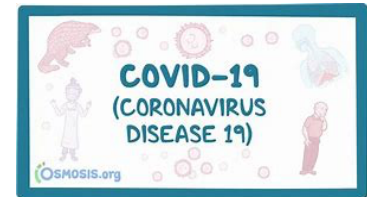




# COVID-19: Economic Implications and Policy Response

SIR, Branch 47, San Rafael

May 26, 2020  
Jon Haveman, Ph.D.  
Executive Director, NEED



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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: 48 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: 500+ 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: 45 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**
- **Trade Wars**
- **Immigration Economics**
- **Housing Policy**
- **Federal Budgets**
- **Federal Debt**
- **2017 Tax Law**
- **Autonomous Vehicles**
- **US Social Policy**

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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)

- **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

- **What is this?**
- **Evidence of Impact**
- **Government Policy**
- **What to expect going forward**

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## What is this?

- **A natural disaster – with important twists:**
  - Global
  - Duration is unpredictable
  - Economic toll is enormous and potentially durable
- **A health crisis that spilled over onto the economy.**
  - A perfect storm of economic difficulty
    - Supply side
    - Demand side
    - Financial
  - Without a culprit

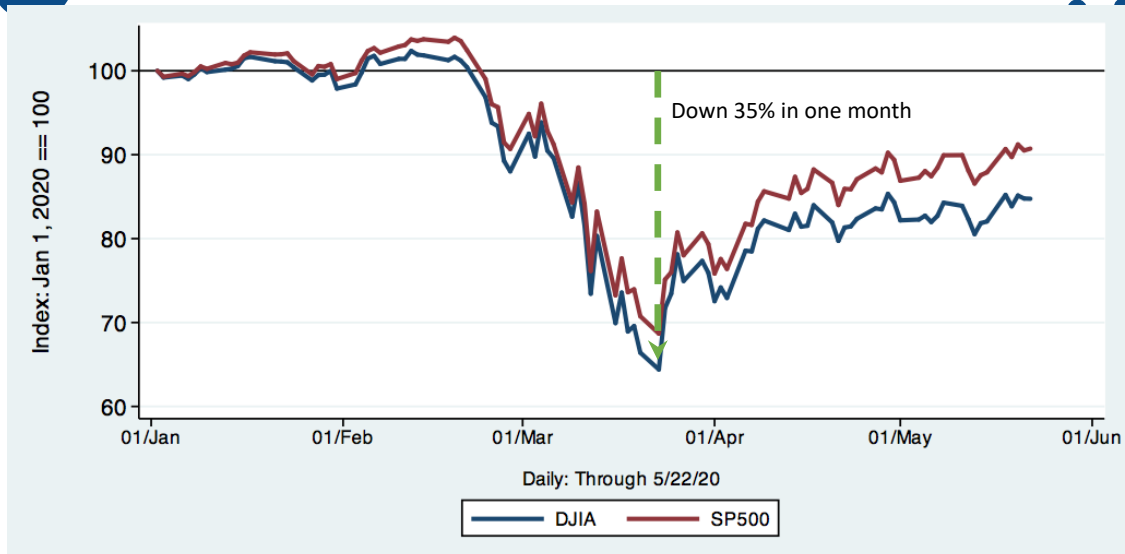


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## DJIA and S&P 500

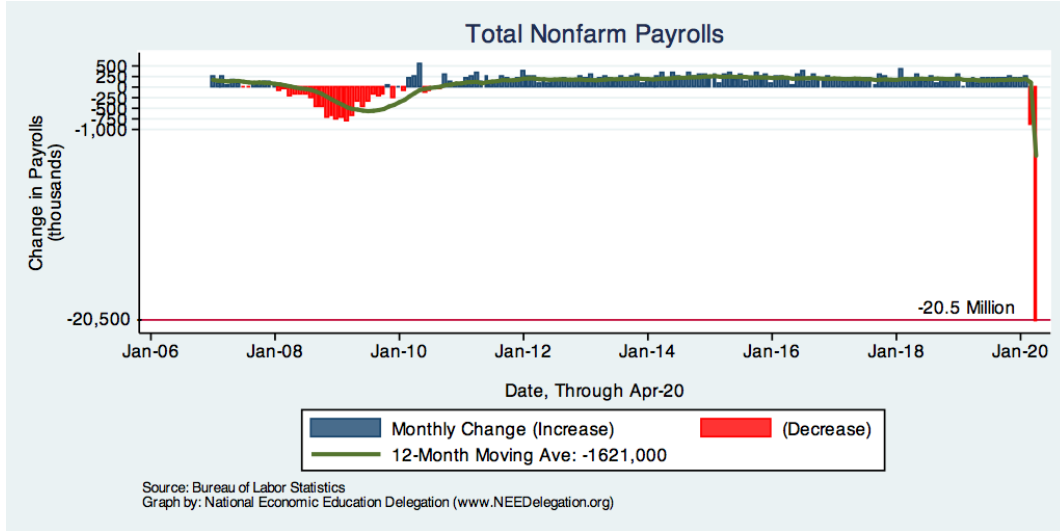


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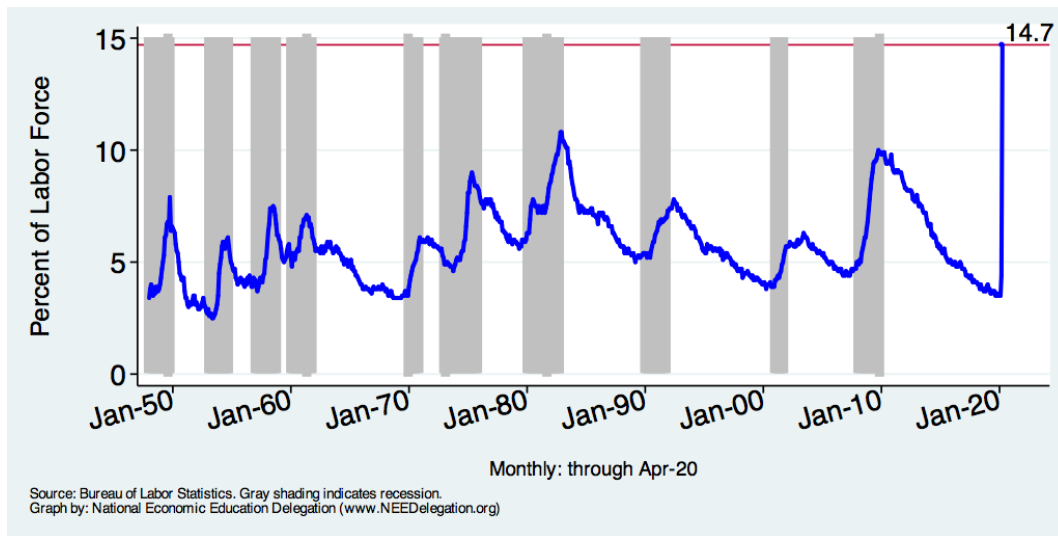
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# Monthly Changes in Nonfarm Employment

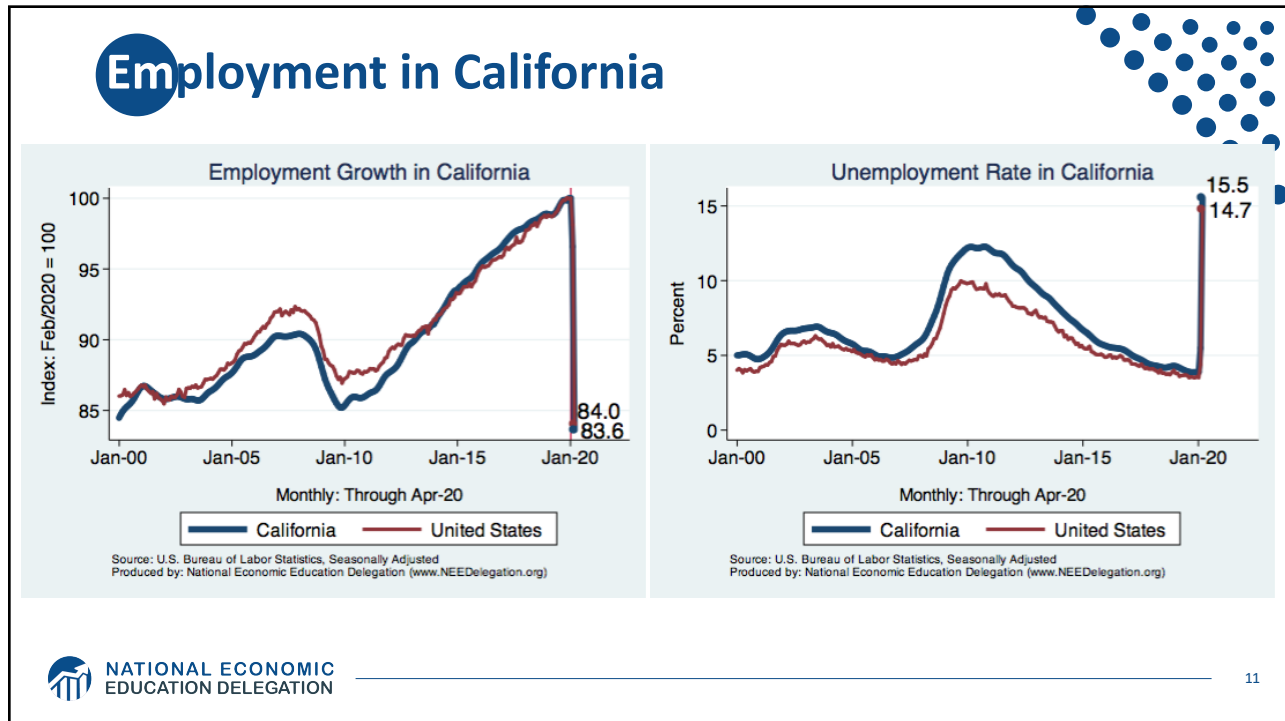


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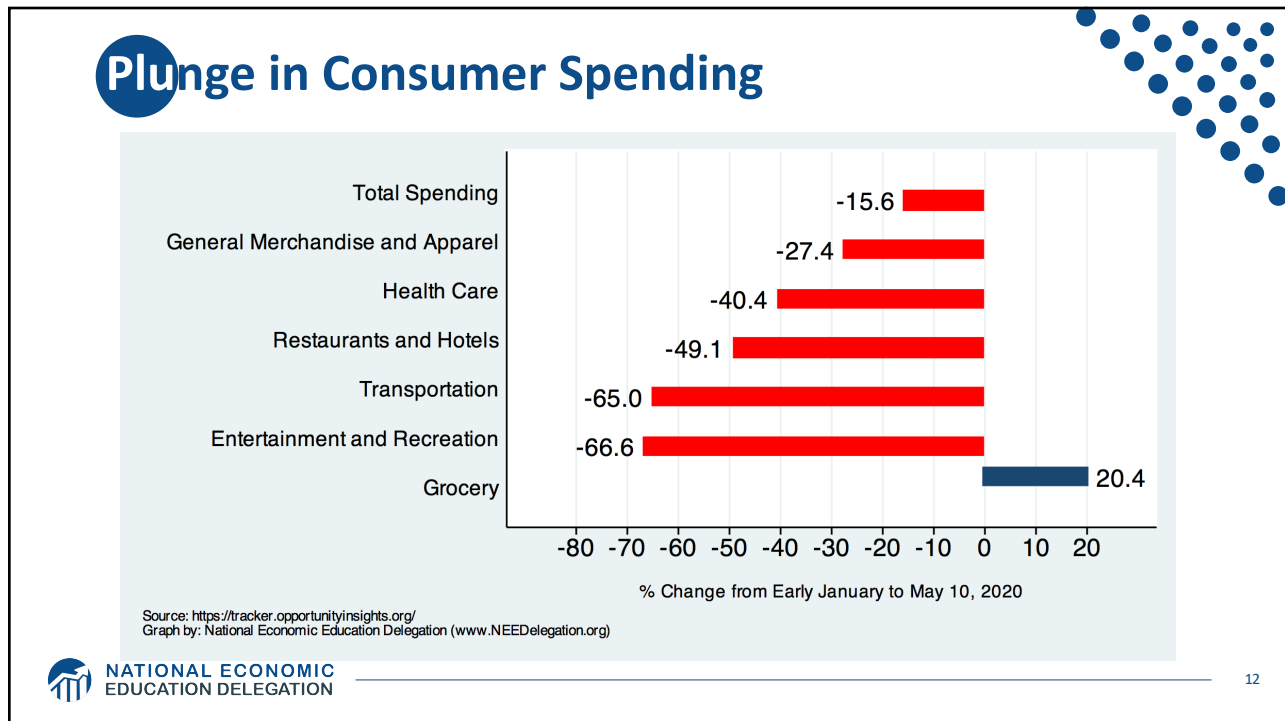
# Unemployment Rate



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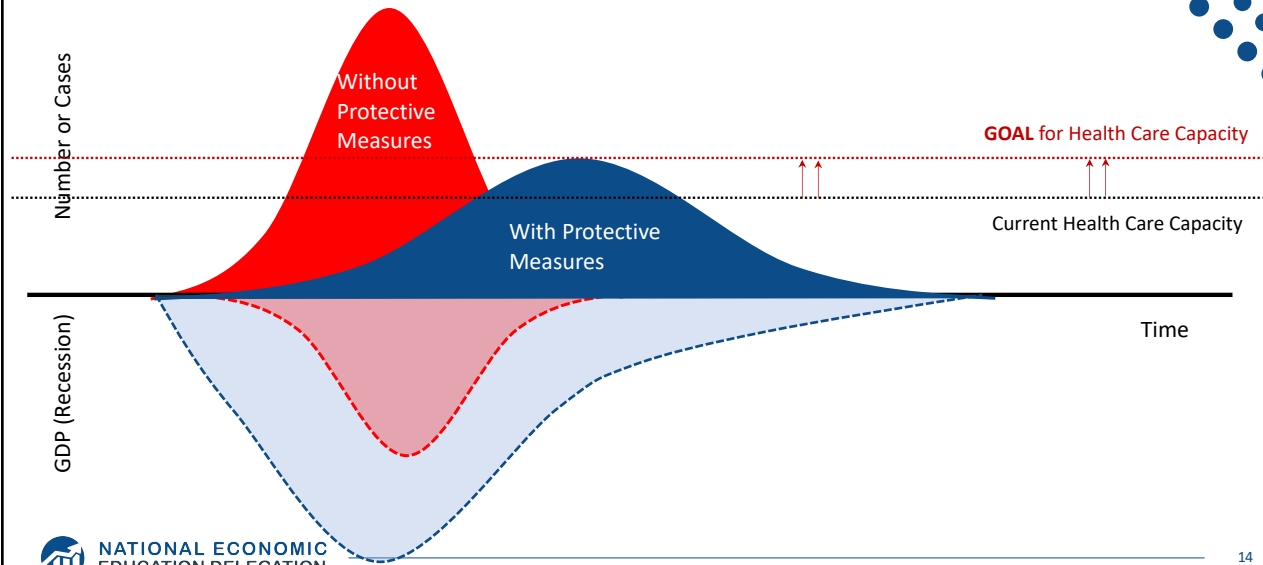
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# A Tale of Three Policies Efforts

- Social policy: Social Distancing
- Fiscal Policy
- Monetary Policy

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# Flattening the Curve and Lengthening the Recession



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# BOTE Cost Benefit Analysis

BOTE: Back Of The Envelope

- **BENEFITS of social distancing:**

- \$7 million/life and 600,000 lives saved (\$4.2 trillion)
- Long term health issues avoided: 2 million at \$500,000 (\$1 trillion)
- **Total Benefit of Social Distancing: \$5.2 Trillion**

- **COSTS of “Shelter in Place” or “Lockdown”**

- There are about 70+ workdays in a quarter (plus March).
- **The cost of a “lockdown” is roughly \$1.3 Trillion**

**Benefit: \$5.2 trillion > Cost: \$1.3 trillion**

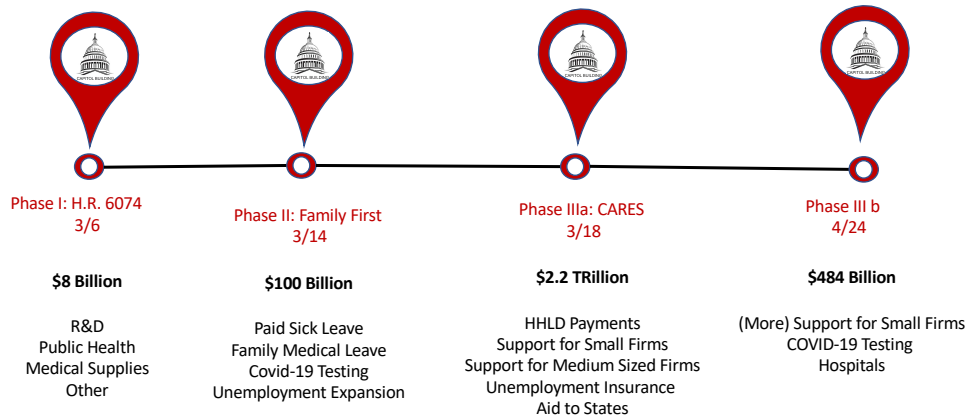


<https://twitter.com/BetseyStevenson/status/1242180499566669828>

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# Fiscal Policy Timeline – Social Insurance

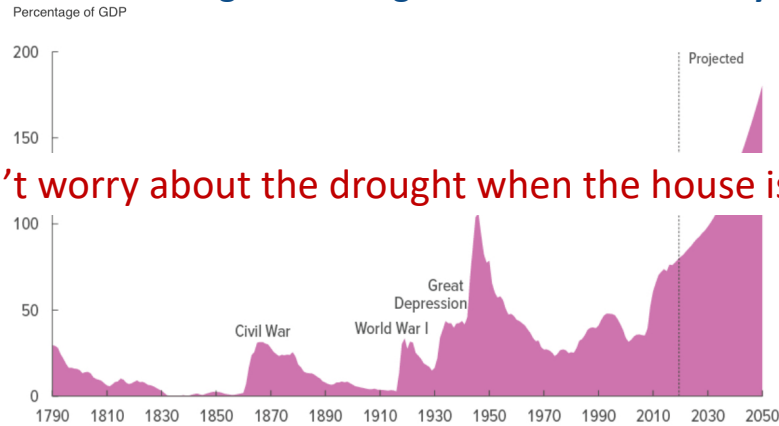


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## How Do We Pay for This?

- **Good News: Treasury Interest Rates are Near Zero**
- **Bad News: The Long-term Budget Outlook was already a Mess**



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CBO, "The Budget and Economic Outlook: 2020-2030," 1/2020

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## Monetary Policy – Federal Reserve

- **Two primary objectives**
  - Stabilize the economy
  - Maintain liquidity of the system
- **Actions in three forms:**
  - Traditional interest rate stimulus
  - Inject cash into the system
  - Shore up existing debt and structures



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## Thoughts on Policies to Date

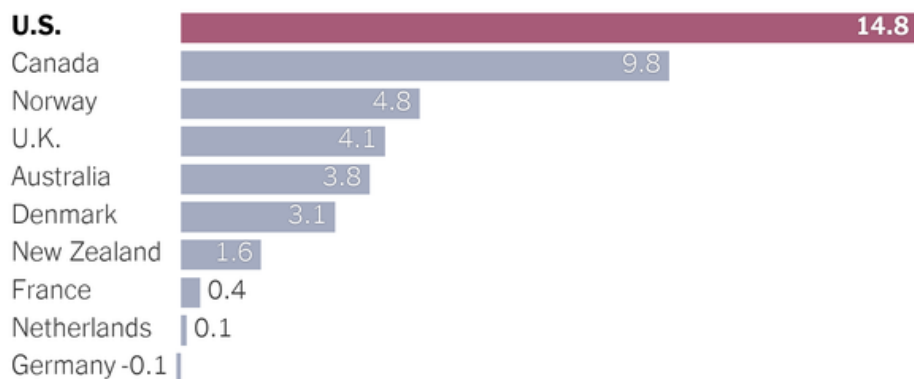
- **Costs are enormous, but we are doing the right thing!**
  - And we are doing it **VERY QUICKLY!**
- **Monetary policy: Heroic! A+**
- **Fiscal policy grade: Emergency Pass**
  - Direct cash payments
    - Are they really getting into the hands of those most in need?
      - Corporate or otherwise?
  - Right strategy to maintain employee-employer ties?
  - What about states and local governments?

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## Other Countries Are Doing it Better

Unemployment claims as share of the labor force



By The New York Times | Source: Brookings



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## Coronavirus and Inequality

- **Racial inequities**
- **Telecommuting**
- **Primarily low wage jobs are at risk**
- **Resources to weather the storm**
- **Educational inequities**

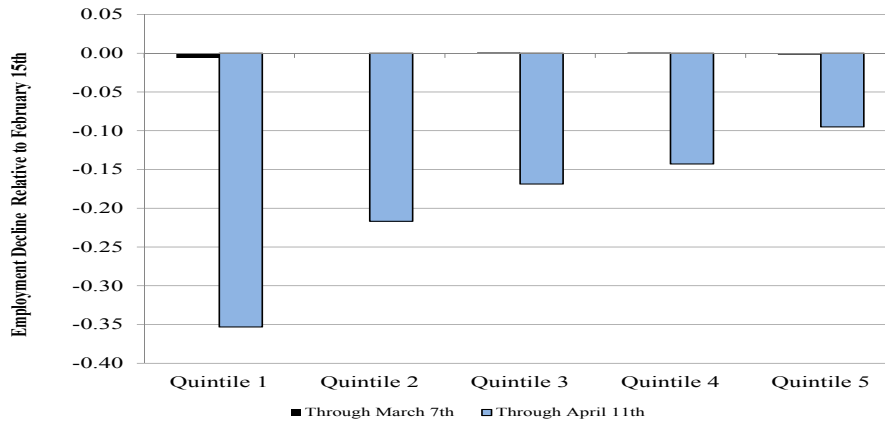


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## Employment Change by Income Quintile



**Powell: 40% of workers losing their jobs earned less than \$40,000/year.**



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Source: Cajner, Crain, Dexter, Grigsby, Hamins-Puertolas, Hurst, Kurtz, and Yidirmaz

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## What does the future bring?

- **Depends on ties between employers and employees.**
- **Further government policy**
  - Aid to state and local governments.
  - More aid to the vulnerable.
  - Ultimately stimulus – but when?
- **Structural changes to the economy?**
  - More telecommuting.
  - More rapid adoption of technology.
  - The way we buy things.
- **A potentially dangerous reopening.**
  - Deaths, loss of public trust, costs to businesses.

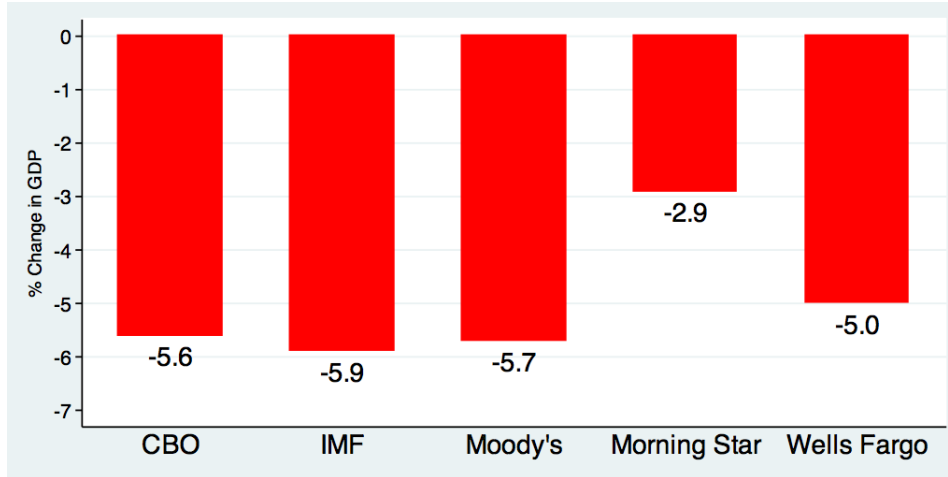


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## GDP Growth Projections for 2020



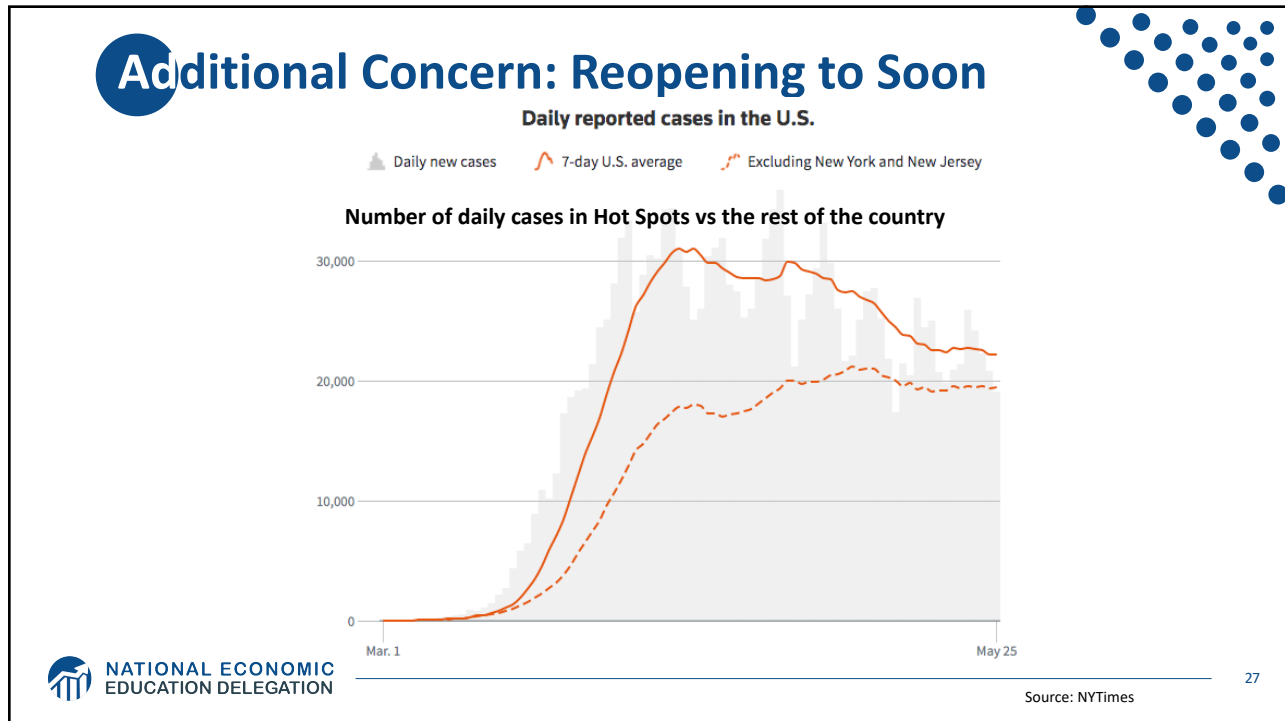
Most forecasts predict GDP growth will be between 4.0% to 5.0% in 2021

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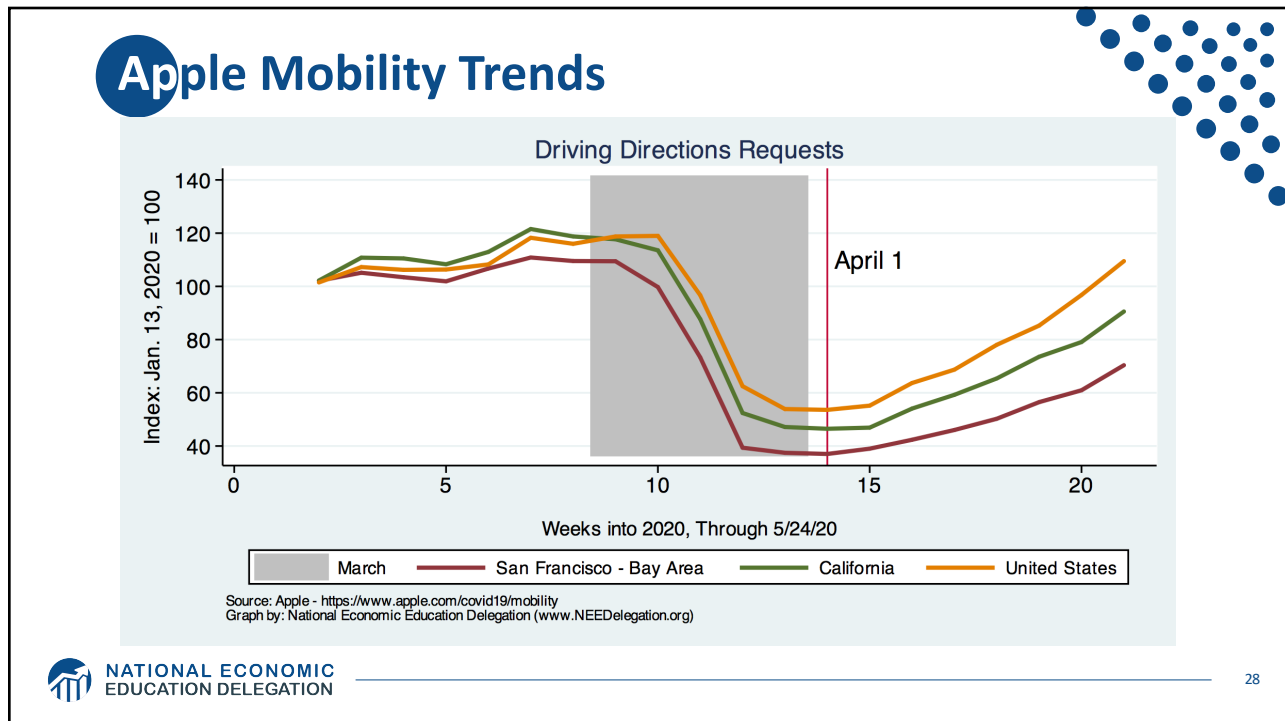
## It's Not This Simple



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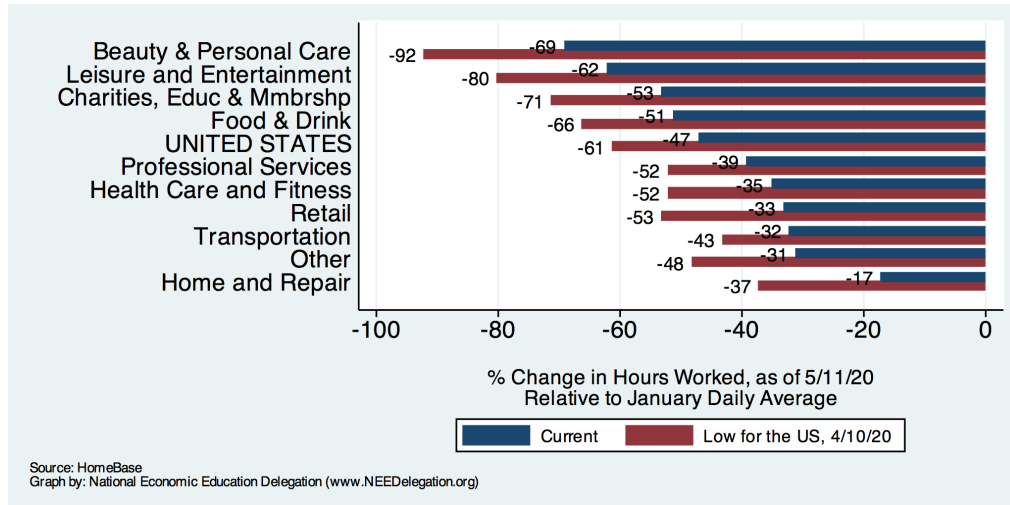


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## Change in Hours Worked: Small Businesses



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## Conclusion

- **COVID-19 is health crisis that has macroeconomic implications.**
  - With enormous built-in inequities.
- **GDP will likely contract between 5.0 and 6.0 percent this year.**
  - Positive growth will likely return in 2021
- **Reopening too soon will derail these projections.**
  - And will impose enormous costs: life and economy.
- **How do we plan for the next pandemic?**
  - More thoughtful/effective policies.
  - What are the lessons for our safety net?

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**Thank you!**

# Any Questions?

[www.NEEDelegation.org](http://www.NEEDelegation.org)

Jon D. Haveman

Jon@NEEDelegation.org

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# Bonus Slides



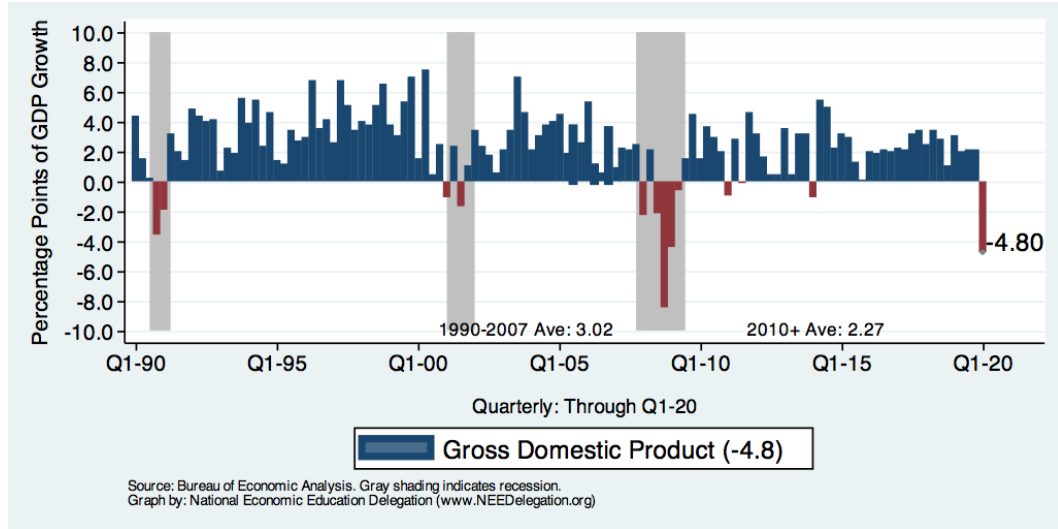
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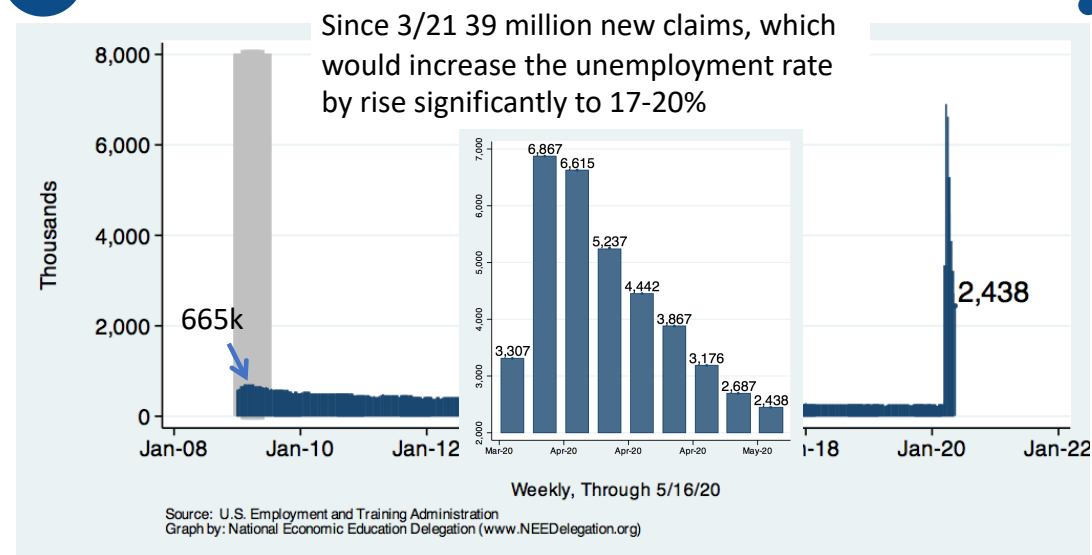


## Gross Domestic Product



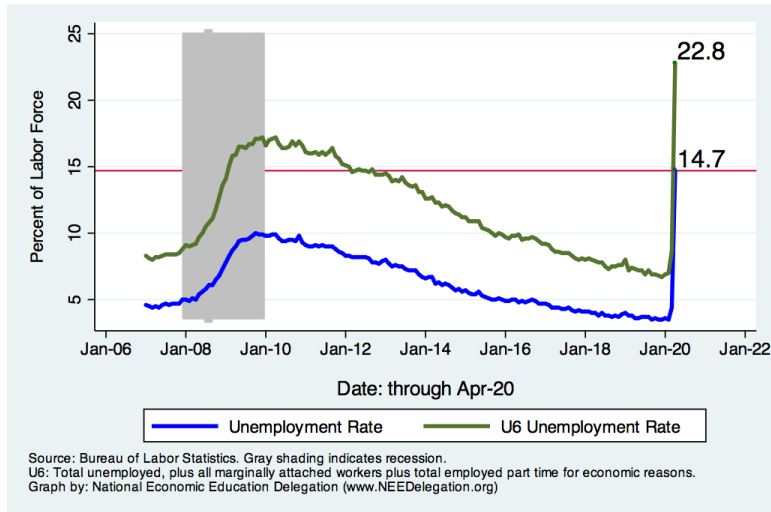
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## Weekly New Unemployment Claims



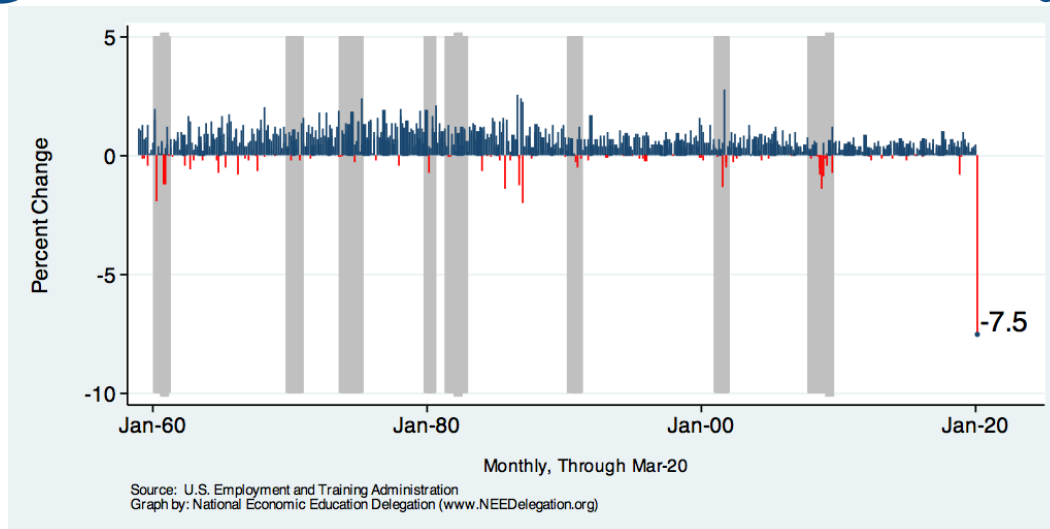
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# Unemployment Rate



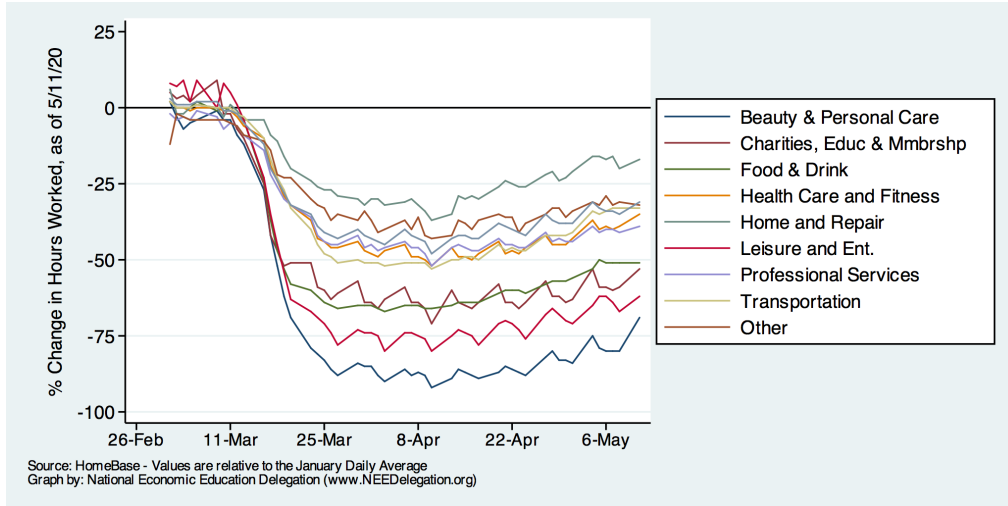
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# Personal Consumption Expenditures



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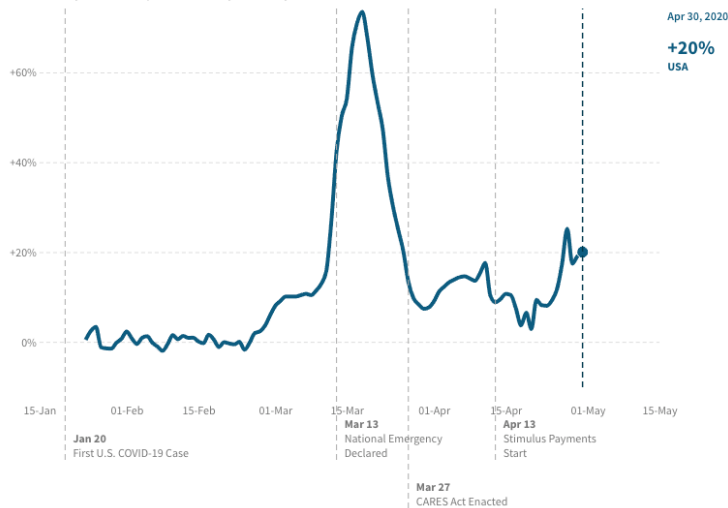
## Change in Hours Worked: Small Businesses



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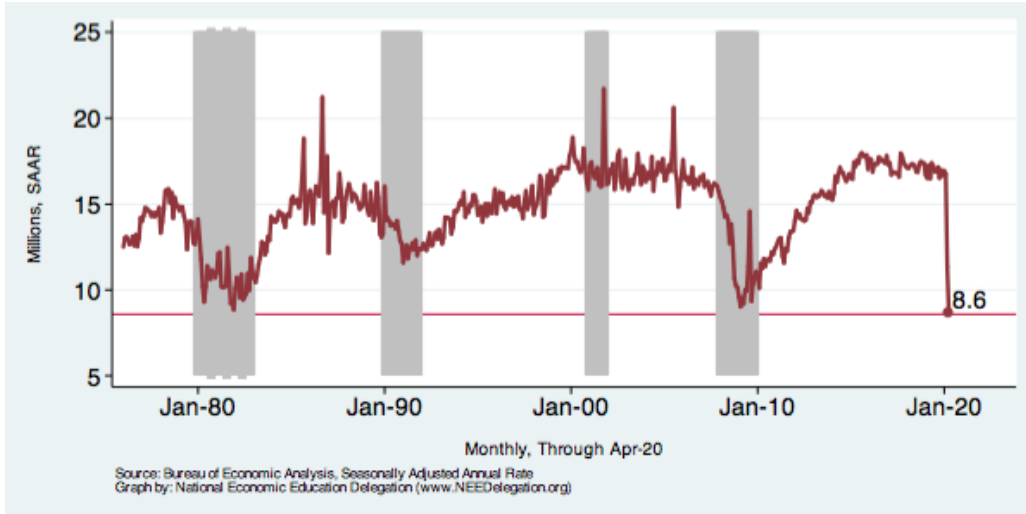
## Grocery Volatility

In the United States, as of April 30 2020, grocery spending by all consumers increased by 20% compared to early January 2020.

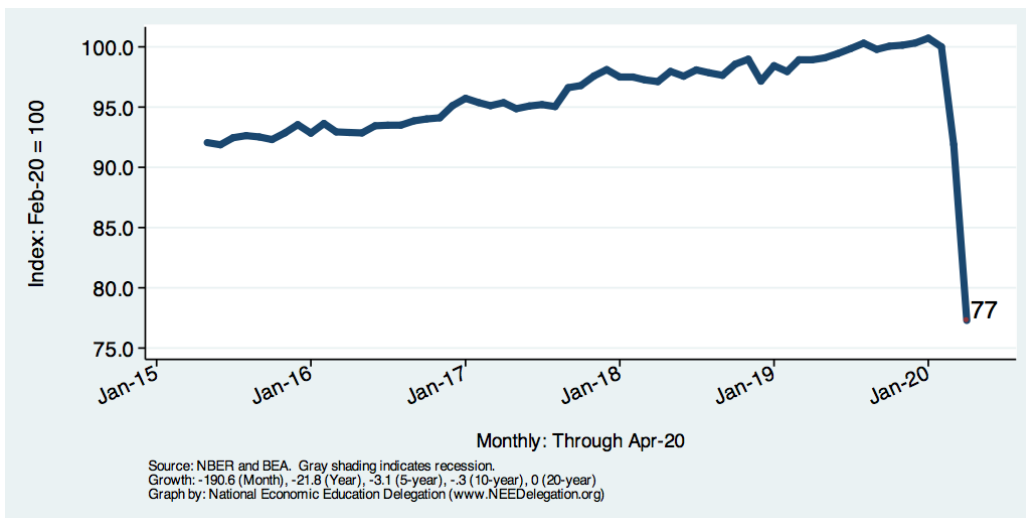


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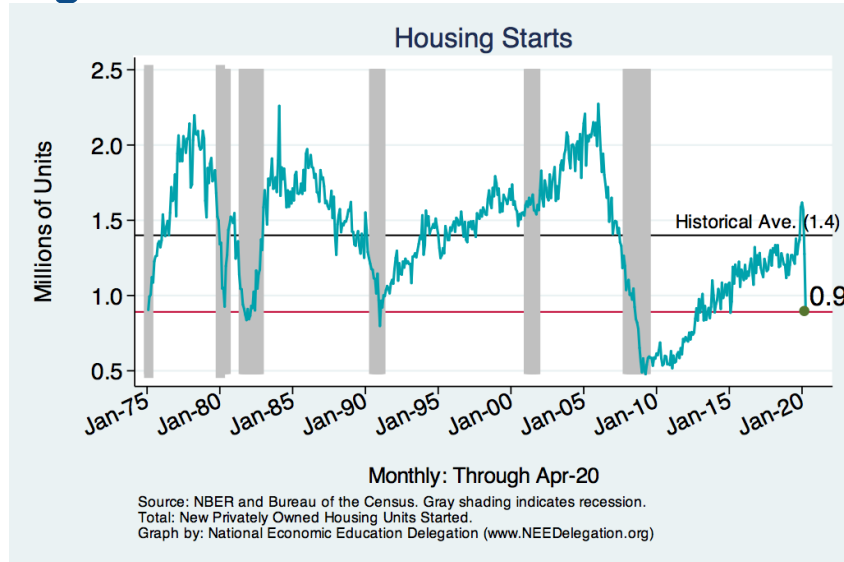
## Automobile and Light Truck Sales



## Retail Sales

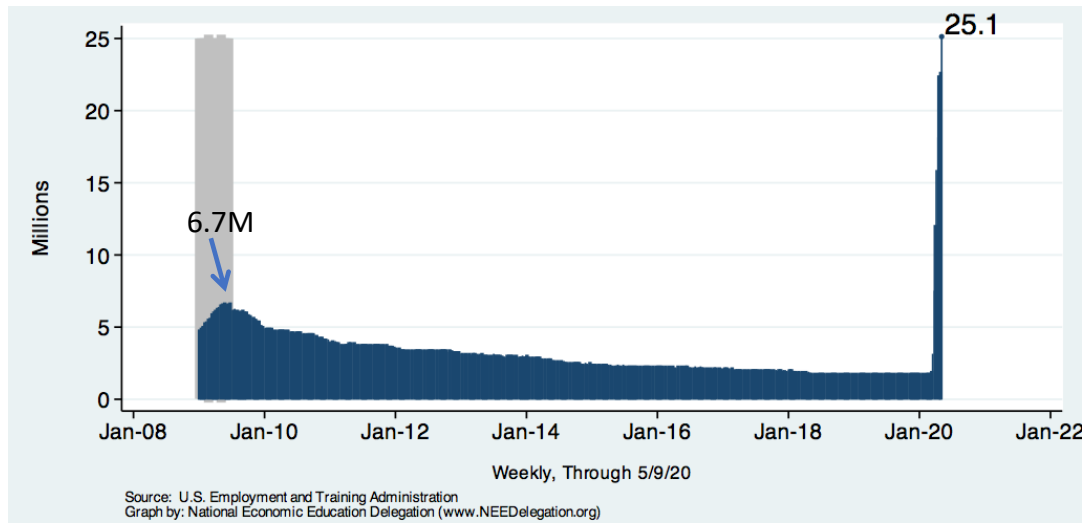


## Housing Starts Plummet: Down 25% in March

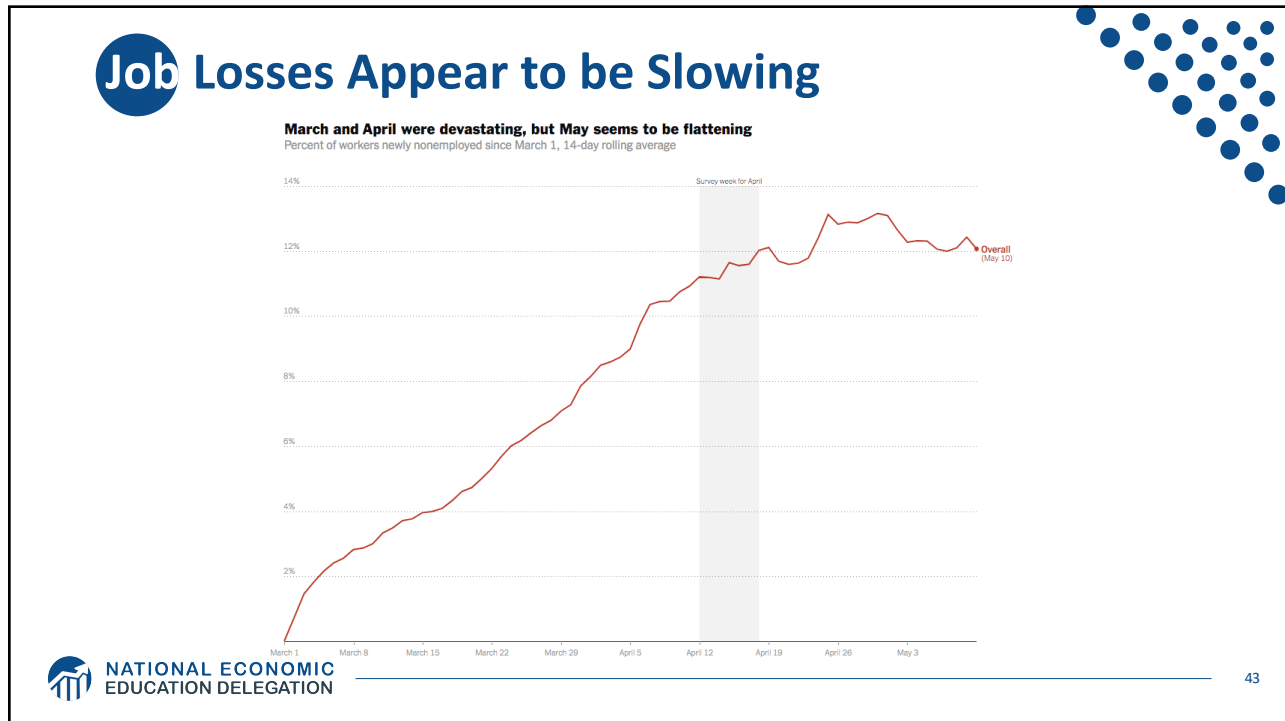


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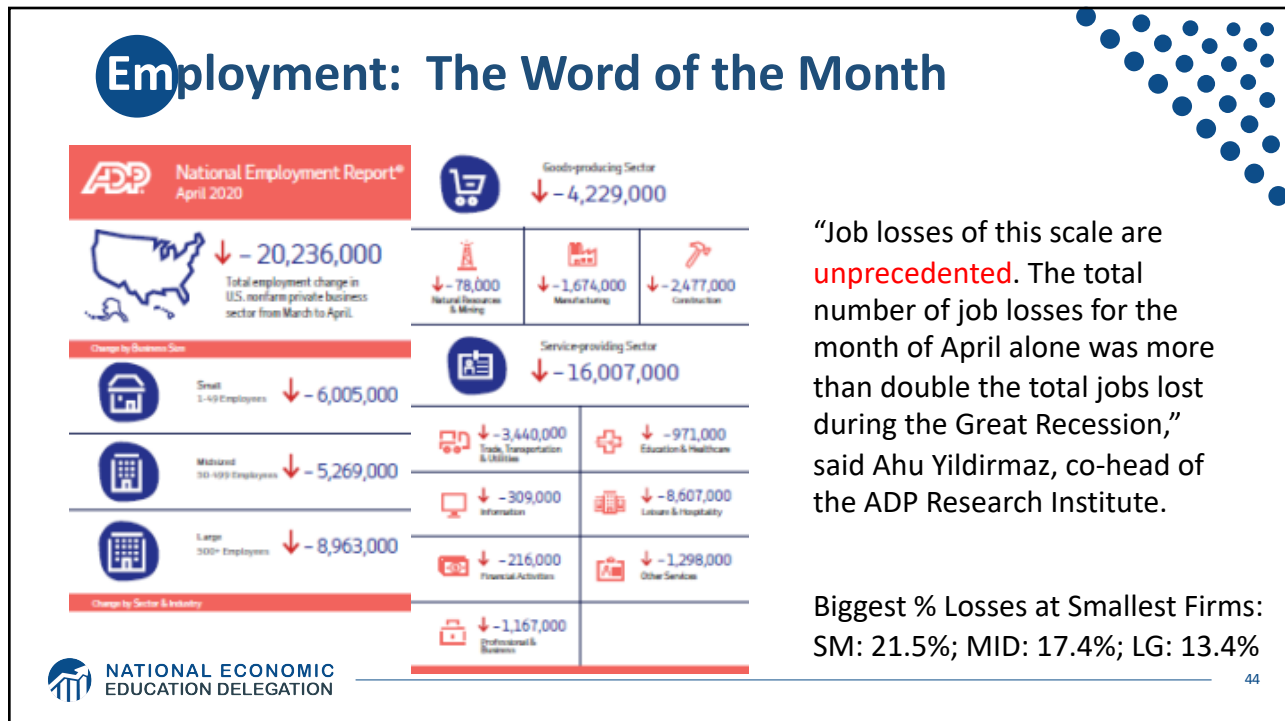
## Continuing Unemployment Claims



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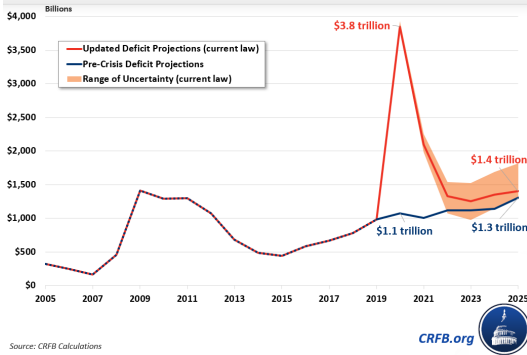
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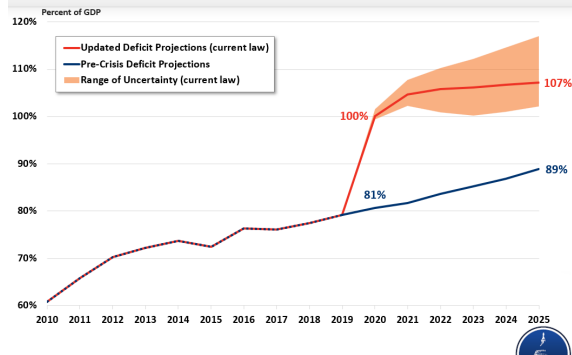
# Federal Budget Implications

## Federal Deficit Will Reach Record Levels



Deficit may be nearly 20% of GDP

## Debt Will Equal Size of Economy This Year



Debt will likely equal GDP this year

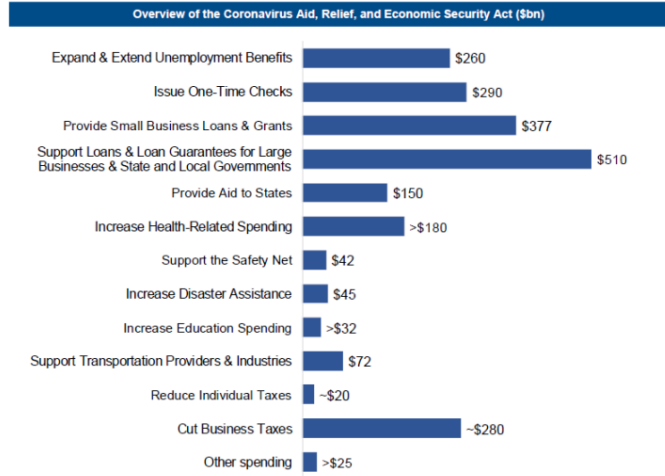
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# Many Policy Alternatives

- **Denmark: Pay (discounted) salaries**
  - Keeps employees “on the job”.
- **Temporary UBI**
  - \$2k/adult for 6 months - \$3.6T
  - Grant if can prove need, otherwise a loan. Grants = \$240B
- **Payroll Tax Cut**
  - No. Designed to get people back to work. Not yet.
- **Excess revenue tax**
  - 10% or more above normal, taxed at high rate. (Amazon, Zoom)
- **Many others...**

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# The Cares ACT



Source: Investment Strategy Group, Committee for a Responsible Federal Budget, Bill Text.

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# Aid to Households

Payments to Individuals		
\$269bn (1.3% of GDP)		
Eligibility	Program	Terms & Process
- Taxpayers with incomes up to \$99,000 (or \$198,000 joint) based on 2019 tax return (2018 if not available)	- Tax rebate of \$1,200 (or \$2,400 for a joint tax return) - Additional \$500 rebate per child	- Rebate phases out gradually for incomes greater than \$75,000 (\$150,000 joint) - Rebates sent "as rapidly as possible" targeted for early April

Increased Unemployment Insurance		
\$250bn (1.2% of GDP)		
Eligibility	Program	Terms & Process
- Individuals qualifying for standard unemployment compensation  - Individuals not previously qualifying for unemployment compensation, such as contractors and the self-employed	- Provides standard unemployment compensation (roughly 50%) for 39 weeks, vs standard 26 weeks  - Additional \$600 pay per week through July 31 (4 months), even if unemployment compensation exceeds previous wage level	- Pay is immediate, vs. standard one-week waiting period



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# Aid to Small Businesses

Small Business Loans & Payroll Subsidies		
\$377bn (1.8% of GDP)		
Eligibility	Program	Terms & Process
<ul style="list-style-type: none"> <li>- Small businesses &lt; 500 employees (&lt; 500 per physical location for accomm. and food services sector)</li> <li>- Sole proprietors, contractors, self-employed individuals</li> <li>- Businesses operational, with employees on payroll, on Feb. 15</li> </ul>	<ul style="list-style-type: none"> <li>- Small business obtains loan for 2.5x monthly payroll, up to \$10 million</li> <li>- Loan forgiven when used for employee pay, rent or mortgage interest, and utility payments</li> </ul>	<ul style="list-style-type: none"> <li>- Business eligible if operational and having employees on Feb 15 (repayment ability not considered)</li> <li>- Amount forgiven prorated to account for layoffs and pay decreases</li> <li>- Government guarantee at 100% rate (vs. 75% for traditional SBA loans)</li> <li>- Banks earn fee up to 5% for originating loan</li> <li>- Payments deferred up to 1 year</li> <li>- Banks hold loans on balance sheet with zero risk rating</li> </ul>

# Aid to Airlines

Relief for Specific Distressed Sectors		
\$46bn (0.2% of GDP)		
Eligibility	Program	Terms & Process
<ul style="list-style-type: none"> <li>- Airlines, air cargo, and national security/aerospace sectors</li> </ul>	<ul style="list-style-type: none"> <li>- Direct lending: airlines (\$25bn), air cargo (\$4bn), and national security/aerospace (\$17bn)</li> <li>- Grants to pay wages, salaries and benefits: airlines (\$25bn), air cargo (\$4bn), airline contractors (\$3bn)</li> </ul>	<ul style="list-style-type: none"> <li>- Alternative financing not available</li> <li>- Short loan duration, &lt; 5 years</li> <li>- Stock buybacks and dividend payments prohibited until 1 year after date of loan repayment</li> <li>- Exec comp restrictions</li> <li>- Must retain 90% of employment level as of March 24</li> <li>- Majority of employees must be based in US</li> </ul>

# Aid to Business

Tax Deferral and Tax Cuts		
\$668bn (3.2% of GDP) in 2020; \$286bn (1.4% of GDP) over 10 yrs		
Policy	Description	Amount
NOL carryback	Carry back losses 5 years to offset profits from prior years	\$89bn (0.4% of GDP)
Modify pass-through loss limitation	Eases the limitation on pass-through loss, so they can use excess losses to generate refunds	\$140bn (0.7% of GDP)
Employee retention credit	Payroll tax credit equal to 50% of wages paid by employers through Dec. 31, 2020, whose businesses were shut down or revenues declined by 50% vs. the same quarter the prior year.	\$55bn (0.3% of GDP)
Payroll tax delay	Delays payment of 2020 payroll taxes, with half due by 12/31/2021 and half due 12/31/2022	\$350bn (1.7% of GDP) benefit in 2020, repaid in 2021/2022
Interest deductibility	Increase deductibility of interest from 30% to 50% of EBITDA for 2020	\$13bn (0.06% of GDP)

ESF & Federal Reserve Corporate and Municipal Credit Facility		
\$454bn (2.2% of GDP)		
Eligibility	Program	Terms & Process
<ul style="list-style-type: none"> <li>- Corporate sector</li> <li>- State / municipal sector</li> </ul>	<ul style="list-style-type: none"> <li>- Lend directly or purchase debt from issuer</li> <li>- Purchase debt in the secondary market</li> <li>- Treasury endeavors to implement 13(3) facility targeted at nonprofits and businesses between 500-10k employees.</li> </ul>	<ul style="list-style-type: none"> <li>- Requires loan collateralization, taxpayer protection, borrower solvency</li> <li>- Buybacks, dividends, executive compensation restricted for the life of the loan and one year following;</li> <li>- Treasury may waive these requirements if necessary</li> <li>- Congressional oversight</li> </ul>

# PPP Loan Major Recipients By Industry

Industry	Amount (Billions)	Percent of Loans
Construction	\$44.9	13.1
Professional, Technical and Scientific, Services	\$43.3	12.7
Manufacturing	\$40.9	12.0
Health Care and Social Assistance	\$39.9	11.7
Accommodation and Food Service	\$30.5	8.9
Retail Trade	\$29.4	8.6
Wholesale Trade	\$19.5	5.7

These seven (7) industries account for nearly 75% of the PPP loans

## SBA Distribution

Distribution of PPP Eligible Firms			
Firm Size	Percent of Firms	Percent of Employment	PPP Loan Size (est)
under 5	61.9%	9.8%	\$16,985
5 to 9	16.9%	11.0%	\$57,239
10 to 19	10.6%	14.0%	\$121,470
20 to 99	9.1%	35.3%	\$387,137
100 to 499	1.5%	29.9%	\$2,248,253

But Is It Enough? Loans: are for 8 weeks

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## Aid to States

Federal Spending & Aid to States			
\$490bn (2.3% of GDP)			
Expenditure	Description	Amount (\$bn)	% of GDP
Aid to States	To offset declining revenues; Allocated by population with minimum \$1.25bn	\$150bn	0.7
Hospitals & medical	Reimbursement to providers and other health expenses	\$130bn	0.6
FEMA	For disaster relief fund to aid states and localities and other operations	\$45bn	0.2
Transportation	Grants to transportation systems and airports	\$35bn	0.2

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# Projected State Budget Shortfall Unprecedented

FIGURE 1

## COVID-19 State Budget Shortfalls Could Be Largest on Record

Total state budget shortfall in each fiscal year, in billions of 2020 dollars



CA: \$54B Budget Shortfall?

\* Estimated based on CBPP calculations  
 Source: Pre 2014: CBPP survey; 2020 and following: CBPP calculations

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG

# Federal Reserve: Standard Operations

- **Federal Funds Rate:** The Federal Reserve lowered the targeted Federal funds rate on March 3 and again on March 15 moving the targeted Federal Funds rate to zero.
- **Discount Window Lending:** Lowered the interest rate it charges banks to borrow from 1.75% to 0.25%.
- **Reserve Requirement:** Lowered the reserve requirement to zero.
- **Forward Guidance:** Honed during the Great Recession the Fed tries to set market expectations on the time path of interest rates over time.

## Federal Reserve: Ensure Financial Market Stability

- **In mid-March, Treasury and Mortgage Backed Securities markets began behaving irregularly as the demand for liquidity increased.**
  - **Securities Purchases (Quantitative Easing):** Fed Response: purchase treasuries and mortgage backed securities (3/15).
  - Re-launched the **Primary Dealer Credit Facility (PDCF)** in order “smooth market functioning and facilitate the availability of credit to businesses and households (3/17).
  - Re-instituted the **Money Market Mutual Fund Liquidity Facility (MMLF)** to “assist money market mutual funds in meeting demands for redemptions by households and investors enhancing overall market function and credit provision to the *broader economy*.”
  - Increased liquidity in the **repo market**. The repo market is where firms borrow and lend cash and short-term securities. The Fed was offering \$100 billion in overnight loans and \$20 billion in two-week loans.
    - o The Fed increased the offerings to \$1 trillion (from \$100 bn) in overnight repos, and
    - o \$500 billion in one month **and** three-month repos (from \$20bn 2/wks).



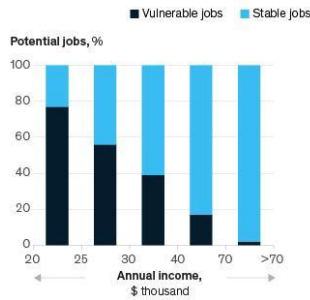
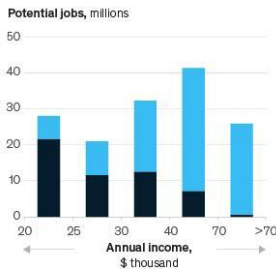
## Federal Reserve: Support Corporations and Business

- Created the **Primary Market Corporate Credit Facility (PMCF)** allows the Fed to lend directly to corporations by buying new bond issuances and providing loans (3/17).
- Instituted the **Commercial Paper Funding Facility (CPFF)** the Fed can purchase commercial paper from firms at a given interest rate – effectively, the Fed is lending directly to firms. (3/17)
- **Main Street (Expanded) Loan Facility:** Through the CARES Act these two programs offer four-year loans to US businesses with up to 10,000 employees or revenues less than \$2.5 billion. (4/9)
- **Paycheck Protection Program Facility:** Facilitates loans under the Small Business Administration Paycheck Protection Program

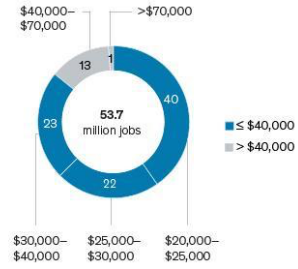


## Eighty-six percent of vulnerable jobs paid less than \$40,000 a year.

Level of job vulnerability,<sup>1</sup> by income band



Vulnerable jobs by annual income band<sup>1</sup> %



Note: Data may not sum to 100, because of rounding.  
<sup>1</sup>Vulnerable\* jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.  
 Source: LaborCubex; McKinsey Global Institute analysis.

McKinsey & Company

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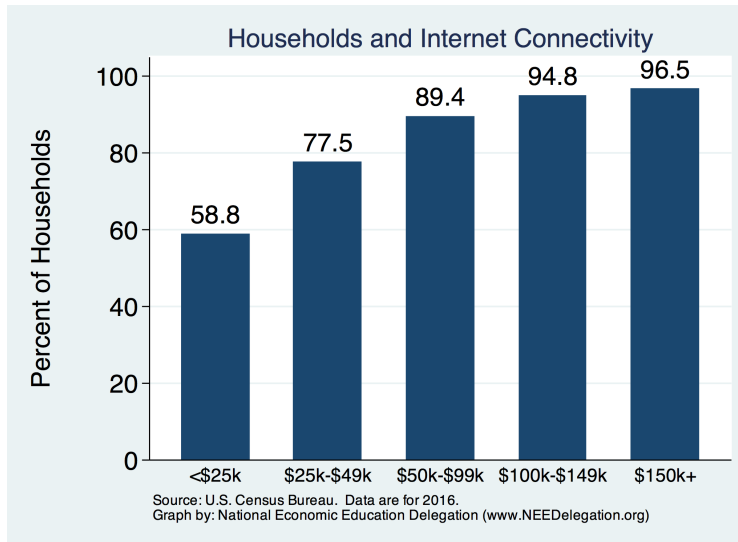
## Financial Insecurity Before Coronavirus

- 40% of Americans don't have the cash to pay for a \$400 emergency expense
- 25% have no retirement or pension savings
- Less than 60% can answer at least three basic financial literacy questions correctly.
- 1 in 5 of adults knows someone impacted by the opioid crisis.
- About 25% of borrowers who attended a for-profit college are behind on student loan payments compared with about 10% who attended a public or private college

NATIONAL ECONOMIC EDUCATION DELEGATION

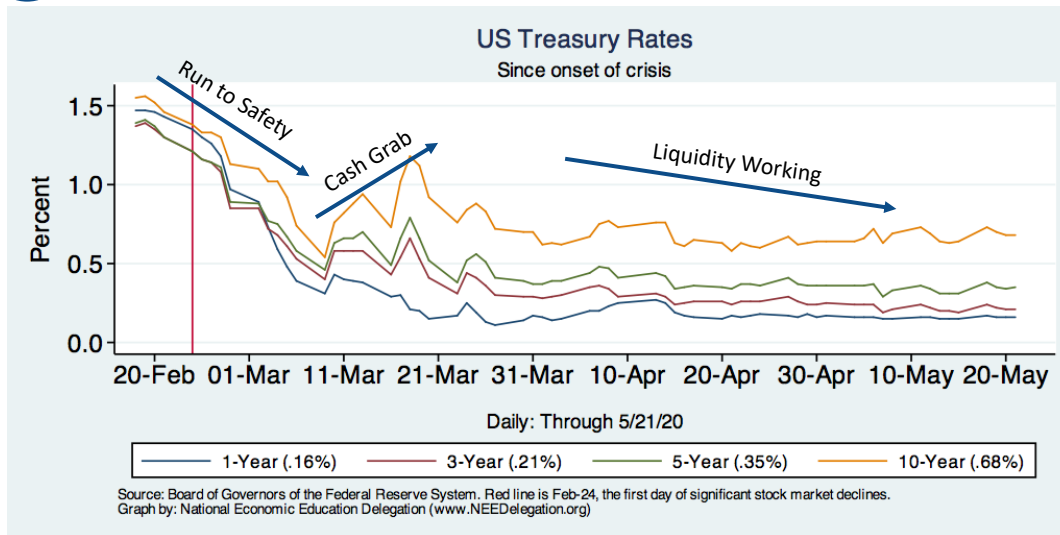
Source: The Federal Reserve, Survey of Household Economics and Decisionmaking,

# Home Schooling – The Digital Divide Issue



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# US Treasury Rates: A Safe Haven?



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# Thoughts on Policies to Date

- **Costs are enormous, but we are doing the right thing!**
  - And we are doing it **VERY QUICKLY!**

