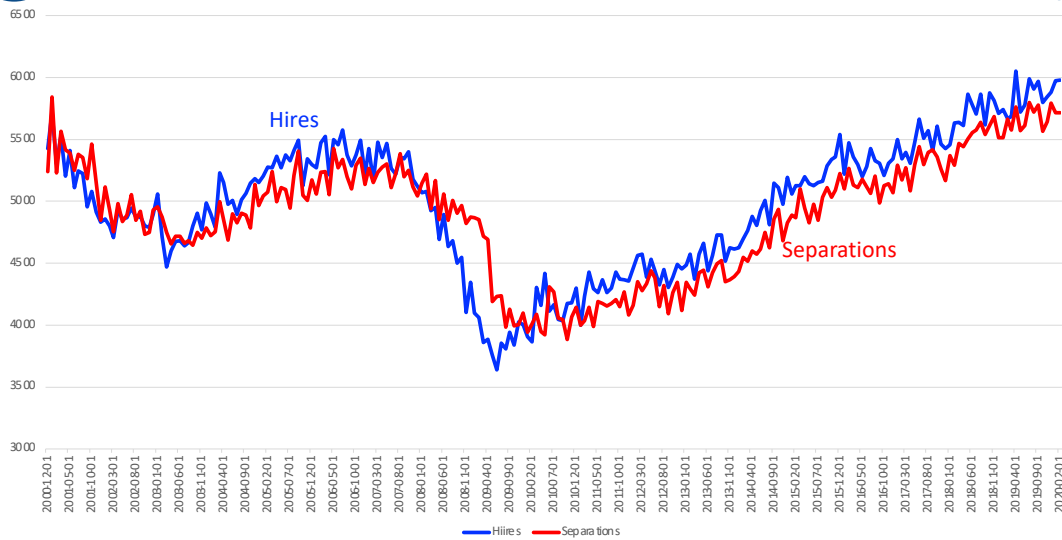
The Great Resignation



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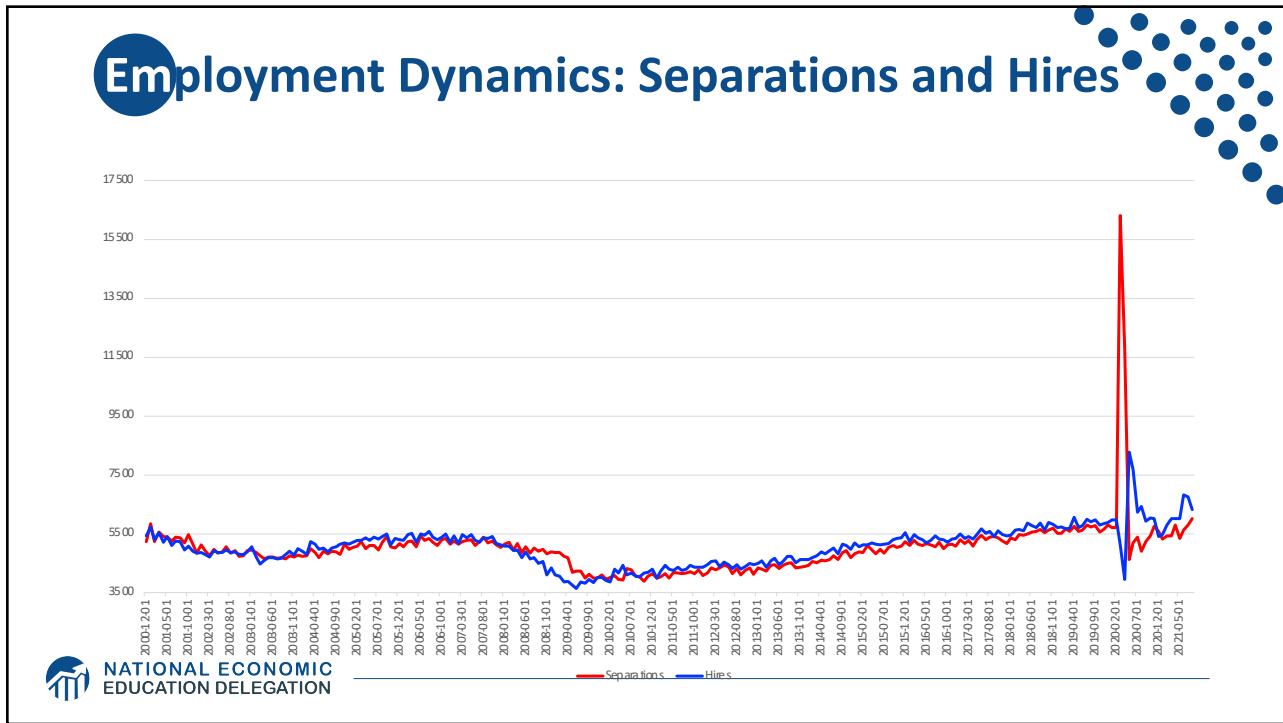
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Monthly Employment: Hires and Separations

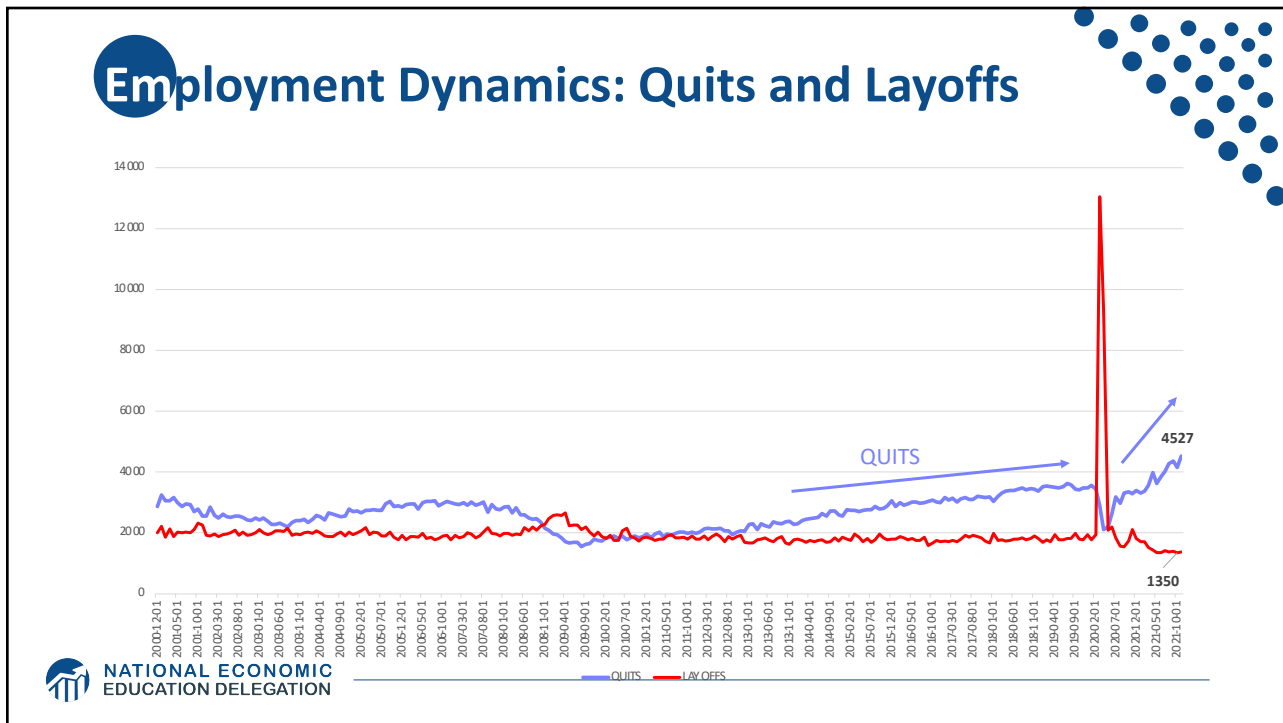


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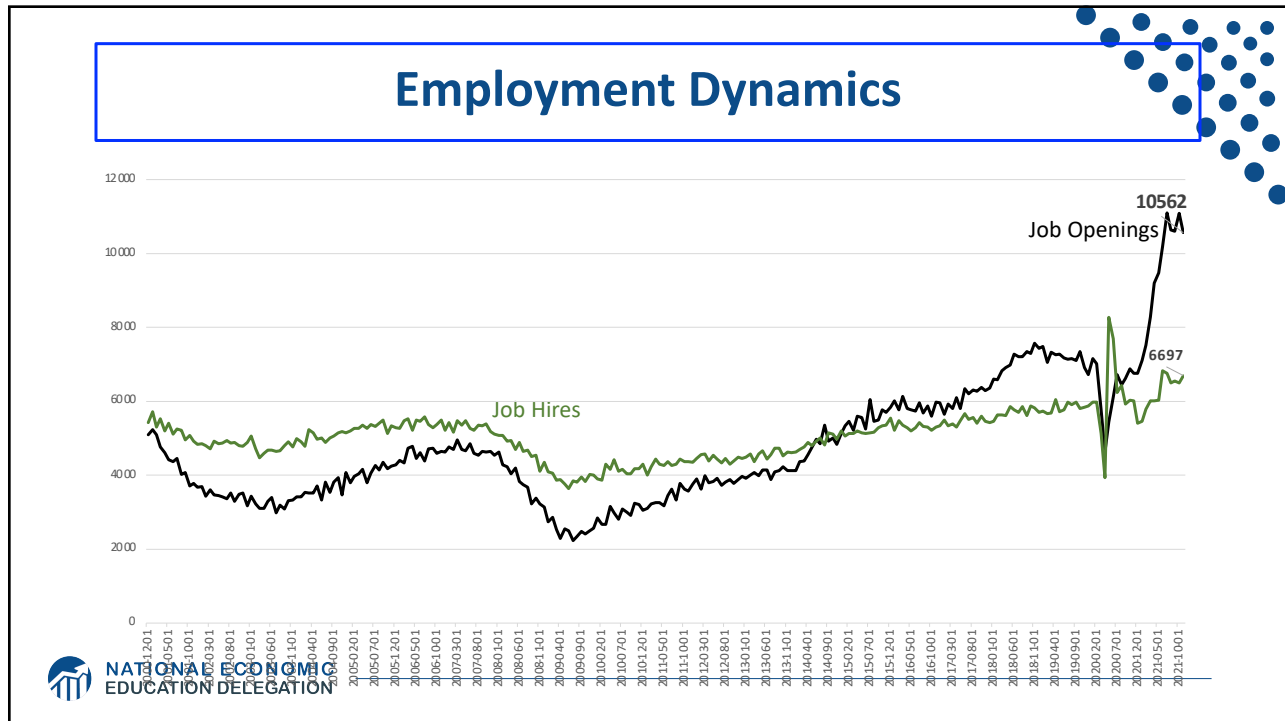
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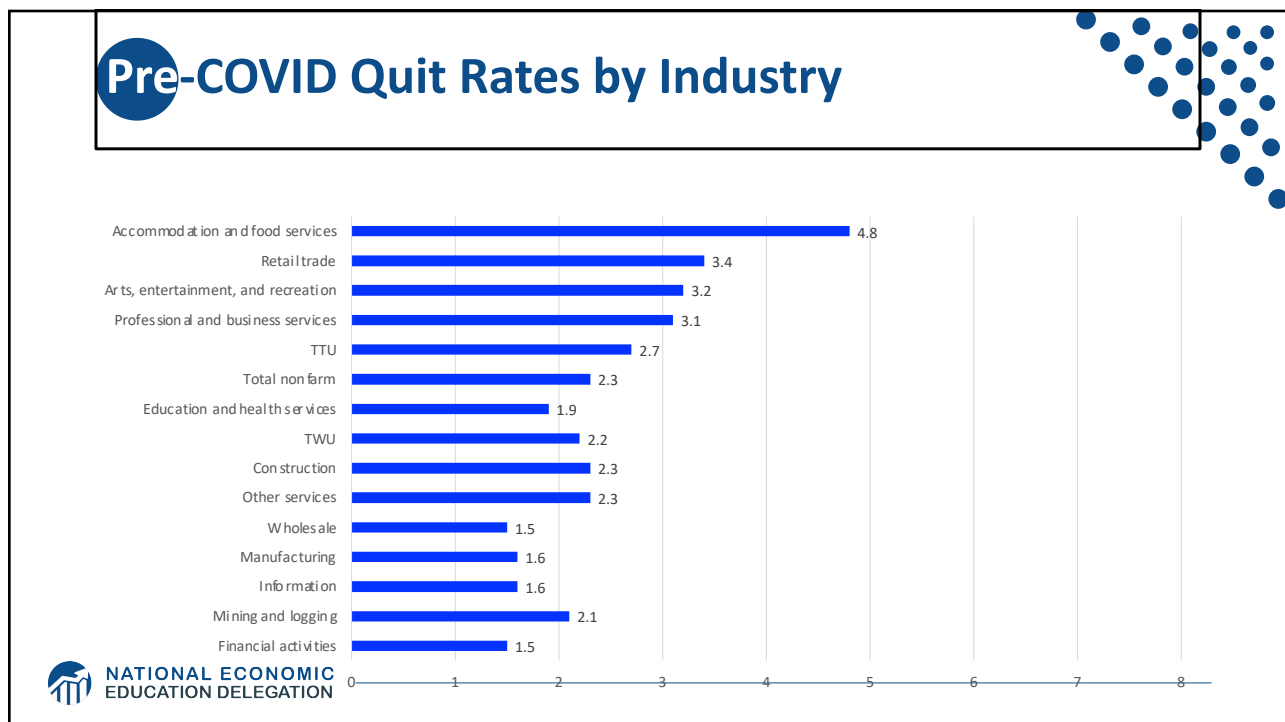
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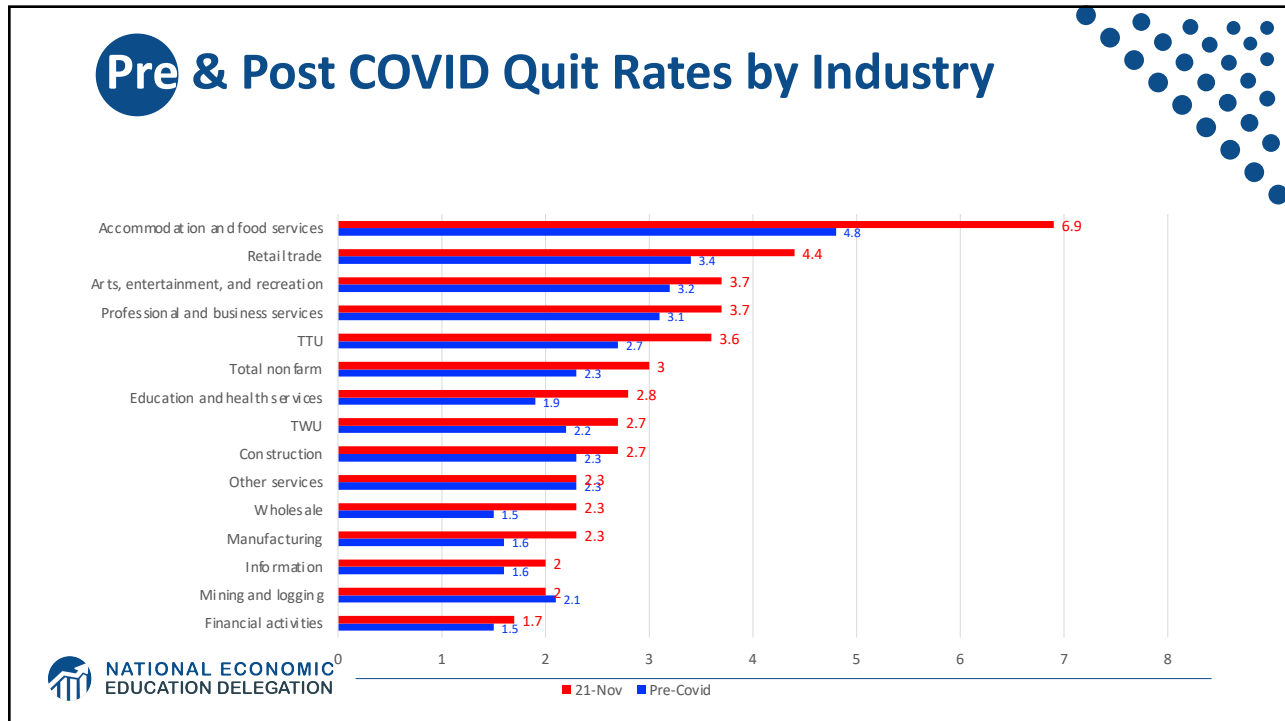
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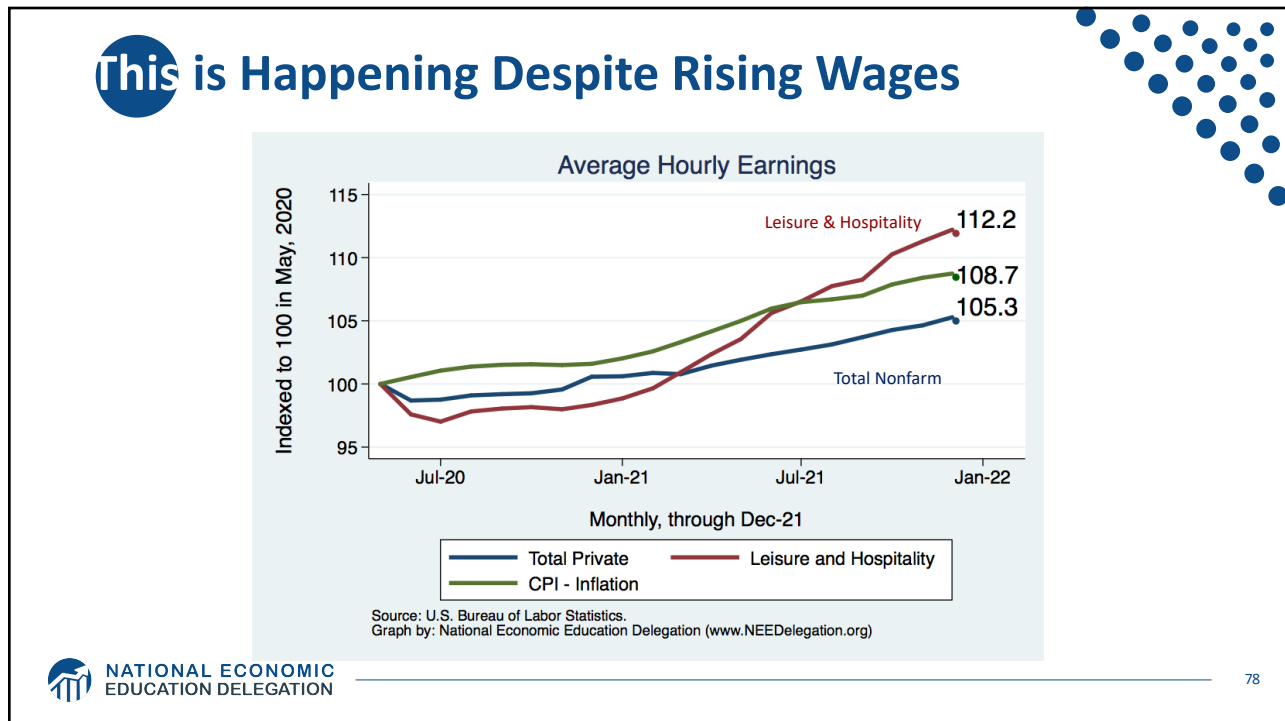
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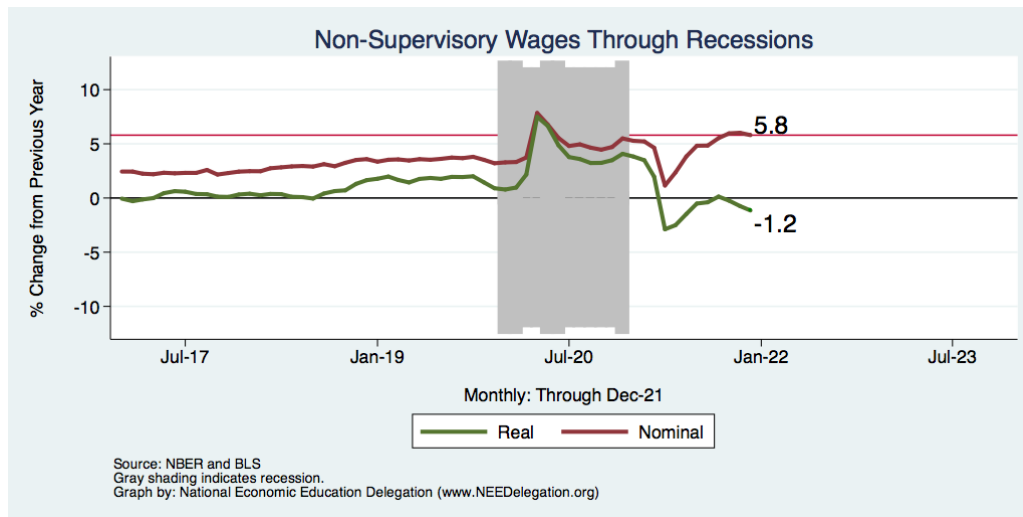


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Inflation Adjusted Wages Are Falling



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Great Resignation: Employment Situation

- **Employment is still on the rebound rebound**
- **The real challenge has been for employers to fill vacancies.**
- **What gives?**
 - Extended (or expected continuation) unemployment benefits and other stimulus payments
 - Parents with young children at home.
 - Workers reluctant to work in certain industries and occupations
 - Workers looking for different career opportunities.
 - Workers looking for better employment opportunities withing their industry/occupation – non-pecuniary benefits
 - Increased desire to have the option to work from home.
 - Better working conditions
 - Recognition of accomplishments



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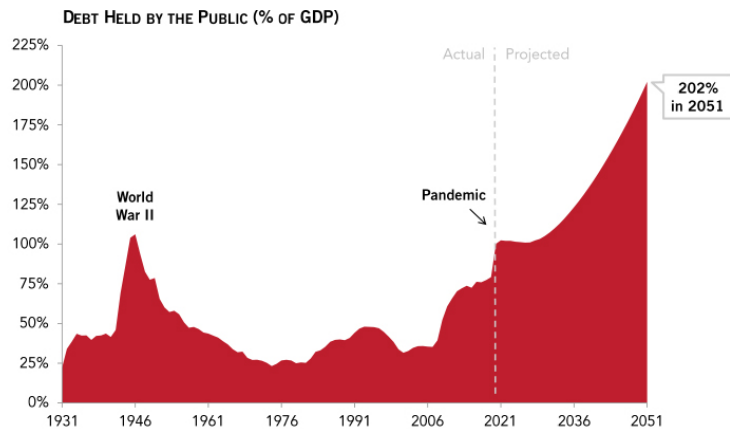
Debt and Deficit

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A Problem Exacerbated...Not Created



The national debt is on an unsustainable path



SOURCE: Congressional Budget Office, The 2021 Long-Term Budget Outlook, March 2021.
© 2021 Peter G. Peterson Foundation

PGPF.ORG

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Current Deficits in Perspective:

- The budgetary cost of the 3 major fiscal packages during the pandemic was over \$5 trillion. As a share of the economy this is almost the size of war production in 1943.

(Romer, *Brookings Papers on Economic Activity*, 3/25/2021.)

- Since March of 2021, Fed net holdings of US Treasury bonds have increased by \$2.7 trillion.



The End



Conclusion

- **Recovery is well underway, but may be slowing.**
- **GDP expanded 5.7% percent in 2021, likely 3-4% in 2022.**
- **2021 was an odd year.**
 - Workers attained the upper hand.
 - Supply chains broke.
 - Inflation surged.
 - The economy rebuilt itself.
- **Biggest problems:**
 - Supply chain bottlenecks.
 - Labor force participation.



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Best Measures of Progress

- **INFLATION – getting it under control.**
- **REAL WAGES– need to see progress.**
- **WORKFORCE PARTICIPATION – need growth here to get GDP growth.**

Pay no attention to the unemployment rate.



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How Does Inflation Work?

Inflation represents the rate at which the cost of goods and services increase over a period of time.

Demand-Pull

When demand for goods/service exceeds production capacity.

Cost-Push

When production costs increase prices.

Built-In

When prices rise, wages rise too, in order to maintain living costs.

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Source: Investopedia

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We're Buying Mostly ... Stuff

Real monthly household spending at an annualized rate, trillions of chained 2012 dollars

a. Goods

b. Services

Demand-Pull

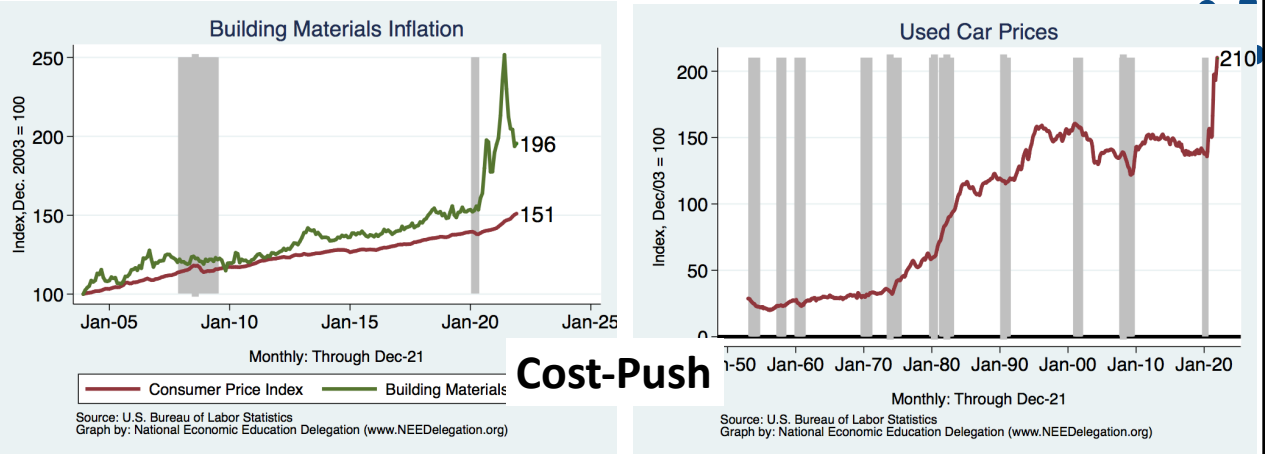
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Source: Jason Furman, PIIE

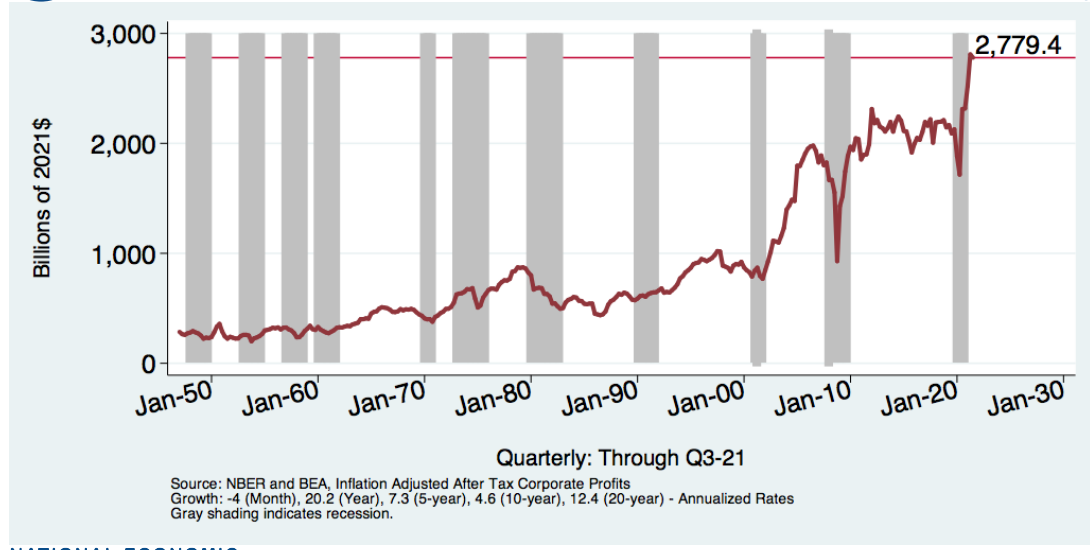
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Inflation: Concentrated

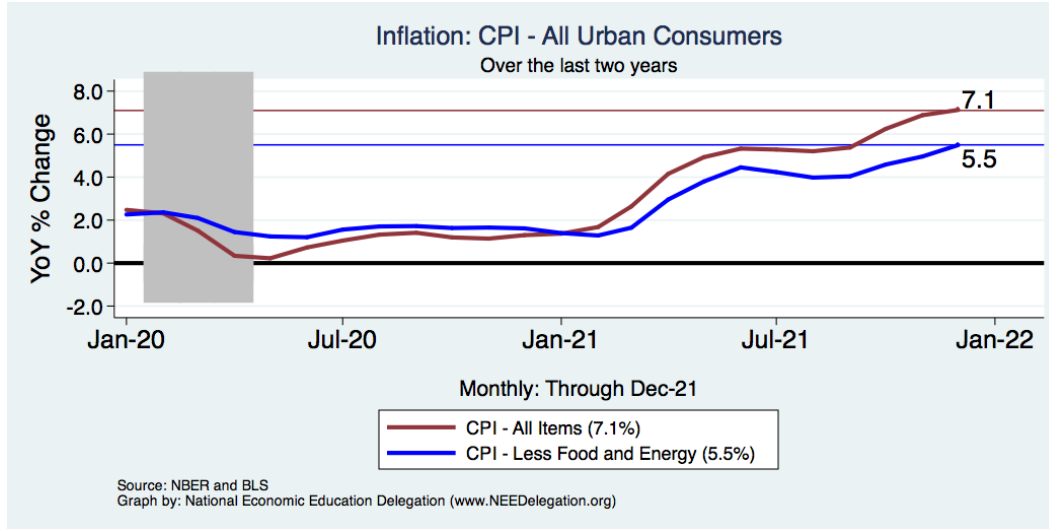


Cost-Push

Corporate Profits...Adding to Inflation?

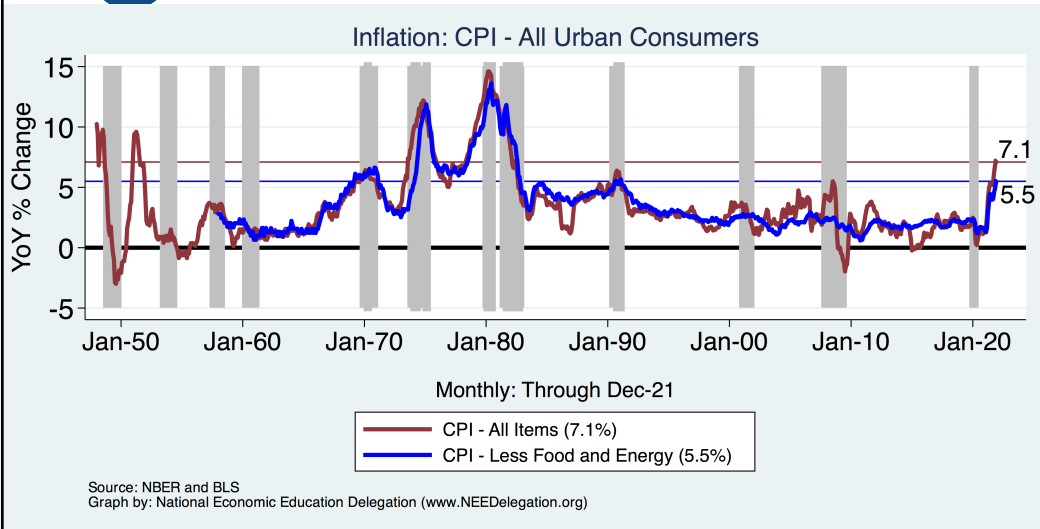


Inflation – Climbing! Should we worry?



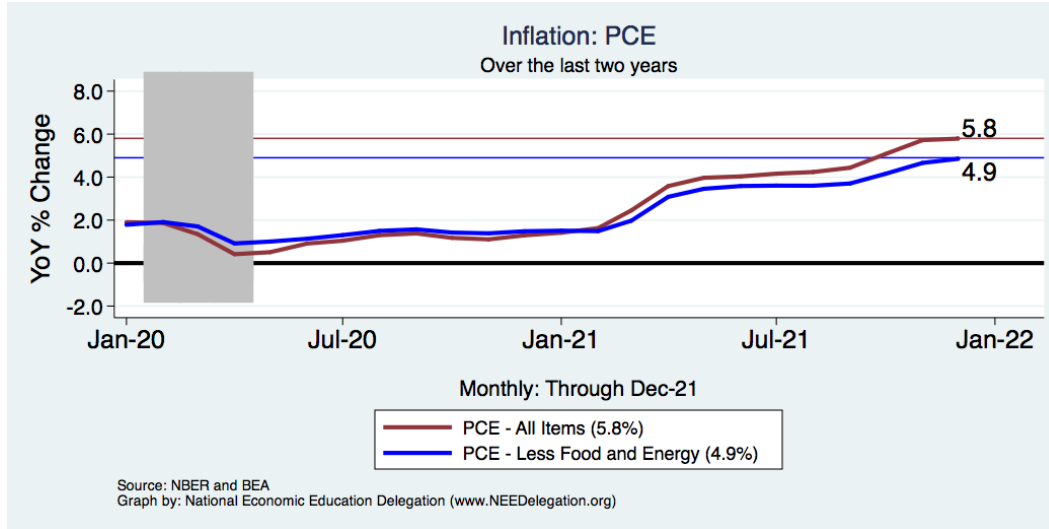
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Inflation in Historical Perspective

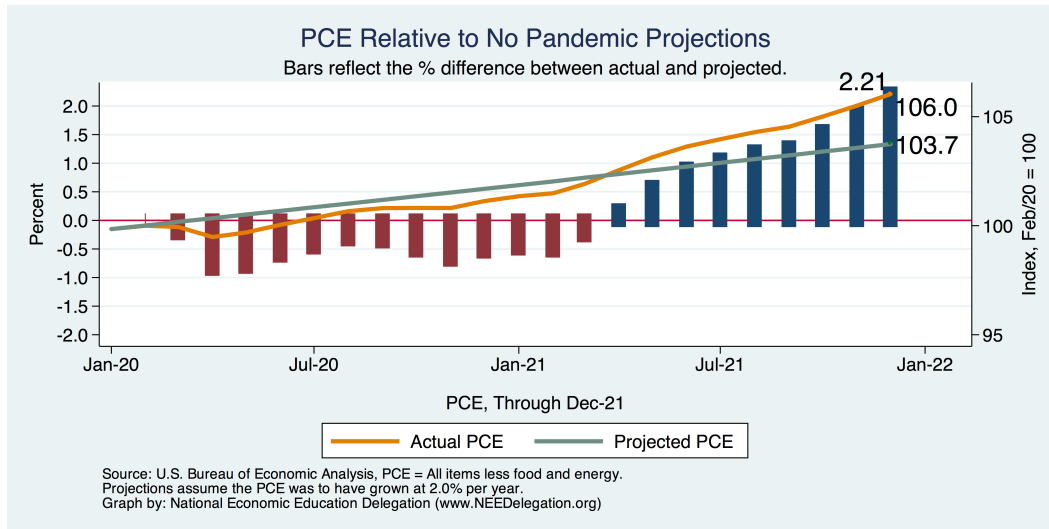


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Inflation – The Fed’s Metric! Should we worry?

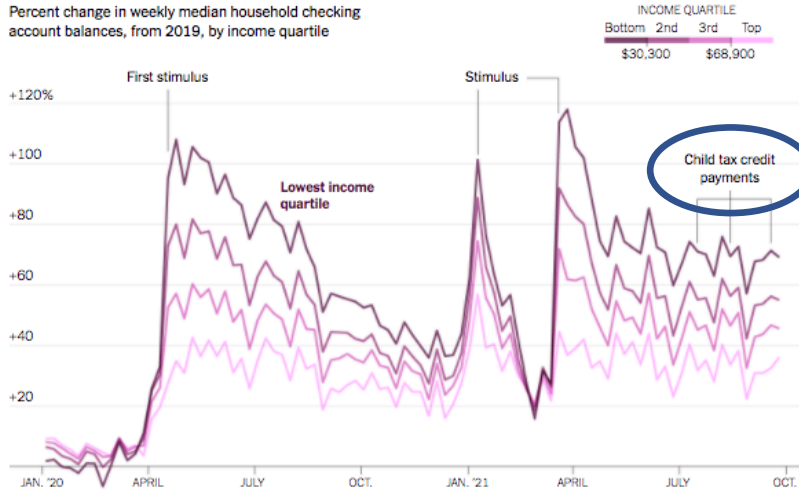


Inflation – PCE and Fed Suggest: I don't know.



Declining Resources May Change Things

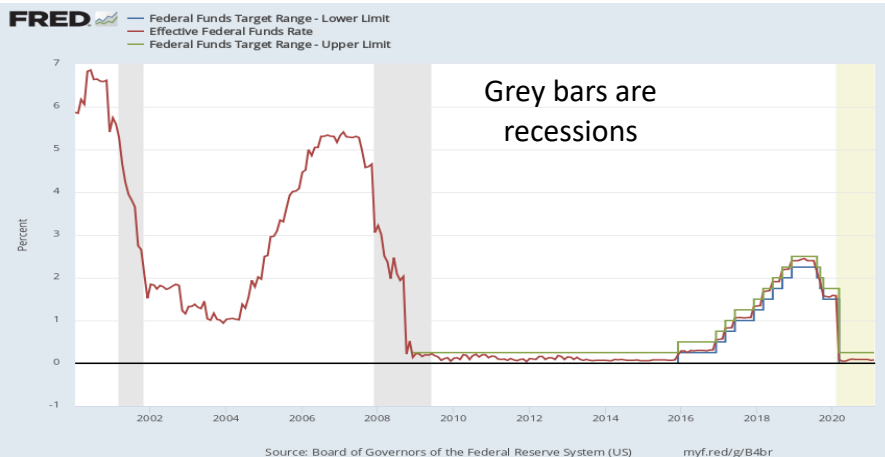
Percent change in weekly median household checking account balances, from 2019, by income quartile



Income quartiles are based on 2019 household income, after taxes and withholdings. Quartile benchmarks shown are rounded to the nearest \$100. Source: J.P. Morgan Chase Institute By Ella Koeze

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Monetary Policy – Geoffrey Woglom



Grey bars are recessions

The FOMC does not set an exact number for the Federal funds rate. Instead, it sets an upper (green line) and lower (blue) range. “The Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent...” (4/28/2021)

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Thank you!

Any Questions?

www.NEEDelegation.org

Scott Baier, Ph.D.

sbaier@g.clemson.edu

Contact NEED: info@NEEDelegation.org

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Structural Changes?

- **Pandemic has been an accelerant.**

- Not a change agent.

- **Retail**

- **Telecommuting**

- **Telehealth**

- **Business travel?**

- **Wealth concentration**

- **Industry concentration**

- **Automation**

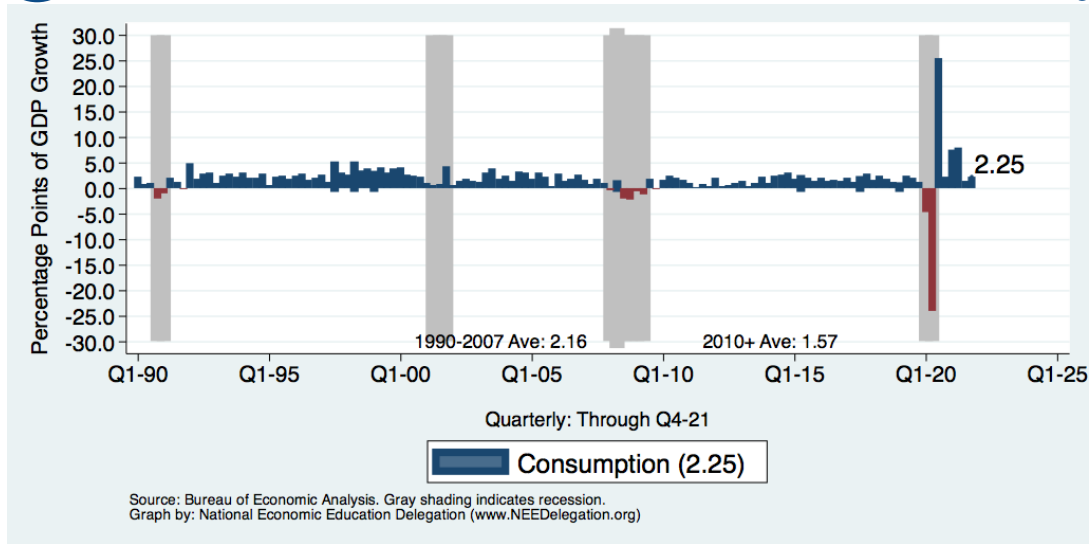


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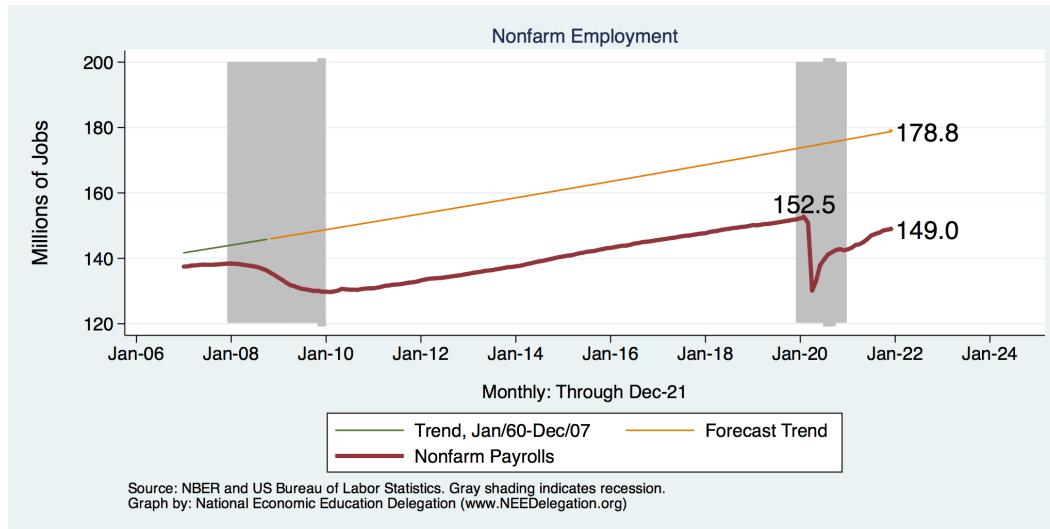
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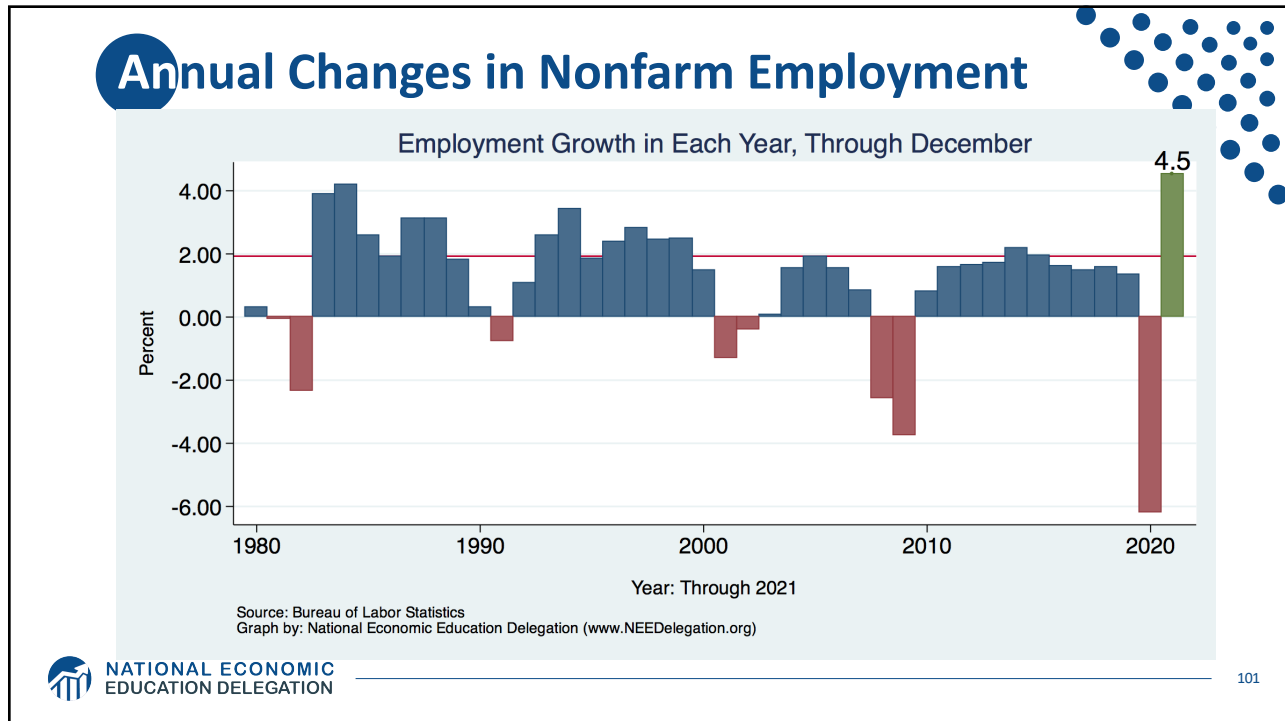
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Consumption: Quarterly Growth

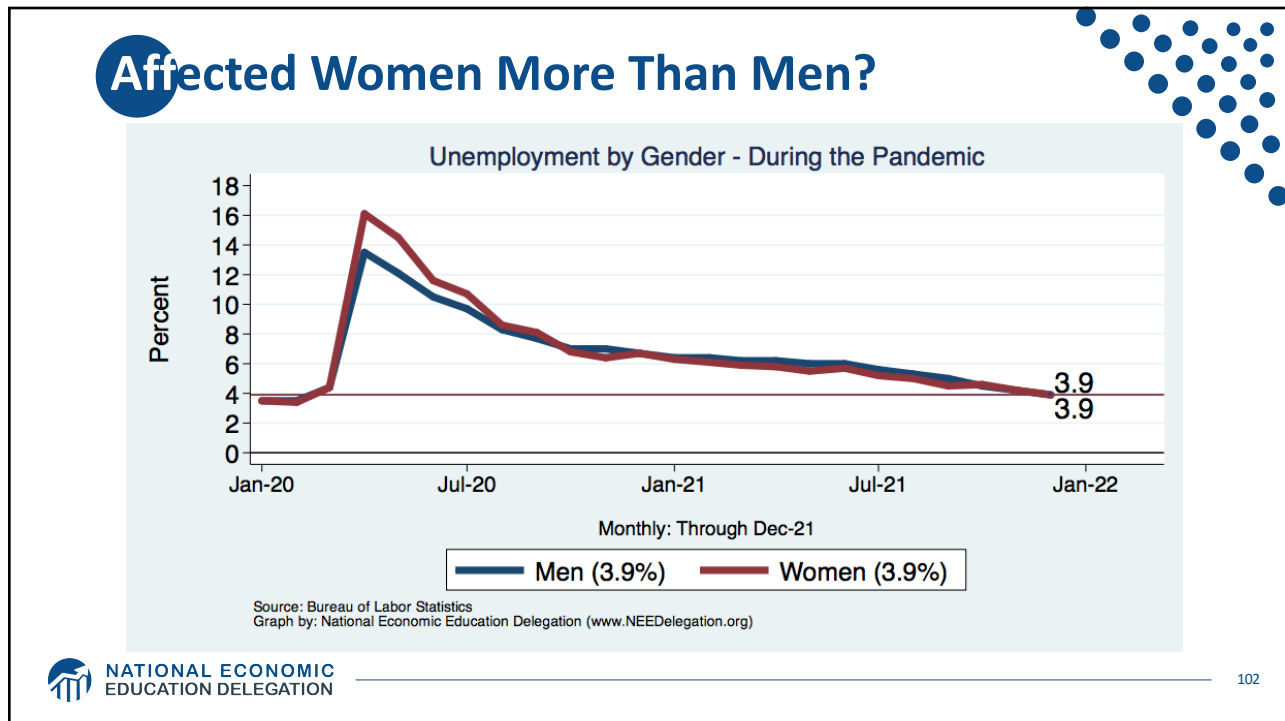


Employment Gap



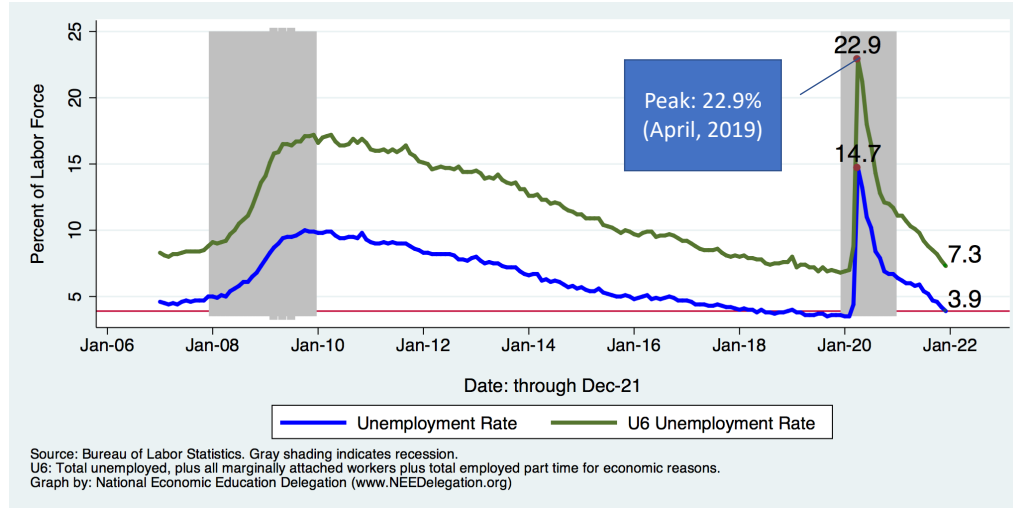


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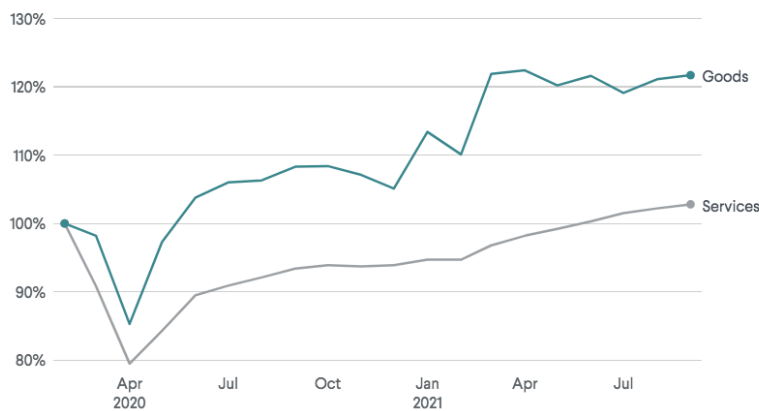
Another Measure: Unemployment



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Supply Chains Are at the Core

Pandemic Triggers Greater Demand for Goods
 Personal consumption expenditures relative to February 2020



Source: U.S. Bureau of Economic Analysis via Federal Reserve Bank of St. Louis.

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What Are Supply Chains?

The Journey of a Semiconductor

Steps and firm locations in the production of a smartphone chip

Design

1. Intellectual property licensed (Europe)
2. Design software developed (U.S.)
3. Chip designed (U.S.)

Equipment

4. Manufacturing equipment developed (U.S., Europe, Japan)

Materials

5. Silicon dioxide mined and refined (U.S.)
6. Silicon formed into ingot (Japan)
7. Ingot sliced into wafers (South Korea)

Manufacturing

8. Wafers imprinted with circuits (Taiwan)
9. Chip packaged (Malaysia)
10. Chip assembled (China)

Sale

11. Smartphone sold to consumers (U.S.)

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<https://www.cfr.org/article/what-happened-supply-chains-2021>

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Why does spending matter?

Spending Categories as Share of GDP (2019)

Category	Share of GDP
Goods	20%
Services	44%
Government spending	16%
Nonresidential Fixed Investment	13%
Residential Fixed Investment	4%
Net exports	-3%
Total	64%

Spending:
 Goods 20%
 Services 44%

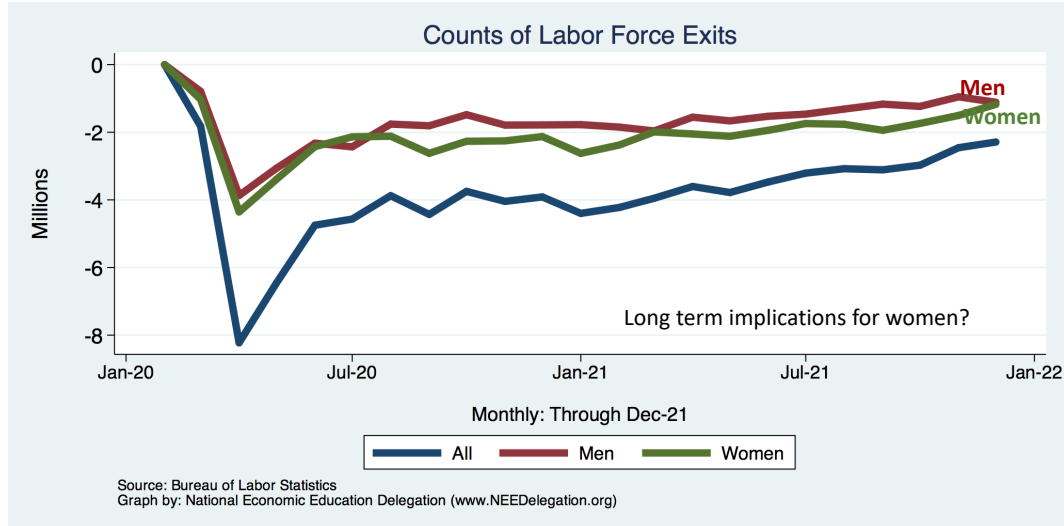
Total 64%

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Affected Women More Than Men



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Why Women More Than Men?

- Women are disproportionately represented in low-wage and face-to-face jobs.
- Our childcare and school systems don't meet the needs of working mothers.
- COVID-19 has upended the labor market, with disastrous consequences for working women and their families.
 - Many women continued working in high risk jobs.
- The difference in impact is waning.

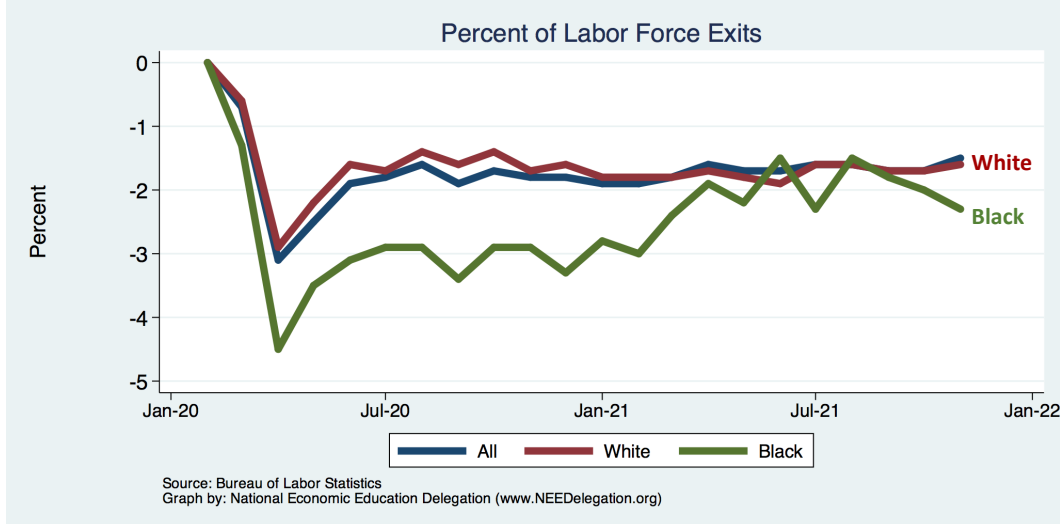


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Affecting Black Workers More than White



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What Index to Follow: CPI or PCE?

- **CPI is the headline statistic, followed by most newspapers.**
 - Allows more granularity – ability to look at specific products.
- **PCE is the one followed by the Fed.**
 - Why?
 - Accounts for short term fluctuations in consumer purchases.
 - Based on more reliable data.
- **Fed generally pays attention to the core inflation #s.**
 - Excluding food and energy.



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Inflation: Critical Issues

- **Inequities**

- Price changes vary wildly across goods.
- How inflation hits you depends on what you buy and your level of income.
 - o Some evidence that lower income individuals face higher inflation.

- **Online inflation is much lower than the CPI**

- Estimates suggest about 2% lower.

- **Both have implications for the policy response.**

- Safety net? Antitrust action?

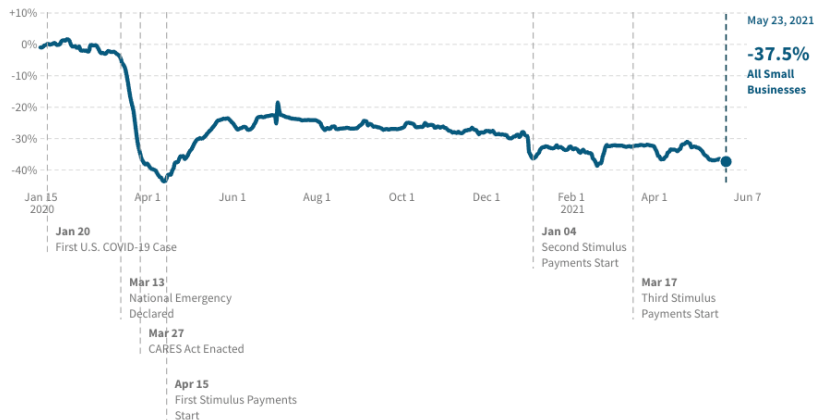
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A Hard-Hit Sector: Small Business

Small Biz Closures in the United States

In **the United States**, as of May 23 2021, the number of small businesses open decreased by **37.5%** compared to January 2020.

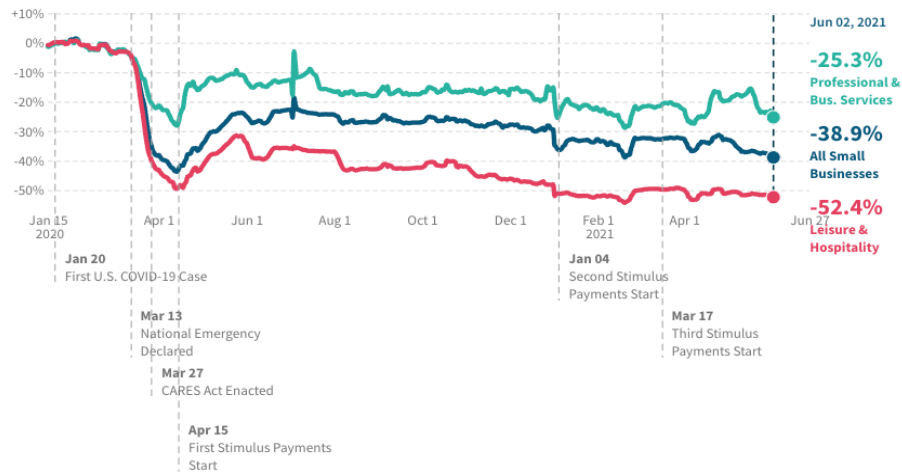
[DOWNLOAD CHART](#)



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Small Businesses: They Didn't Get Enough PPP

In the United States, as of June 02, 2021, the number of small businesses open decreased by **38.9%** compared to January 2020.



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A “K-shaped” recovery?

Executive Summary

- Those with financial wealth/residential real estate have seen its value grow in excess of inflation.
- High income earners (>60k/yr) have largely kept their jobs;
 - middle and low income earners have depressed employment rates
- Women are disproportionately exiting labor force.
- Food insecurity has been very high.

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Coronavirus and Inequality

- Resources to weather the storm.
- Racial inequities.
- Educational inequities
- Telecommuting
- Low wage jobs are at risk.



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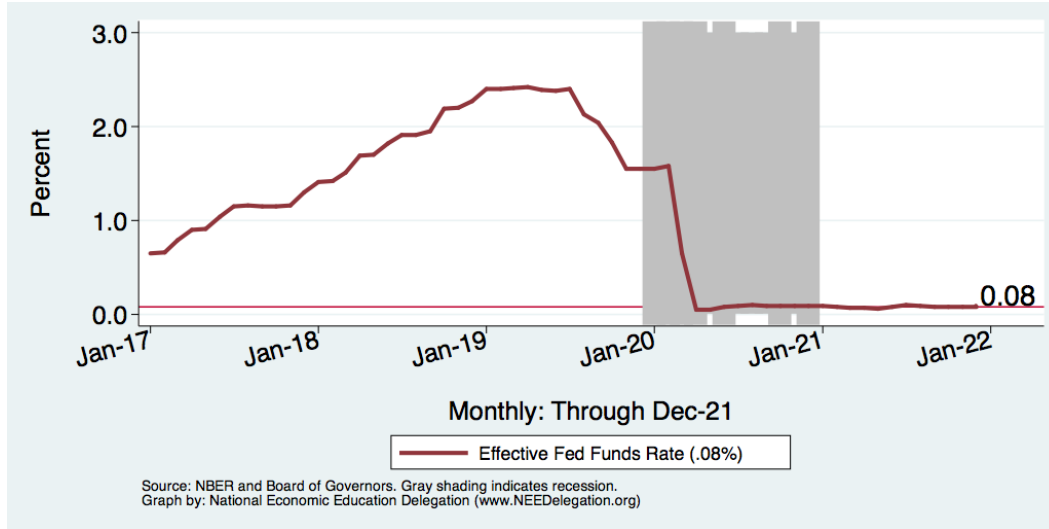
Monetary Policy: Federal Reserve

- **Primary goal is to keep interest rates low, to facilitate continued borrowing.**
 - Federal Funds Rate – rate at which banks lend to each other, usually overnight.
 - Purchases of U.S. Treasury securities – keep money flowing to the government at low rates of interest.



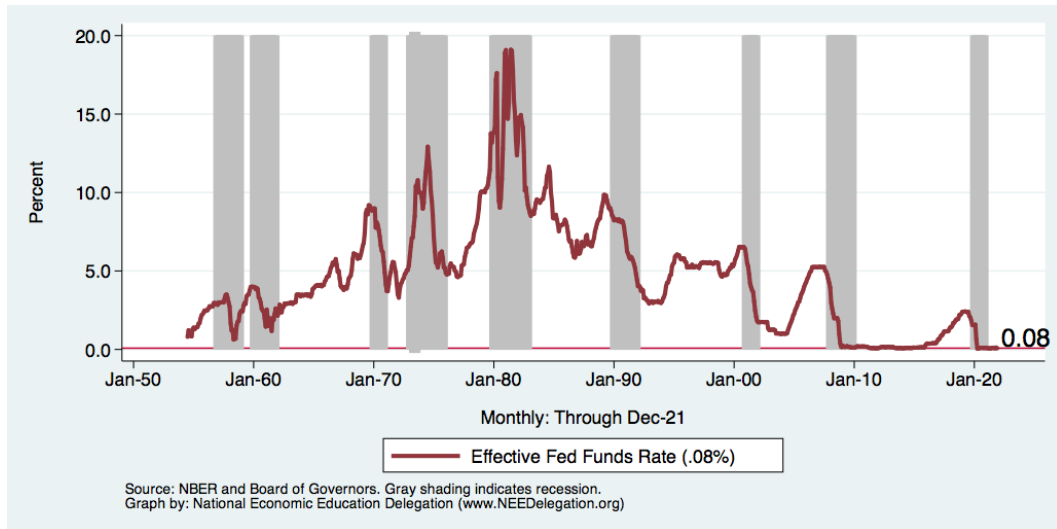
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Federal Funds Rate – Last 5 Years



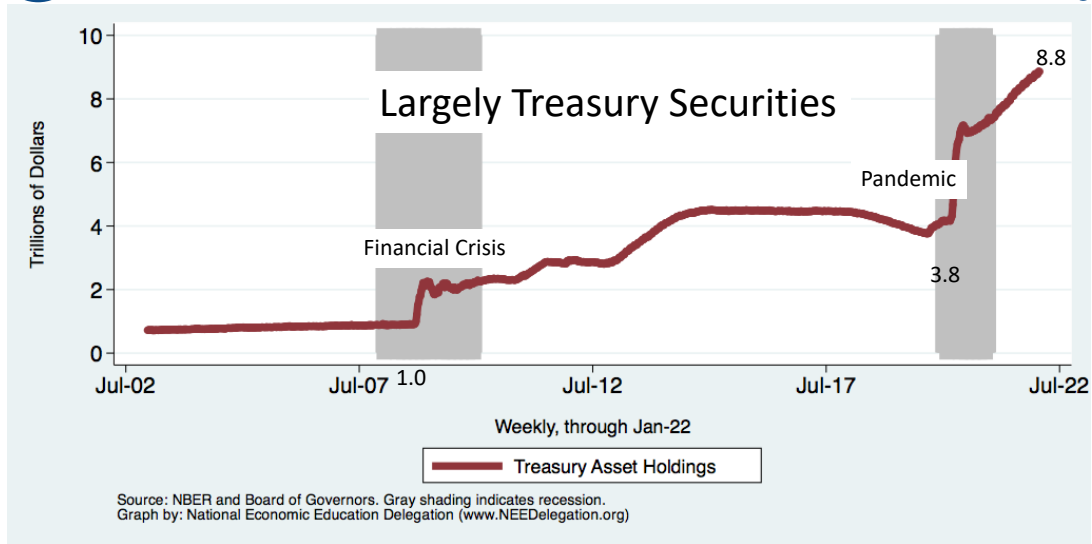
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Federal Funds Rate



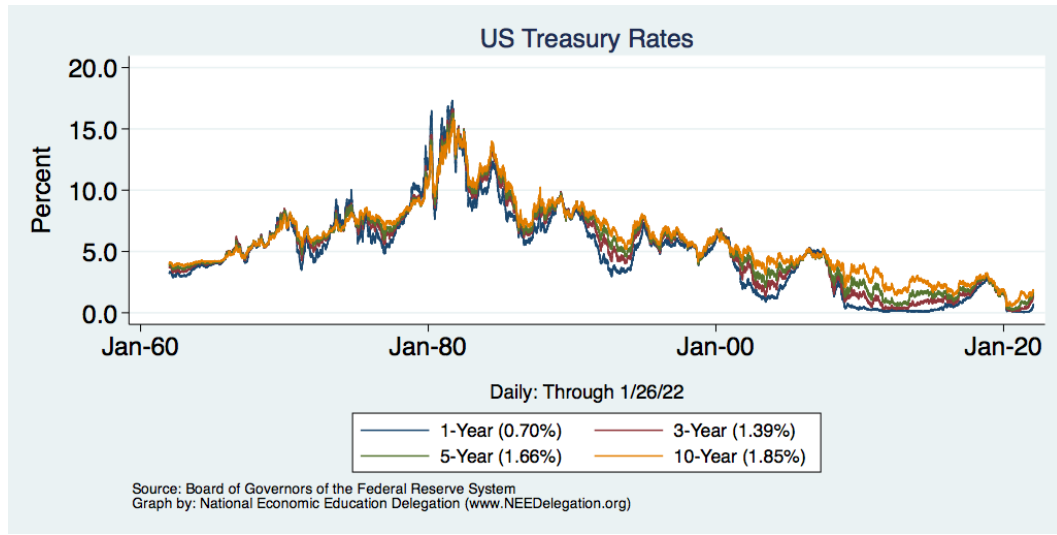
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Federal Reserve Assets



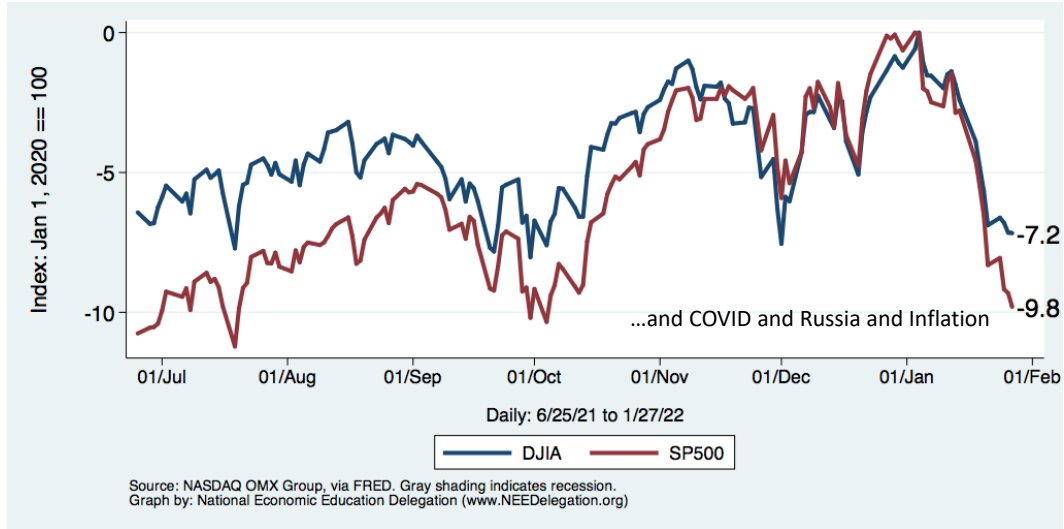
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Treasuries – Low Interest Rates



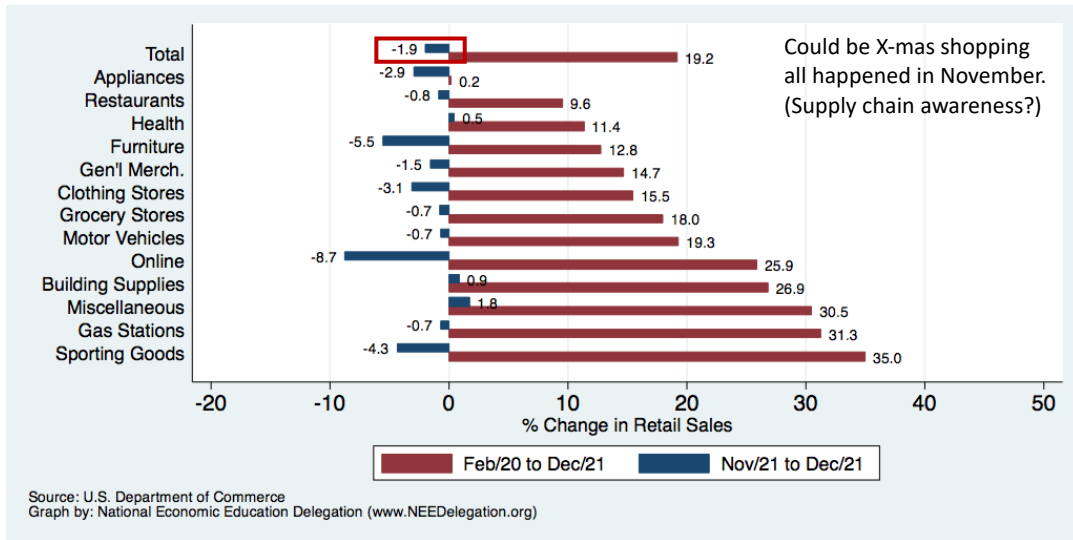
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Markets Respond To Fed Policies



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Retail Sales Are Slowing



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www.NEEDelegation.org/LocalGraphs

For every state and county in the United States.
Detailed graphs on employment, housing, moves, and other statistics.

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Osher Lifelong Learning Institute, Winter 2022
Contemporary Economic Policy

Clemson University
January-February, 2022

National Economic Education Delegation

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National Economic Education Delegation

- **Vision**

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

- **Mission**

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.

- **NEED Presentations**

- Are nonpartisan and intended to reflect the consensus of the economics profession.



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Who Are We?

- **Honorary Board: 54 members**

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

- **Delegates: 649+ members**

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

- **Global Partners: 48 Ph.D. Economists**

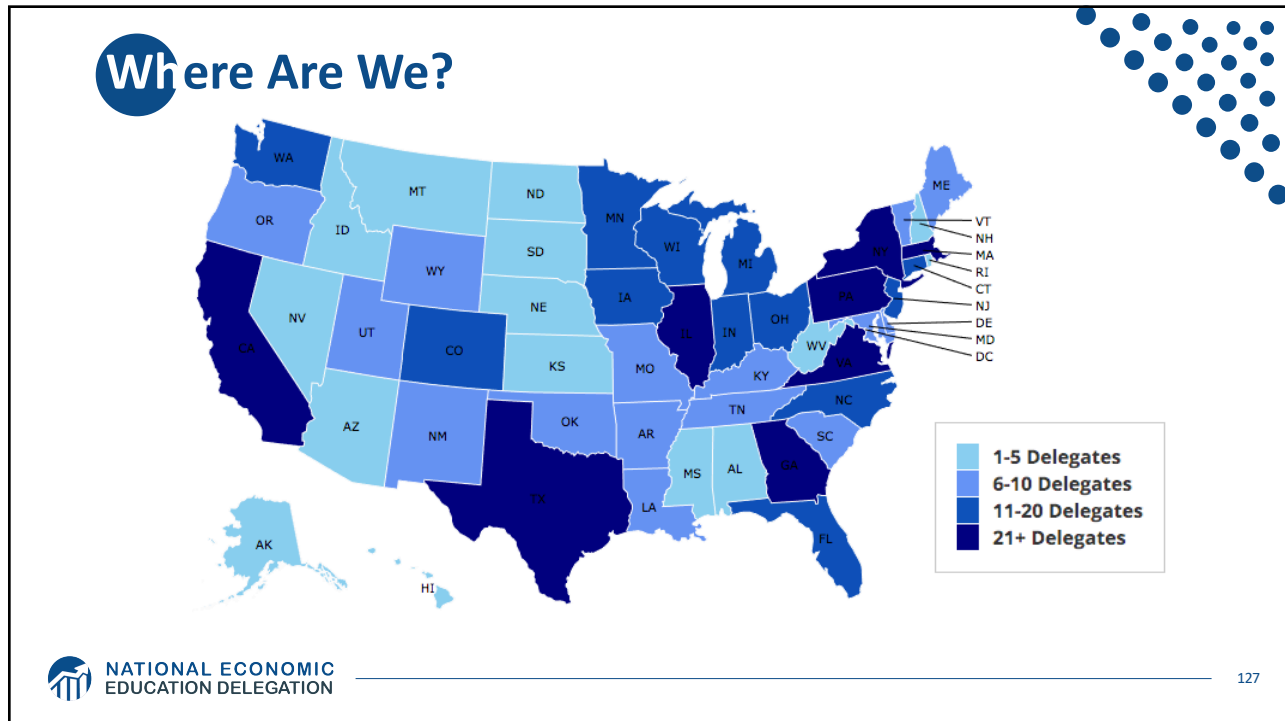
- Aid in slide deck development



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Available NEED Topics Include:

- Coronavirus Economics
- US Economy
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- US Social Policy

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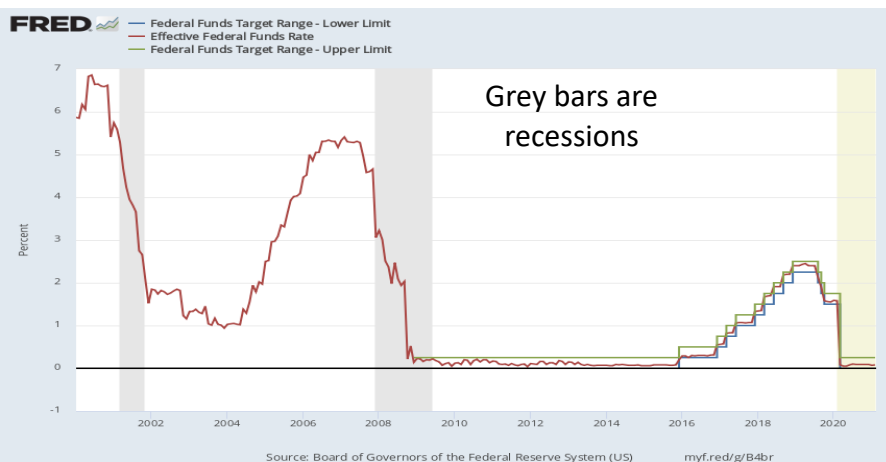
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Course Outline

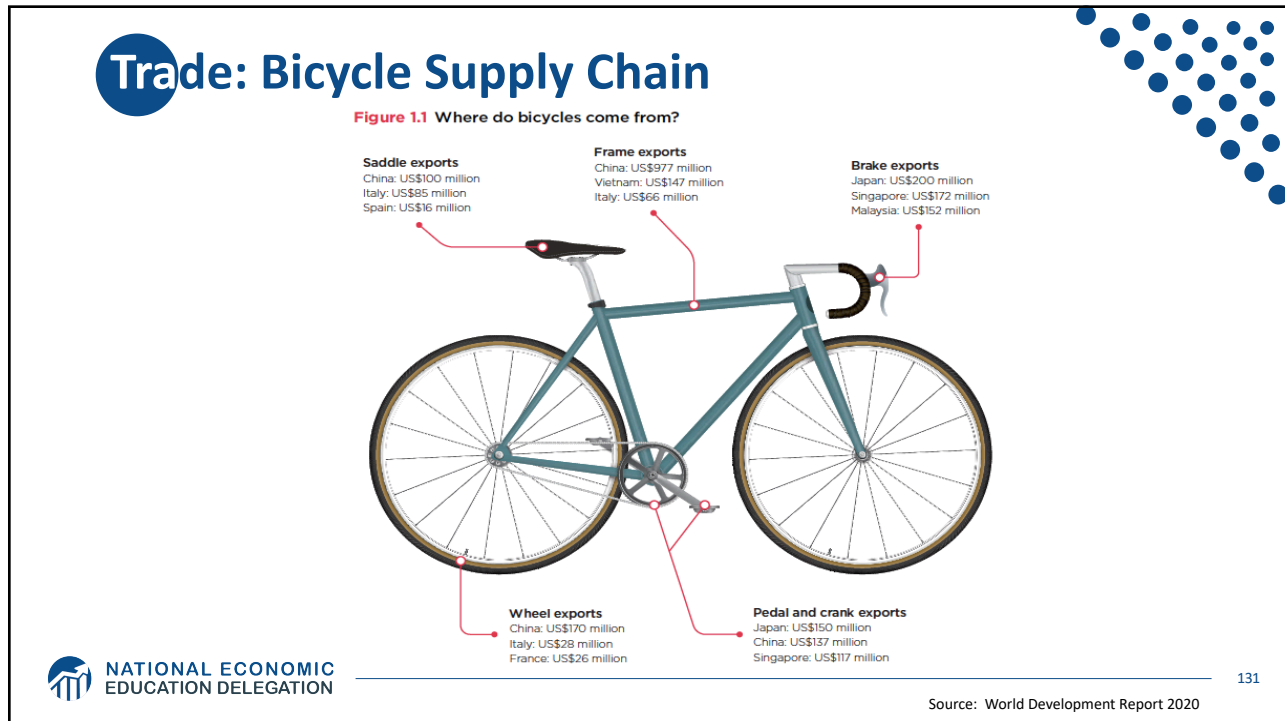
• Contemporary Economic Policy

- Week 1 (1/31): US Economy & Coronavirus Economics
- Week 2 (2/7): Monetary Policy (Geoffrey Woglom, Amherst College)
- Week 3 (2/14): Trade (Alan Deardorff, University of Michigan)
- Week 2 (1/21): Climate Change Economics (Sarah Jacobson, Williams College)

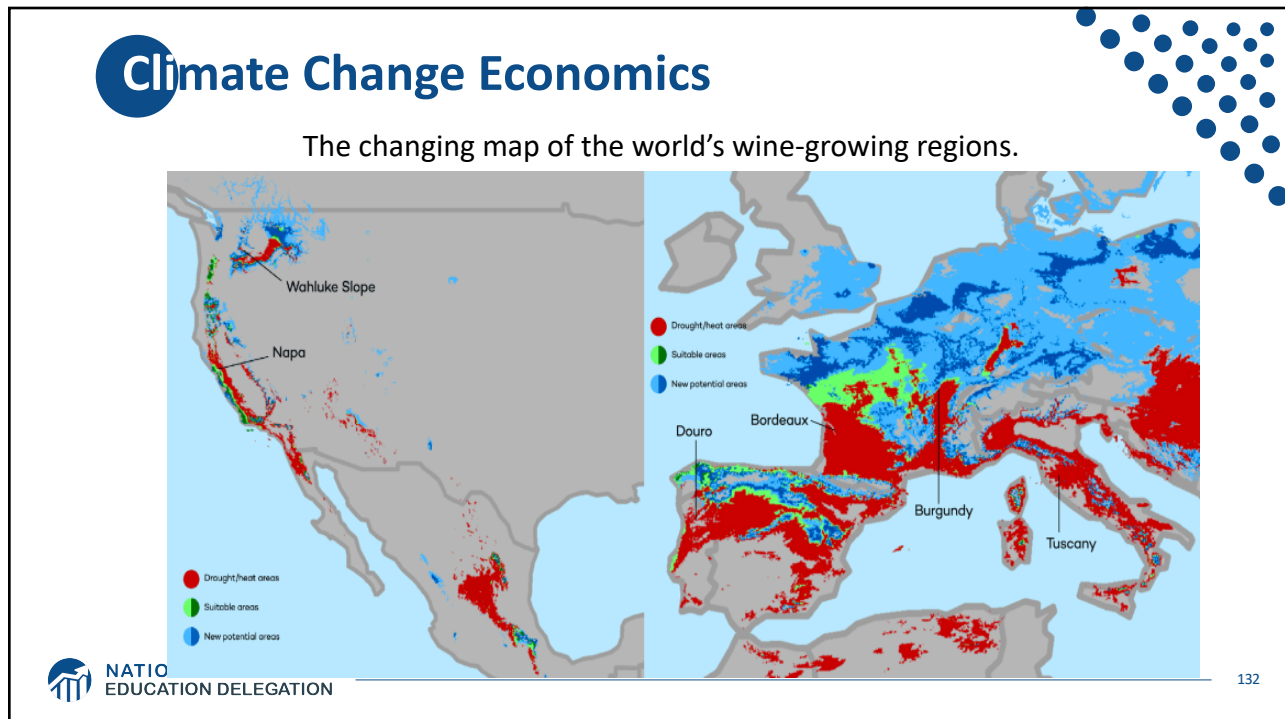
Monetary Policy Is About the Interest Rate



The FOMC does not set an exact number for the Federal funds rate. Instead, it sets an upper (green line) and lower (blue) range. “The Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent...” (4/28/2021)



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Submitting Questions

- **Please submit questions in the chat.**
 - I will try to handle them as they come up, but may take them in a bunch as time permits.
- **We will do a verbal Q&A once the material has been presented.**
 - And the questions in the chat have been addressed.
- **OLLI allowing, we can stay beyond the end of class to have further discussion.**



US Economy and Coronavirus Economics

Scott Baier, Ph.D.
Clemson University

National Economic Education Delegation



Credits and Disclaimer

- **This slide deck was authored by:**

- Jon D. Haveman, NEED
- Scott Baier, Clemson University
- Geoffrey Woglom, Amherst College (Emeritus)
- Brian Dombeck, Lewis & Clark College
- Doris Geide-Stevenson, Weber State

- **Disclaimer**

- NEED presentations are designed to be nonpartisan.
- It is, however, inevitable that the presenter will be asked for and will provide their own views.
- Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).



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Outline

- **State of the pandemic**

- **The U.S. Economy**

- **Hot Topics**

- Government policy
- Debt
- Inflation
- Great resignation



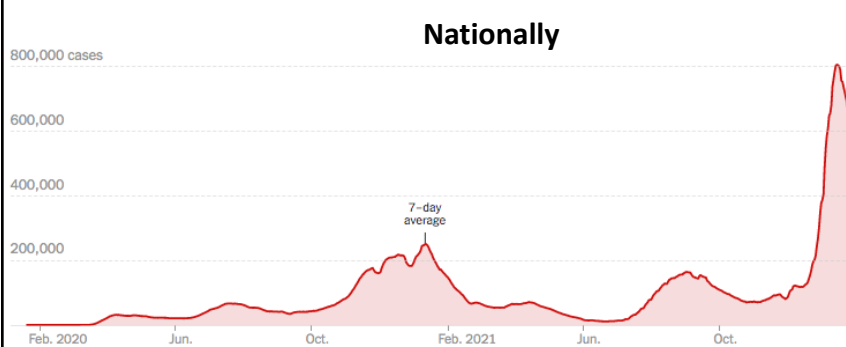
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State of the Pandemic

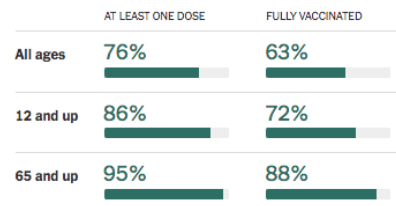
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Making Real Progress...Until Omicron

New reported cases



Vaccinations



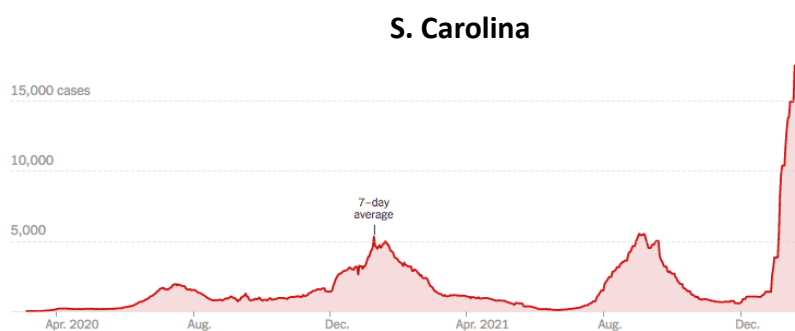
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Omicron is Making Things Difficult

- Covid-related absences:
 - Are creating headaches for businesses that were struggling to hire workers even before Omicron.
 - Restaurants and retail stores have cut back hours.
 - Broadway shows called off performances.
 - Airlines canceled thousands of flights over the holidays because so many crew members called in sick;
 - on one day last month, nearly a third of United Airlines Workers at Newark Liberty International Airport, a major hub, called in sick.

Arizona Cases Are Falling Nicely

New reported cases



Vaccinations

	AT LEAST ONE DOSE	FULLY VACCINATED
All ages	65%	55%
12 and up	74%	63%
65 and up	95%	86%

The U.S. Economy



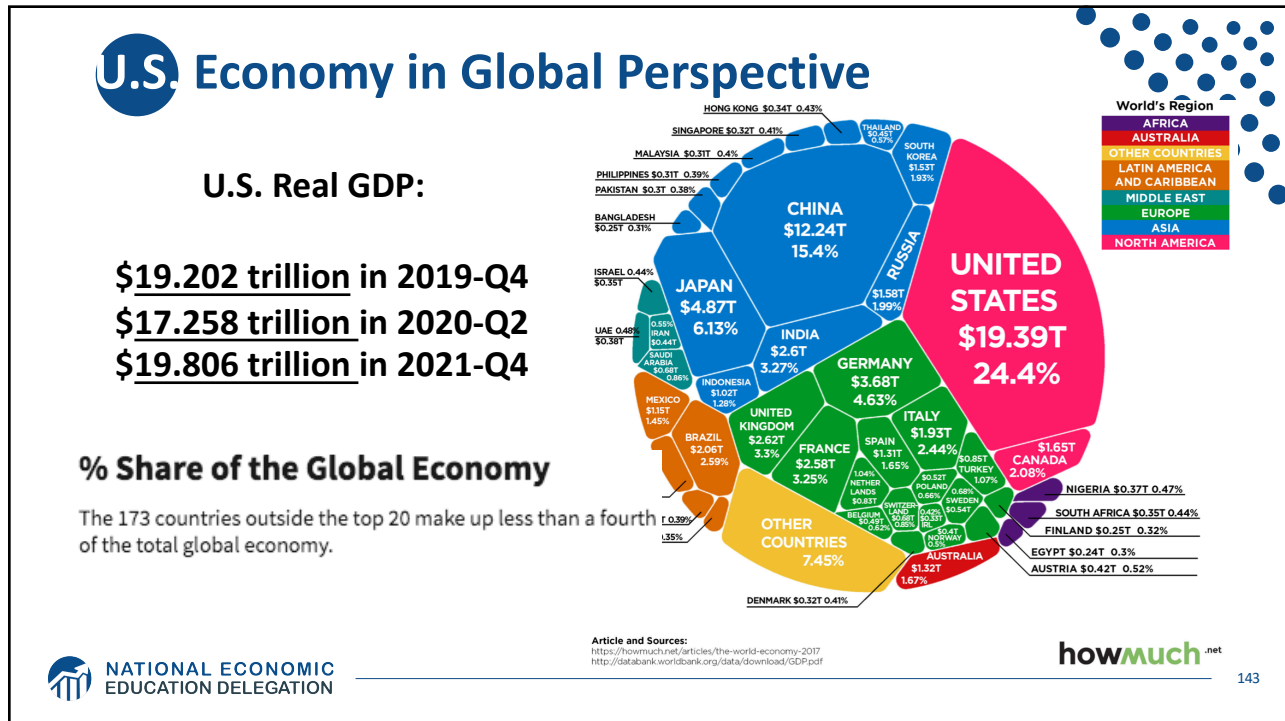
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Some Basic Statistics

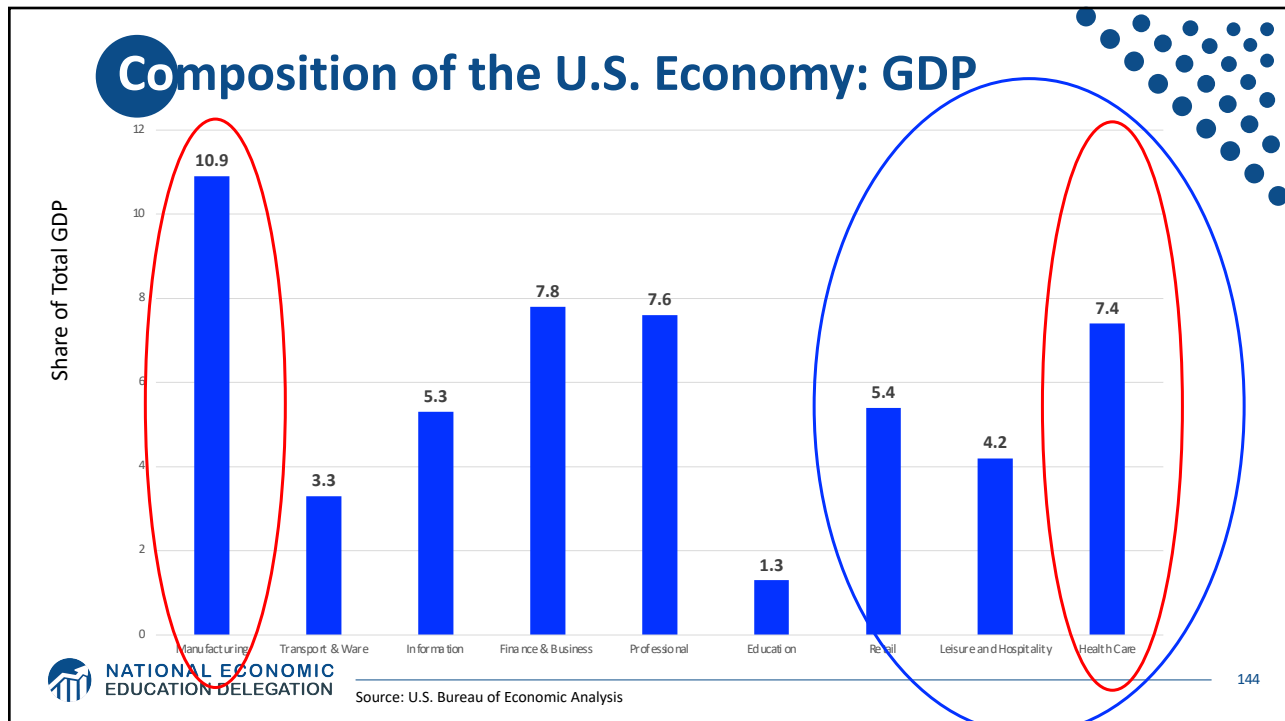
Statistic:	Value
Population	331.9 Million
Labor Force	162.3 Million
Employment	149.0 Million
Gross Domestic Product (GDP)	\$23.9 Trillion
Income per Capita	\$63,002
Ave. Hourly Earnings	\$31.31



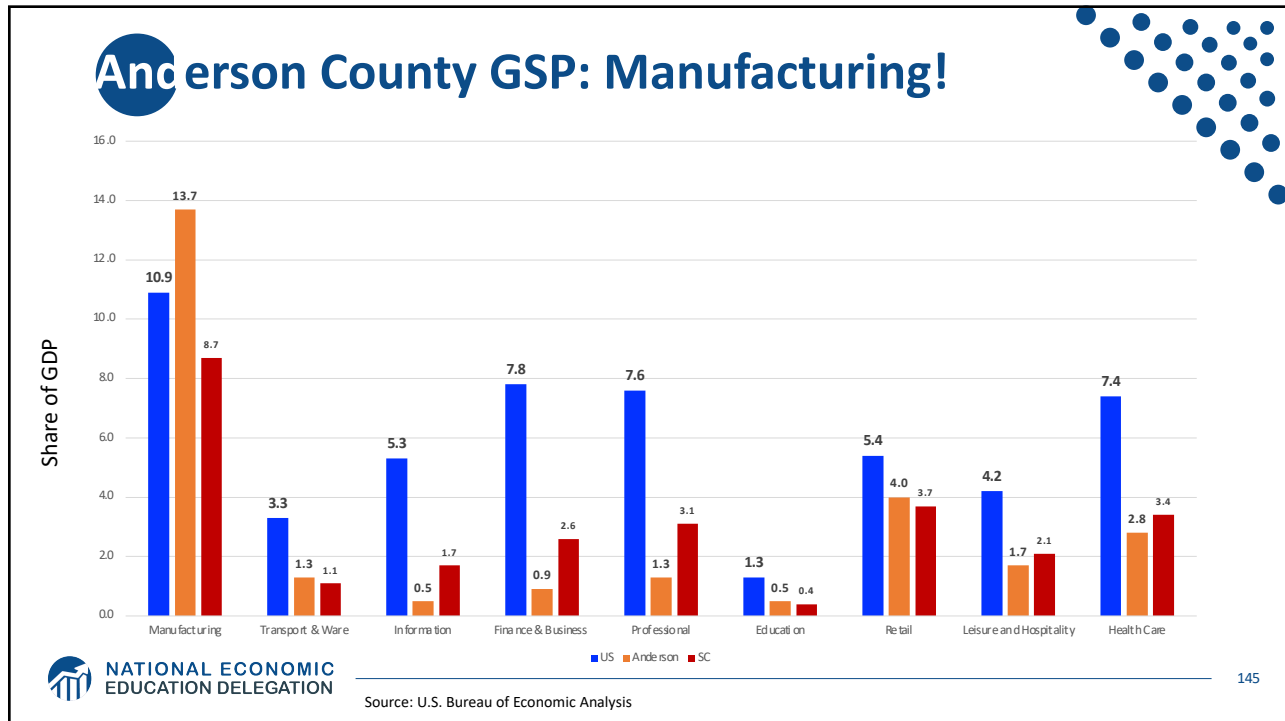
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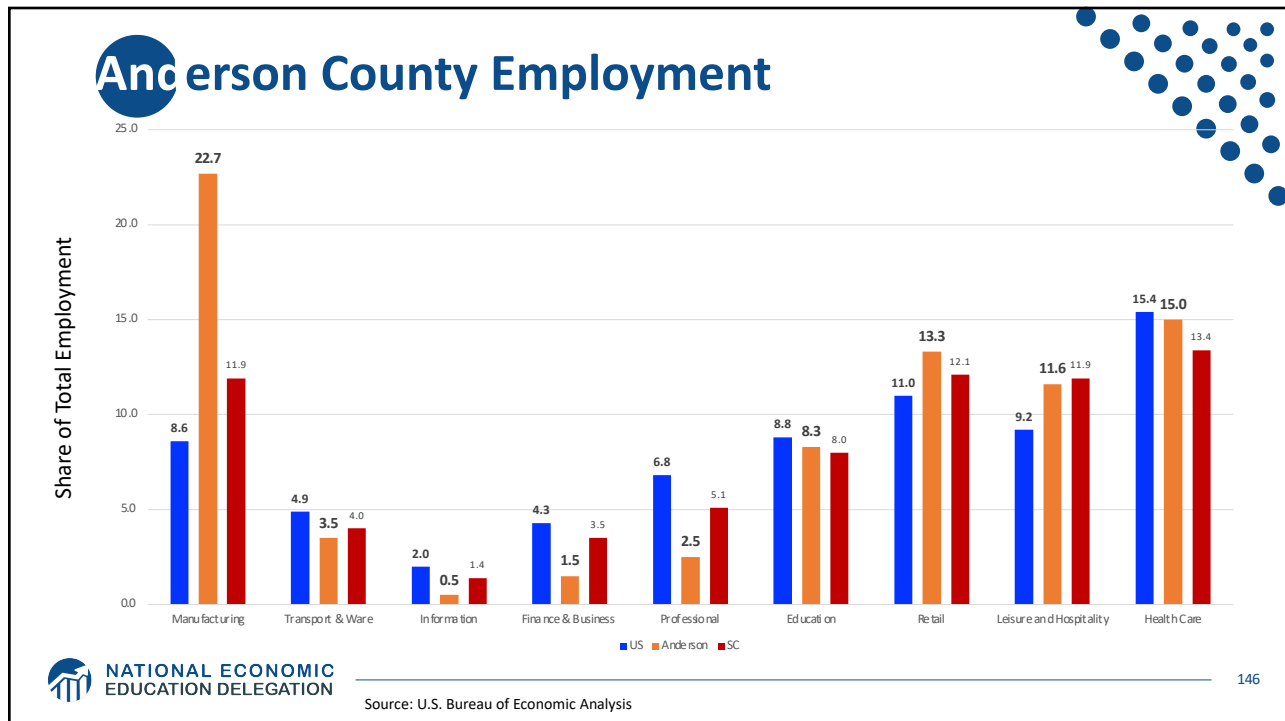
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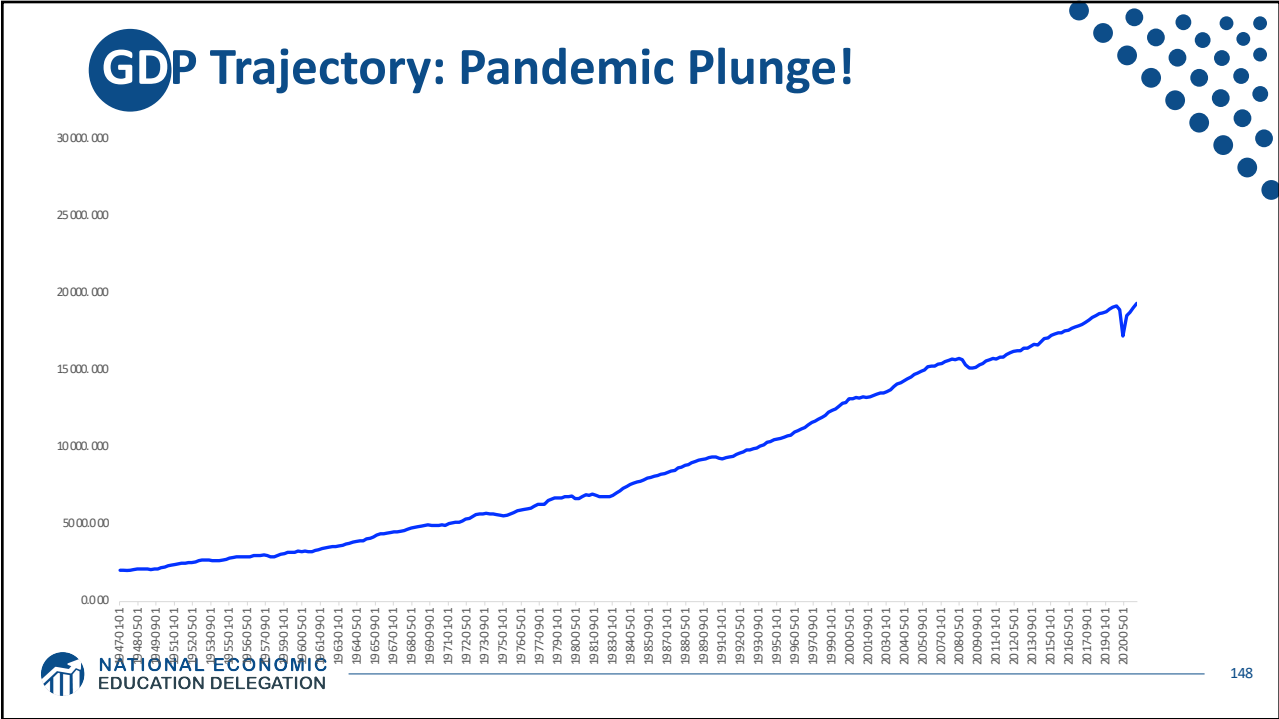
Evidence of Impact



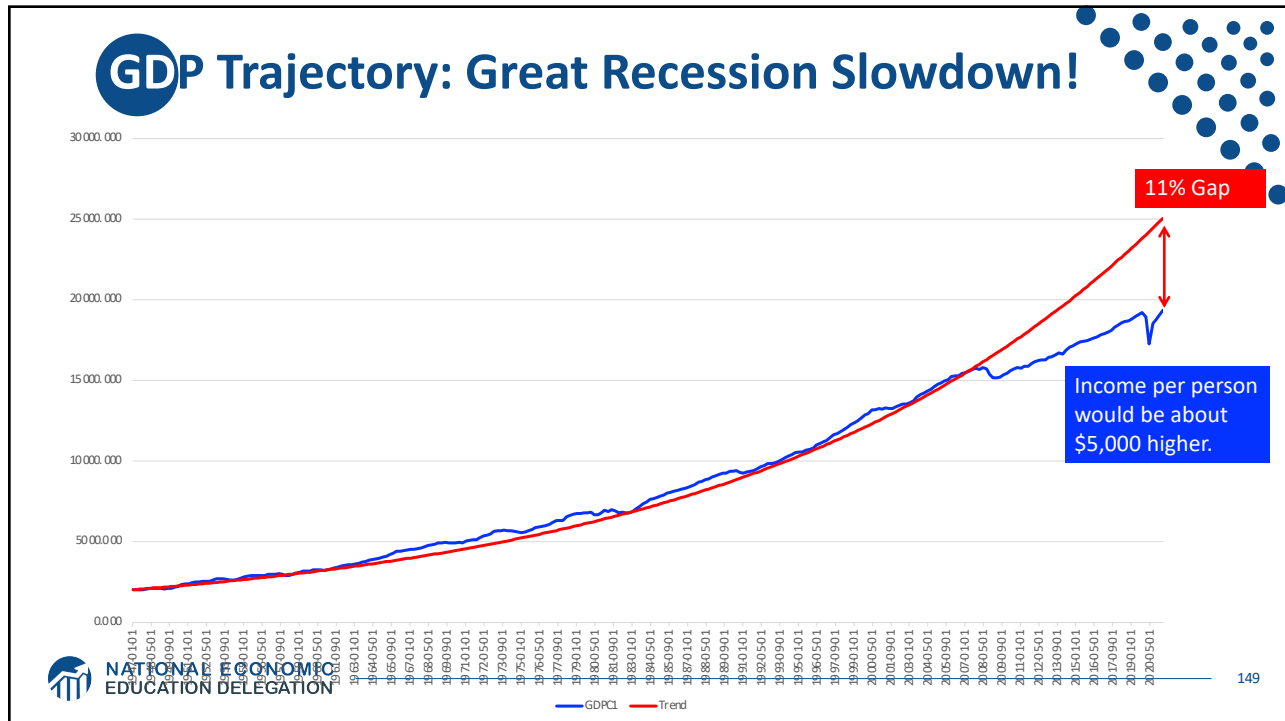
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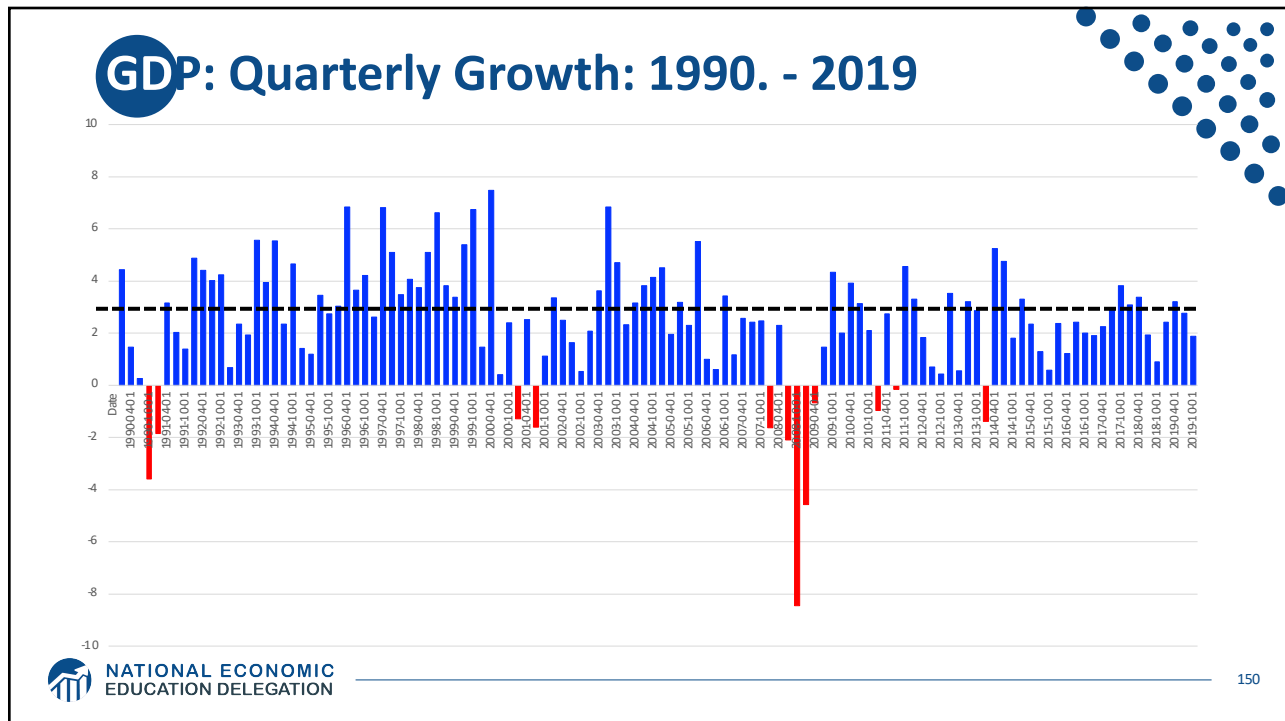
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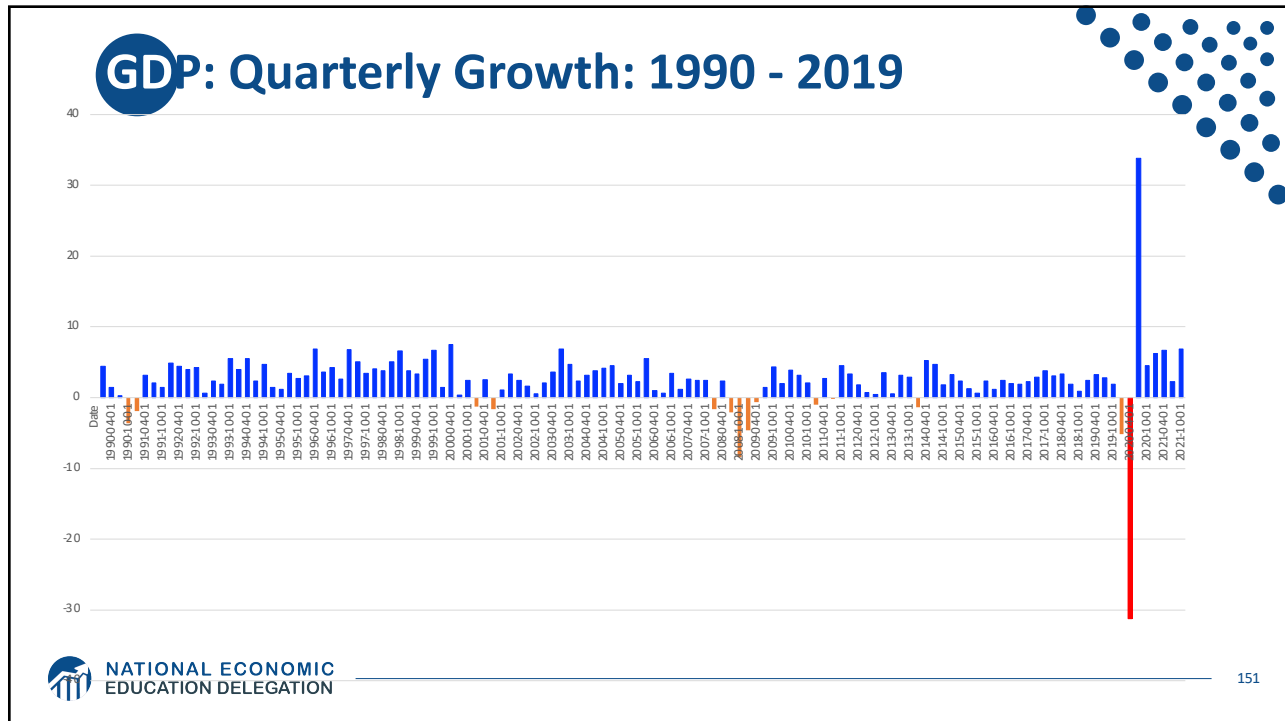
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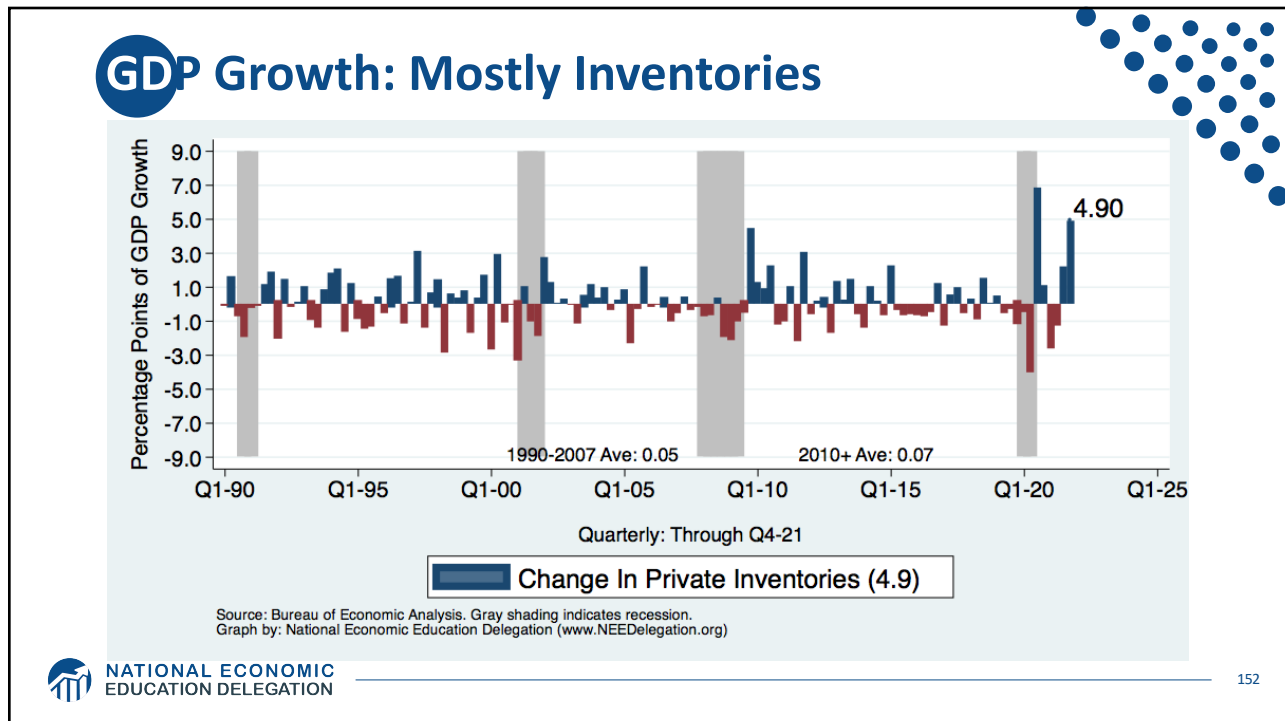
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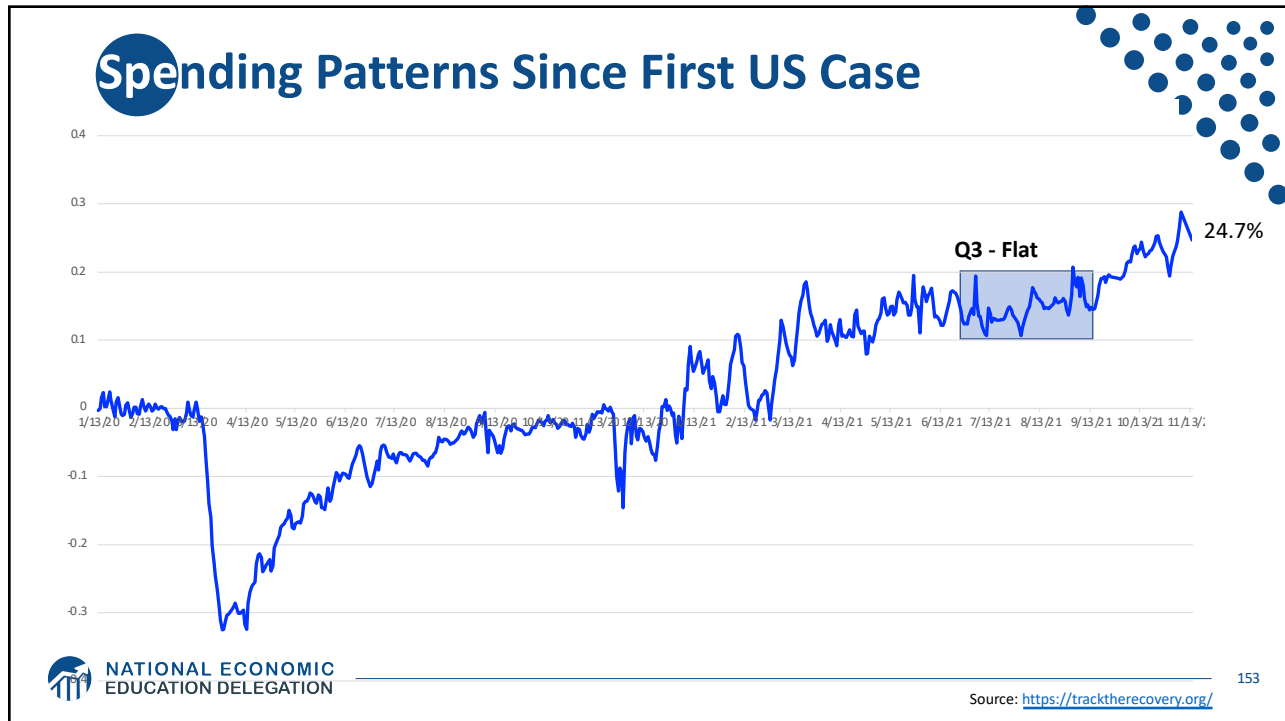
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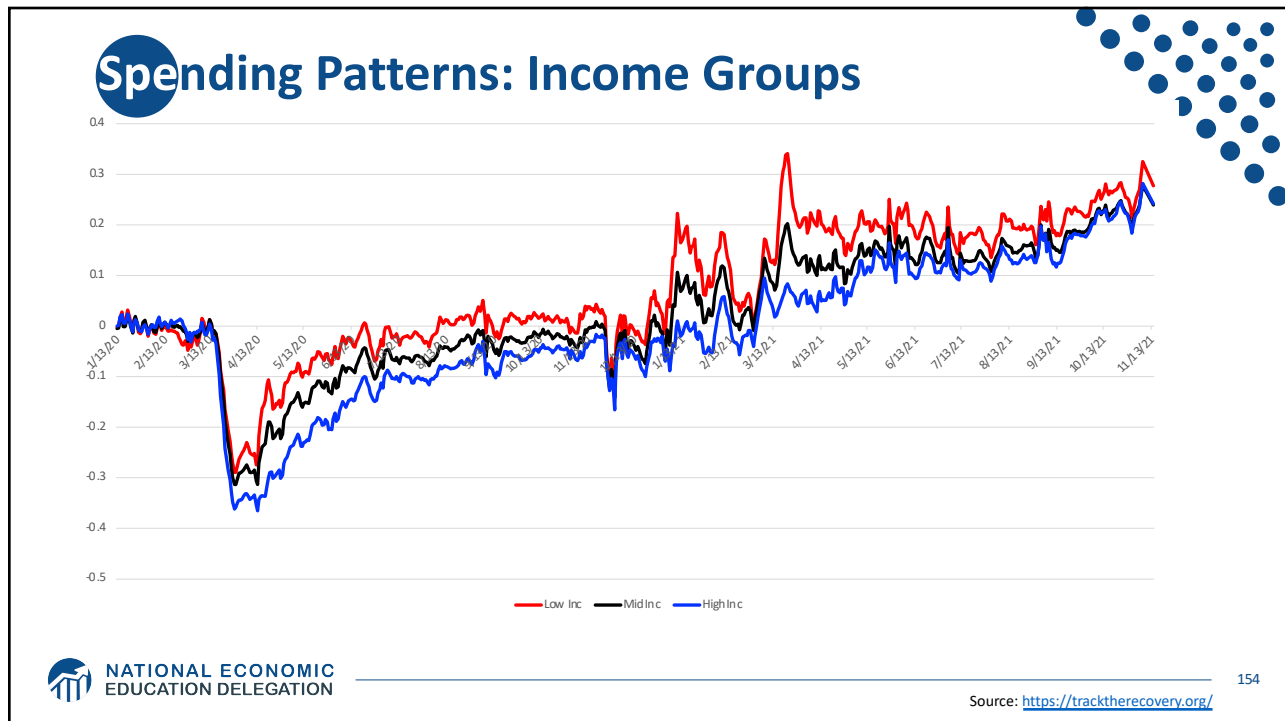
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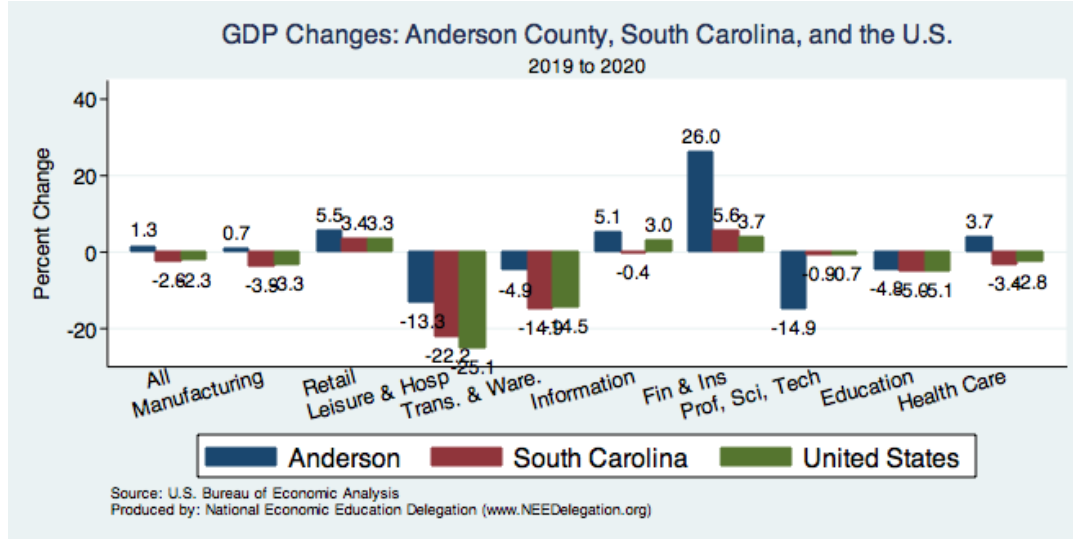


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But Not All Industries Were Equally Harmed

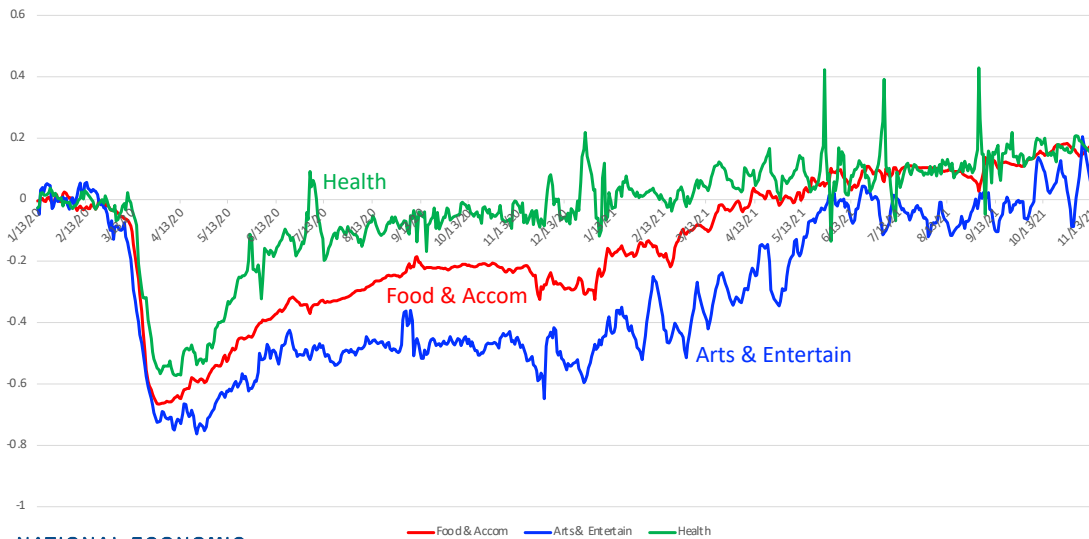


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Spending Patterns – Hardest Hit Sectors



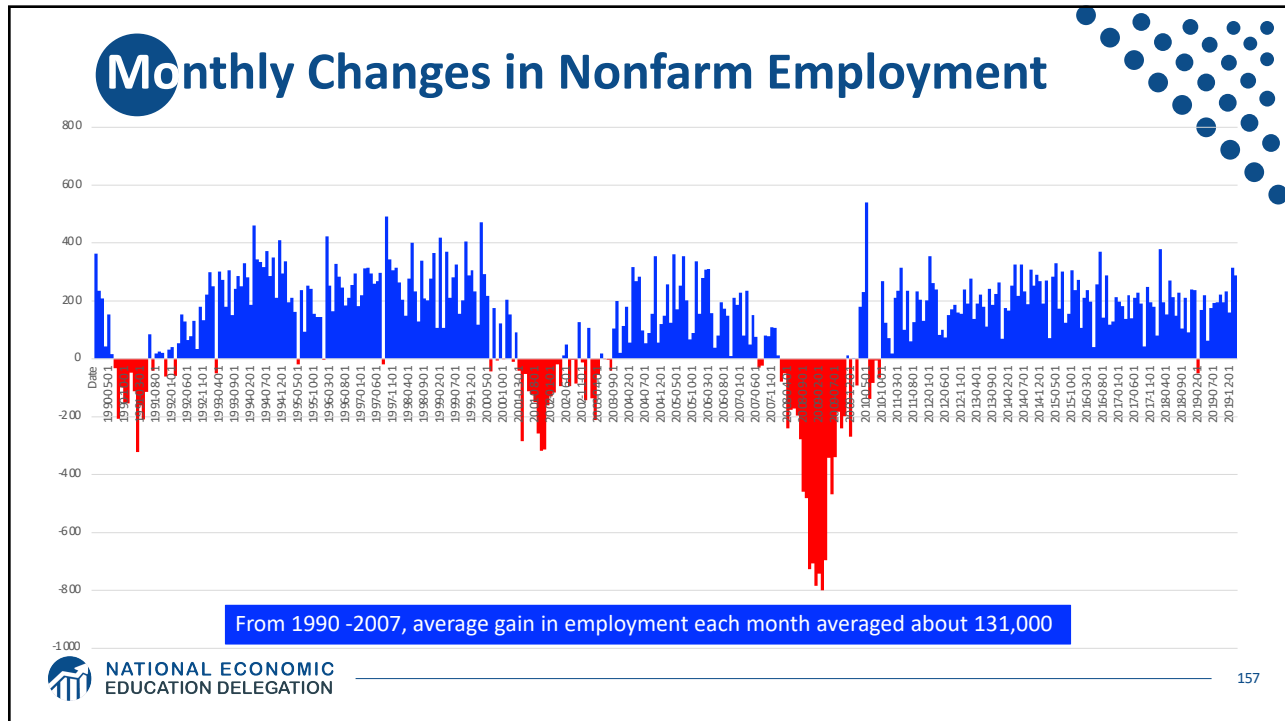
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Food & Accom Arts & Entertain Health

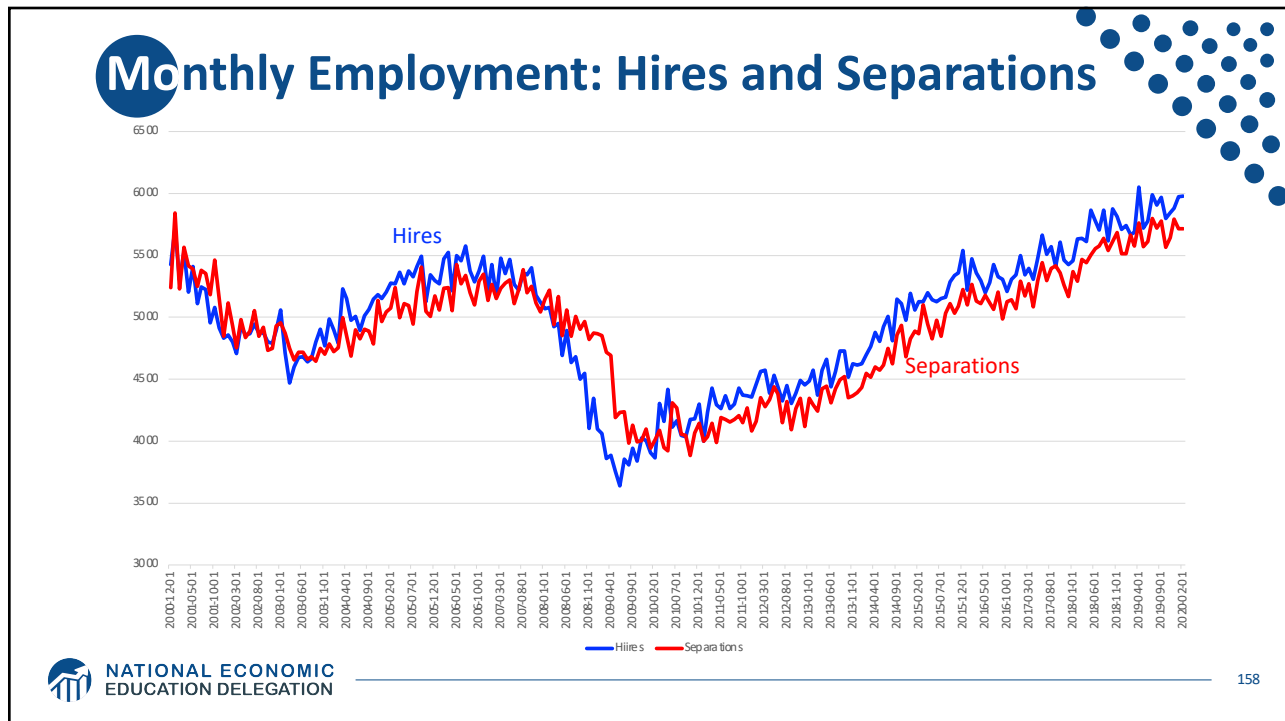
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Source: <https://tracktherecovery.org/>

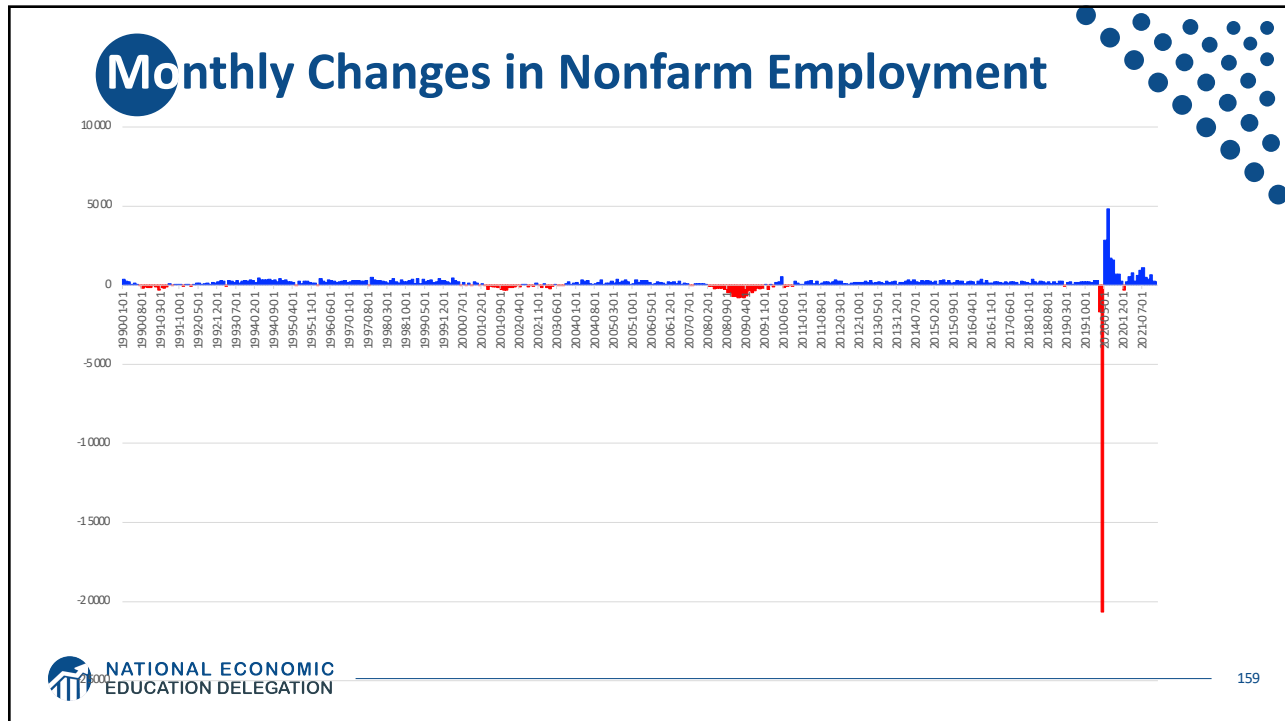
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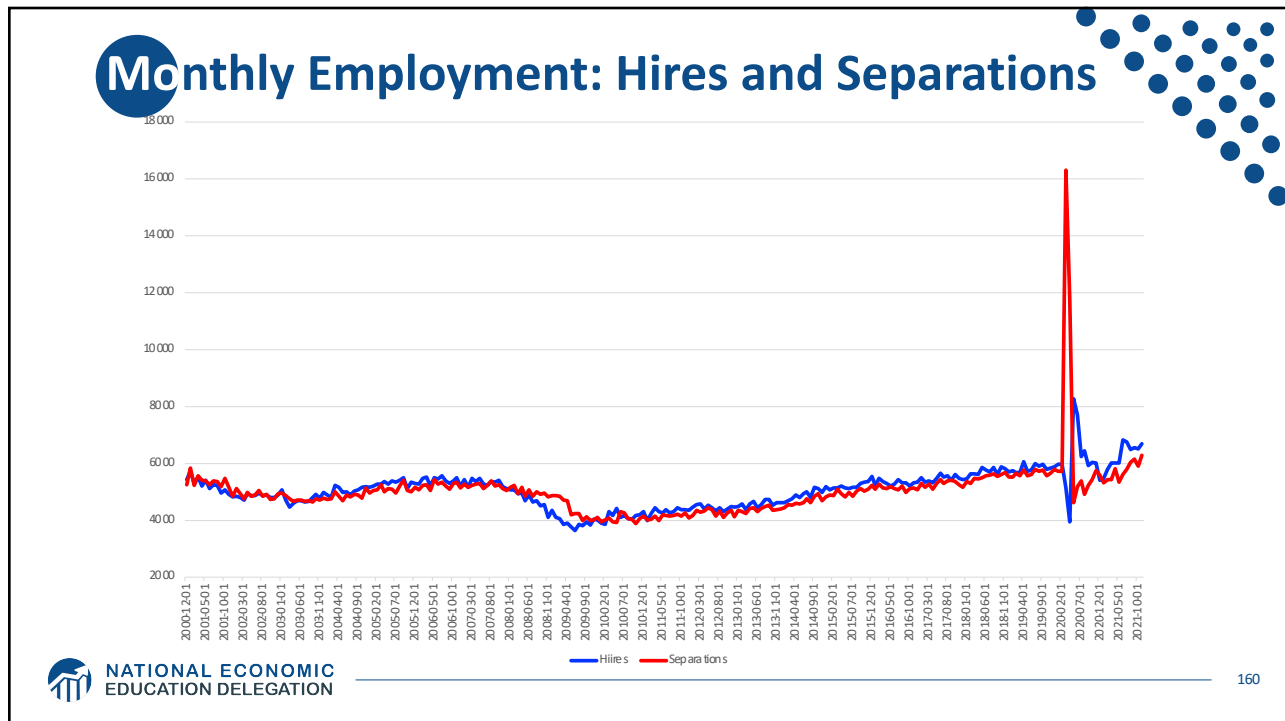
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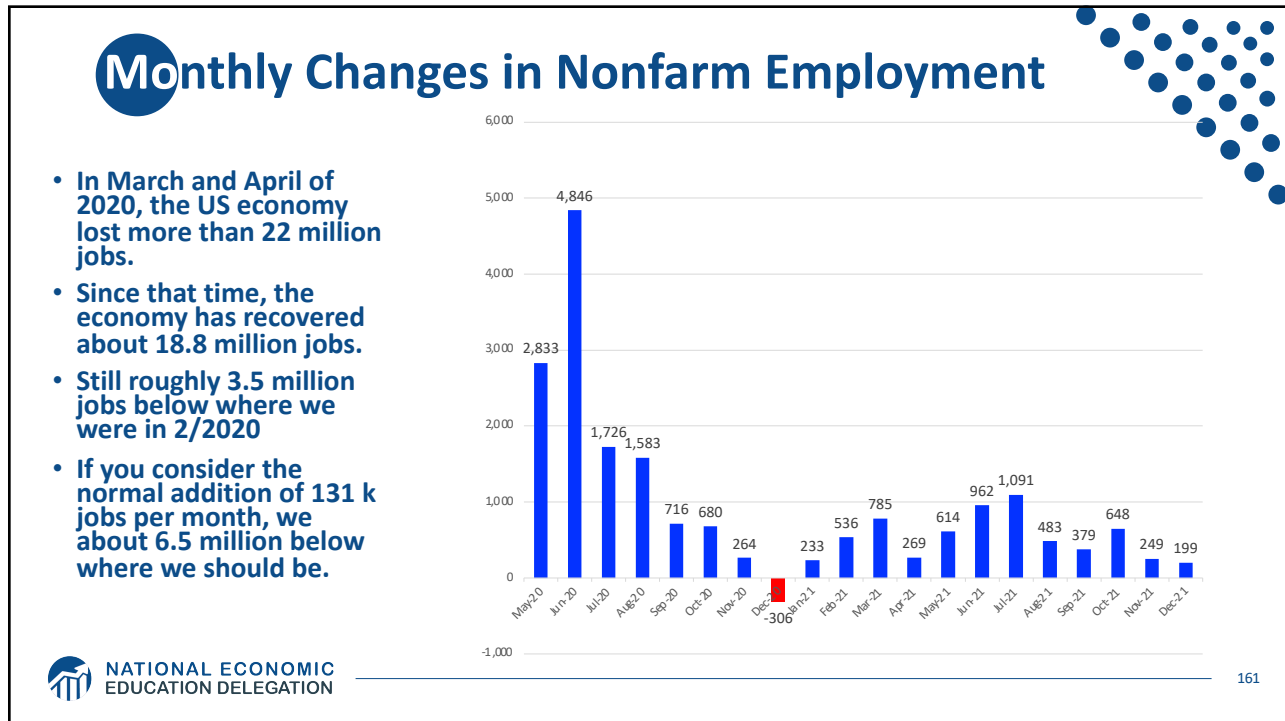
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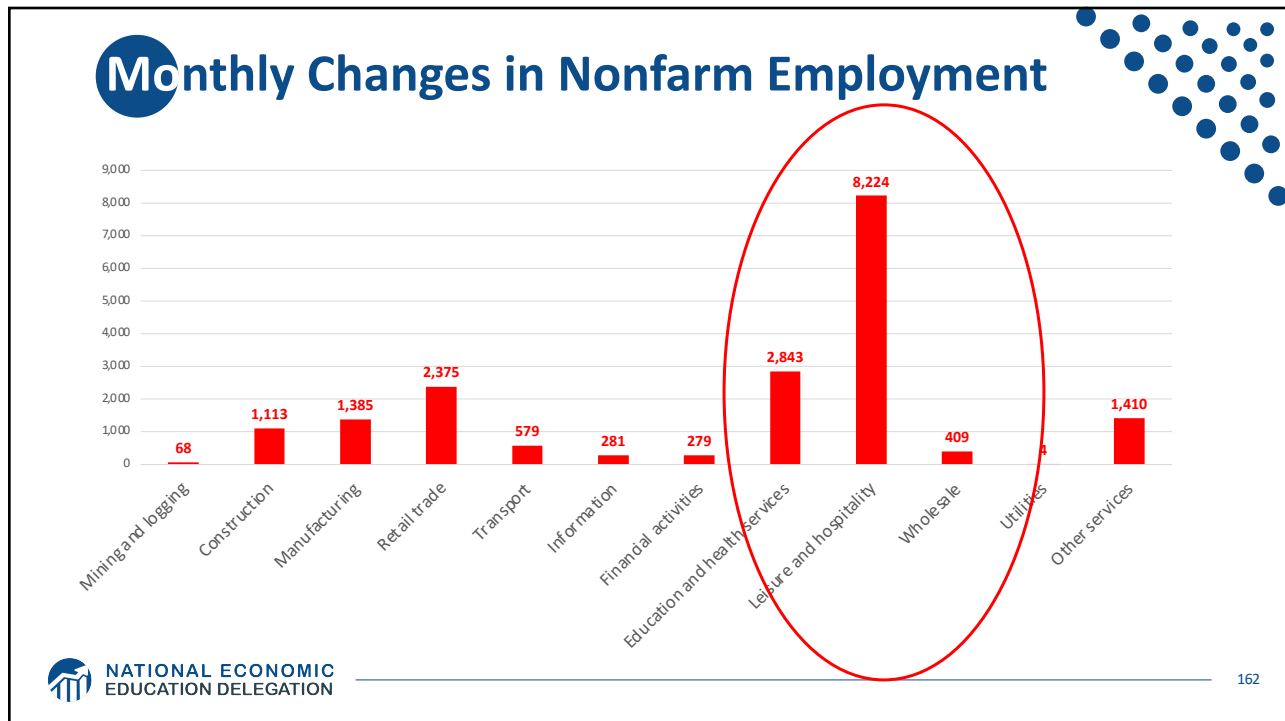
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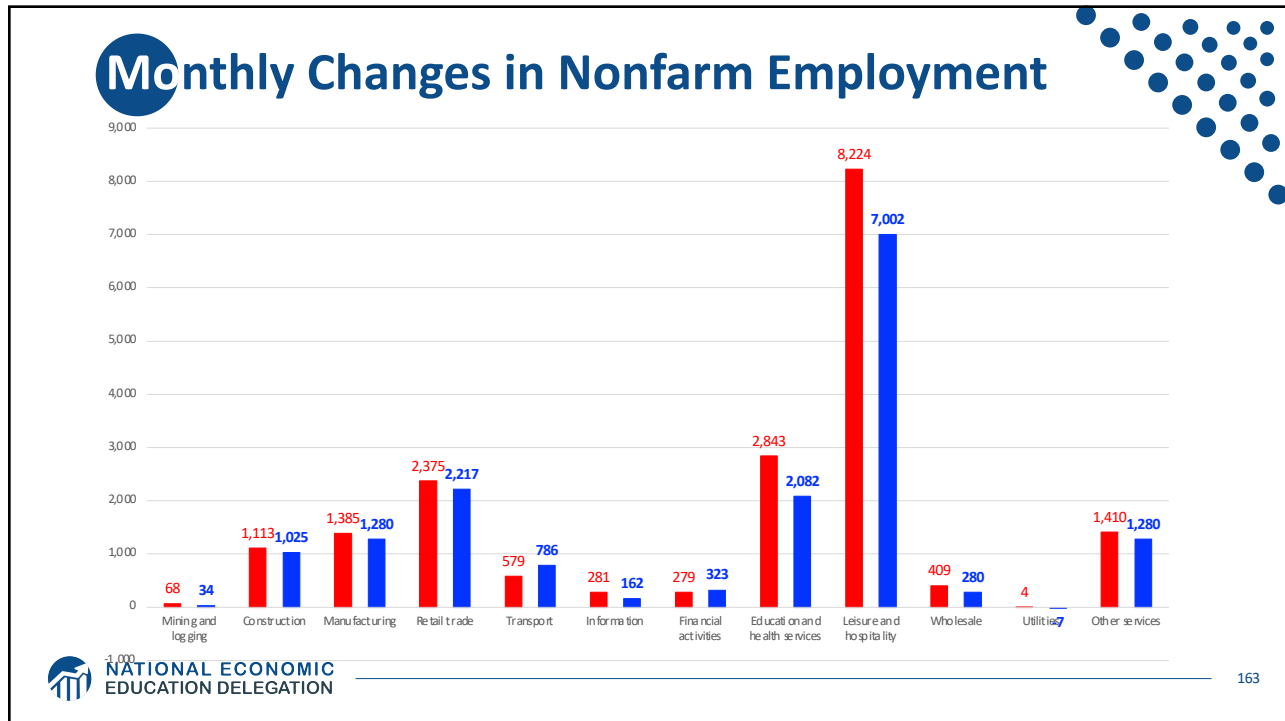
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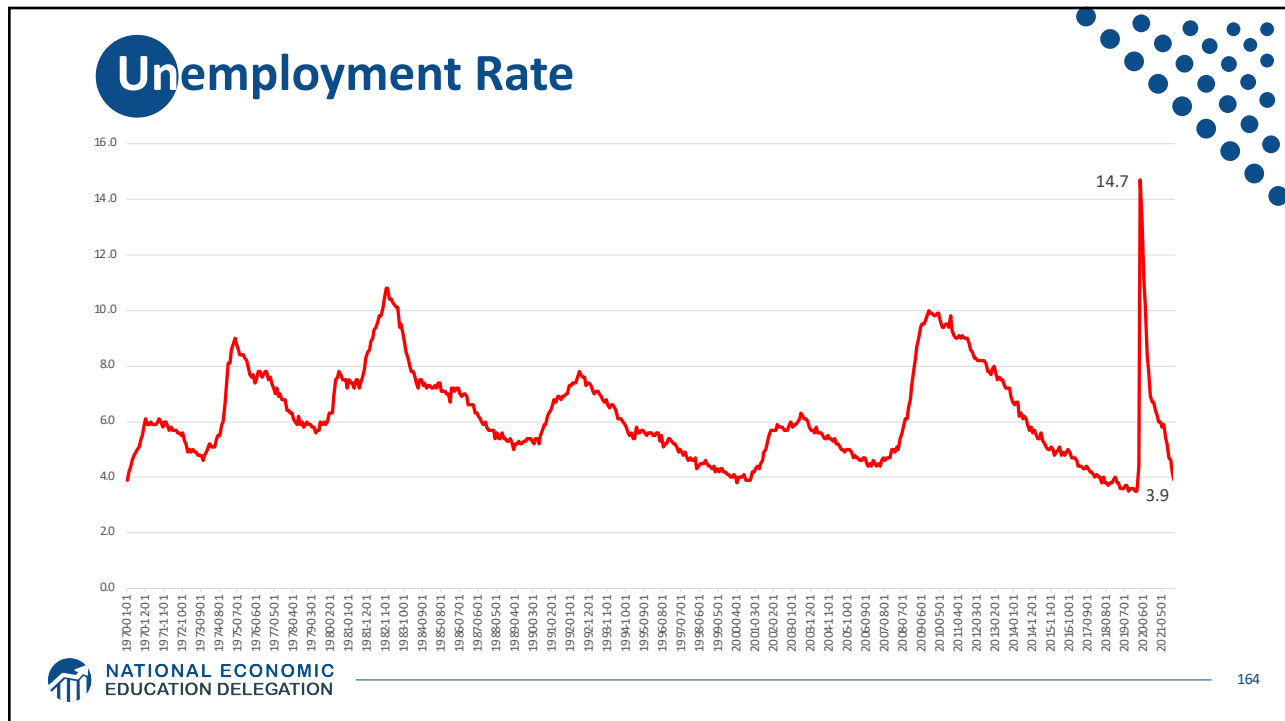
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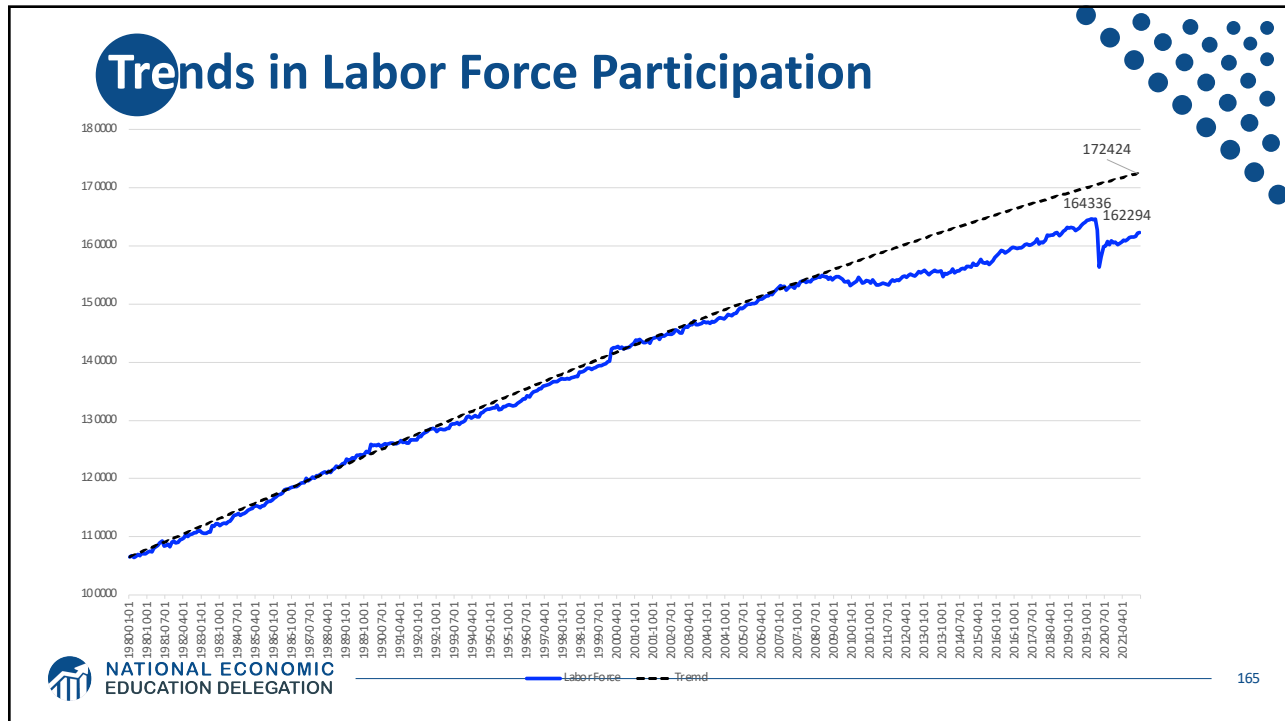
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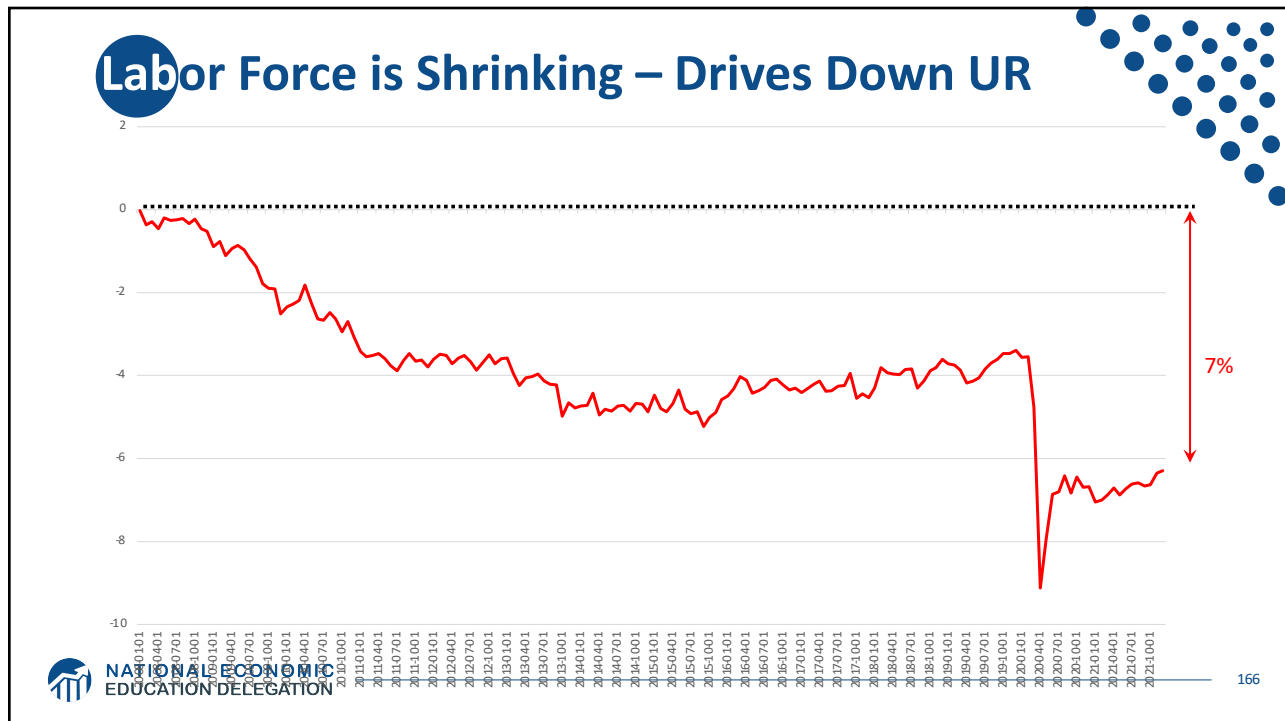
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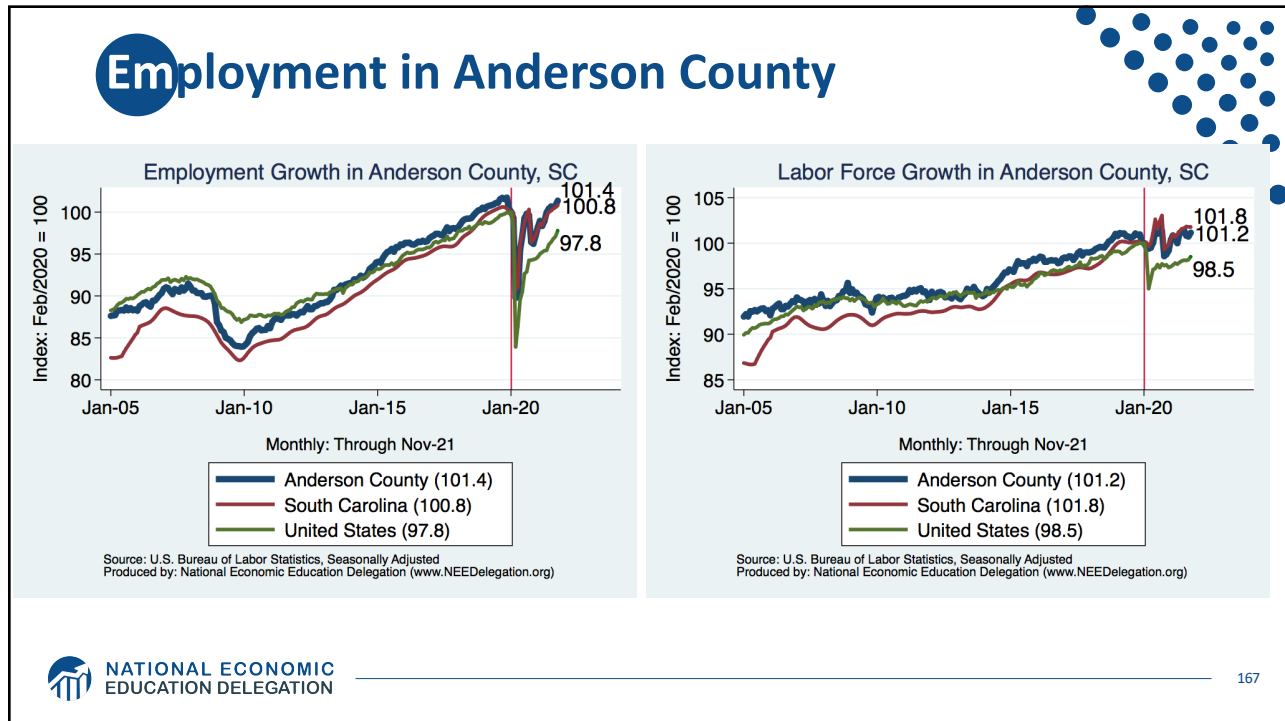
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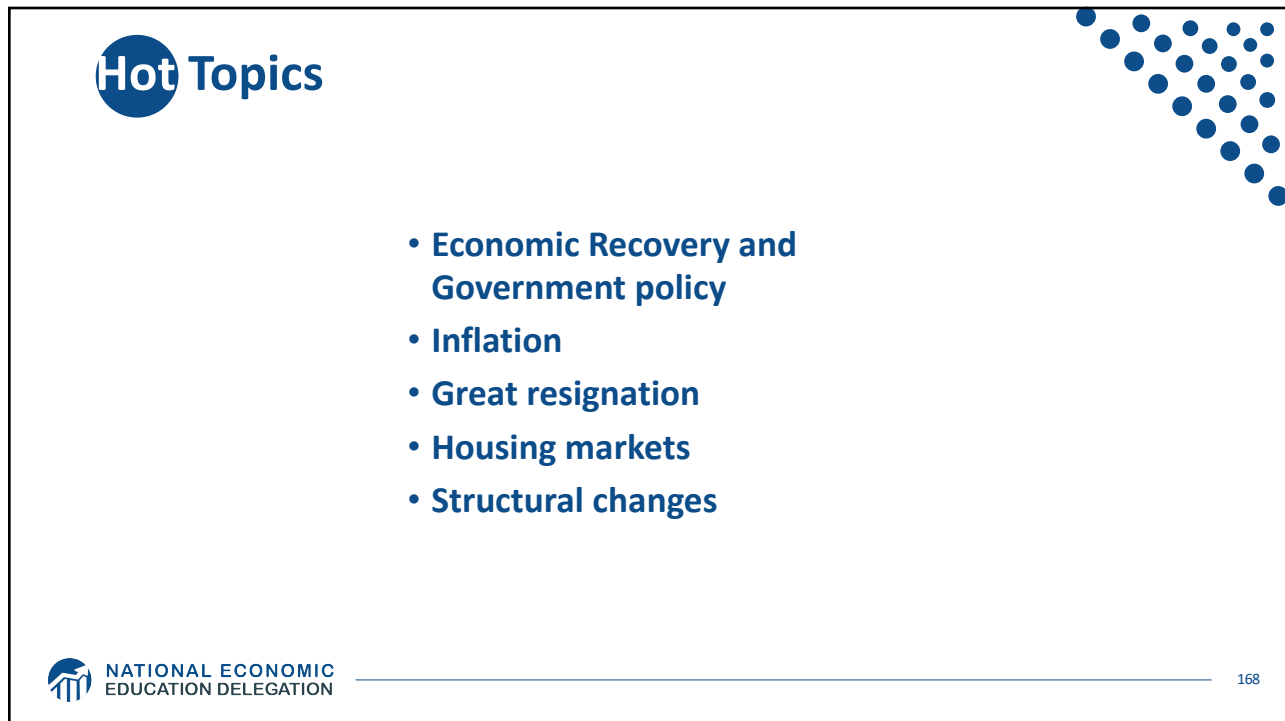
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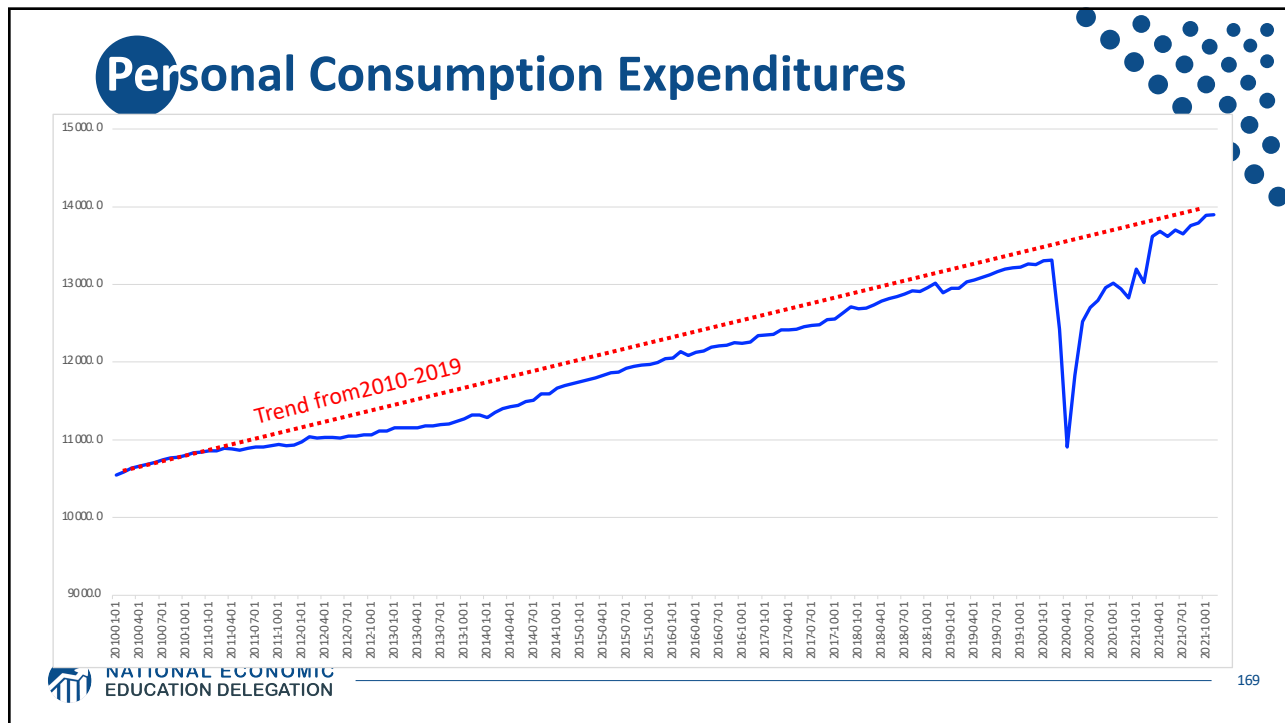
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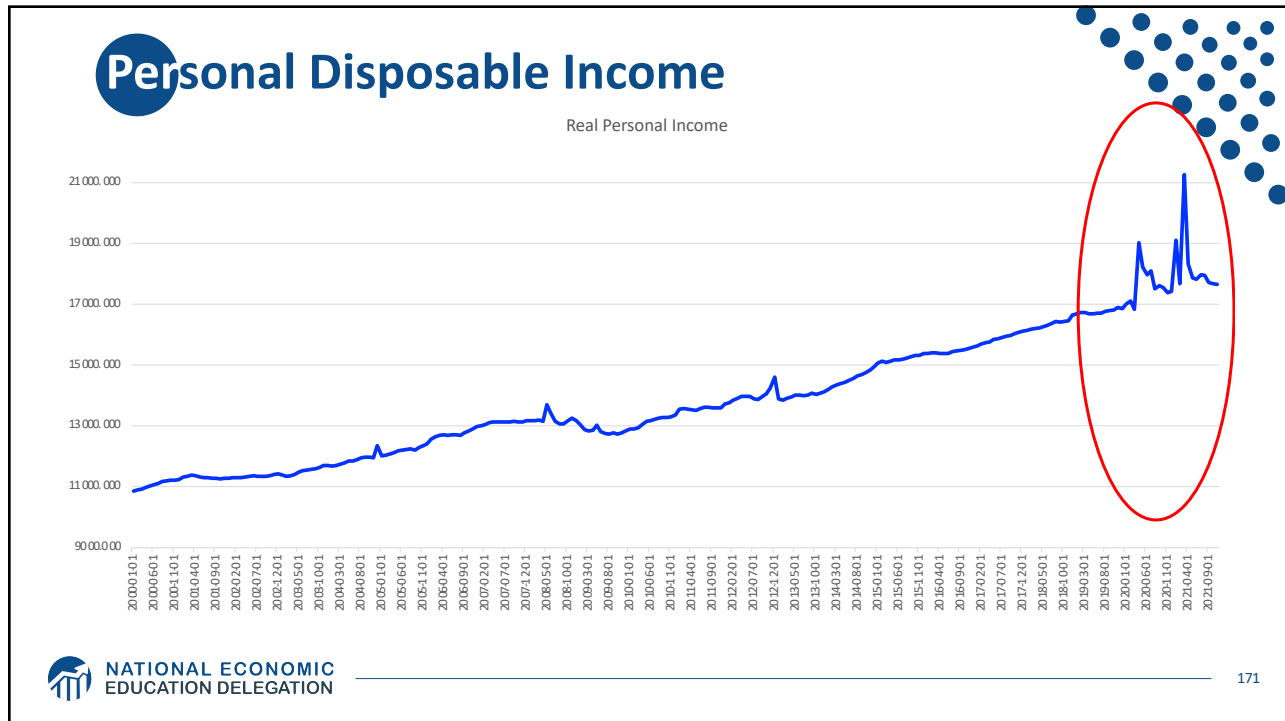
What Have Been Policy Effects?

- **MONETARY POLICY (Fed)** acted quickly and effectively to prevent a financial market meltdown and to keep credit flowing. But the Fed lends and does not spend.
- **FISCAL POLICY (Congress)** acted quickly, but inevitably made some mistakes.
 - Stimulus Checks, A (\$268b)
 - Expanded Unemployment, B (\$268b)
 - Paycheck Protection Program, C- (\$525b)

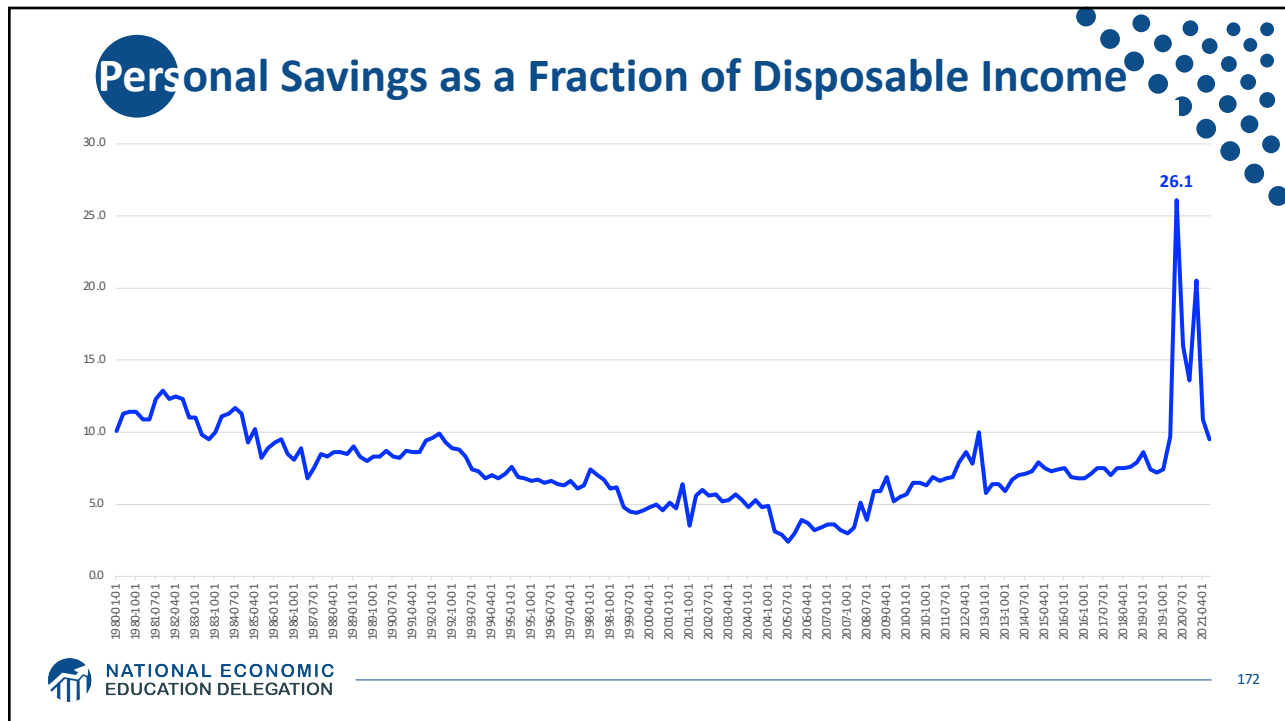
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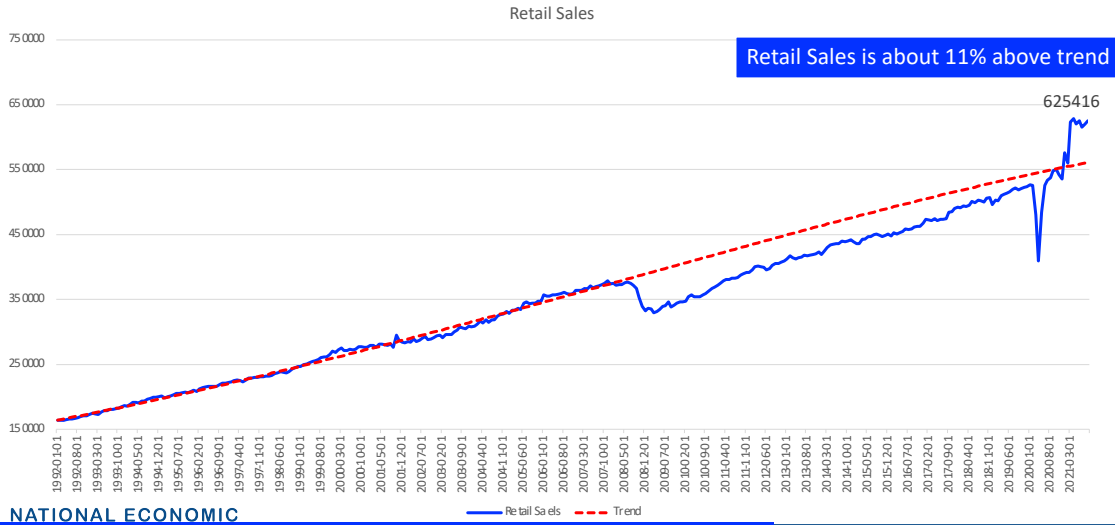


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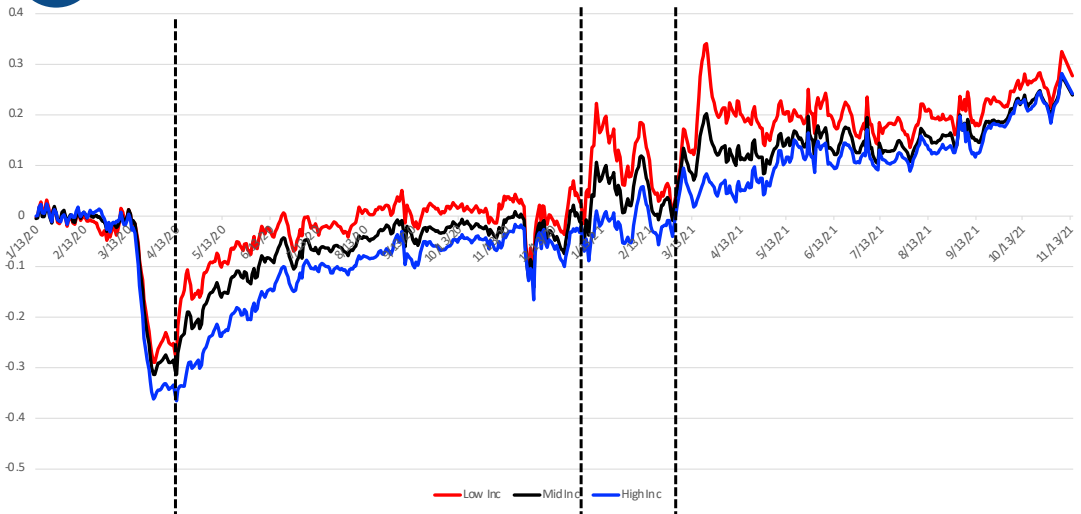
Retail Sales: Retail Trade and Food Services



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 This represents a shift to more goods consumption and less service consumption

173

Spending Patterns: Income Groups

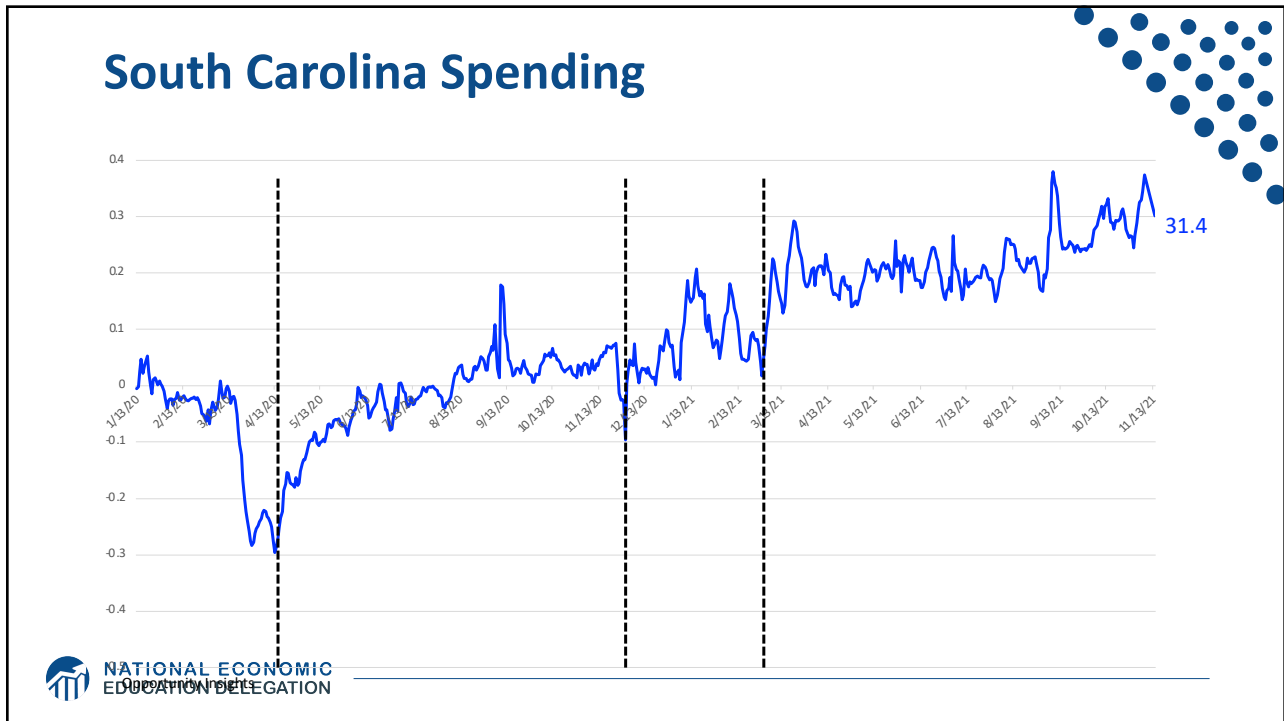


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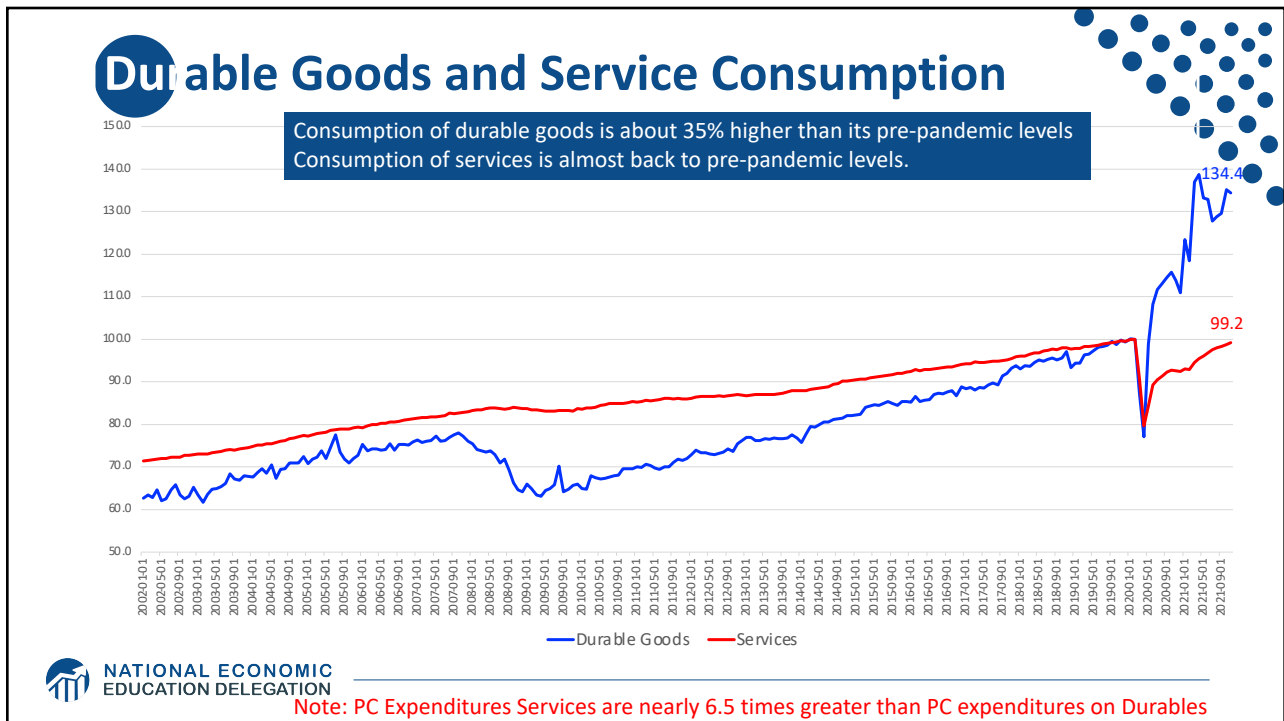
Source: <https://tracktherecovery.org/>

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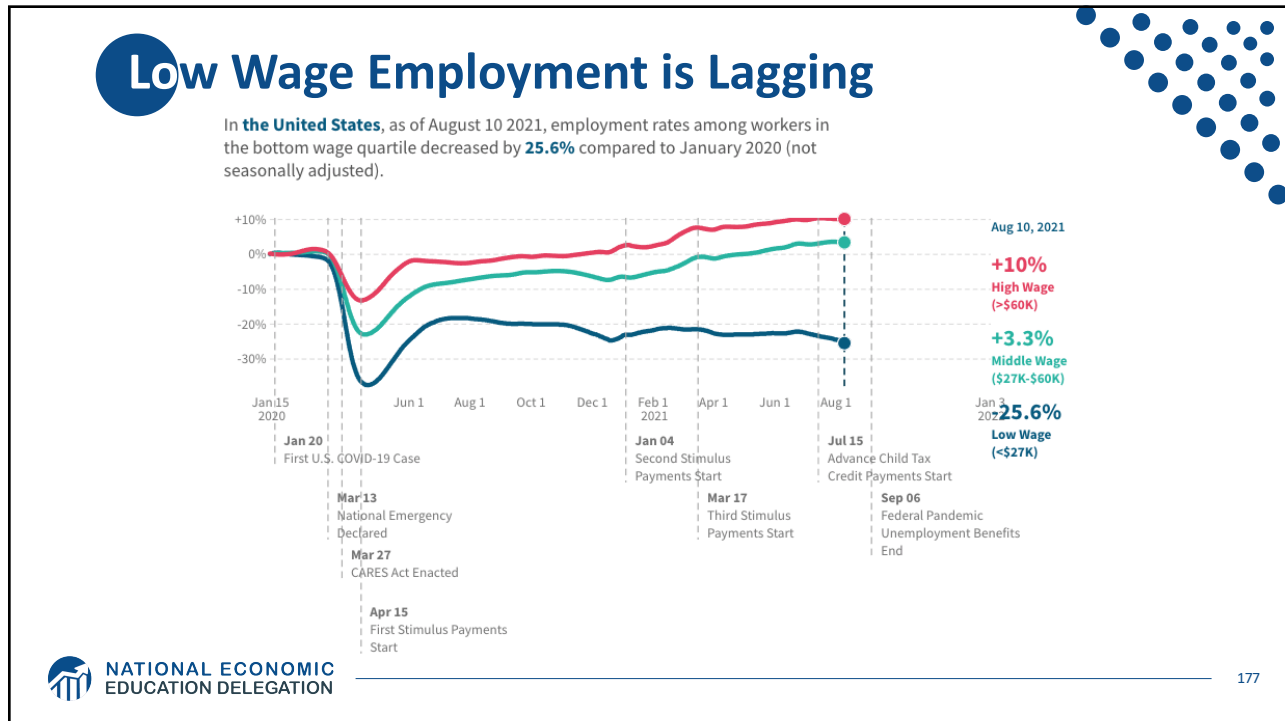
174



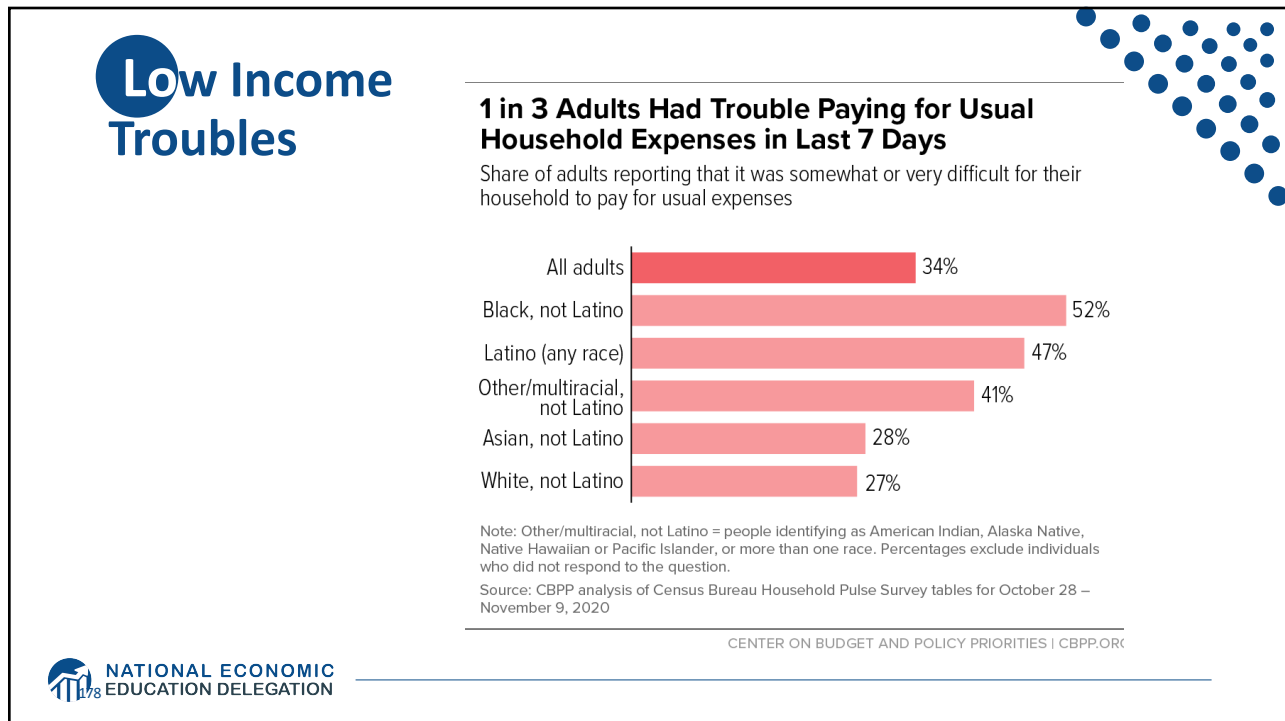
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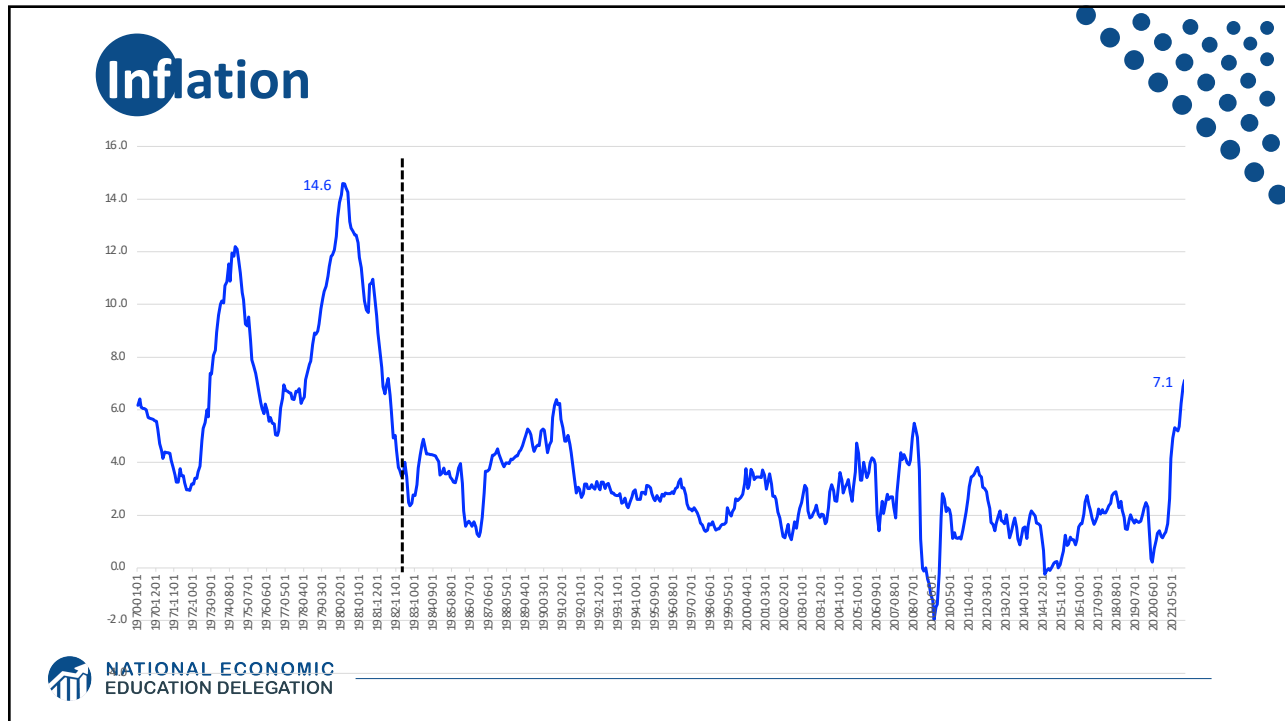


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Take Away: Consumption and the Recovery

- Consumption has rebounded rapidly coming out of the recession.
- The rebound in consumption was supported by the stimulus packages that were passed by the Trump and Biden Administration.
- Compared to before the pandemic consumption has shifted more toward the consumption of goods and away from services.
 - This a demand effect that is causing some of the supply chain disruptions

Inflation



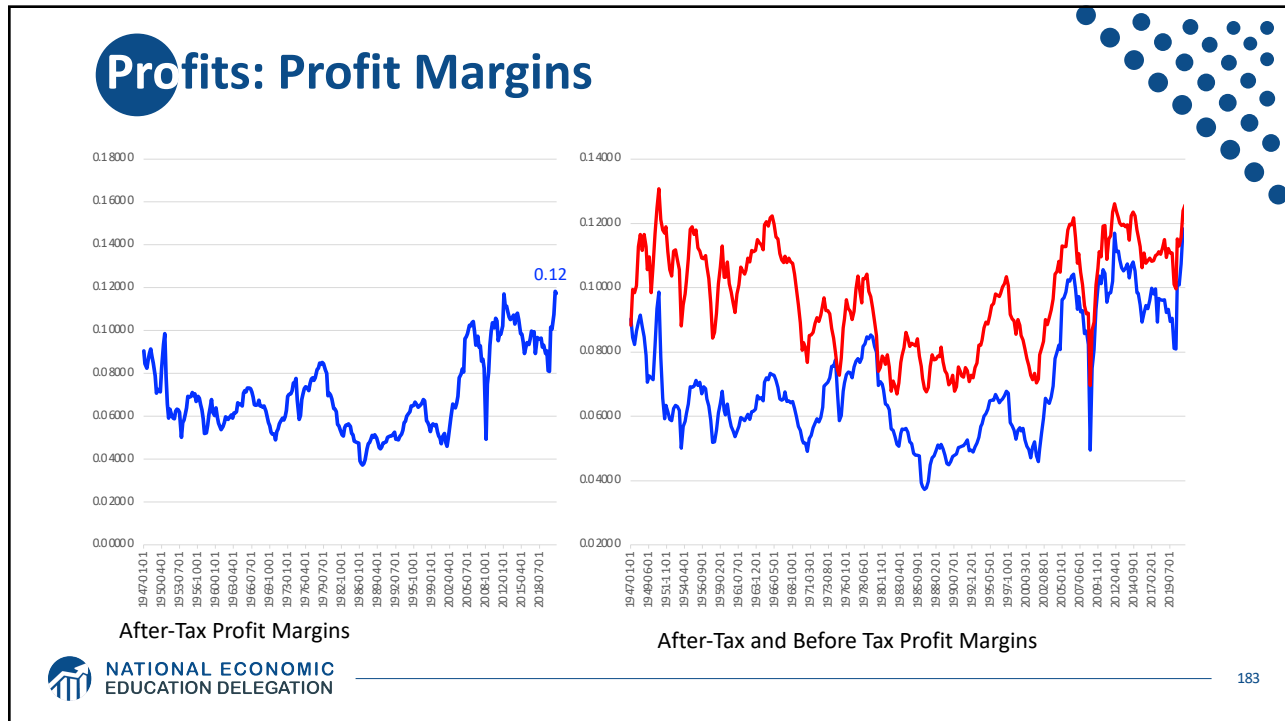
181

What is Driving Inflation?

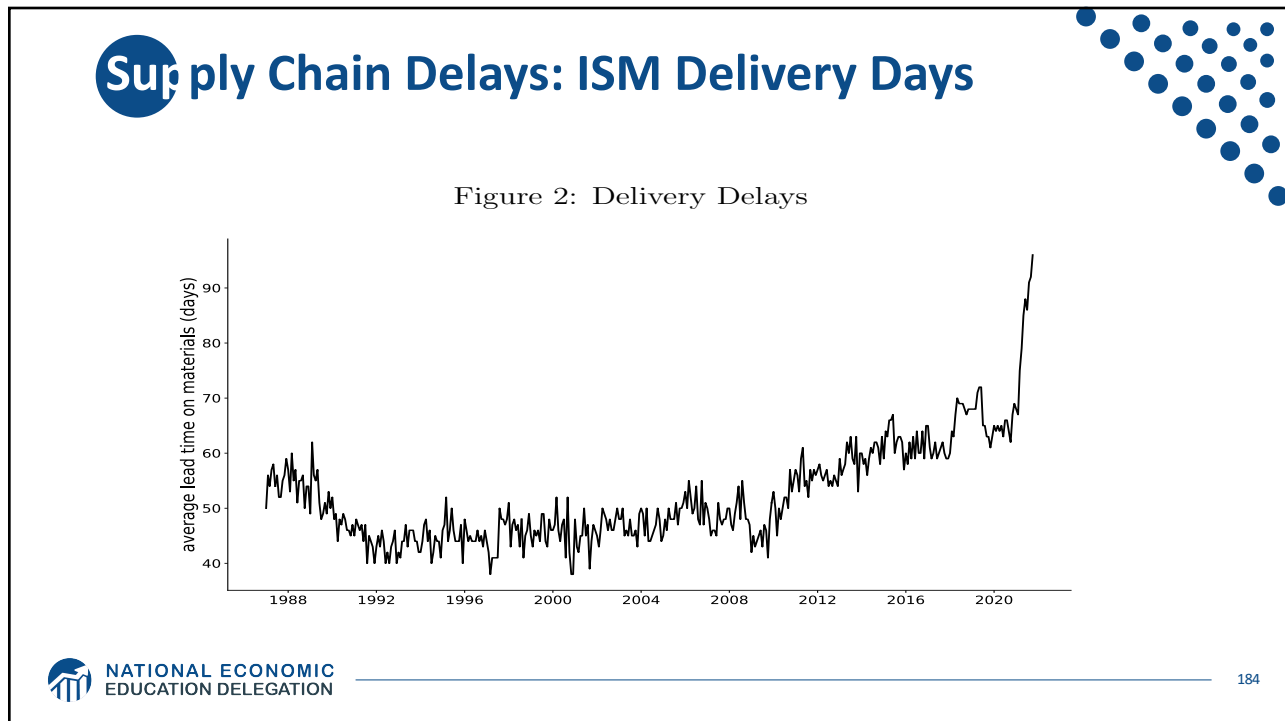
- **Profiteering / Greed: President Biden and Senator Elizabeth Warren.**
- **Supply Chains Disruptions:**
 - the pandemic has impacted the ability to get parts and supplies.
 - Labor shortages and rising wages have raised costs and help push up prices.
- **Increased Demand:**
 - During the pandemic there has been an increase in demand for goods. For many of these goods, it is not easy to ramp up production.
 - The fiscal and monetary authorities have provided lots of stimulus.

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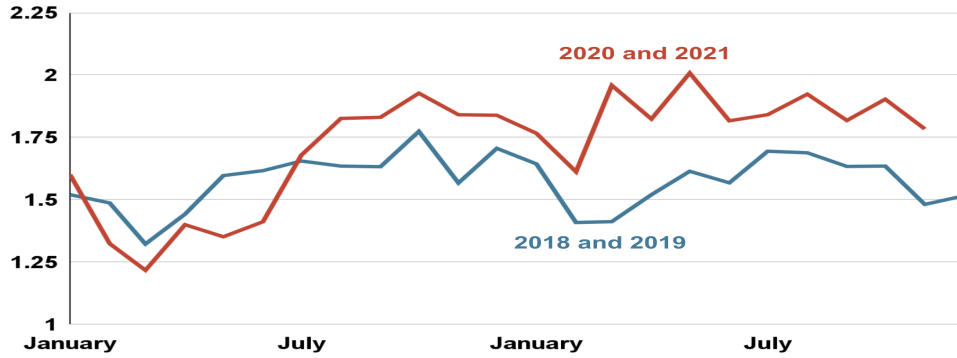


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Supply Chain Delays: It is Not All Supply Shortages

Containerized imports rose after the pandemic

Millions of TEUs of containerized imports through six major US ports



Source: Port Authorities of Los Angeles, Long Beach, Houston, New York and New Jersey, Savannah, Seattle and Tacoma. Author's calculations.

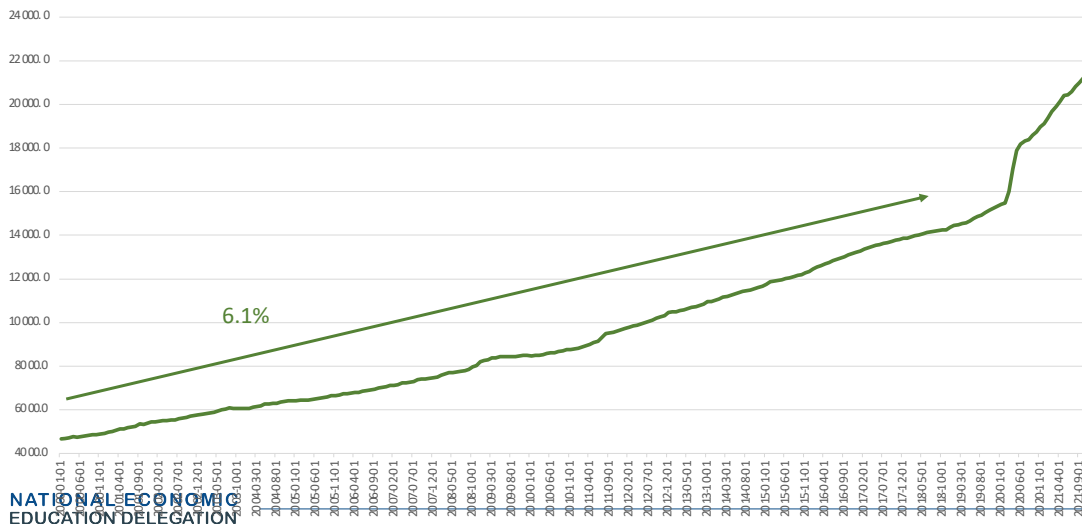
FULL STACK ECONOMICS

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Money Growth: M2 (Transactions Money)



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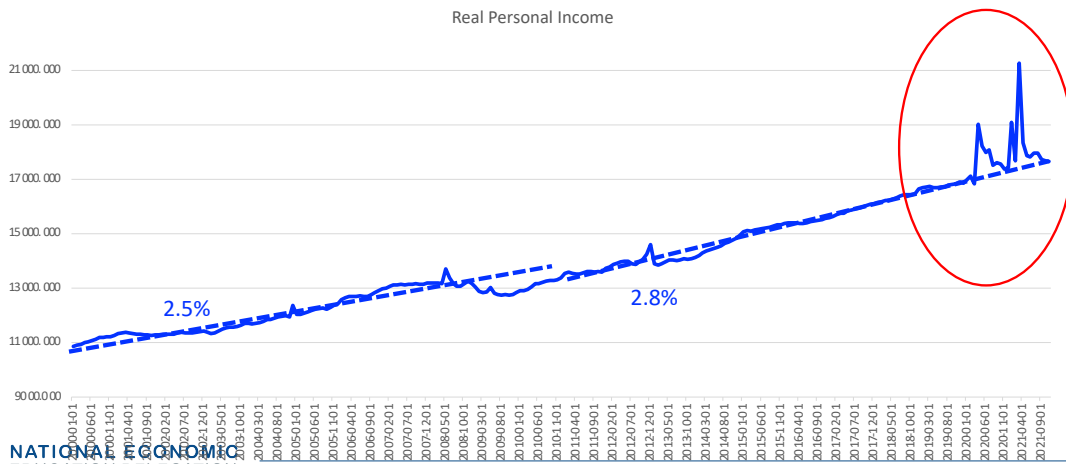
Annualized Money Growth

Growth Rate of Money Stock (percent per year)	Beginning of Period	End of Period
6.1	January 2000	March 2020
46.3	April 2020	June 2020
12.3	July 2020	November 2021

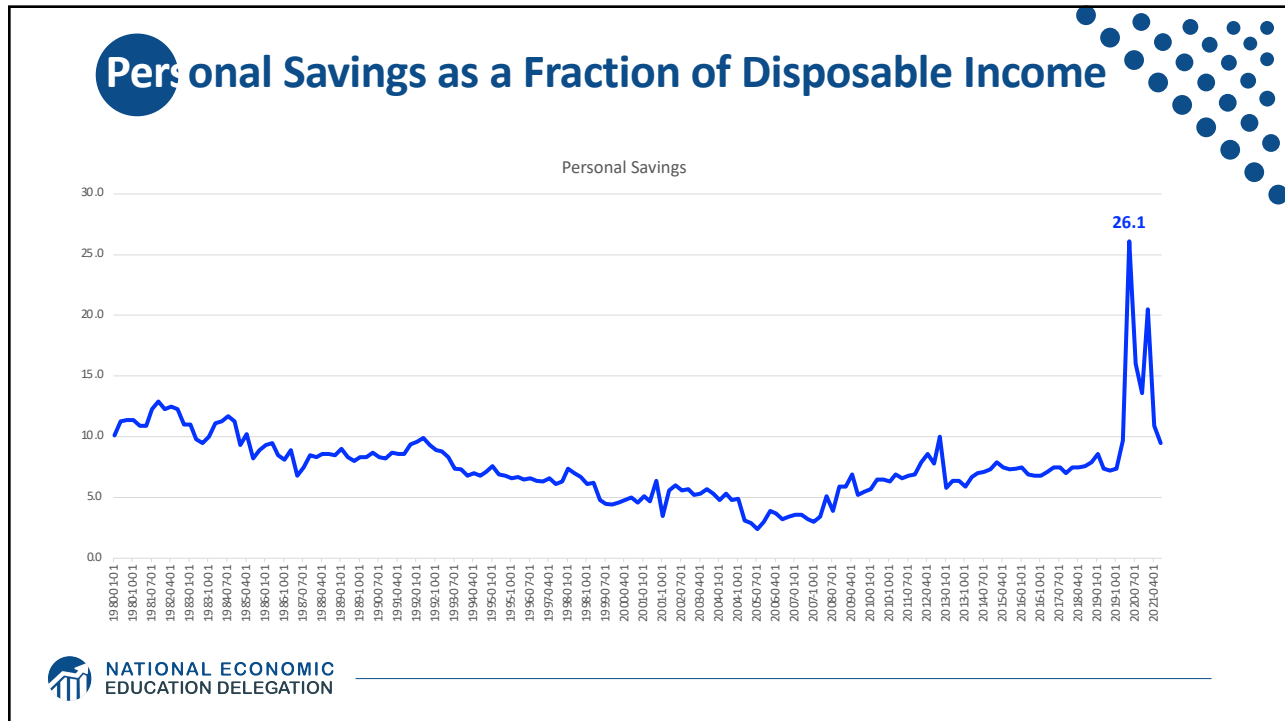


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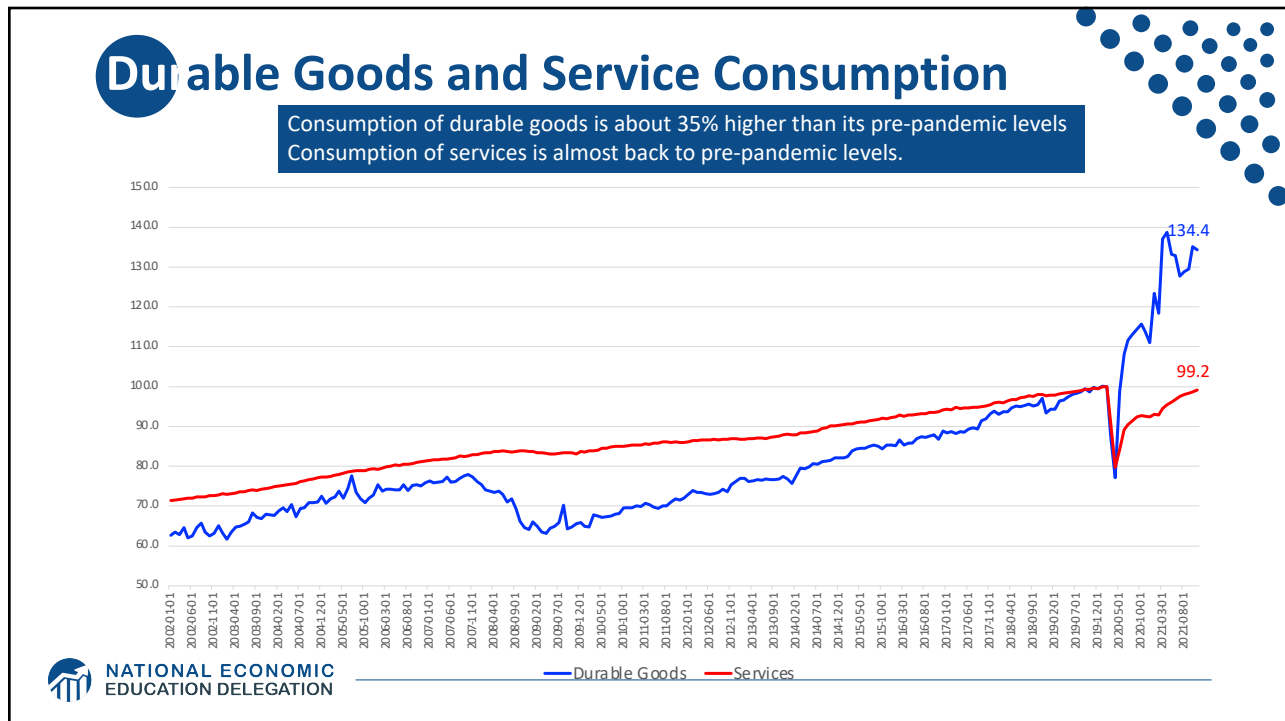
Real Personal Disposable Income



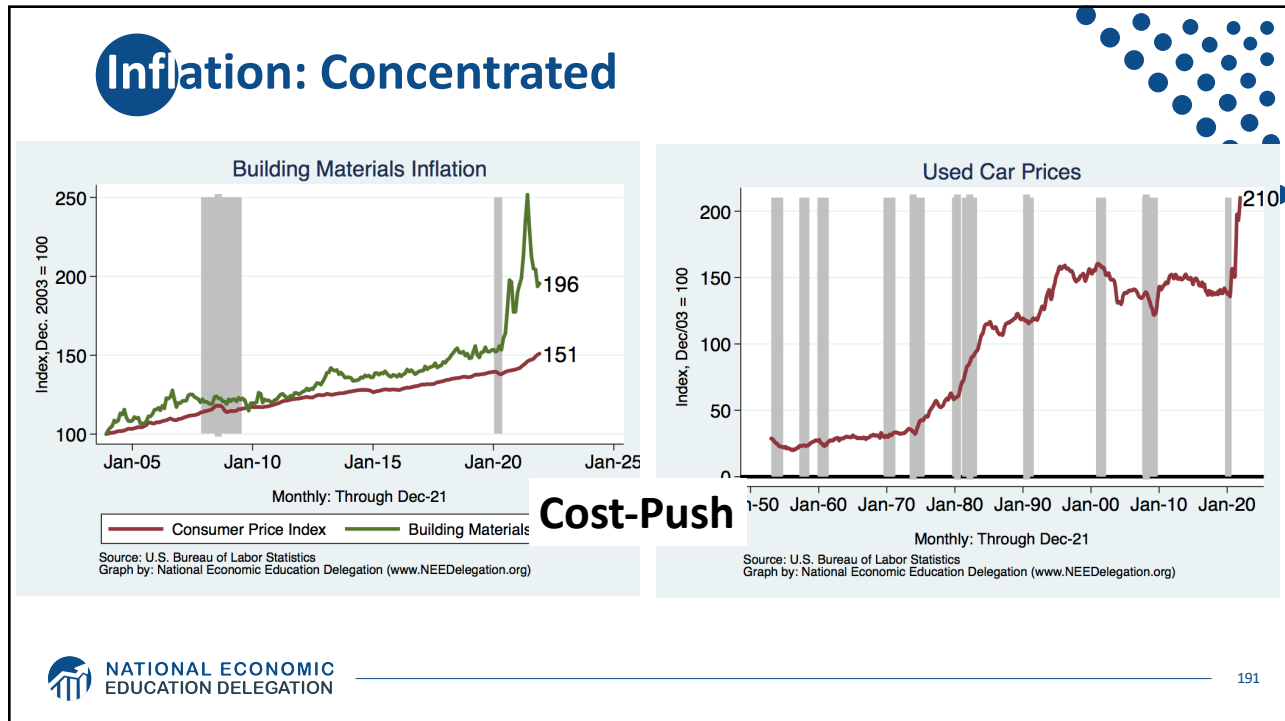
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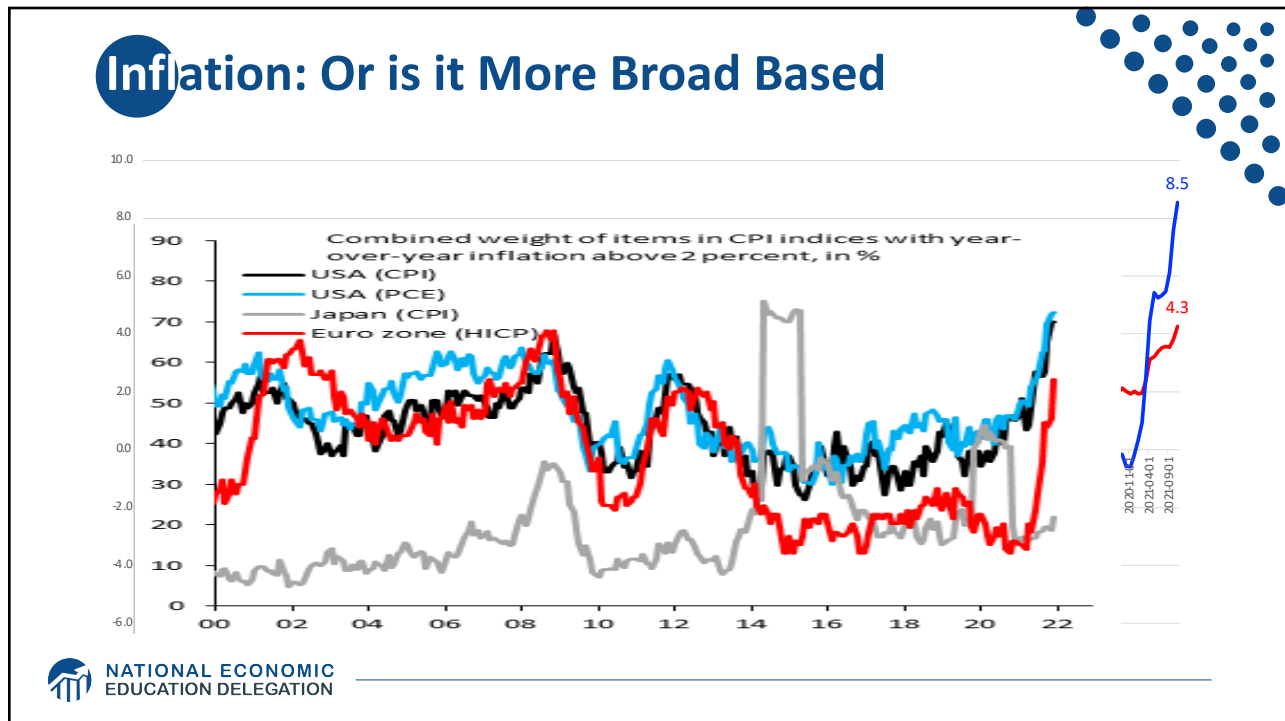
189



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Is Inflation Permanently Higher?

- **Fed: Price increases may be:**
 - 1) rebound from low prices last year;
 - 2) temporary due to supply chain disruptions; e.g., used cars, bldg supplies.
 - 3) influenced by rising wages in the future.

- **Omicron:**
 - Lessen inflation in the short term.
 - Increase it in the long term by increasing supply chain issues.

- **Nobody knows, but Fed has wavered in its optimism.**
 - Uncertainty hurts both workers and businesses – hard to plan.

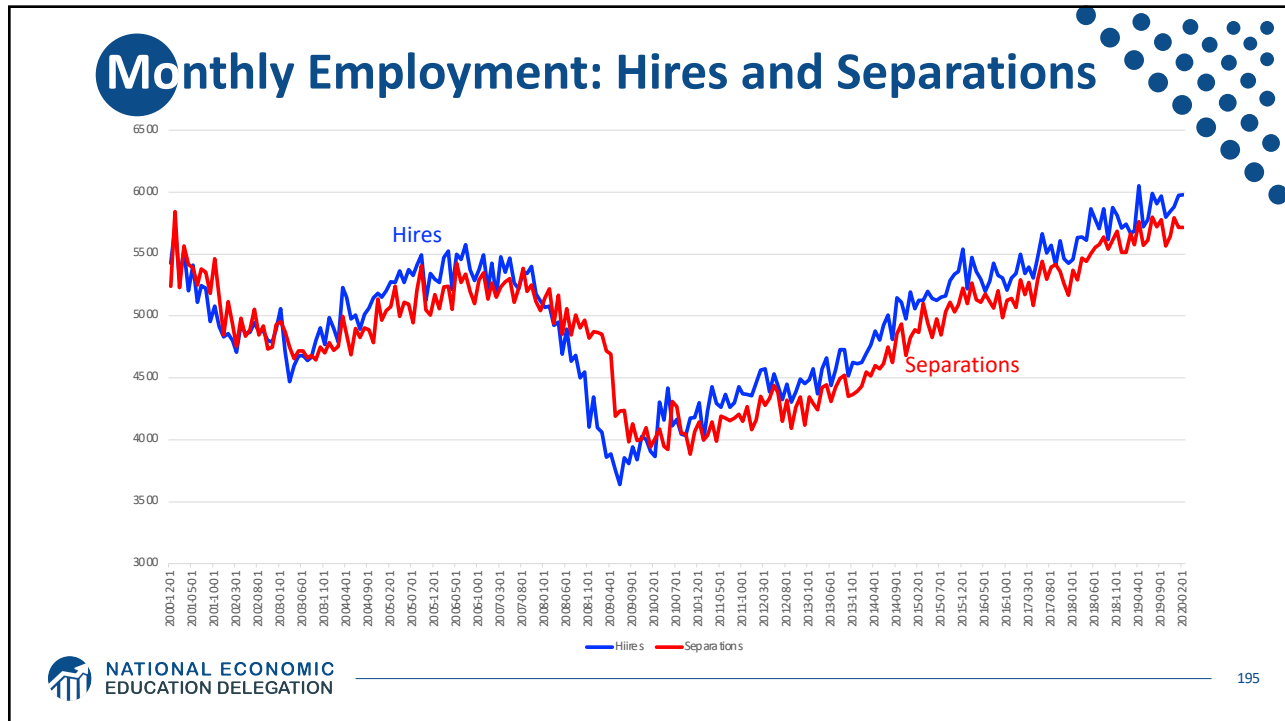


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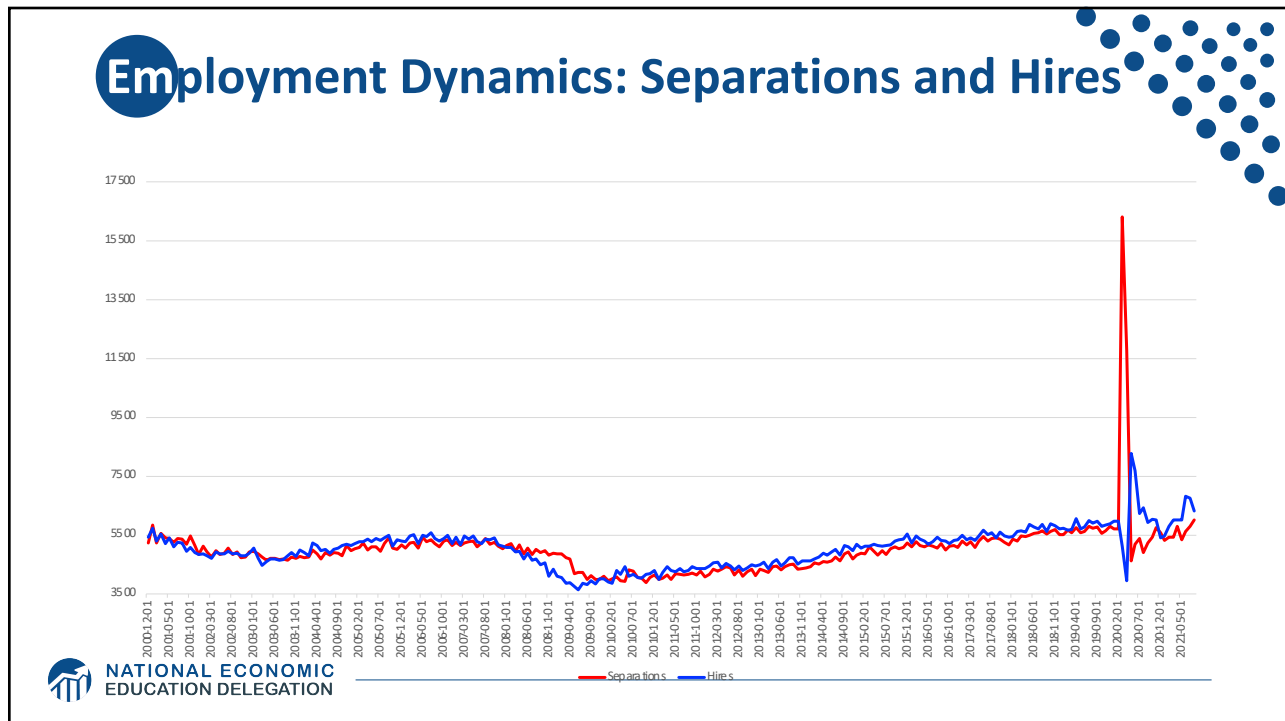
The Great Resignation



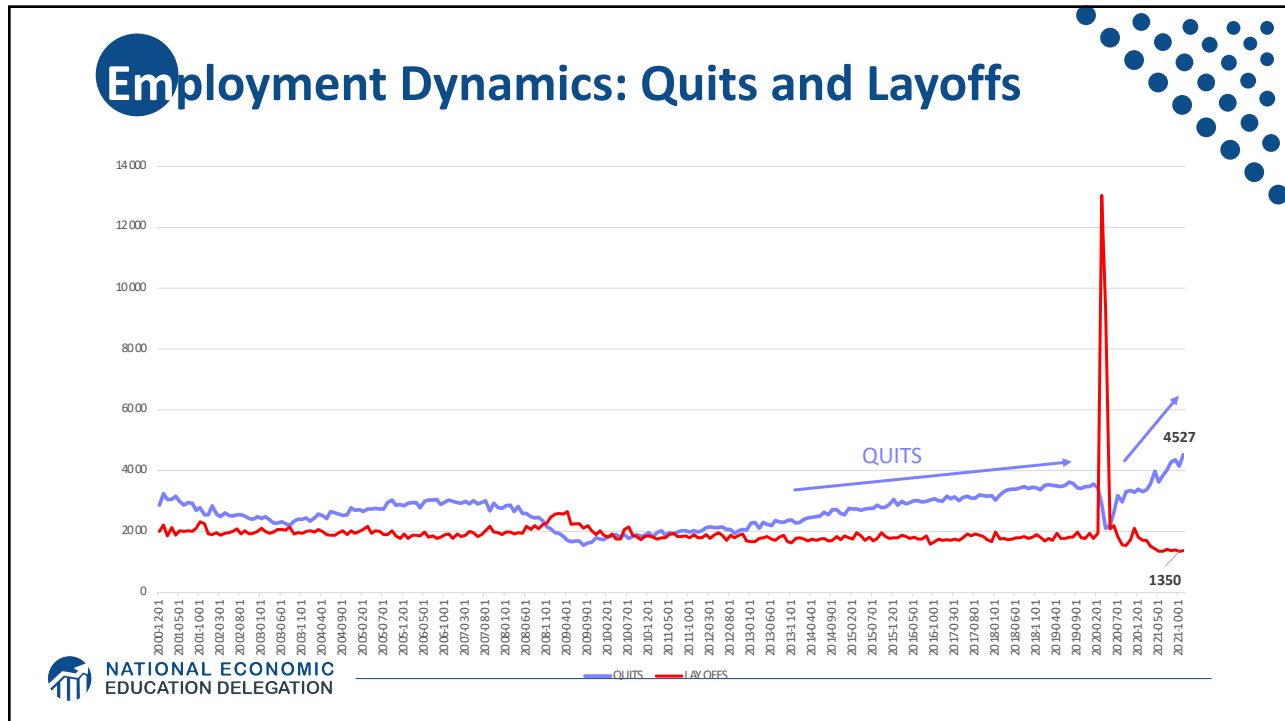
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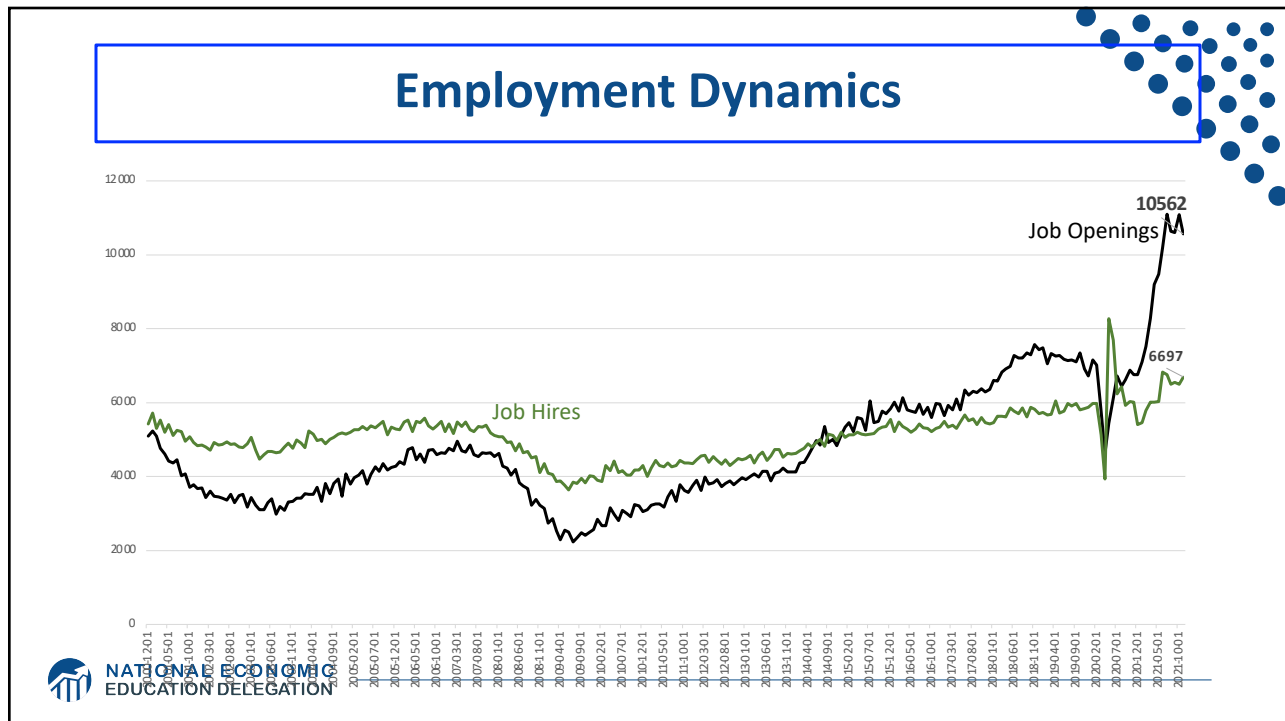
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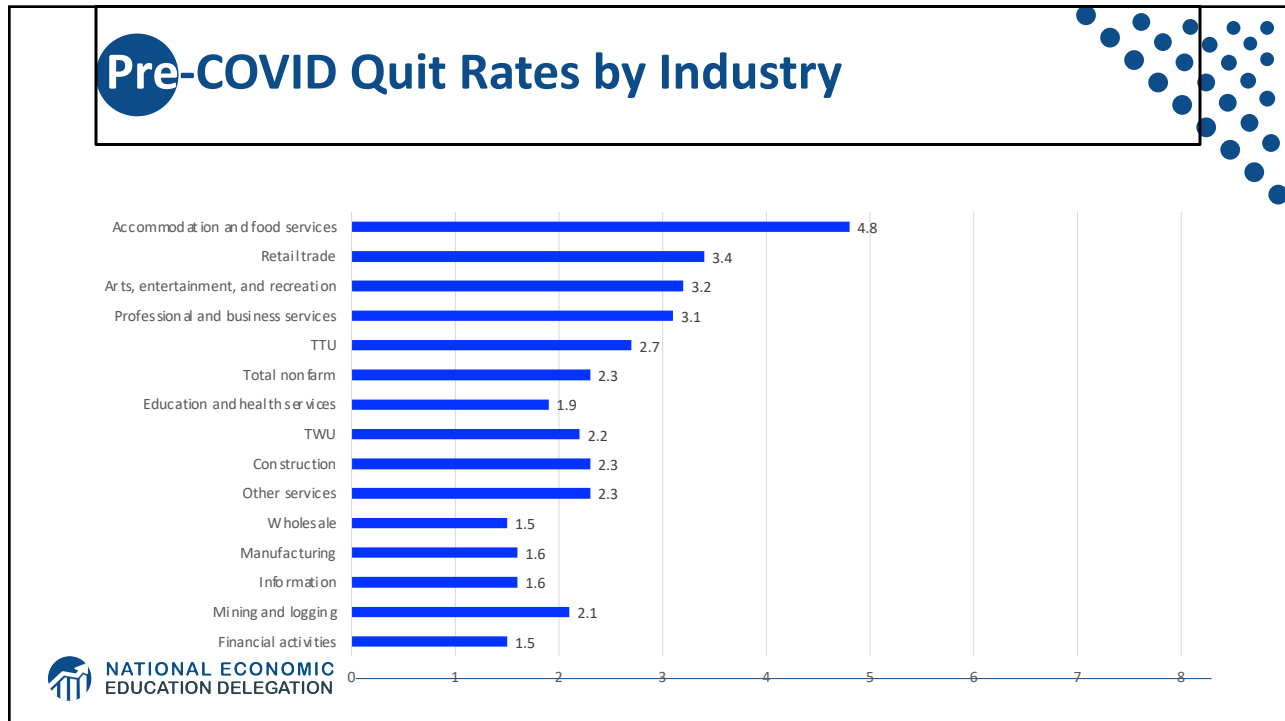
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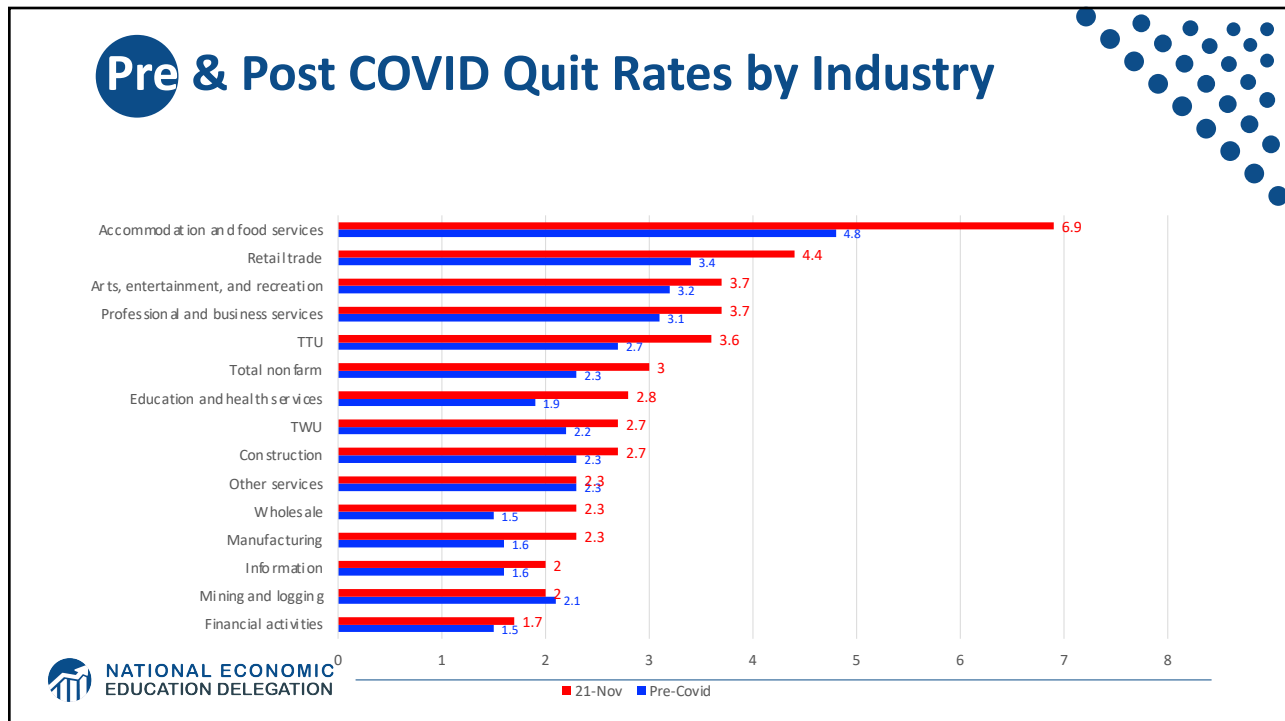
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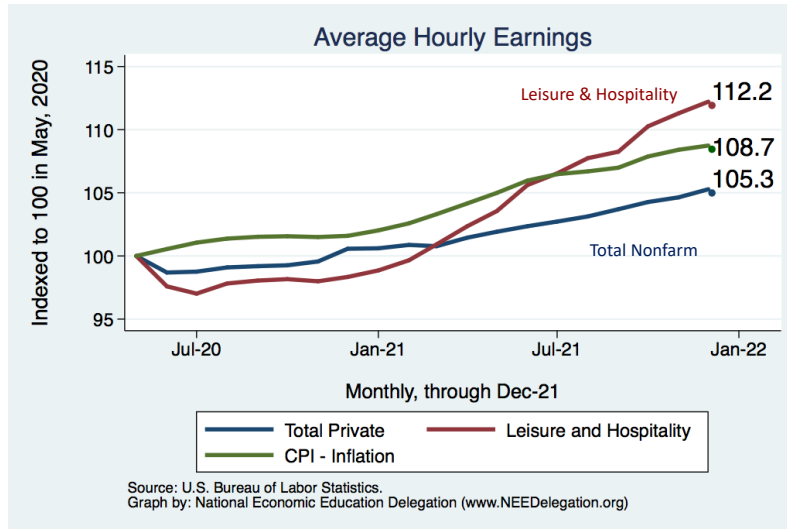


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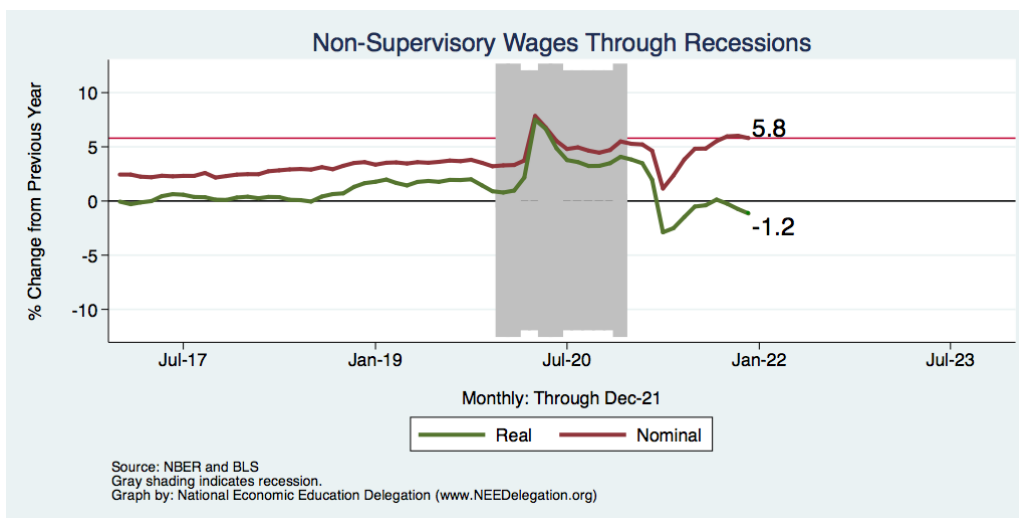
200

This is Happening Despite Rising Wages



201

Inflation Adjusted Wages Are Falling



202

Great Resignation: Employment Situation

- **Employment is still on the rebound rebound**
- **The real challenge has been for employers to fill vacancies.**
- **What gives?**
 - Extended (or expected continuation) unemployment benefits and other stimulus payments
 - Parents with young children at home.
 - Workers reluctant to work in certain industries and occupations
 - Workers looking for different career opportunities.
 - Workers looking for better employment opportunities withing their industry/occupation – non-pecuniary benefits
 - Increased desire to have the option to work from home.
 - Better working conditions
 - Recognition of accomplishments



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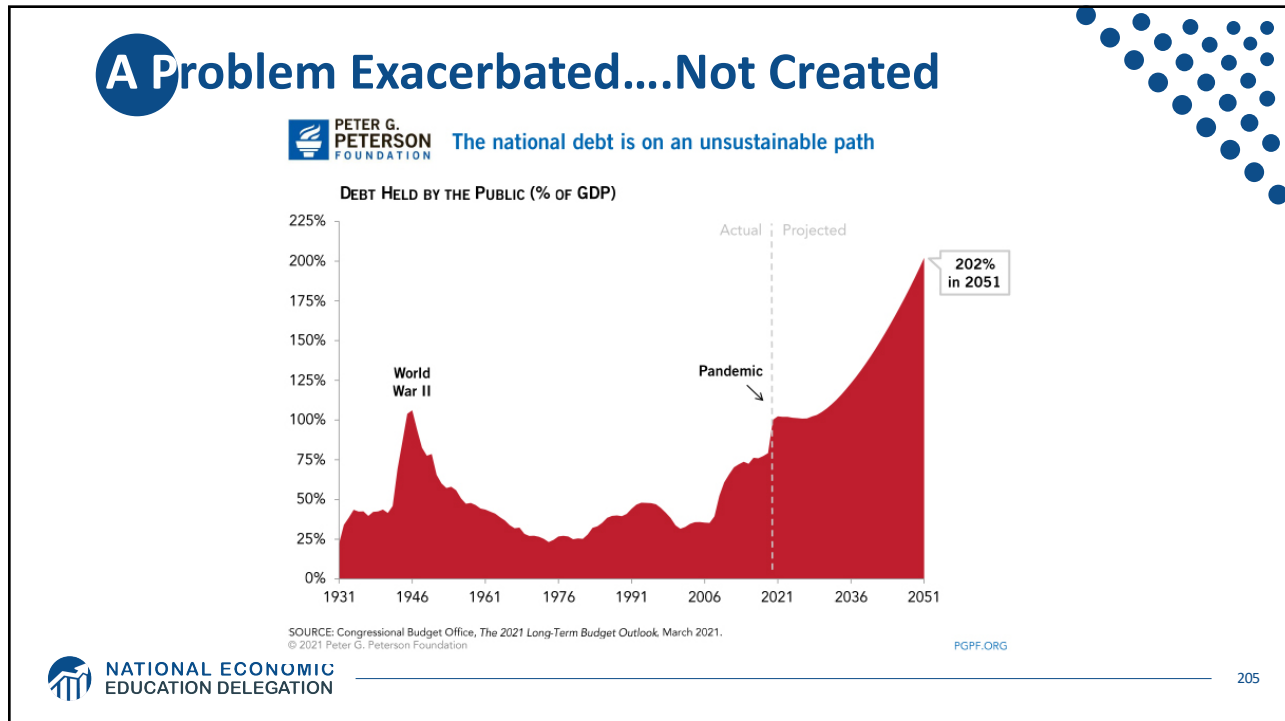
Debt and Deficit



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Current Deficits in Perspective:

- **The budgetary cost of the 3 major fiscal packages during the pandemic was over \$5 trillion. As a share of the economy this is almost the size of war production in 1943.**
(Romer, Brookings Papers on Economic Activity, 3/25/2021.)
- **Since March of 2021, Fed net holdings of US Treasury bonds have increased by \$2.7 trillion.**



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The End

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How Does Inflation Work?

Inflation represents the rate at which the cost of goods and services increase over a period of time.

Demand-Pull



When demand for goods/service exceeds production capacity.

Cost-Push



When production costs increase prices.

Built-In

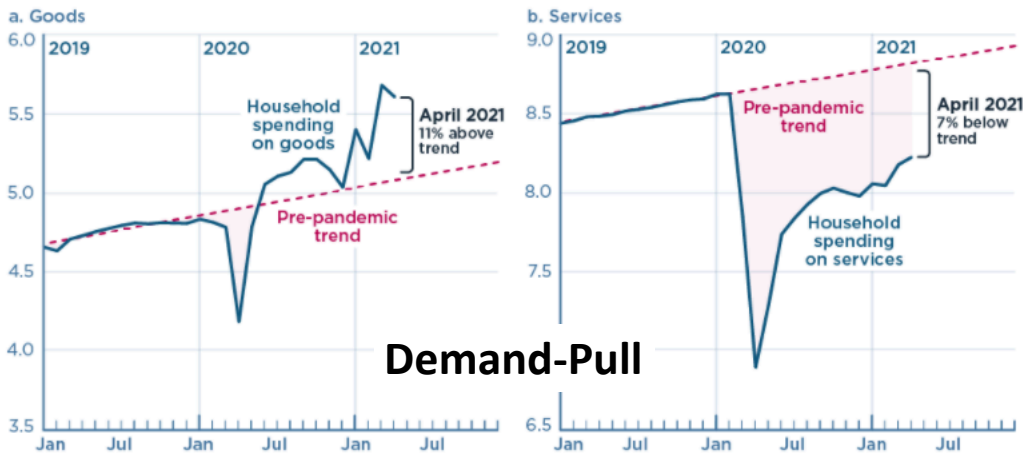


When prices rise, wages rise too, in order to maintain living costs.

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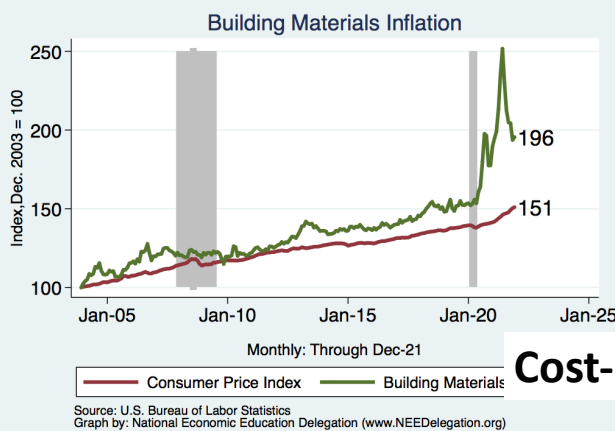
We're Buying Mostly ... Stuff

Real monthly household spending at an annualized rate, trillions of chained 2012 dollars

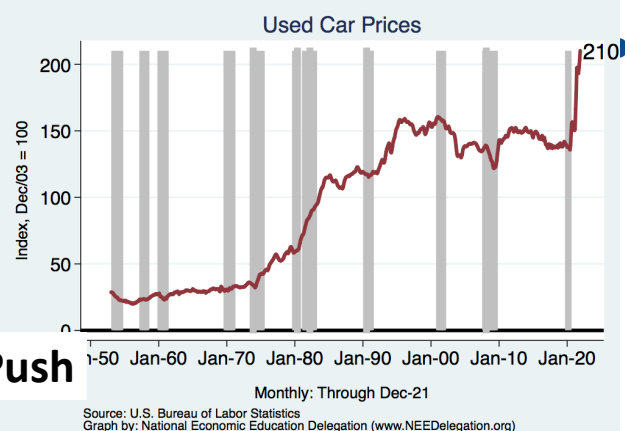


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Inflation: Concentrated

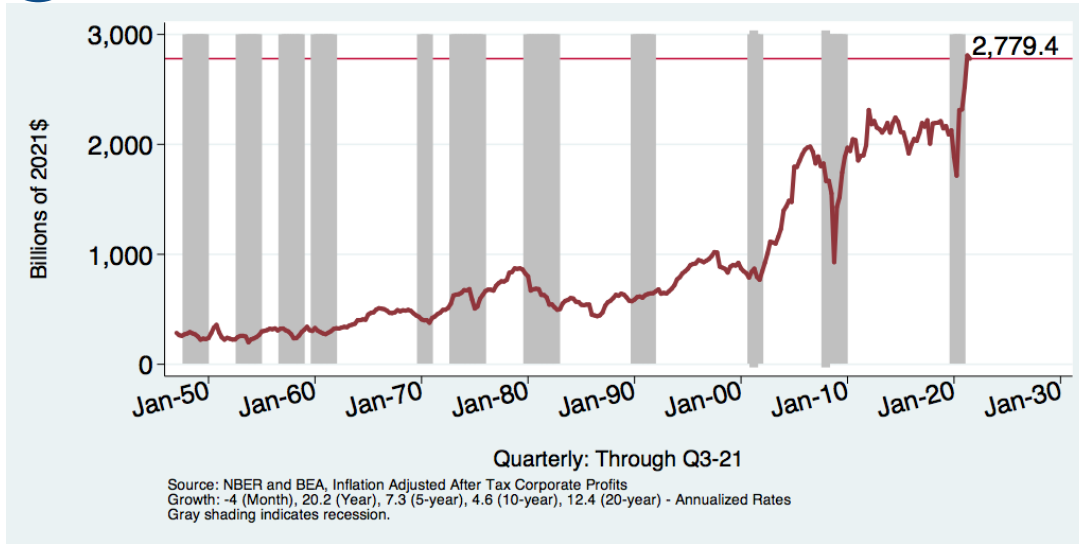


Cost-Push



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Corporate Profits...Adding to Inflation?

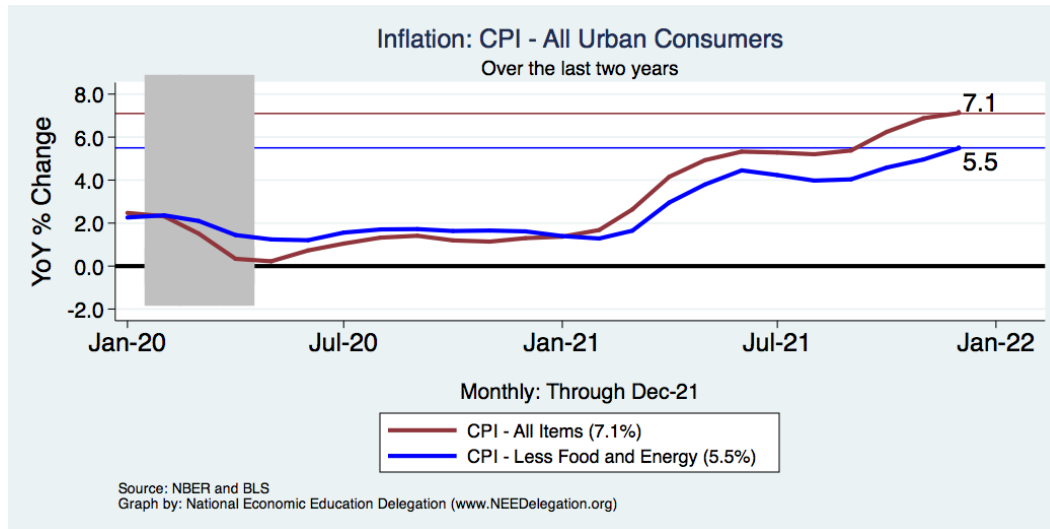


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Inflation – Climbing! Should we worry?

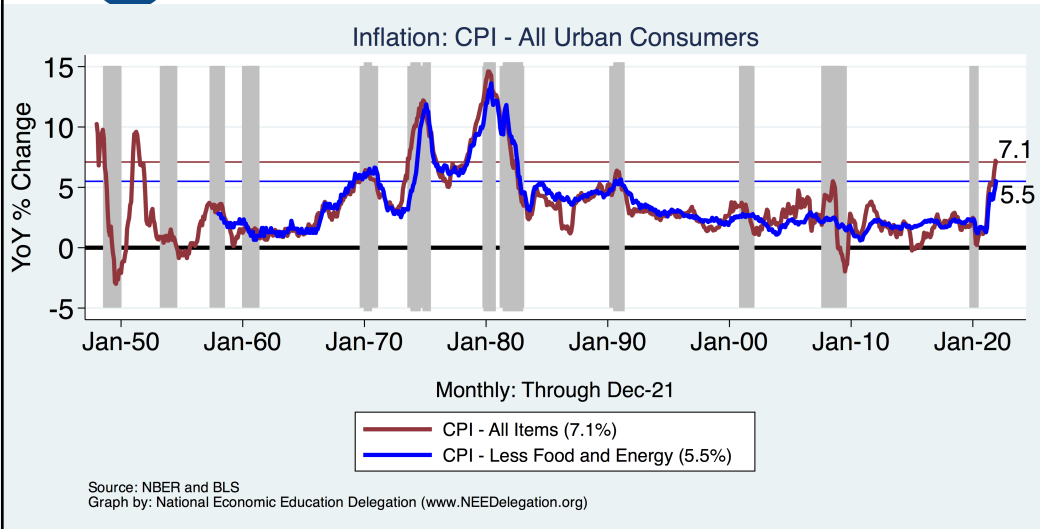


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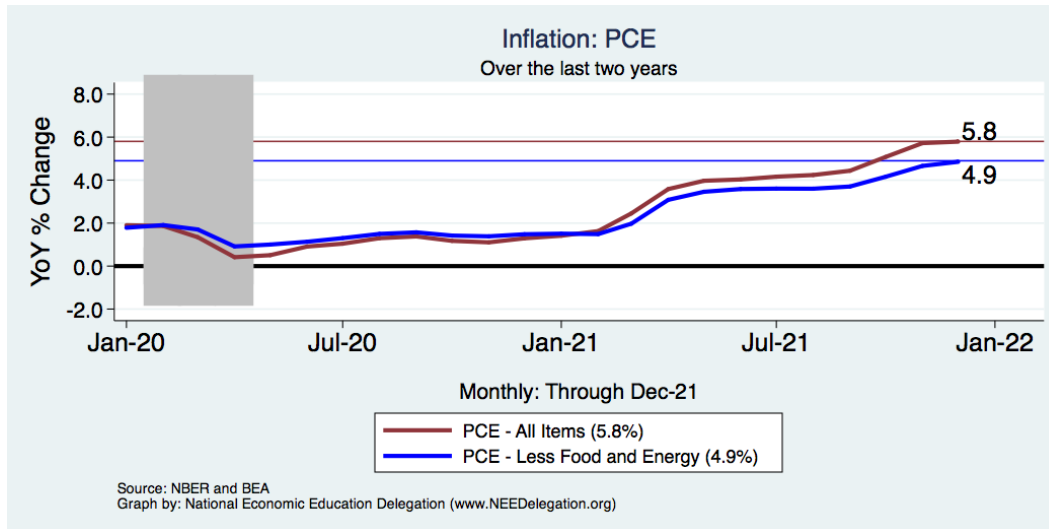
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Inflation in Historical Perspective



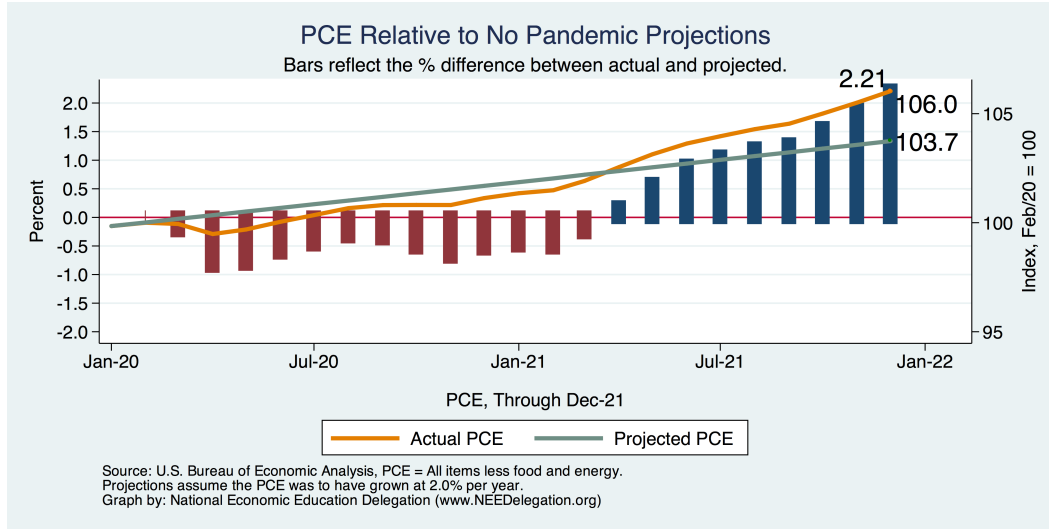
213

Inflation – The Fed’s Metric! Should we worry?



214

Inflation – PCE and Fed Suggest: I don't know.



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Declining Resources May Change Things



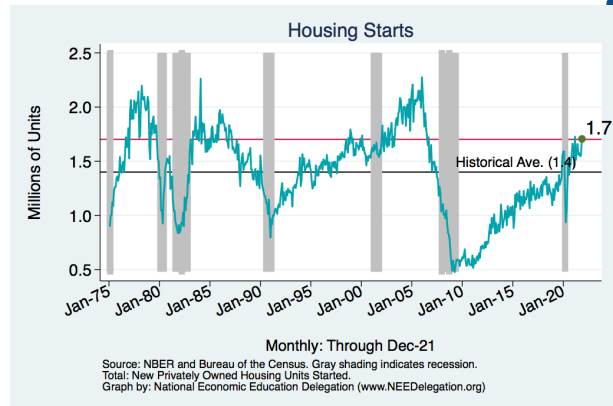
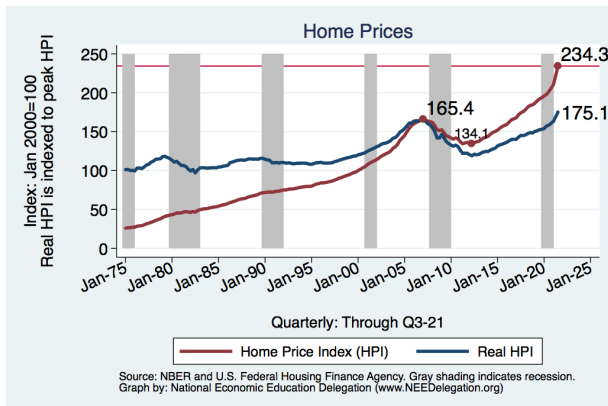
216

Real Estate



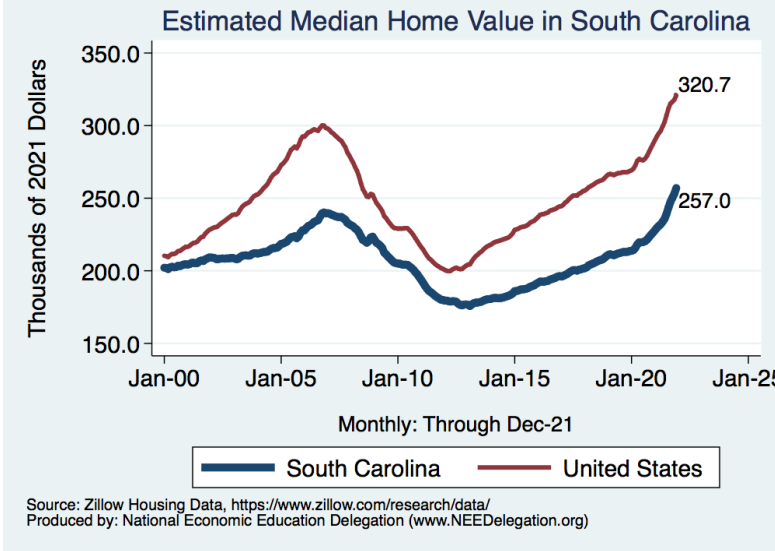
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Home Prices and Housing Starts



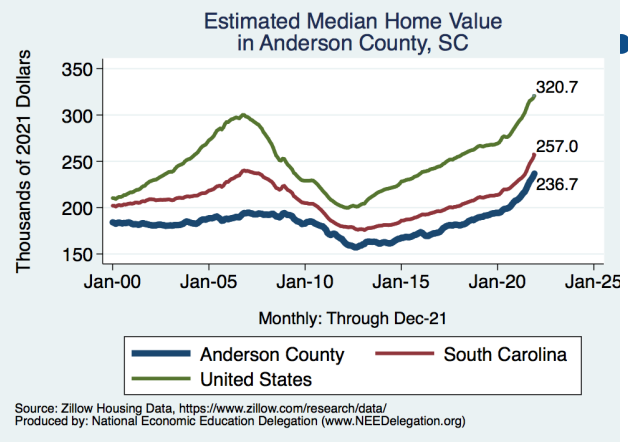
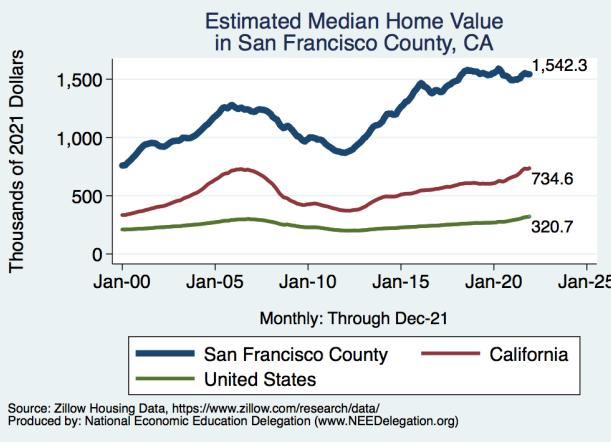
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Real Estate Prices



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RE Experiences Differ!



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Primary Topics Covered

- **GDP**

- Recovered the decline, but not where it should be.
- Won't recover previous forecast until late 2022.

- **Employment**

- Still down 8.4 million jobs relative to forecast. (3.5 million relative to Feb/20).
- Labor force is 2.5 million smaller than at the beginning of the pandemic.
- Rising wages are not enticing low-wage workers back to work.

- **Inflation**

- Going to be high for a while, but transitory – maybe?



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Conclusion

- **Recovery is well underway, but may be slowing.**
- **GDP expanded 5.7% percent in 2021, likely 3-4% in 2022.**
- **2021 was an odd year.**
 - Workers attained the upper hand.
 - Supply chains broke.
 - Inflation surged.
 - The economy rebuilt itself.
- **Biggest problems:**
 - Supply chain bottlenecks.
 - Labor force participation.



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Best Measures of Progress

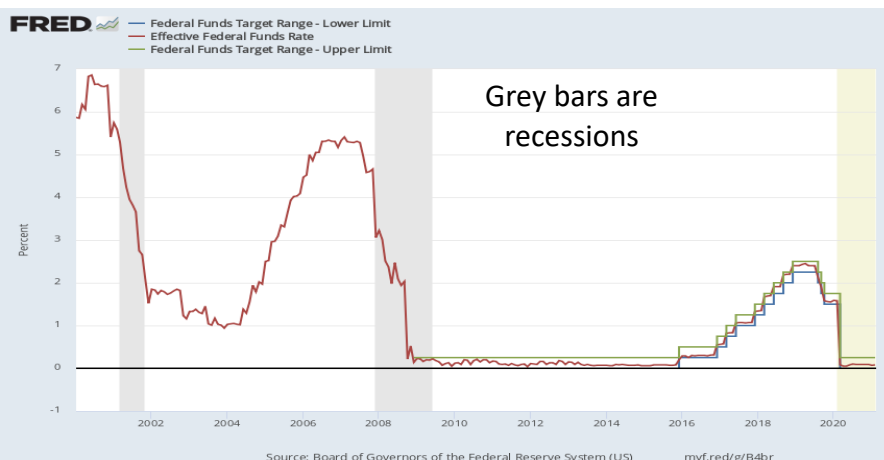
- INFLATION – getting it under control.
- REAL WAGES– need to see progress.
- WORKFORCE PARTICIPATION – need growth here to get GDP growth.

Pay no attention to the unemployment rate.



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Monetary Policy – Geoffrey Woglom



The FOMC does not set an exact number for the Federal funds rate. Instead, it sets an upper (green line) and lower (blue) range. "The Committee decided to keep the target range for the federal funds rate at 0 to 1/4 percent..." (4/28/2021)



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Thank you!

Any Questions?

www.NEEDelegation.org

Scott Baier, Ph.D.

sbaier@g.clemson.edu

Contact NEED: info@NEEDelegation.org

Submit a testimonial: www.NEEDelegation.org/testimonials.php

Become a Friend of NEED: www.NEEDelegation.org/friend.php



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Structural Changes?

- **Pandemic has been an accelerant.**

- Not a change agent.

- **Retail**

- **Telecommuting**

- **Telehealth**

- **Business travel?**

- **Wealth concentration**

- **Industry concentration**

- **Automation**

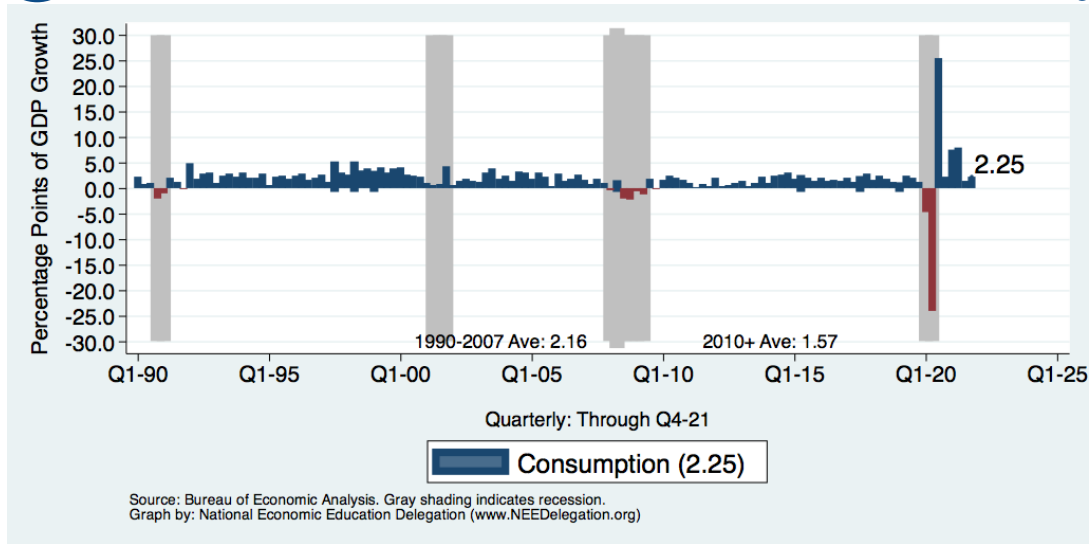


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Consumption: Quarterly Growth

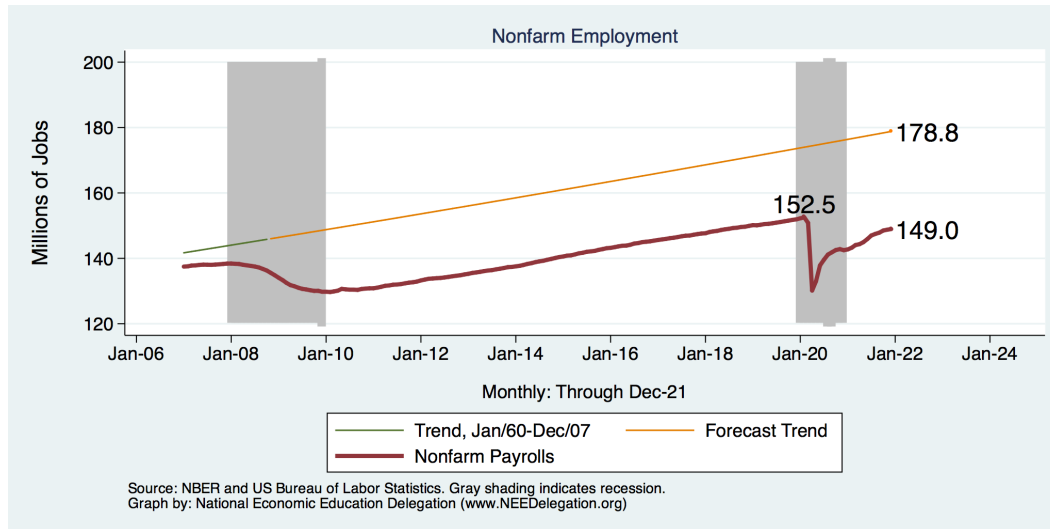


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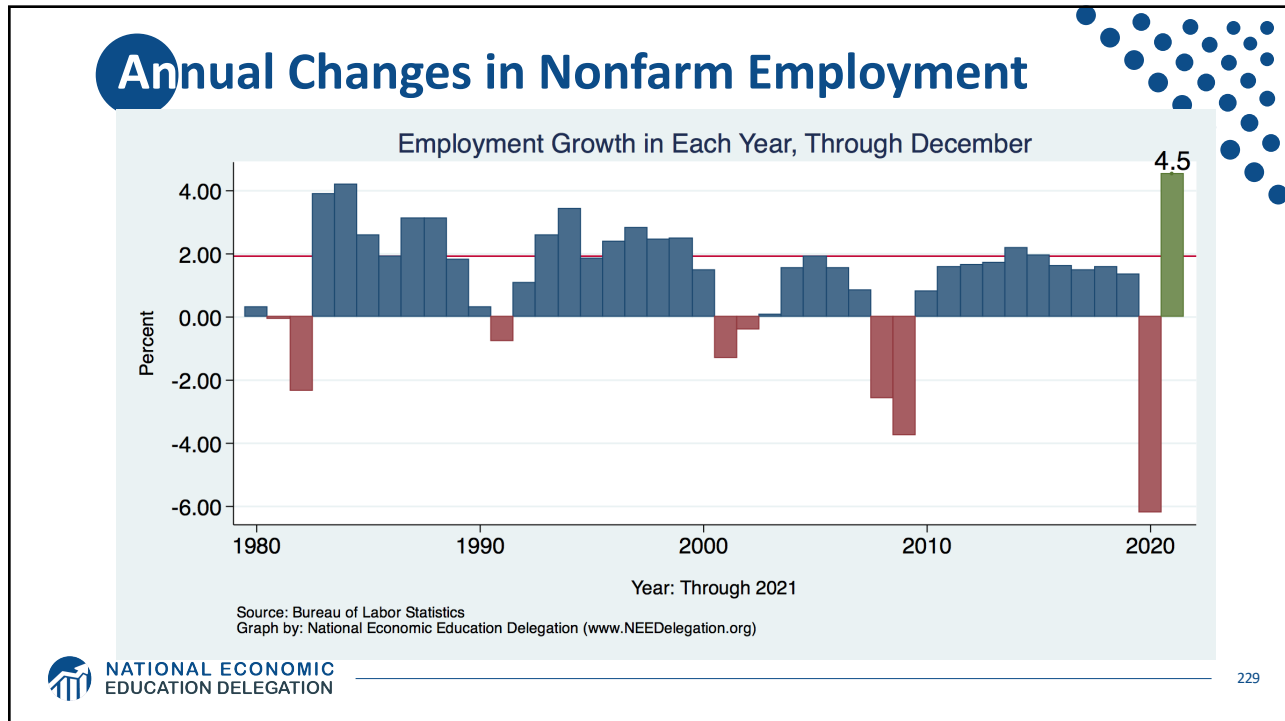
Employment Gap



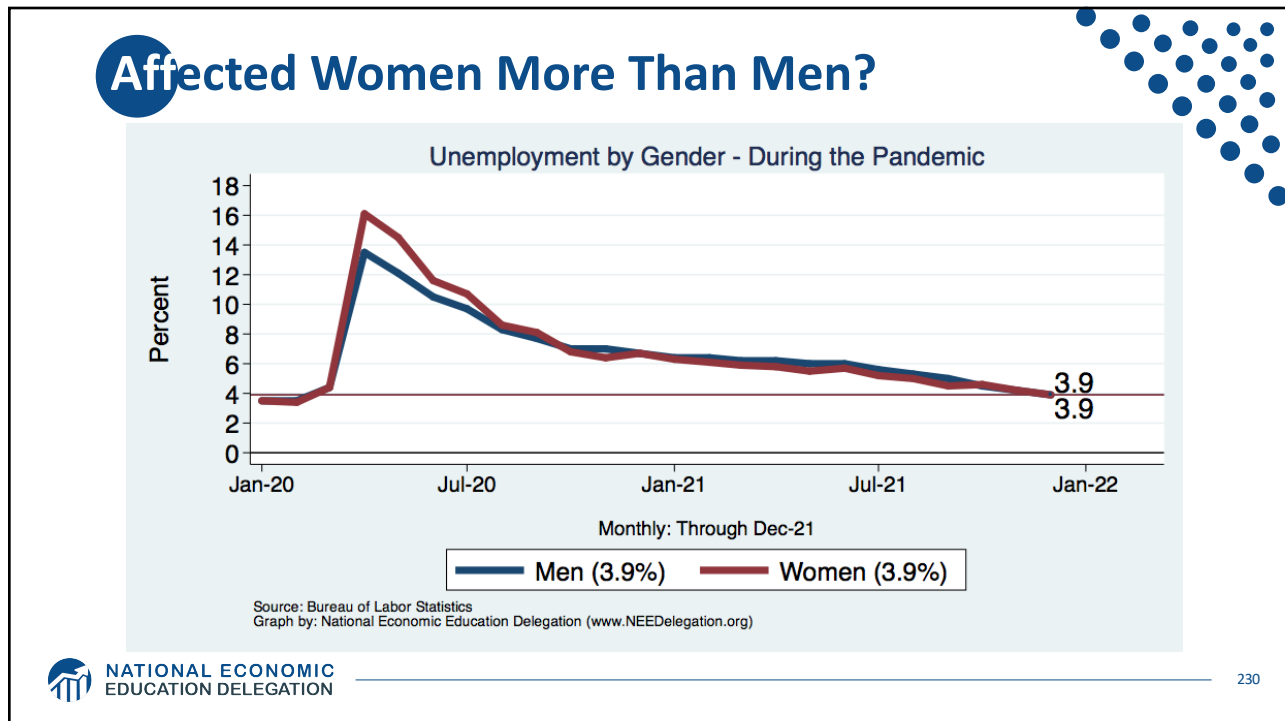
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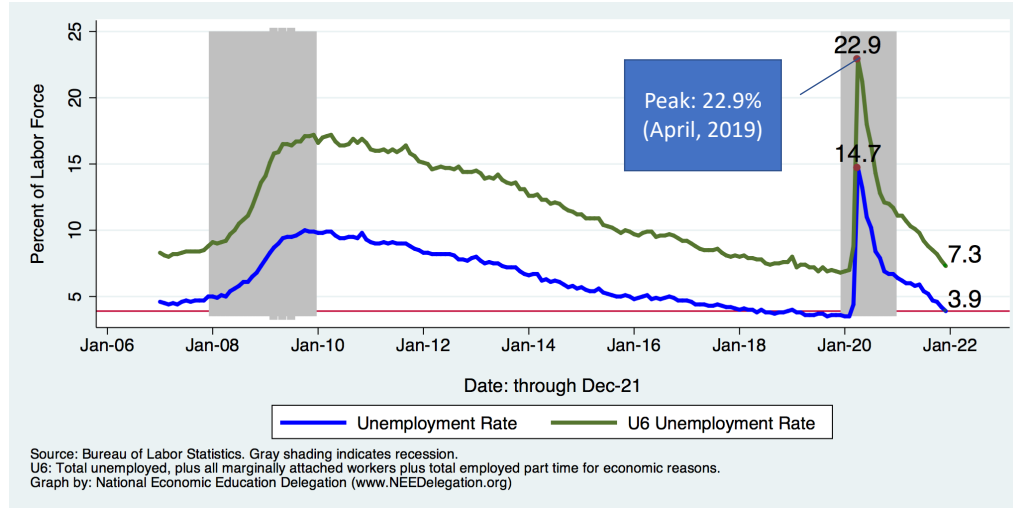


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Another Measure: Unemployment



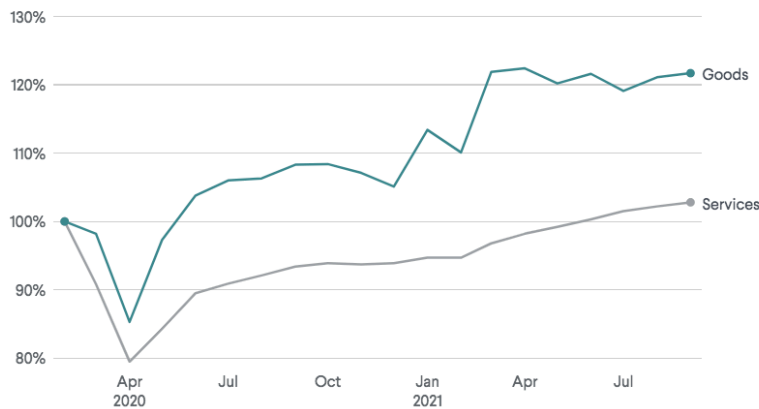
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Supply Chains Are at the Core

Pandemic Triggers Greater Demand for Goods

Personal consumption expenditures relative to February 2020



Source: U.S. Bureau of Economic Analysis via Federal Reserve Bank of St. Louis.

COUNCIL ON FOREIGN RELATIONS



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What Are Supply Chains?

The Journey of a Semiconductor

Steps and firm locations in the production of a smartphone chip

The map shows the following locations for each step:

- 1: Europe
- 2: U.S.
- 3: U.S.
- 4: U.S.
- 5: U.S.
- 6: Japan
- 7: South Korea
- 8: Taiwan
- 9: Malaysia
- 10: China
- 11: U.S.

Design	Equipment	Materials	Manufacturing	Sale
1. Intellectual property licensed (Europe)	4. Manufacturing equipment developed (U.S., Europe, Japan)	5. Silicon dioxide mined and refined (U.S.)	8. Wafers imprinted with circuits (Taiwan)	11. Smartphone sold to consumers (U.S.)
2. Design software developed (U.S.)		6. Silicon formed into ingot (Japan)	9. Chip packaged (Malaysia)	
3. Chip designed (U.S.)		7. Ingot sliced into wafers (South Korea)	10. Chip assembled (China)	

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<https://www.cfr.org/article/what-happened-supply-chains-2021>

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Why does spending matter?

Spending Categories as Share of GDP (2019)

Category	Share of GDP
Goods	20%
Services	44%
Government spending	16%
Nonresidential Fixed Investment	13%
Residential Fixed Investment	4%
Net exports	-3%
Total	64%

Spending:
 Goods 20%
 Services 44%

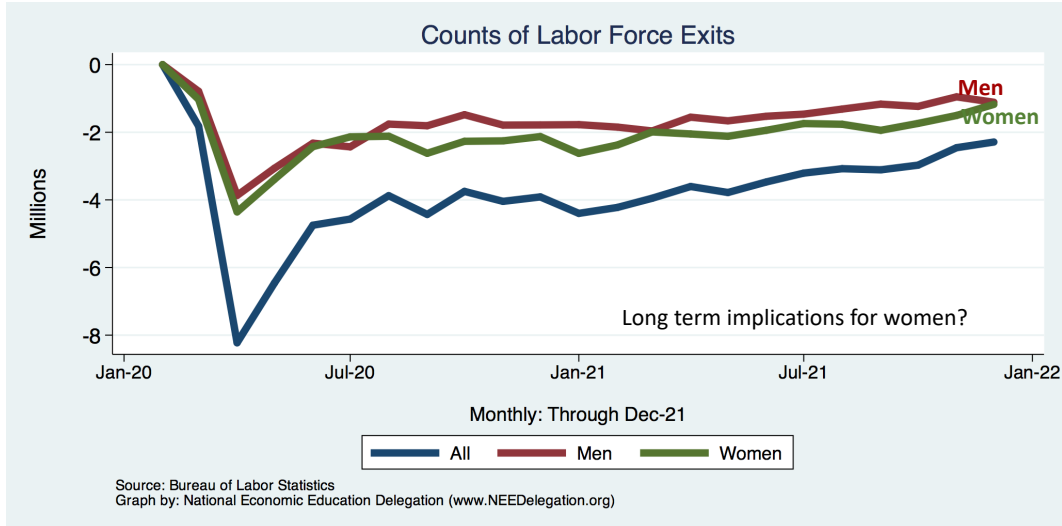
Total 64%

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Affected Women More Than Men



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Why Women More Than Men?

- Women are disproportionately represented in low-wage and face-to-face jobs.
- Our childcare and school systems don't meet the needs of working mothers.
- COVID-19 has upended the labor market, with disastrous consequences for working women and their families.
 - Many women continued working in high risk jobs.
- The difference in impact is waning.

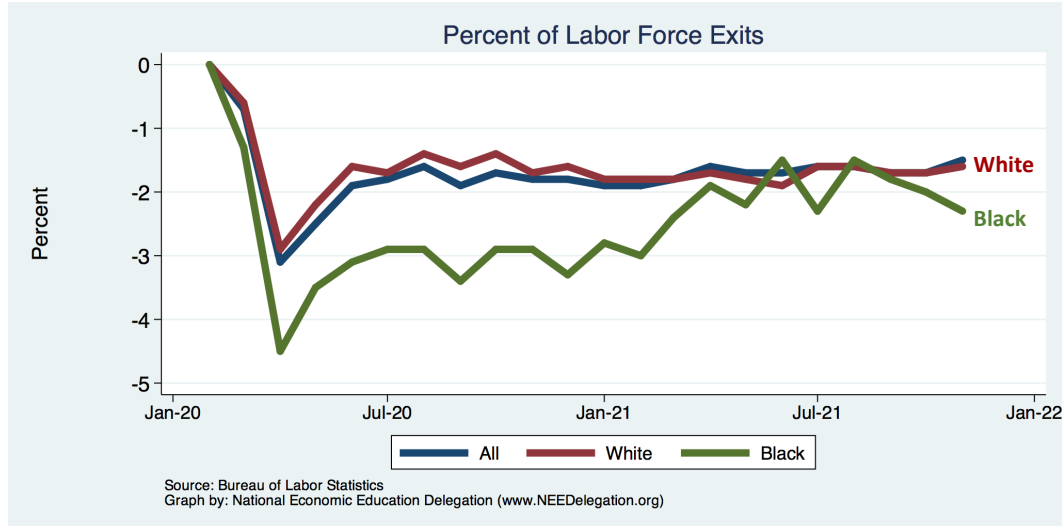


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Affecting Black Workers More than White



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What Index to Follow: CPI or PCE?

- **CPI is the headline statistic, followed by most newspapers.**
 - Allows more granularity – ability to look at specific products.
- **PCE is the one followed by the Fed.**
 - Why?
 - Accounts for short term fluctuations in consumer purchases.
 - Based on more reliable data.
- **Fed generally pays attention to the core inflation #s.**
 - Excluding food and energy.



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Inflation: Critical Issues

- **Inequities**

- Price changes vary wildly across goods.
- How inflation hits you depends on what you buy and your level of income.
 - o Some evidence that lower income individuals face higher inflation.

- **Online inflation is much lower than the CPI**

- Estimates suggest about 2% lower.

- **Both have implications for the policy response.**

- Safety net? Antitrust action?

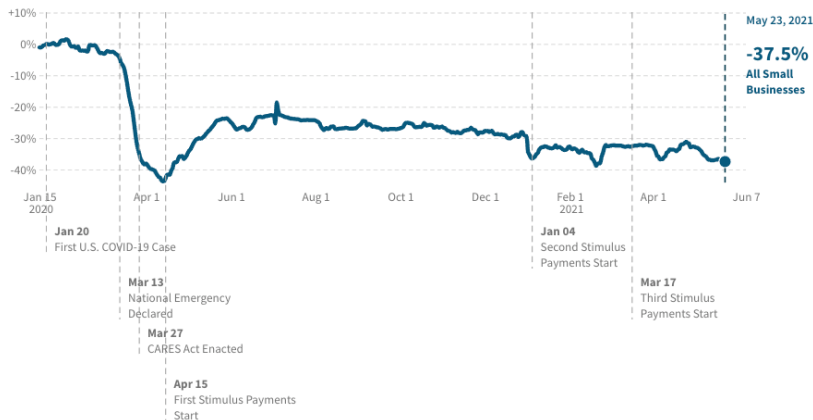
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A Hard-Hit Sector: Small Business

Small Biz Closures in the United States

In **the United States**, as of May 23 2021, the number of small businesses open decreased by **37.5%** compared to January 2020.

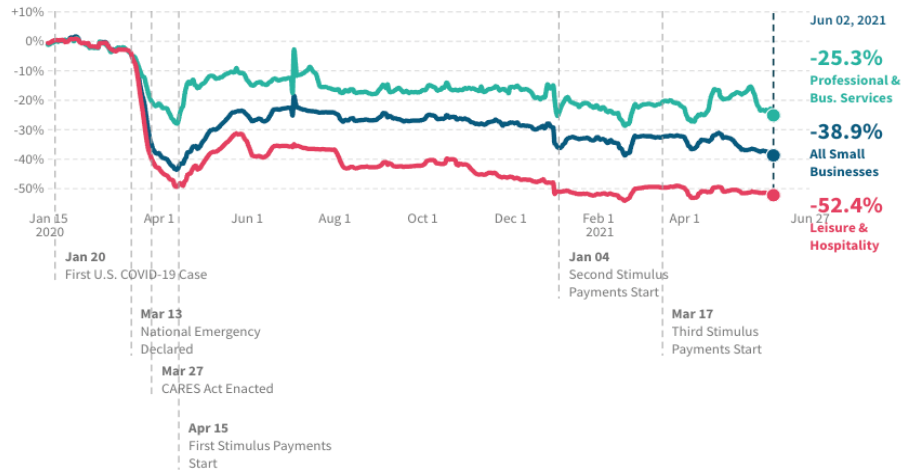
[DOWNLOAD CHART](#)



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Small Businesses: They Didn't Get Enough PPP

In the United States, as of June 02, 2021, the number of small businesses open decreased by **38.9%** compared to January 2020.



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A "K-shaped" recovery?

Executive Summary

- Those with financial wealth/residential real estate have seen its value grow in excess of inflation.
- High income earners (>60k/yr) have largely kept their jobs;
 - middle and low income earners have depressed employment rates
- Women are disproportionately exiting labor force.
- Food insecurity has been very high.

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Coronavirus and Inequality

- Resources to weather the storm.
- Racial inequities.
- Educational inequities
- Telecommuting
- Low wage jobs are at risk.



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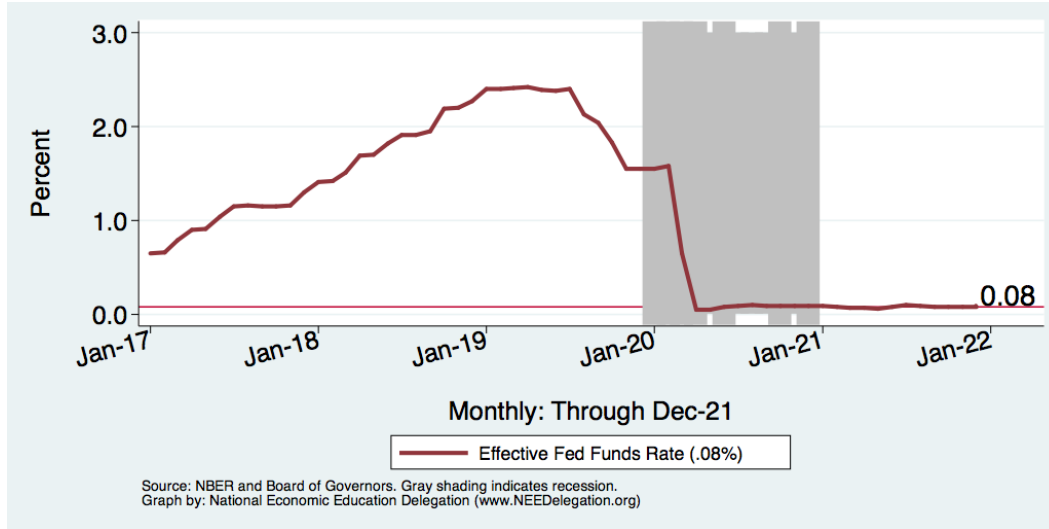
Monetary Policy: Federal Reserve

- **Primary goal is to keep interest rates low, to facilitate continued borrowing.**
 - Federal Funds Rate – rate at which banks lend to each other, usually overnight.
 - Purchases of U.S. Treasury securities – keep money flowing to the government at low rates of interest.



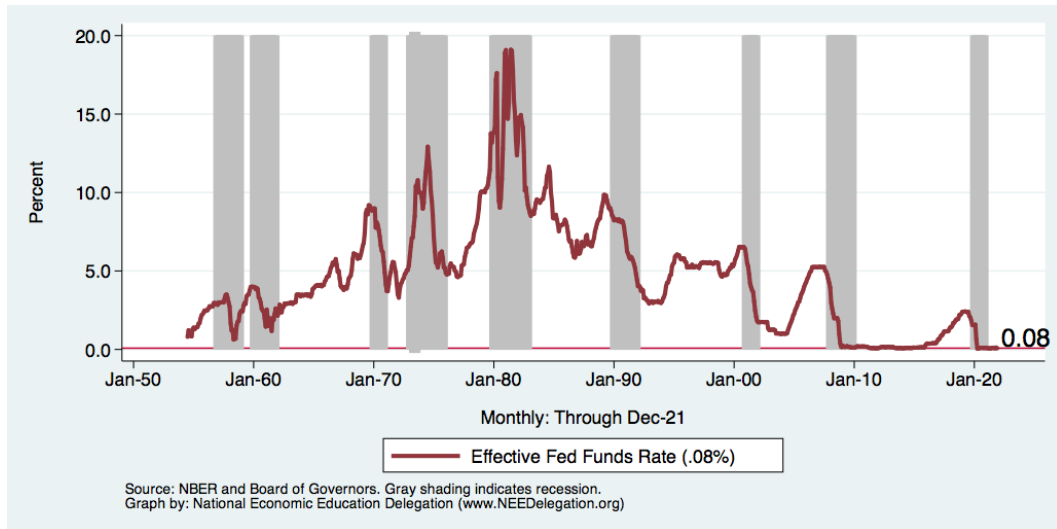
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Federal Funds Rate – Last 5 Years



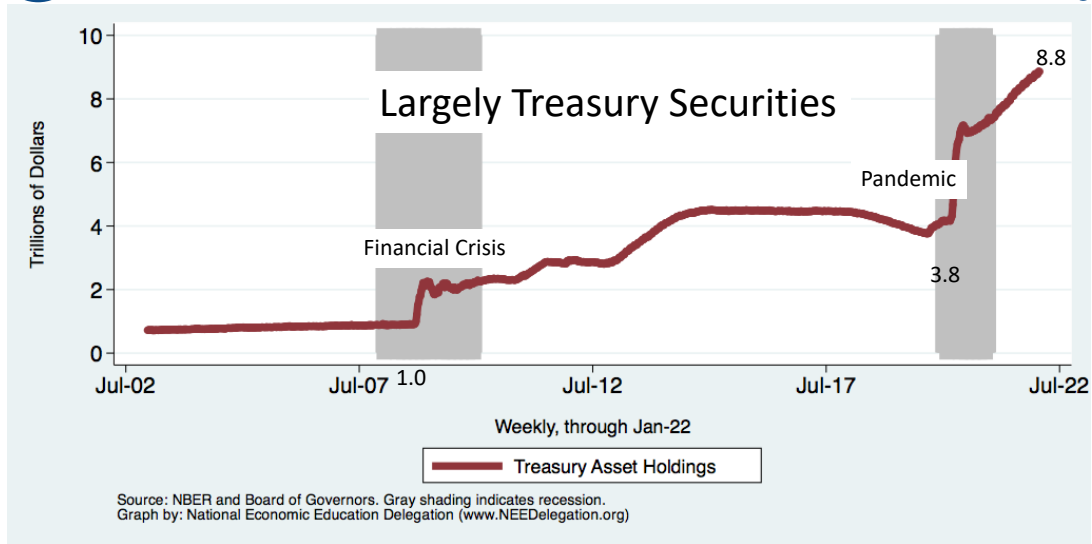
245

Federal Funds Rate



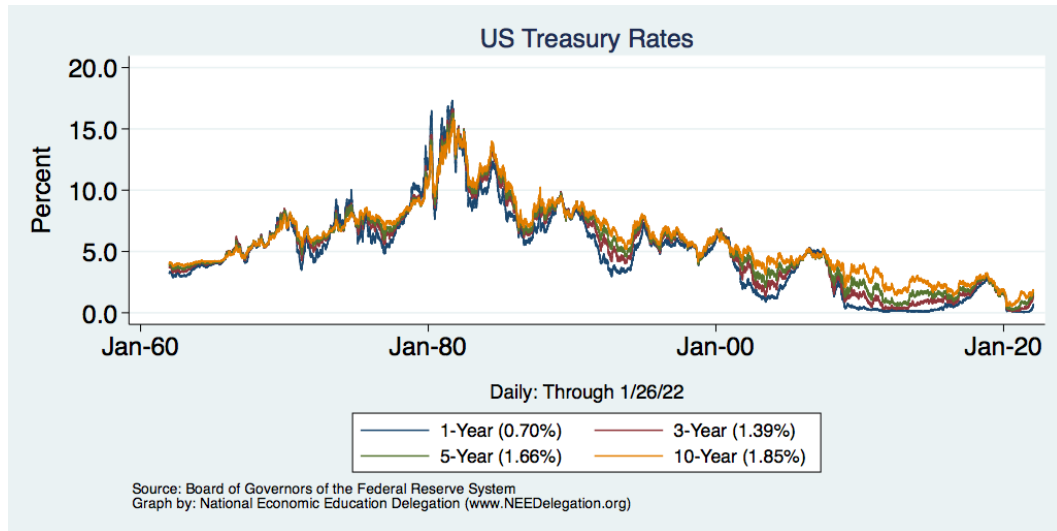
246

Federal Reserve Assets



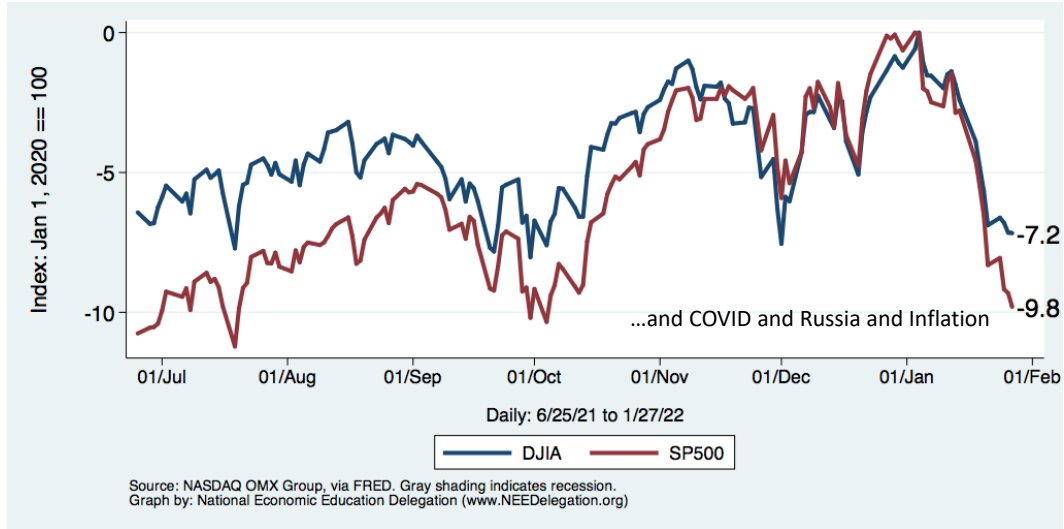
247

Treasuries – Low Interest Rates



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Markets Respond To Fed Policies

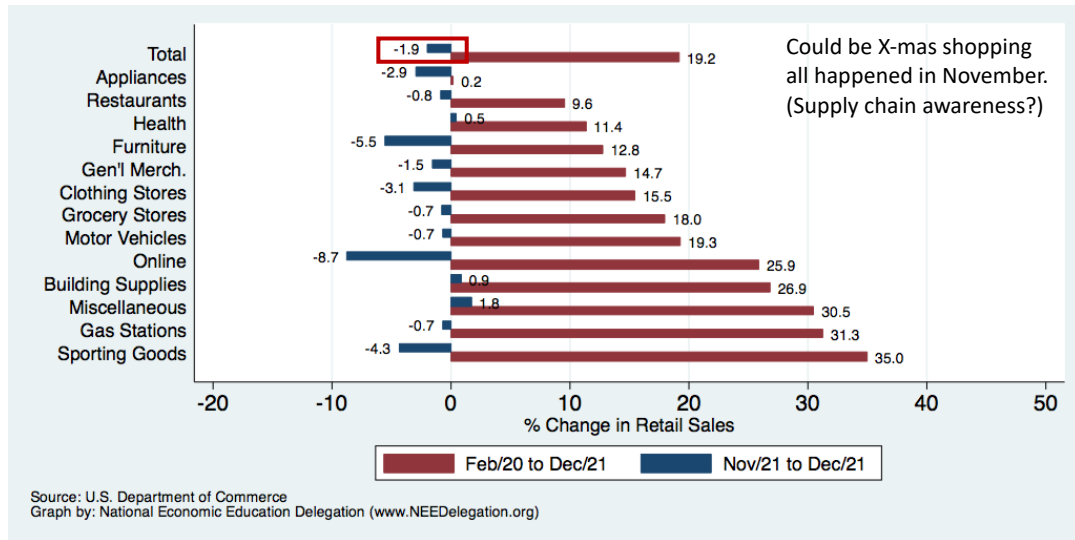


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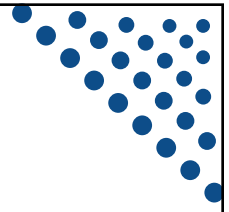
Retail Sales Are Slowing



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