



# COVID-19: Economic Implications and Policy Response

Gazarian Real Estate Center

September 17, 2020  
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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: 52 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: 520+ 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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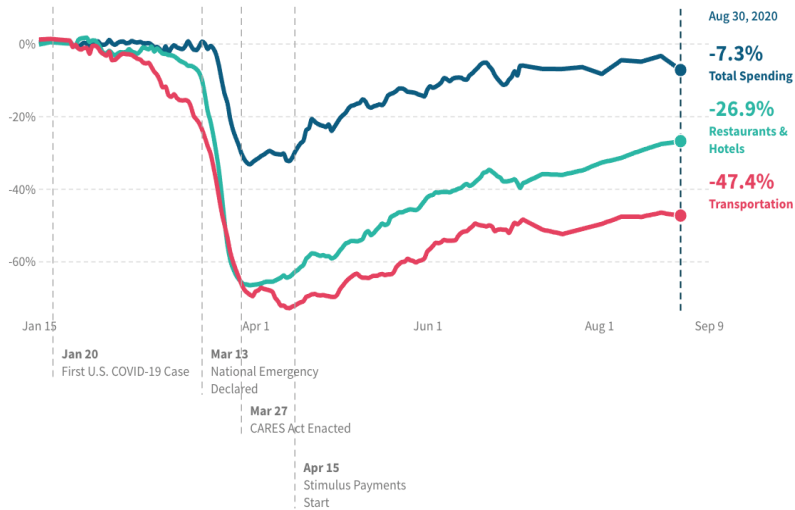
## What is this?

- **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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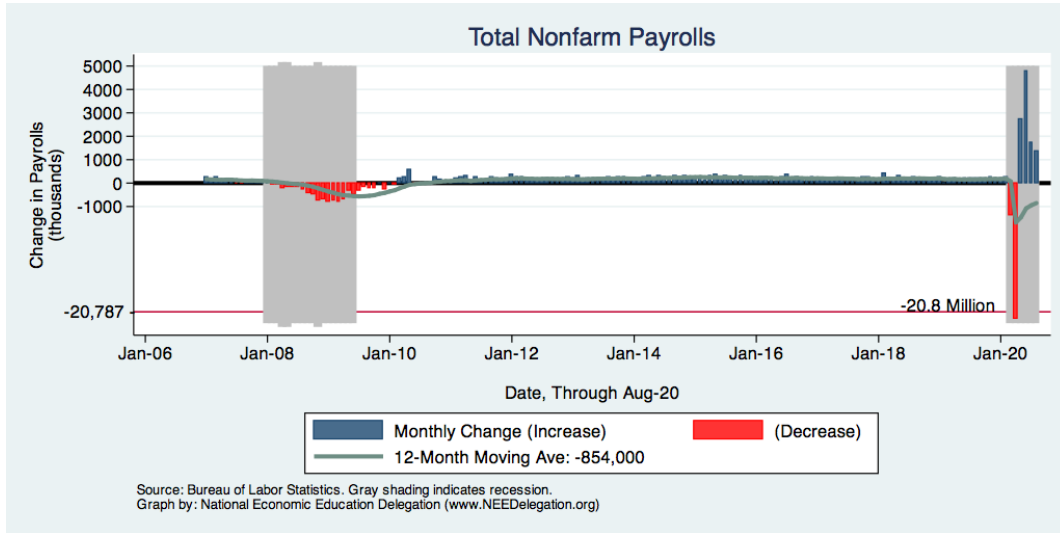
## Spending is (was?) on the Rise

In the United States, as of August 30, 2020, total spending by all consumers decreased by **7.3%** compared to January 2020.

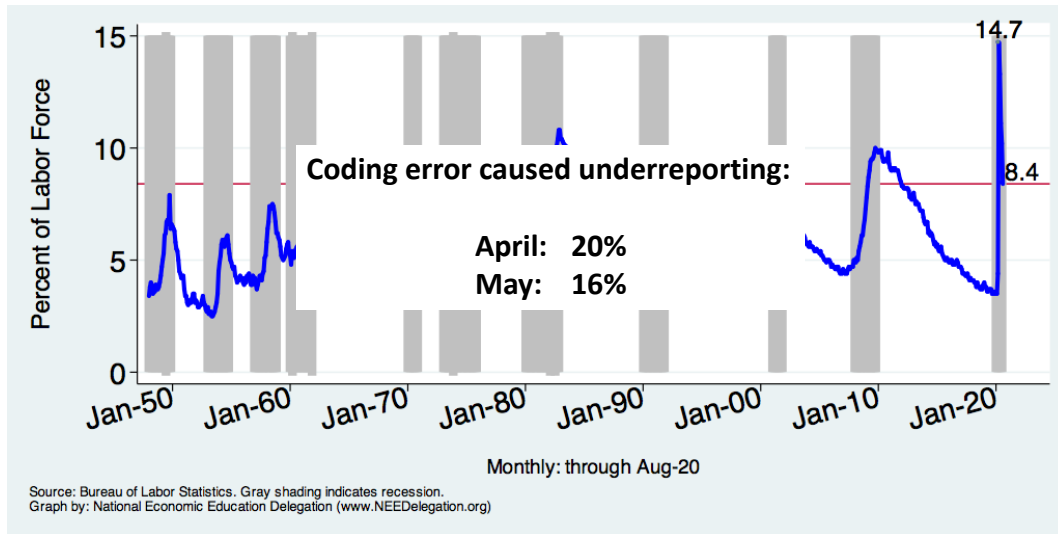


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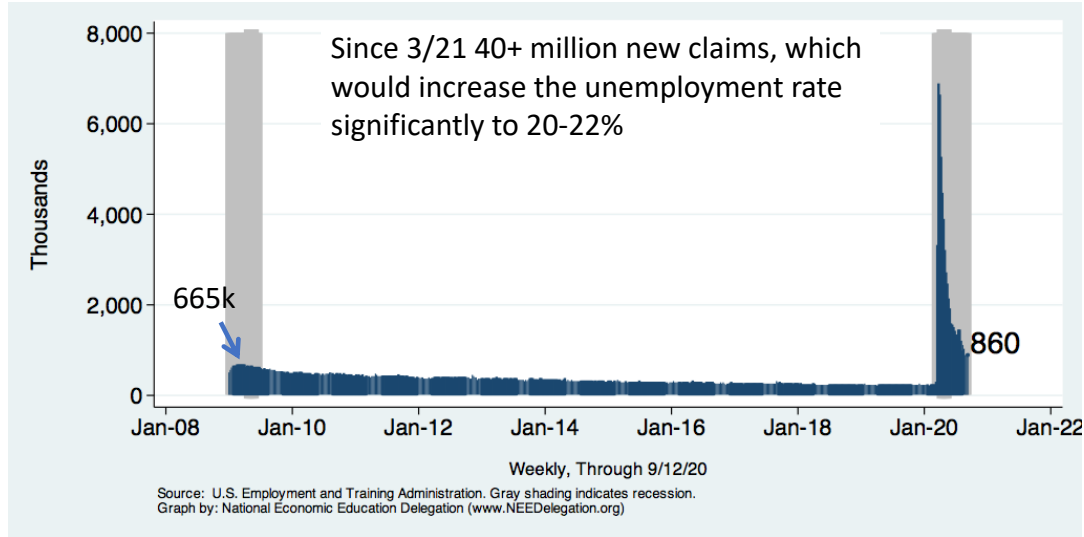
# Monthly Changes in Nonfarm Employment



# Unemployment Rate

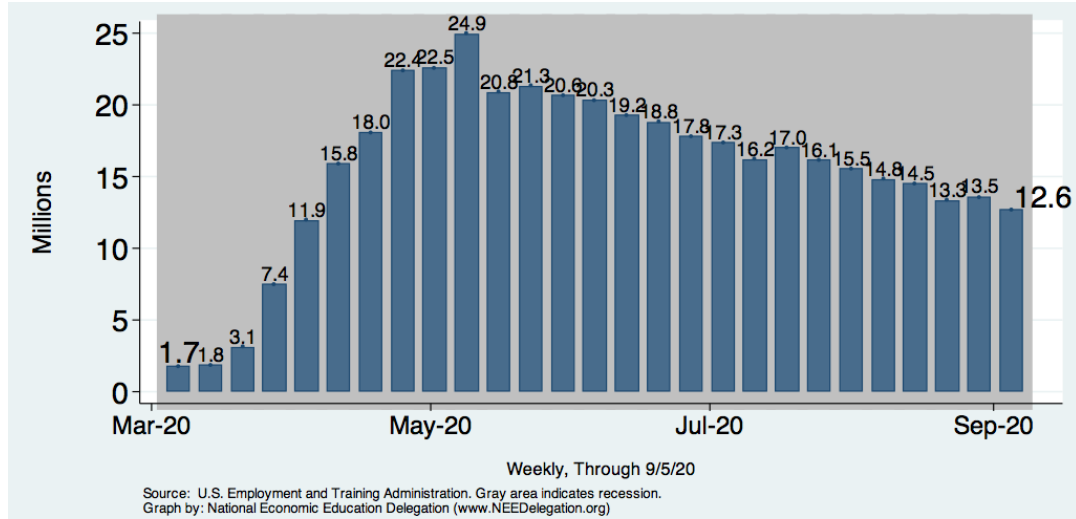


## Weekly New Unemployment Claims



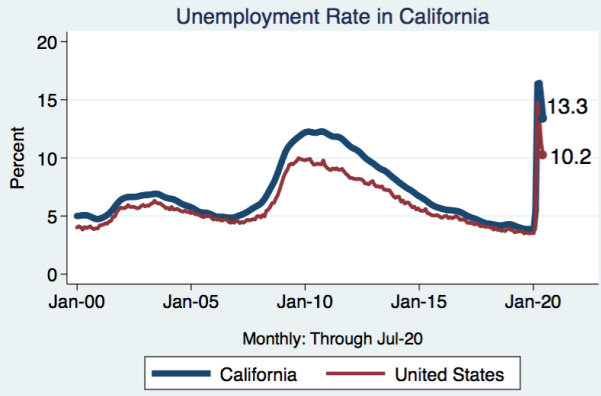
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## Continuing Unemployment Claims



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# Employment in California

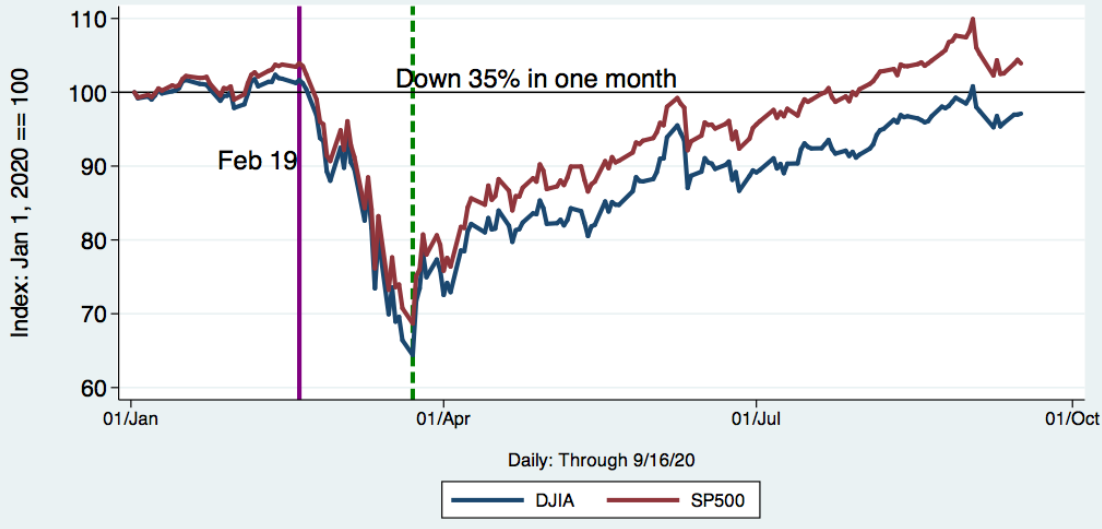


Source: U.S. Bureau of Labor Statistics, Seasonally Adjusted  
Produced by: National Economic Education Delegation (www.NEEDelegation.org)

Source: U.S. Bureau of Labor Statistics, Seasonally Adjusted  
Produced by: National Economic Education Delegation (www.NEEDelegation.org)

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# DJIA and S&P 500



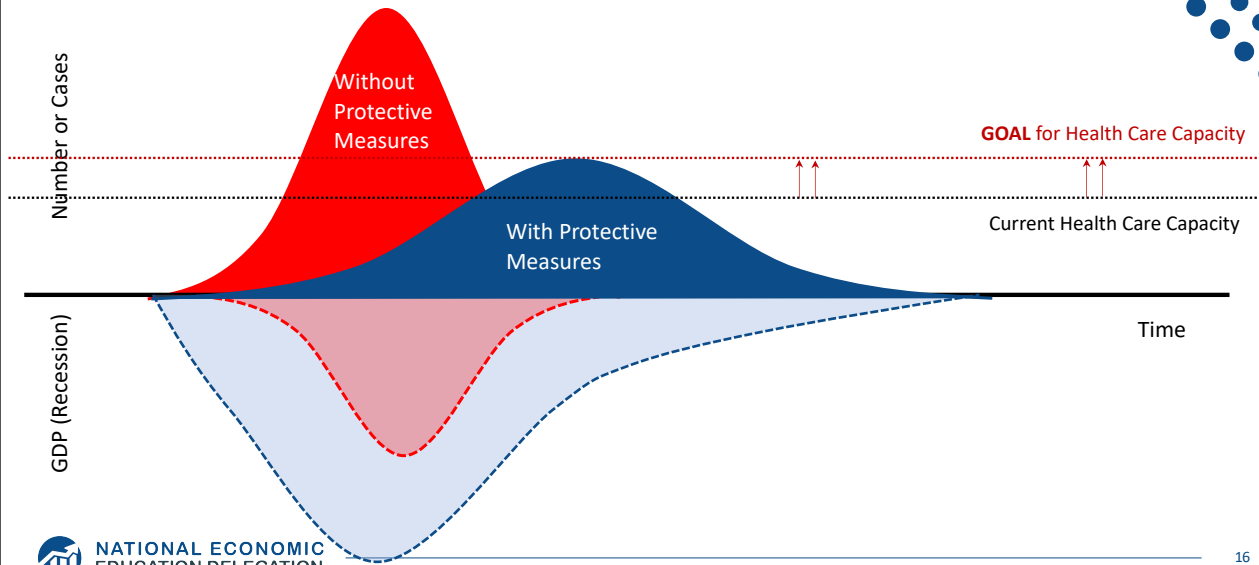
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# A Tale of Three Policies Efforts

- 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**

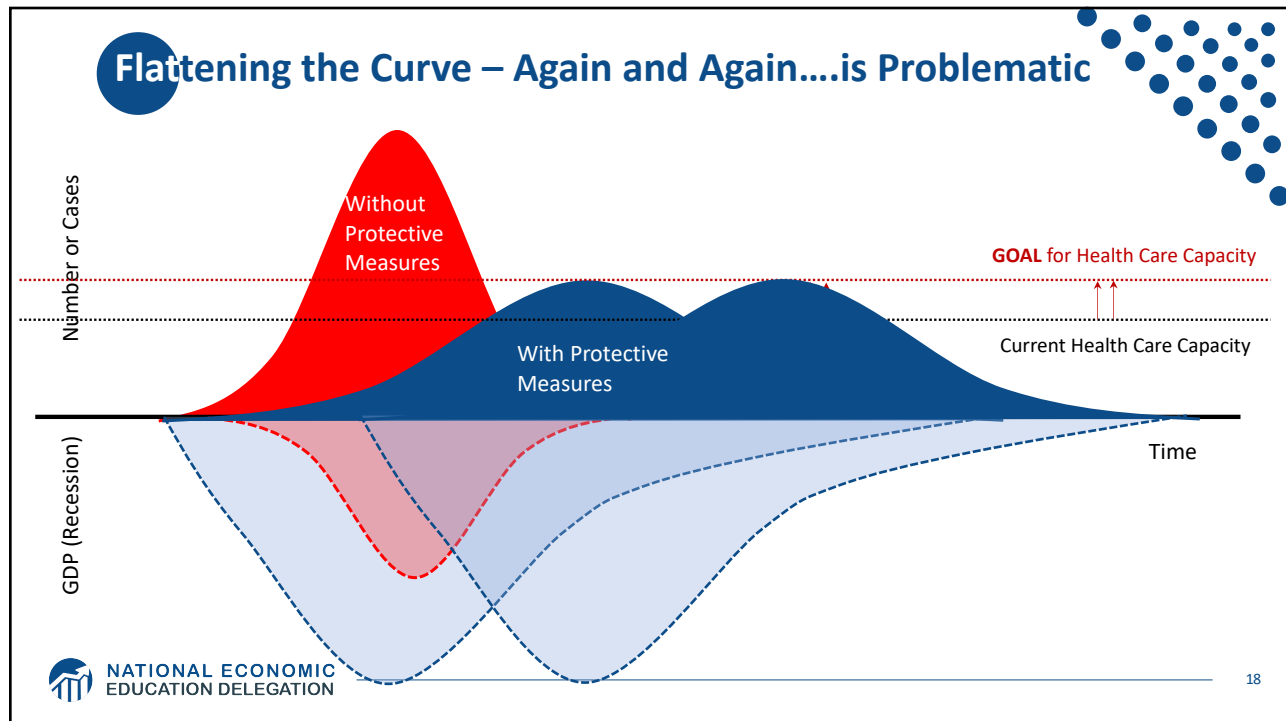


<https://twitter.com/BetseyStevenson/status/1242180499566669828>

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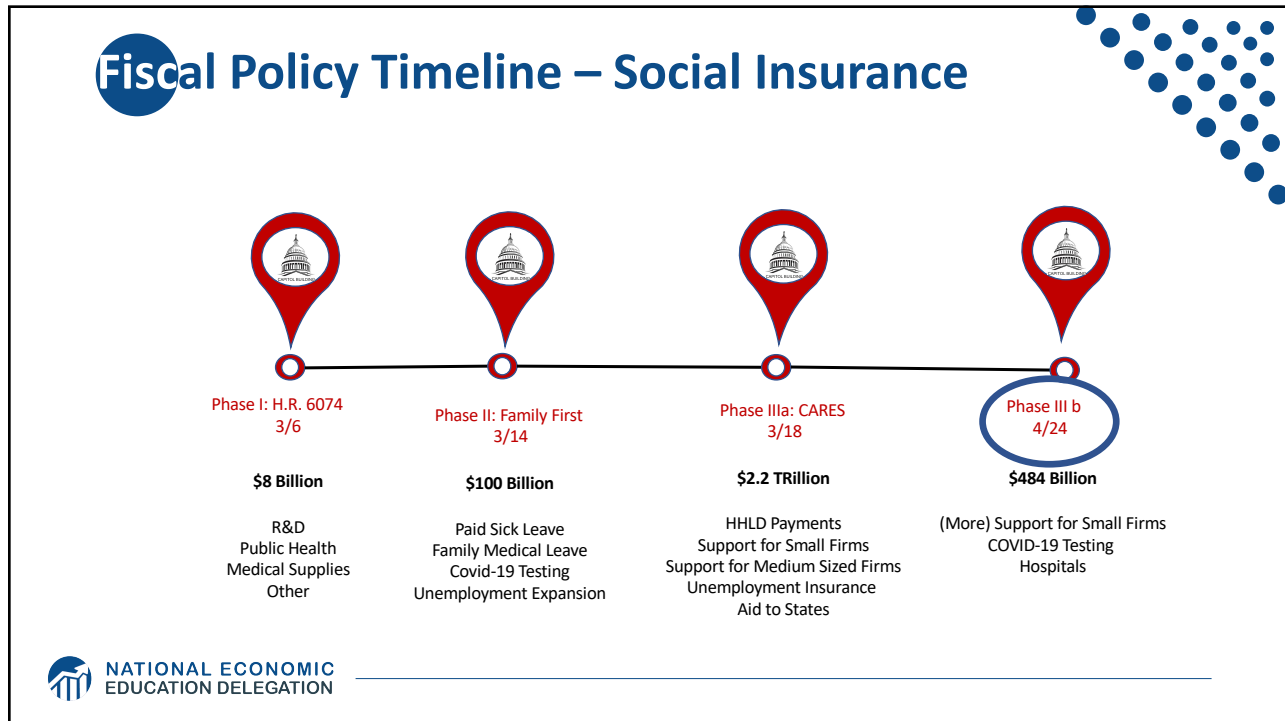
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# Flattening the Curve – Again and Again....is Problematic



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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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## Federal Reserve Timeline

Date	Key Actions
March 3	Federal Funds Rate
March 15	Federal Funds Rate Discount Window Lending Quantitative Easing Forward Guidance
March 17/18	Primary Dealer Credit Facility (PDCF) Commercial Paper Funding Facility (CPFF) Money Market Mutual Fund Facility (MMLF)
March 23	Primary Market Corporate Credit Facility (PMCCF) Secondary Market Corporate Credit Facility (SMCCF) Term Asset-Backed Securities Loan Facility (TALF)
April 9	Paycheck Protection Program Liquidity Facility (PPPLF) Main Street Business Lending Program Municipal Liquidity Facility

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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!**

NASDAQ: Change from Peak

Percent

Days from Peak - Through 9/16/20

— Great Recession — COVID-19

Source: NASDAQ OMX Group, via FRED. Gray shading indicates recession. Graph by: National Economic Education Delegation ([www.NEEdelegation.org](http://www.NEEdelegation.org))

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## Thoughts on Policies to Date

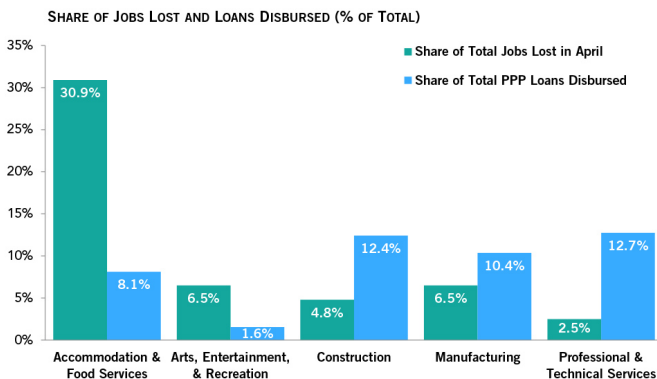
- **Costs are enormous, but we are doing the right thing!**
  - And we are doing it **VERY QUICKLY!**
- **Monetary policy: Heroic! A+**
- **Fiscal policy grade: Emergency Pass**
  - Direct cash payments
    - Are they really getting into the hands of those most in need?
      - Corporate or otherwise?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

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## Loans Didn't Go to the Right Firms



The distribution of PPP loans has not matched levels of unemployment



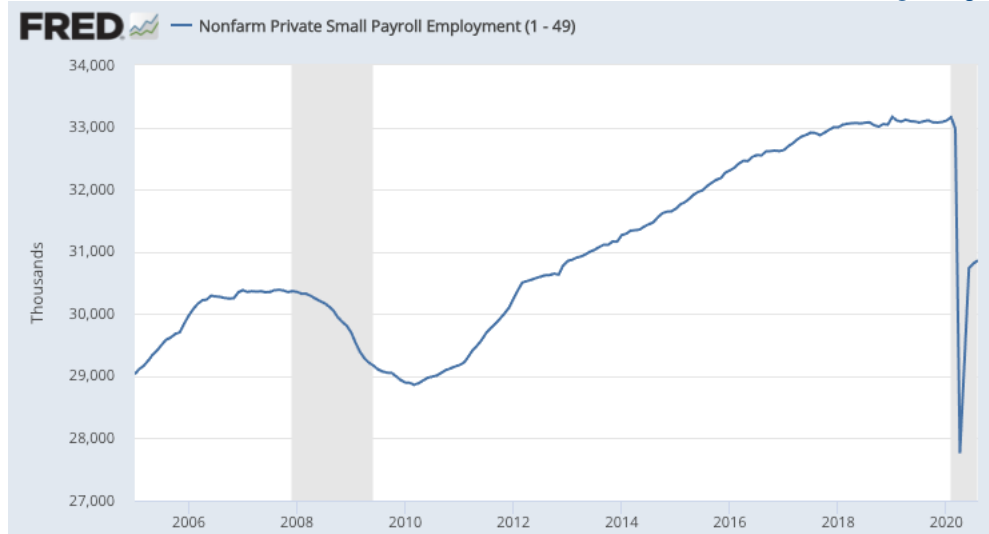
In addition, first round loans went disproportionately to predominantly white Congressional Districts  
*Bloomberg, 7/30*

SOURCES: U.S. Small Business Services Administration, Paycheck Protection Program (PPP) Report, Approvals through 07/24/20, July 2020; and S&P Global Ratings, Economic Research: The Paycheck Protection Program Impact on Jobs: (More) Help Wanted, May 2020.  
© 2020 Peter G. Peterson Foundation PGPF.ORG

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# Employment at Small Firms

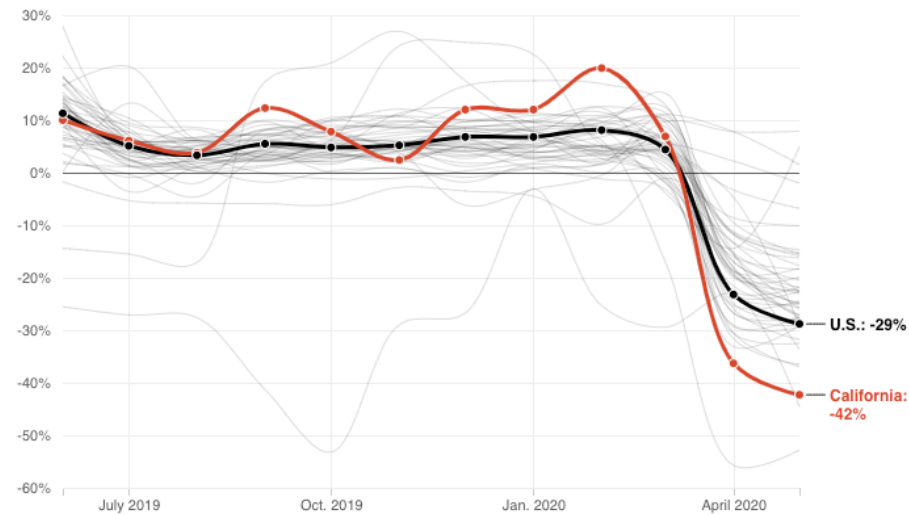
Between February and August, net loss of 2.3m



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# California's Revenue Shortfall

CHANGE IN MONTHLY REVENUE VS. PREVIOUS YEAR (3-MONTH AVERAGE)



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## Skimny Republican Stimulus (~\$500b)

### Major Spending Provisions:

- Continue Expanded Unemployment, but at \$300 extra per week
- \$105b for education, 2/3<sup>rd</sup> for K-12
- \$45b for testing, tracing and vaccine production
- Extend PPP at least for the \$285b and perhaps more

### Sweeteners:

- **Business Liability Protection:** cannot be sued unless 'gross negligence' or 'willful misconduct' can be proved
- **Post Office Funding:** \$10b loan turned into a grant.



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## What is Missing?

1. Second Round \$1200 payments, \$435b
2. Reducing \$600 per week to \$300 per week, \$180b.
3. Flexible aid to State and Local Governments, \$1t
4. Housing and Rental Assistance, \$200b



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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**

**Don't worry about the drought when the house is on fire!**

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

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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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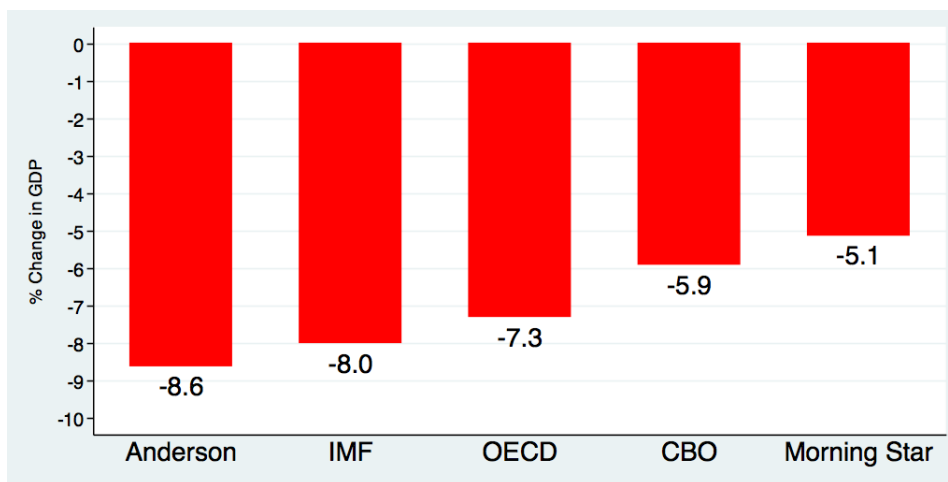
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## What does the future bring?

- **Depends on:**
  - Our ability to harness the virus.
- **Further government policy**
  - More aid to the vulnerable.
  - Aid to state and local governments.
  - Ultimately stimulus – but when?
- **Structural changes to the economy?**
  - More tele-commuting, tele-health, & tele-education.
  - The way we buy things.

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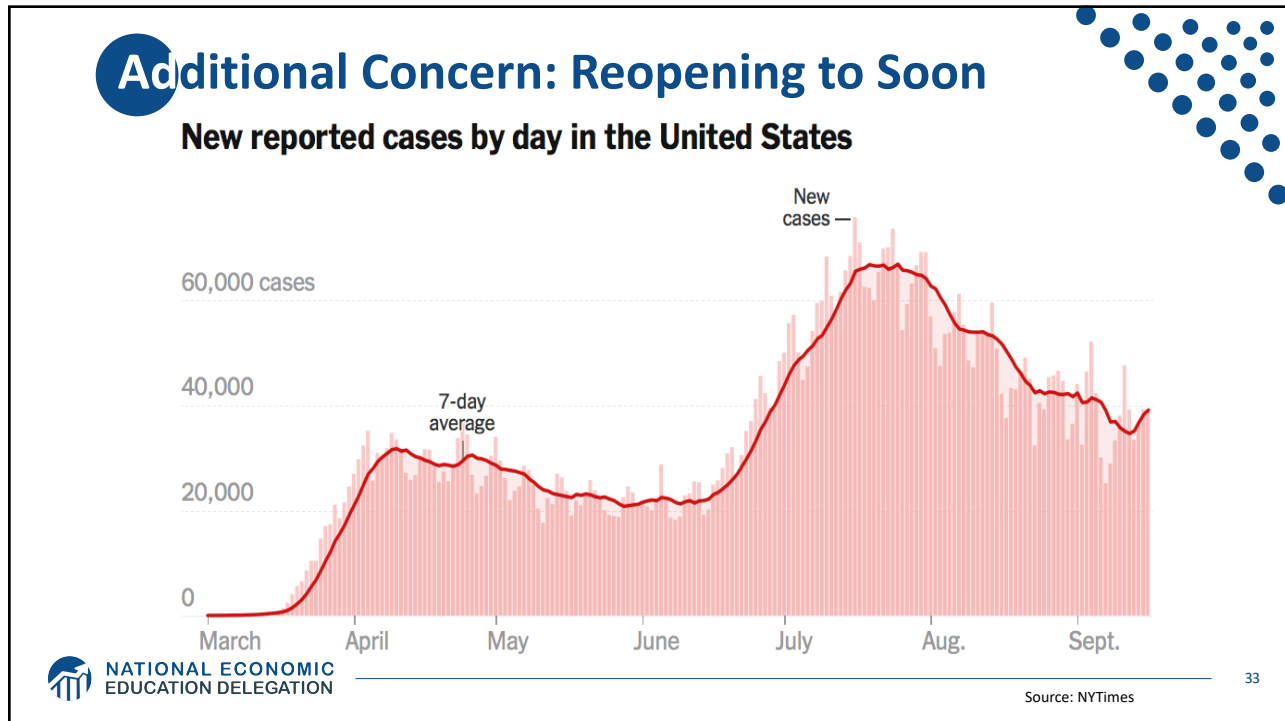
## GDP Growth Projections for 2020



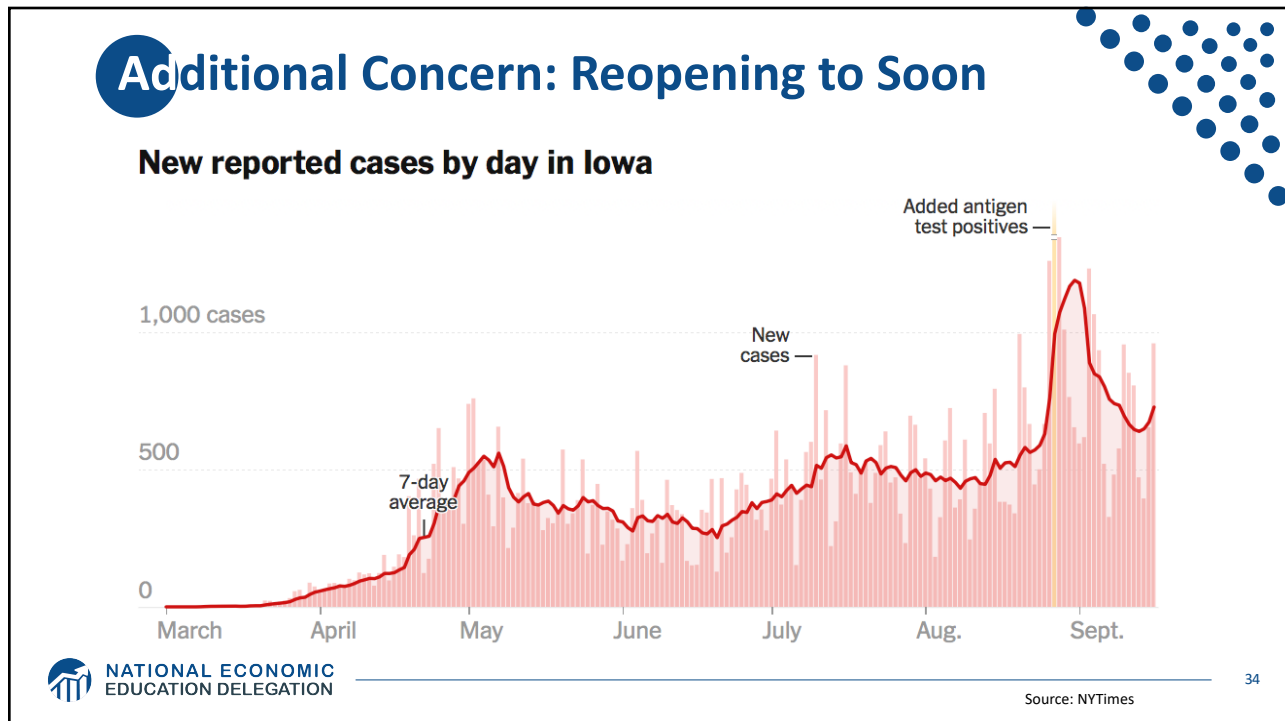
Most forecasts predict GDP growth will be between 4.0% to 5.0% In 2021

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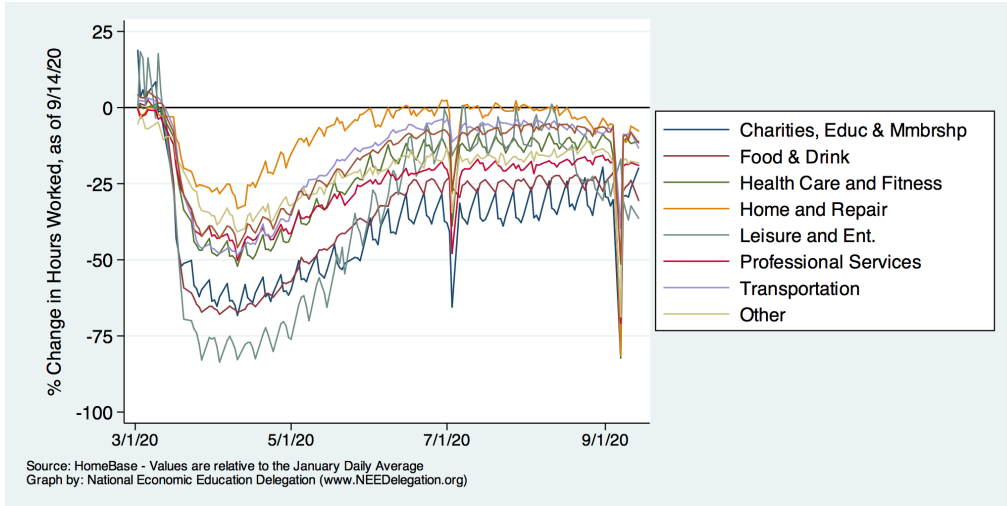


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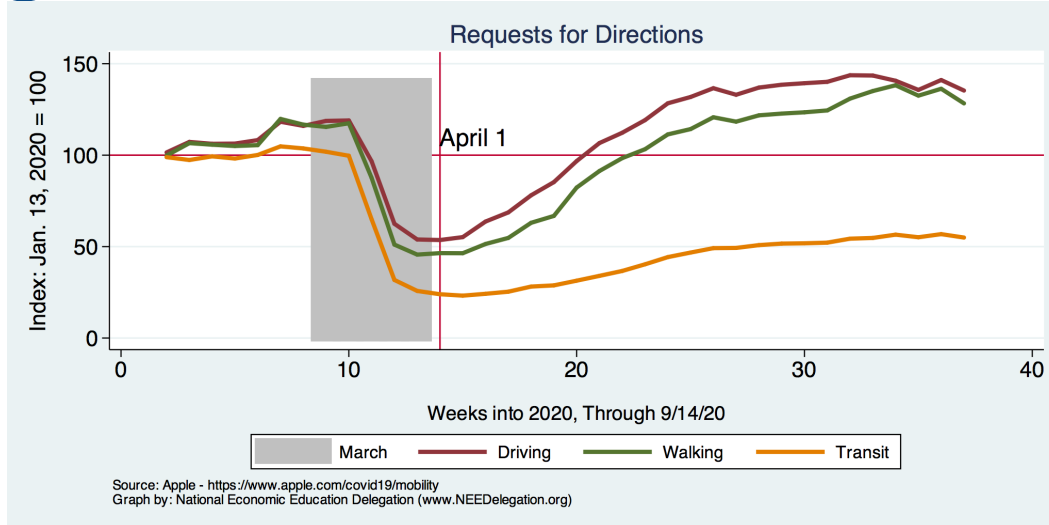
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## Change in Hours Worked: Small Businesses



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## Apple Mobility Trends



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# It's Not This Simple

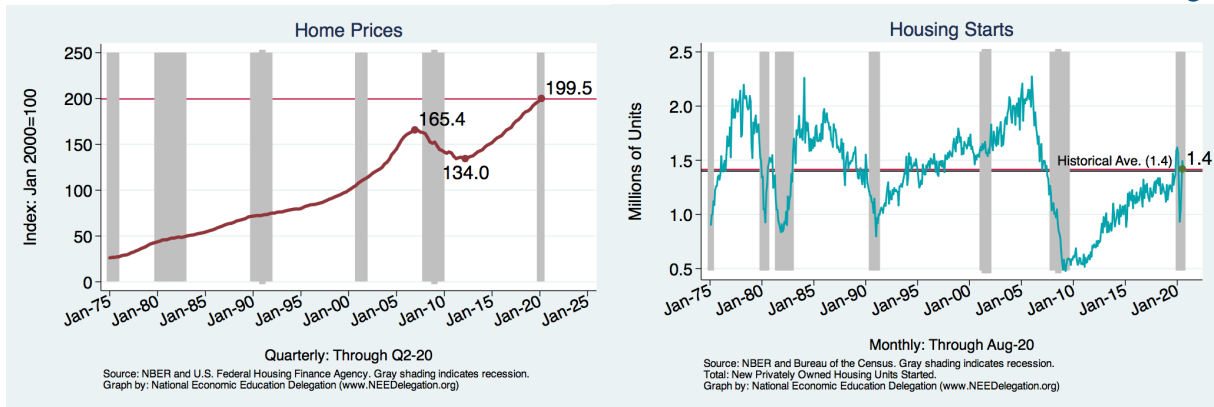


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# Real Estate

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# Home Prices and Housing Starts



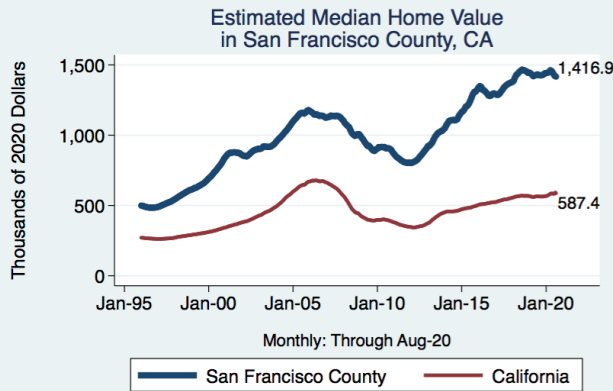
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# Residential Real Estate

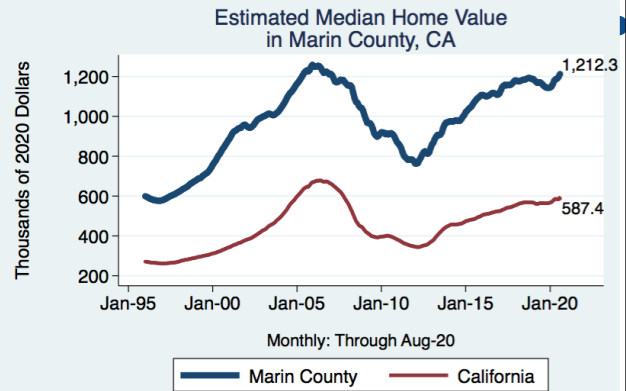
- **Rental markets**
  - Significant difficulty
  - Eviction moratoria are not the answer
- **Owned homes**
  - Depends on location.
    - San Francisco – sluggish
    - Marin County – increased demand

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## San Francisco vs Marin



Source: Zillow Housing Data, <https://www.zillow.com/research/data/>  
Produced by: National Economic Education Delegation ([www.NEEDelegation.org](http://www.NEEDelegation.org))



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Produced by: National Economic Education Delegation ([www.NEEDelegation.org](http://www.NEEDelegation.org))

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## Commercial Markets

- **Short term – disaster**
- **Long term - unknown**
  - Really depends on how work preferences shake out.
  - Telecommuting?
    - Reduced demand for space in inner core areas.
    - Increased demand for smaller spaces in suburban areas.

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## Conclusion

- **COVID-19 is health crisis that has macroeconomic implications.**
  - With enormous built-in inequities.
- **GDP will likely contract between 6.0 and 9.0 percent this year.**
  - Positive growth will likely return in 2021
- **Policy gap will create enormous hardship.**
  - Hunger, evictions, foreclosures, additional deaths.
  - Loss of GDP: 4-5%                      Unemployment: up 4-5 pts.
- **It might just be time to shut down again.**
  - For both our health and the economy.



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Thank you!

## Any Questions?

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

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Contact NEED: [info@NEEDelegation.org](mailto:info@NEEDelegation.org)

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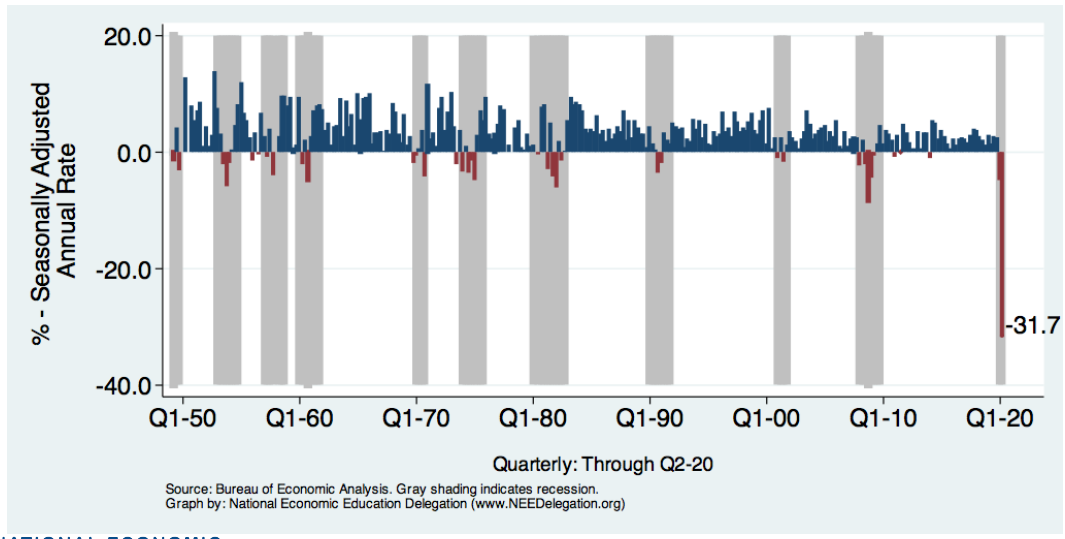


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# Bonus Slides

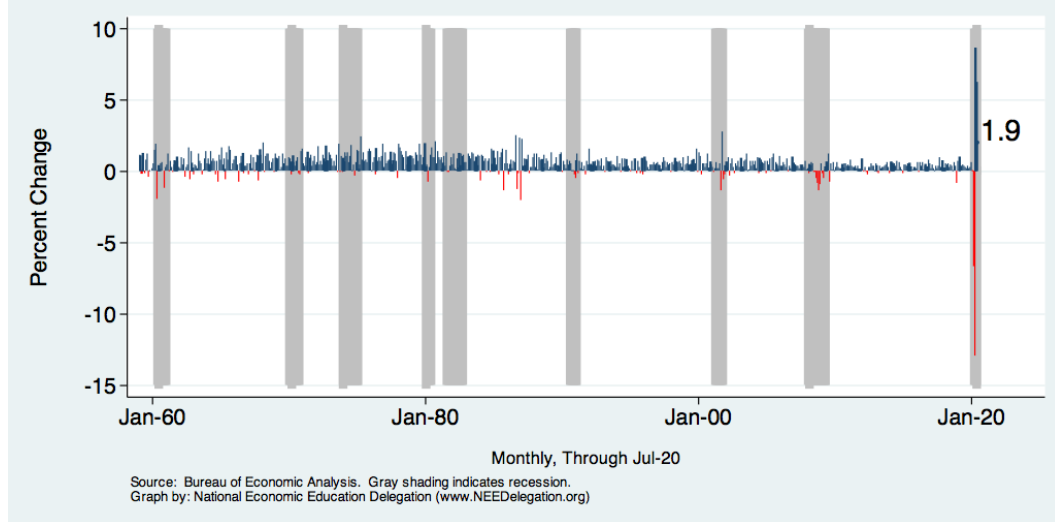
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# Gross Domestic Product



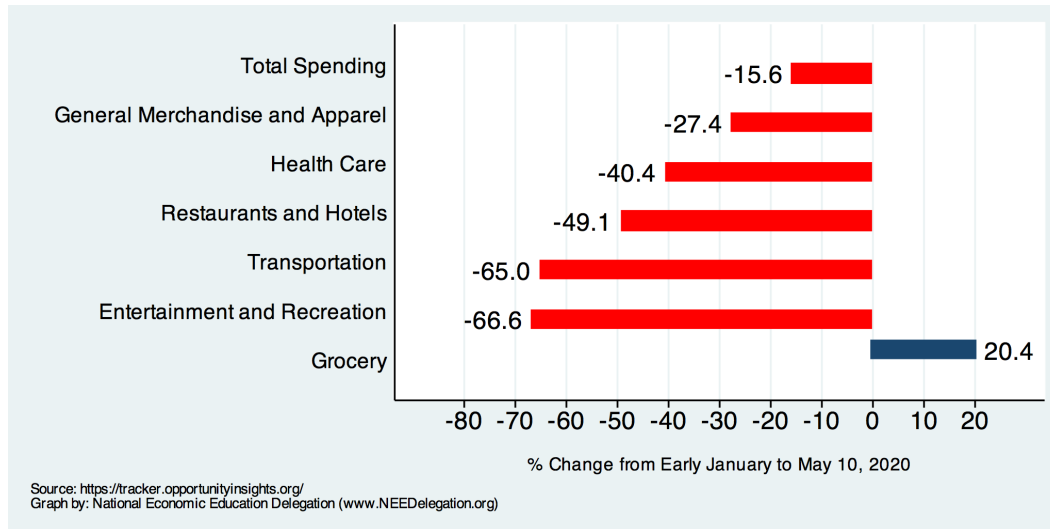
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## Personal Consumption Expenditures



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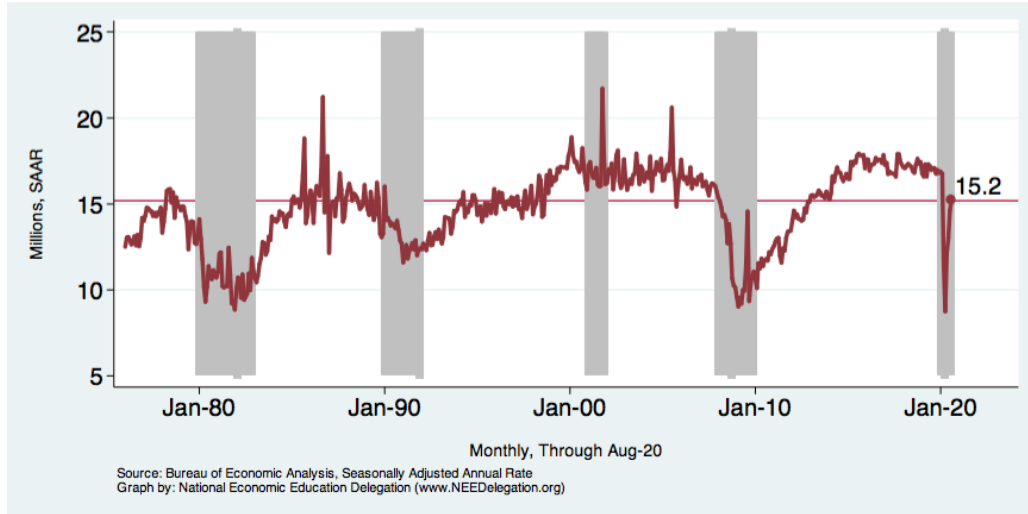
## Plunge in Consumer Spending



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## Automobile and Light Truck Sales



## Process for Dealing with a Natural Disaster

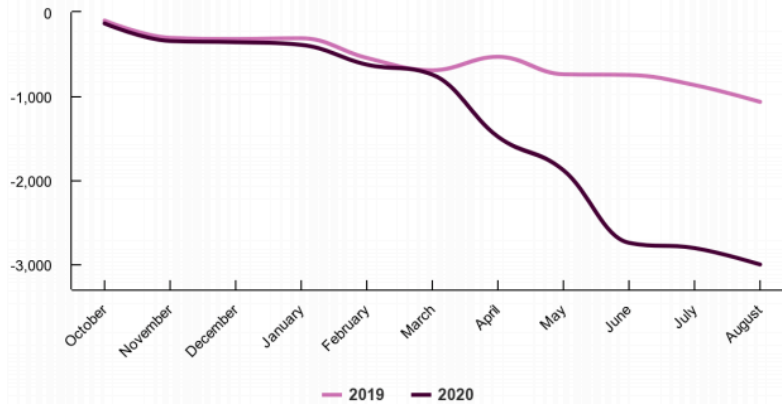
- **Mitigation of effects**
  - Social Policy
- **Tend to the vulnerable**
  - Fiscal Policy
- **Shore up structures**
  - Fiscal and Monetary
- **Rebuild**
  - Stimulus

There are corrolaries in this crisis.

# Rapidly Growing Deficit!

Monthly Cumulative Deficits  
Fiscal Years 2019 and 2020

Billions of Dollars

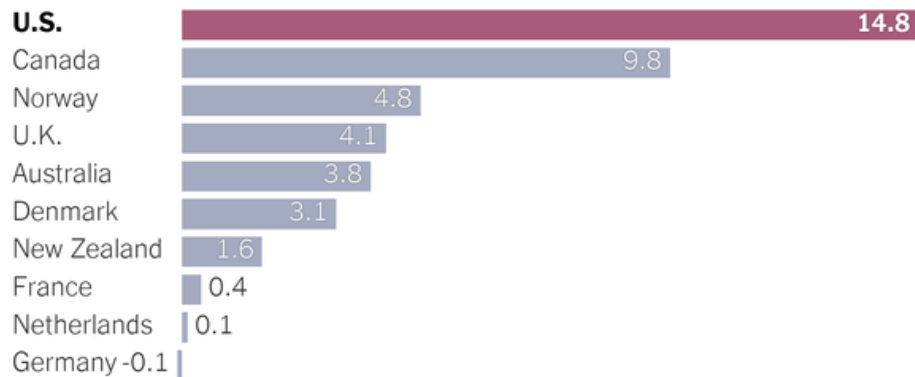


Sources: Congressional Budget Office; Department of the Treasury.  
The value shown for August 2020 is CBO's estimate.

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# Other Countries Are Doing it Better

Unemployment claims as share of the labor force

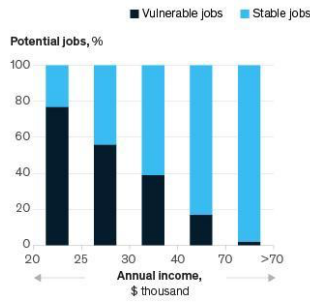
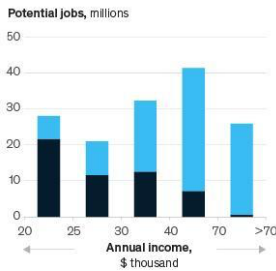


By The New York Times | Source: Brookings

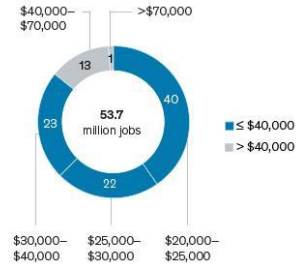
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### Eighty-six percent of vulnerable jobs paid less than \$40,000 a year.

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



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

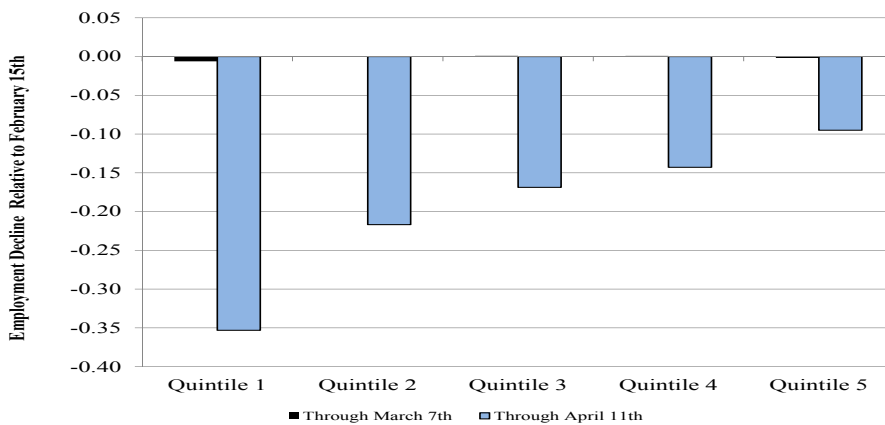


Note: Data may not sum to 100, because of rounding.  
<sup>1</sup>Vulnerable\* jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.  
 Source: LaborCube; McKinsey Global Institute analysis

McKinsey & Company

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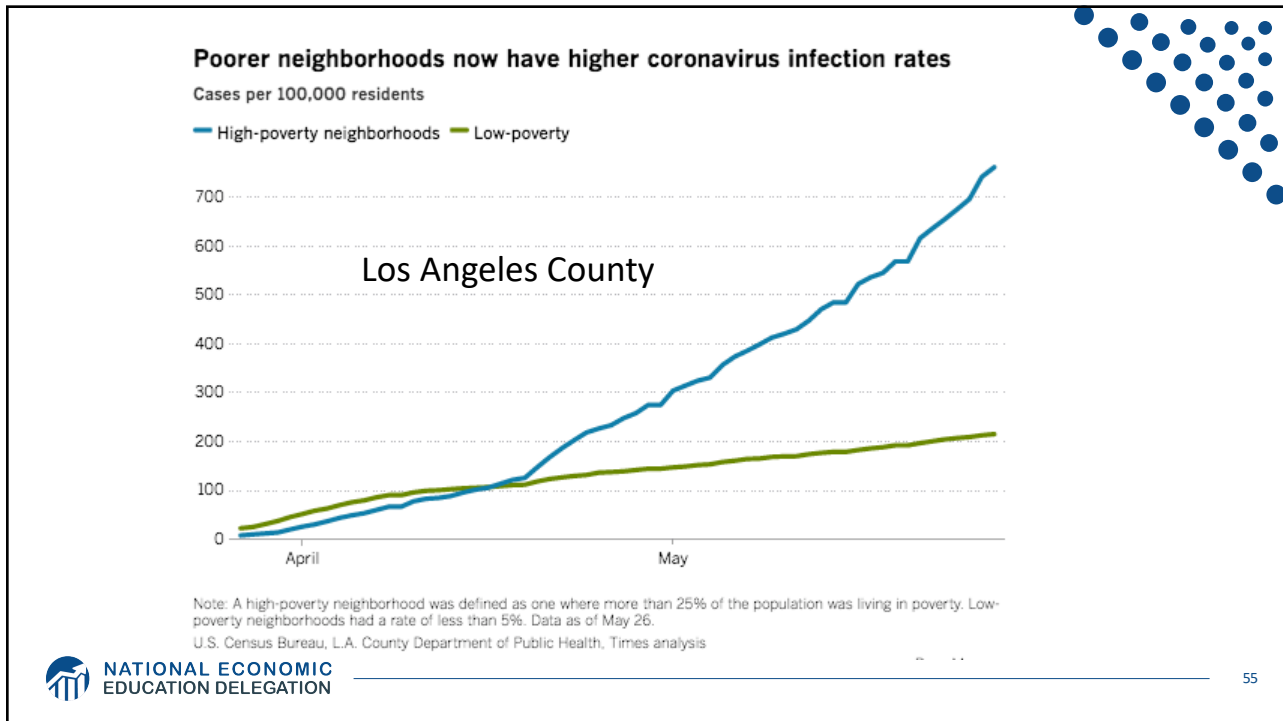
### Employment Change by Income Quintile



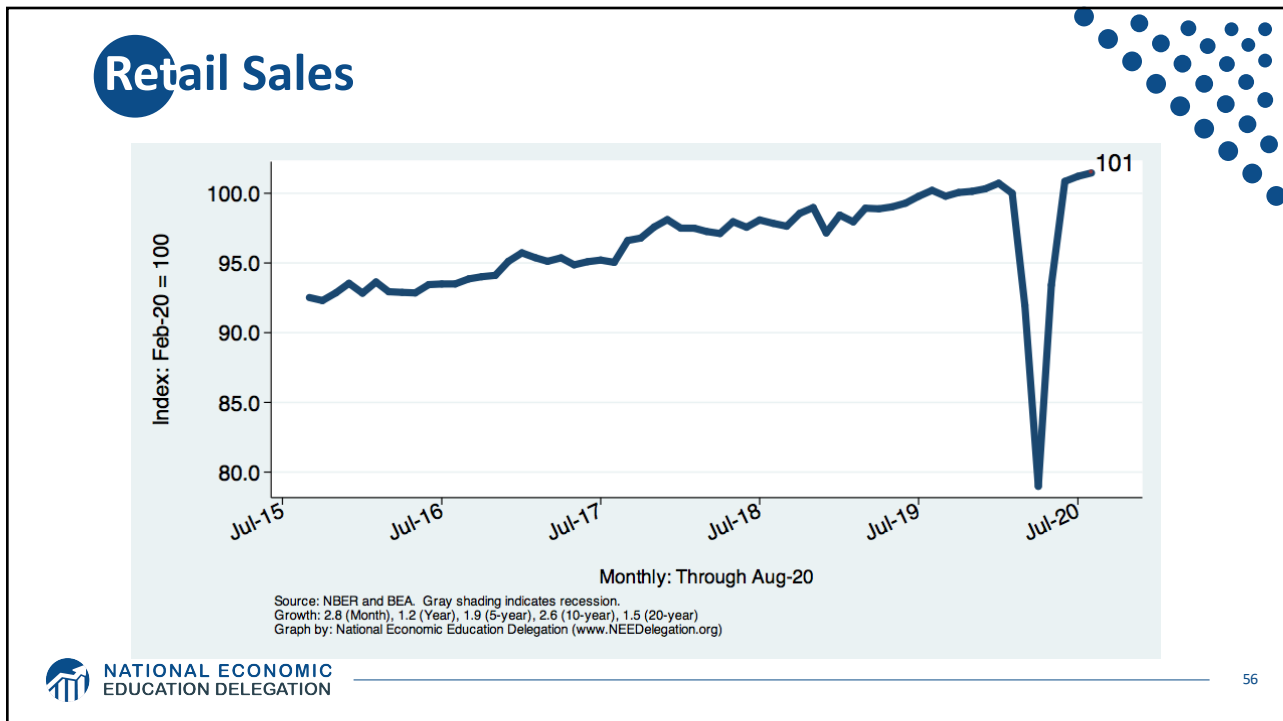
**Powell: 40% of workers losing their jobs earned less than \$40,000/year.**

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

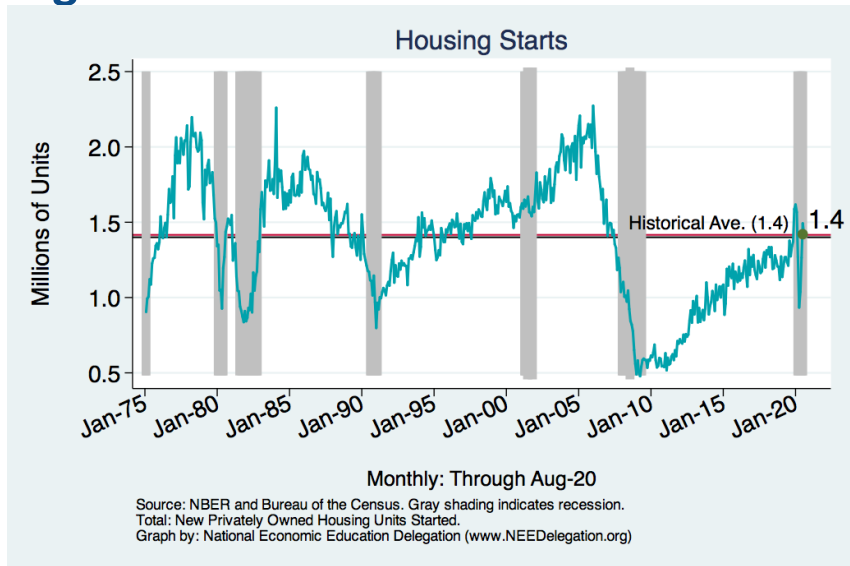


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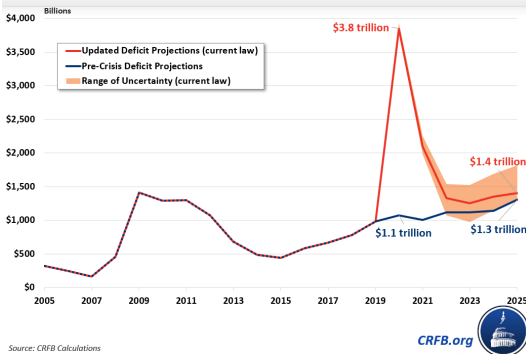
# Housing Starts Plummet: Down 25%



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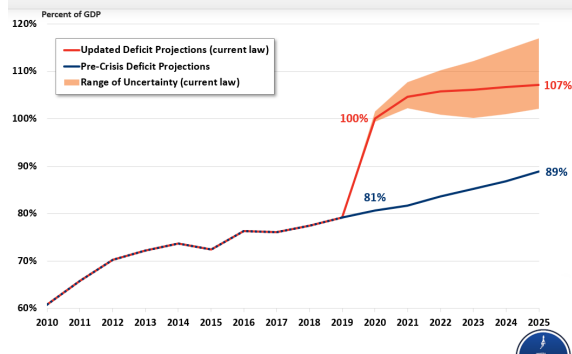
# Federal Budget Implications

## Federal Deficit Will Reach Record Levels



Deficit may be nearly 20% of GDP

## Debt Will Equal Size of Economy This Year



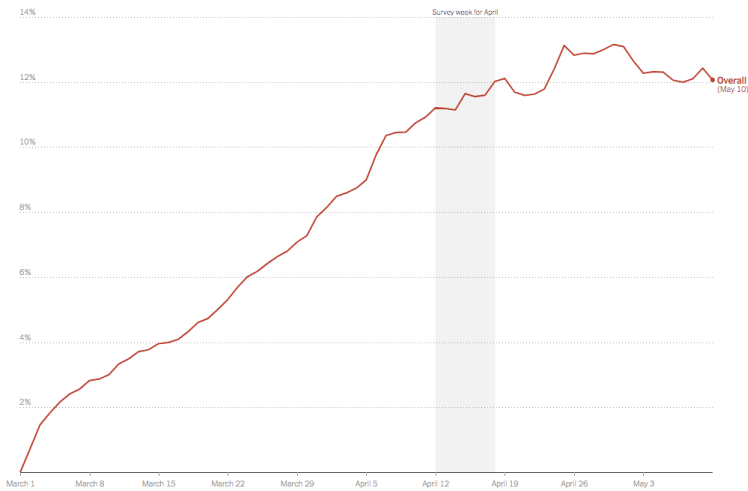
Debt will likely equal GDP this year

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# Job Losses Appear to be Slowing

March and April were devastating, but May seems to be flattening

Percent of workers newly nonemployed since March 1, 14-day rolling average



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# Employment: The Word of the Month



“Job losses of this scale are **unprecedented**. The total number of job losses for the month of April alone was more than double the total jobs lost during the Great Recession,” said Ahu Yildirmaz, co-head of the ADP Research Institute.

Biggest % Losses at Smallest Firms:  
SM: 21.5%; MID: 17.4%; LG: 13.4%

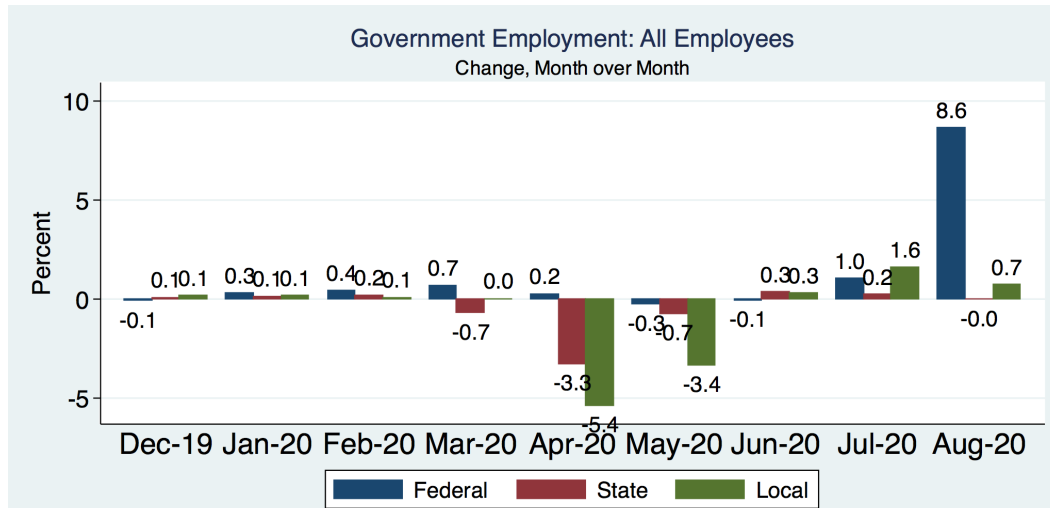
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## Many Policy Alternatives

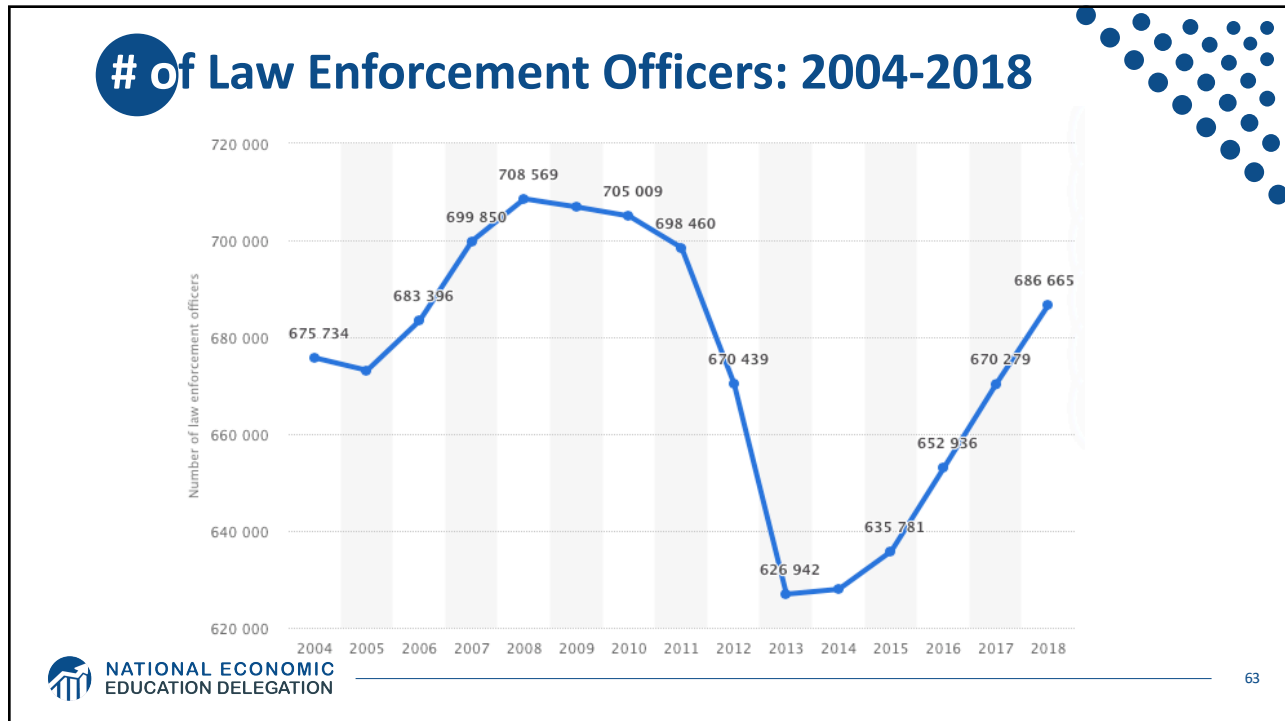
- **Denmark: Pay (discounted) salaries**
  - Keeps employees “on the job”.
- **Temporary UBI**
  - \$2k/adult for 6 months - \$3.6T
  - Grant if can prove need, otherwise a loan. Grants = \$240B
- **Payroll Tax Cut**
  - No. Designed to get people back to work. Not yet.
- **Excess revenue tax**
  - 10%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

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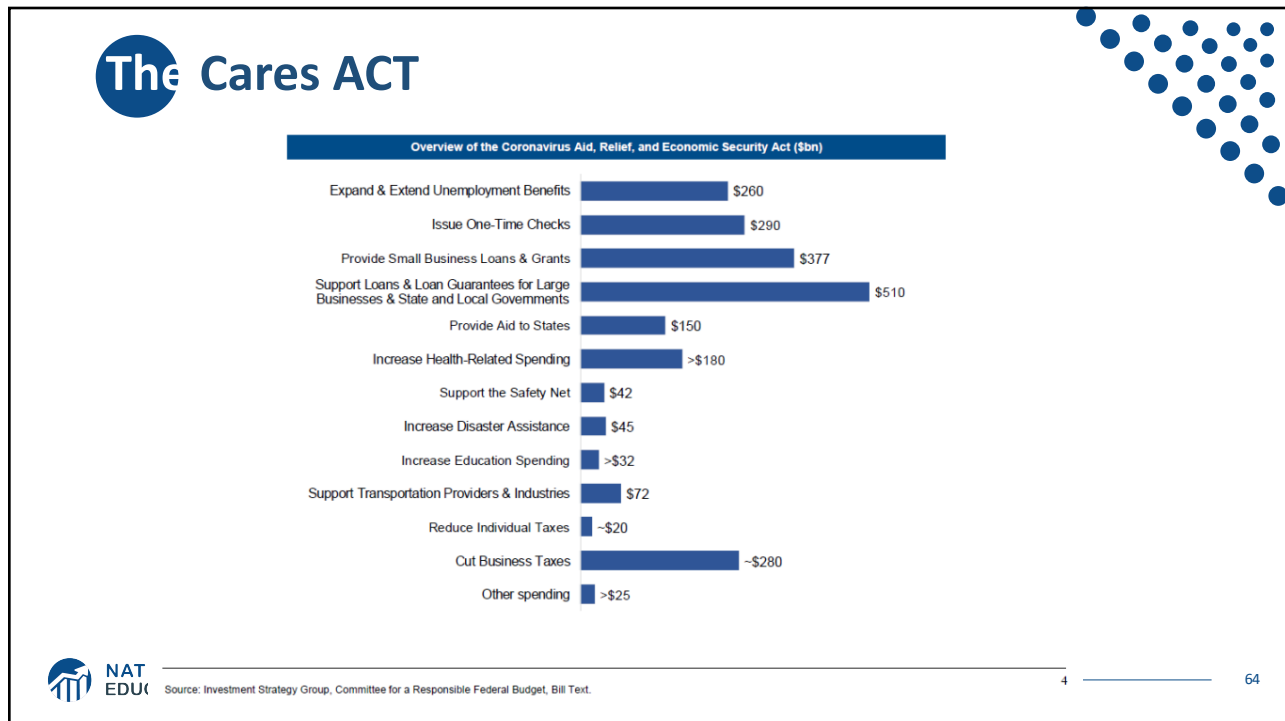
## State & Local Gov'ts Are Tightening



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## Aid to Households

Payments to Individuals		
\$269bn (1.3% of GDP)		
Eligibility	Program	Terms & Process
<ul style="list-style-type: none"> <li>- Taxpayers with incomes up to \$99,000 (or \$198,000 joint) based on 2019 tax return (2018 if not available)</li> </ul>	<ul style="list-style-type: none"> <li>- Tax rebate of \$1,200 (or \$2,400 for a joint tax return)</li> <li>- Additional \$500 rebate per child</li> </ul>	<ul style="list-style-type: none"> <li>- Rebate phases out gradually for incomes greater than \$75,000 (\$150,000 joint)</li> <li>- Rebates sent "as rapidly as possible" targeted for early April</li> </ul>

Increased Unemployment Insurance		
\$250bn (1.2% of GDP)		
Eligibility	Program	Terms & Process
<ul style="list-style-type: none"> <li>- Individuals qualifying for standard unemployment compensation</li> <li>- Individuals not previously qualifying for unemployment compensation, such as contractors and the self-employed</li> </ul>	<ul style="list-style-type: none"> <li>- Provides standard unemployment compensation (roughly 50%) for 39 weeks, vs standard 26 weeks</li> <li>- Additional \$600 pay per week through July 31 (4 months), even if unemployment compensation exceeds previous wage level</li> </ul>	<ul style="list-style-type: none"> <li>- Pay is immediate, vs. standard one-week waiting period</li> </ul>



## 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
- Airlines, air cargo, and national security/aerospace sectors	<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

## SBLA Distribution

Firm Size	Distribution of PPP Eligible Firms		PPP Loan Size (est)
	Percent of Firms	Percent of Employment	
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

## 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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## 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.

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## 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



## 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

## Home Schooling – The Digital Divide Issue

