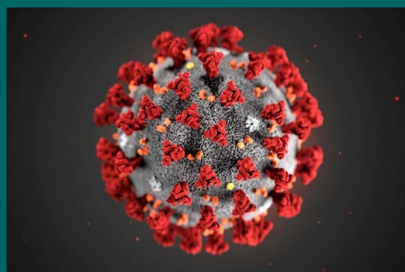
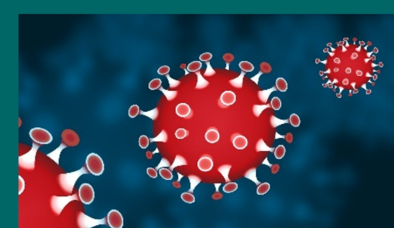
COVID-19 and the U.S. Economy



By Valerie A. Ramey
UCSD and NBER

UCSD Economics Roundtable
July 21, 2020



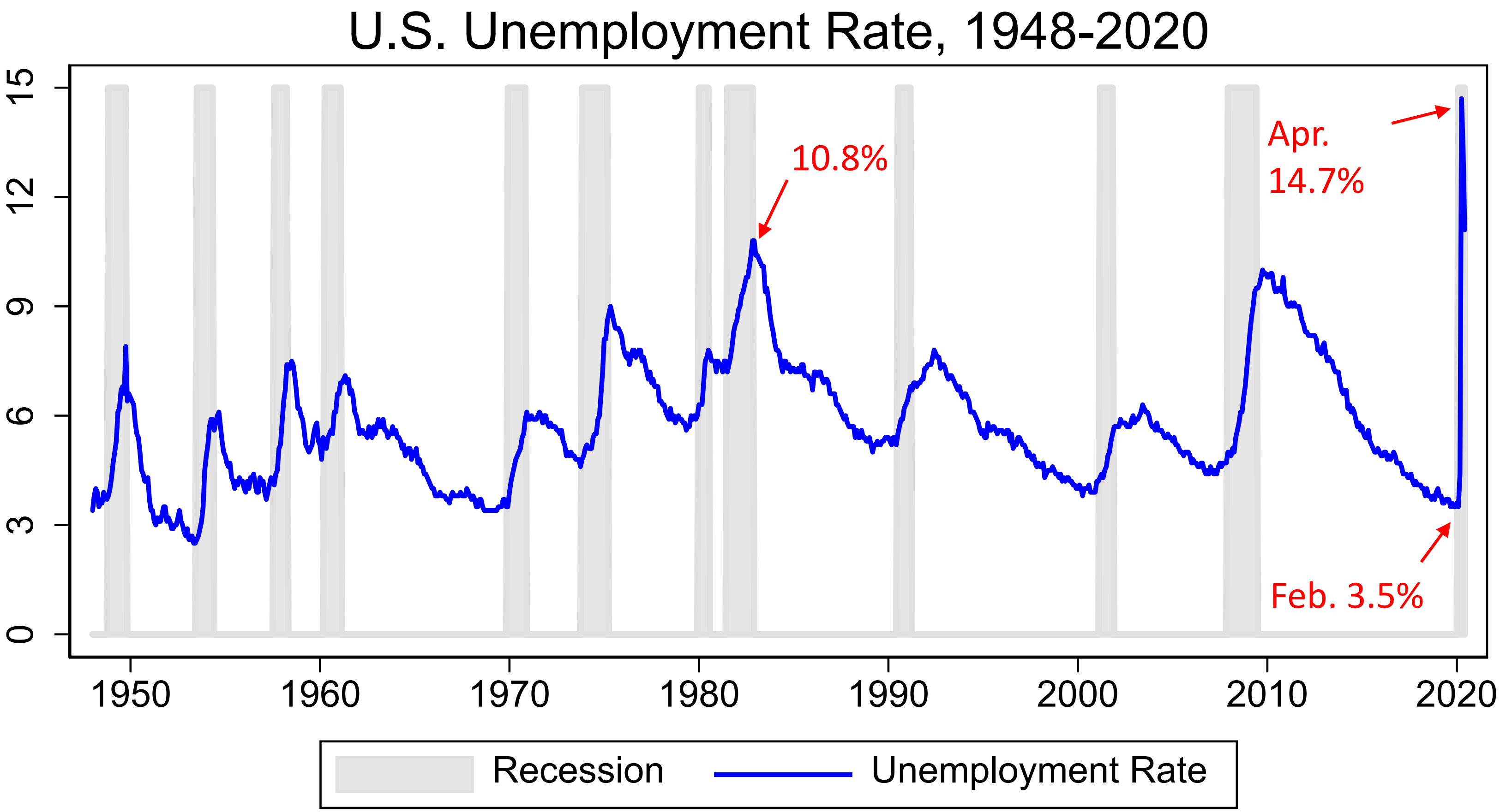
Outline of my Presentation

- Put current events into historical perspective

- Track the economic effects of COVID-19 using high frequency data

- Discuss possible long-term consequences

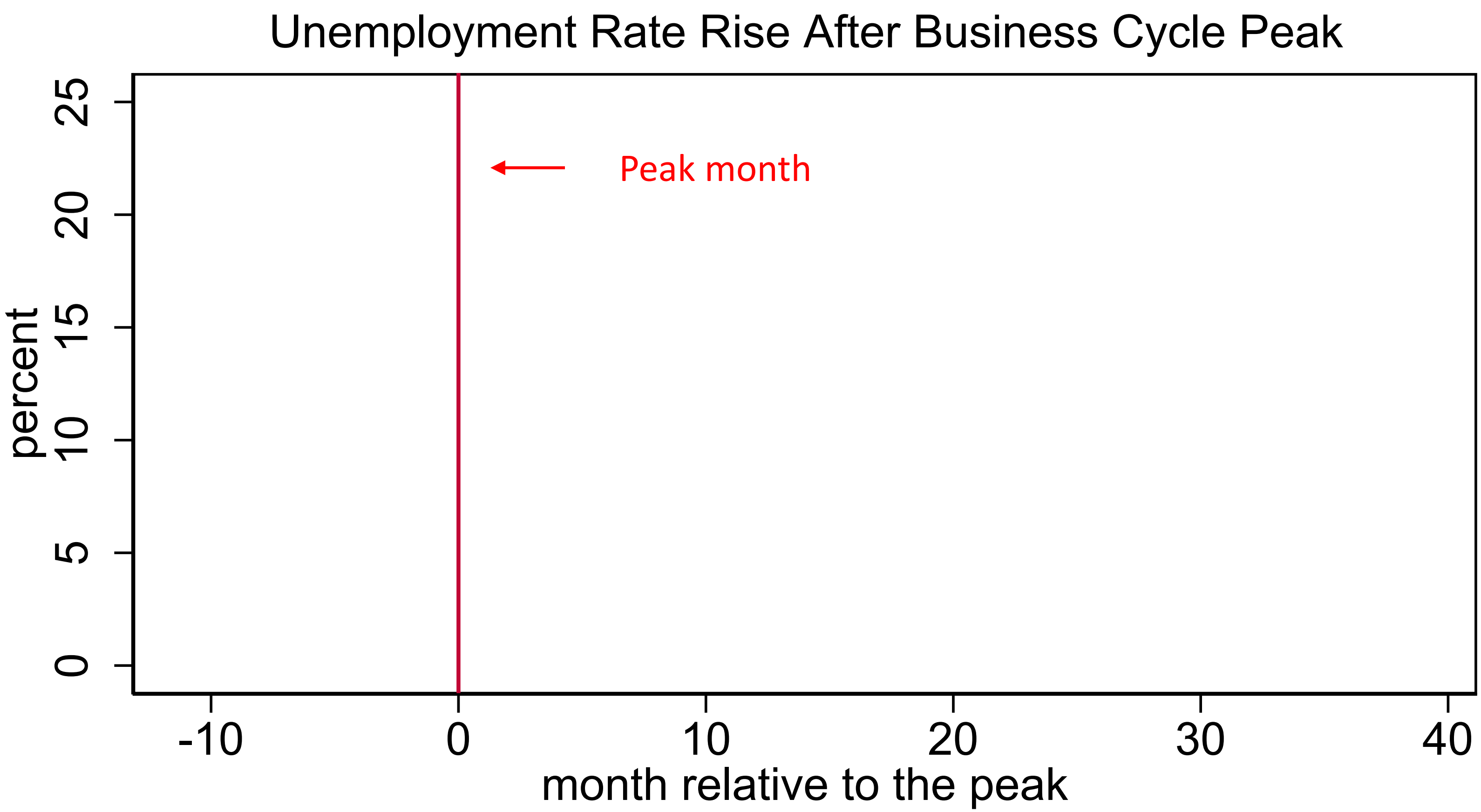
The Pandemic that Killed the Longest U.S. Expansion



"Expansions don't die of old age; something kills them."

- Yellen, Bernanke, Blinder in 2019

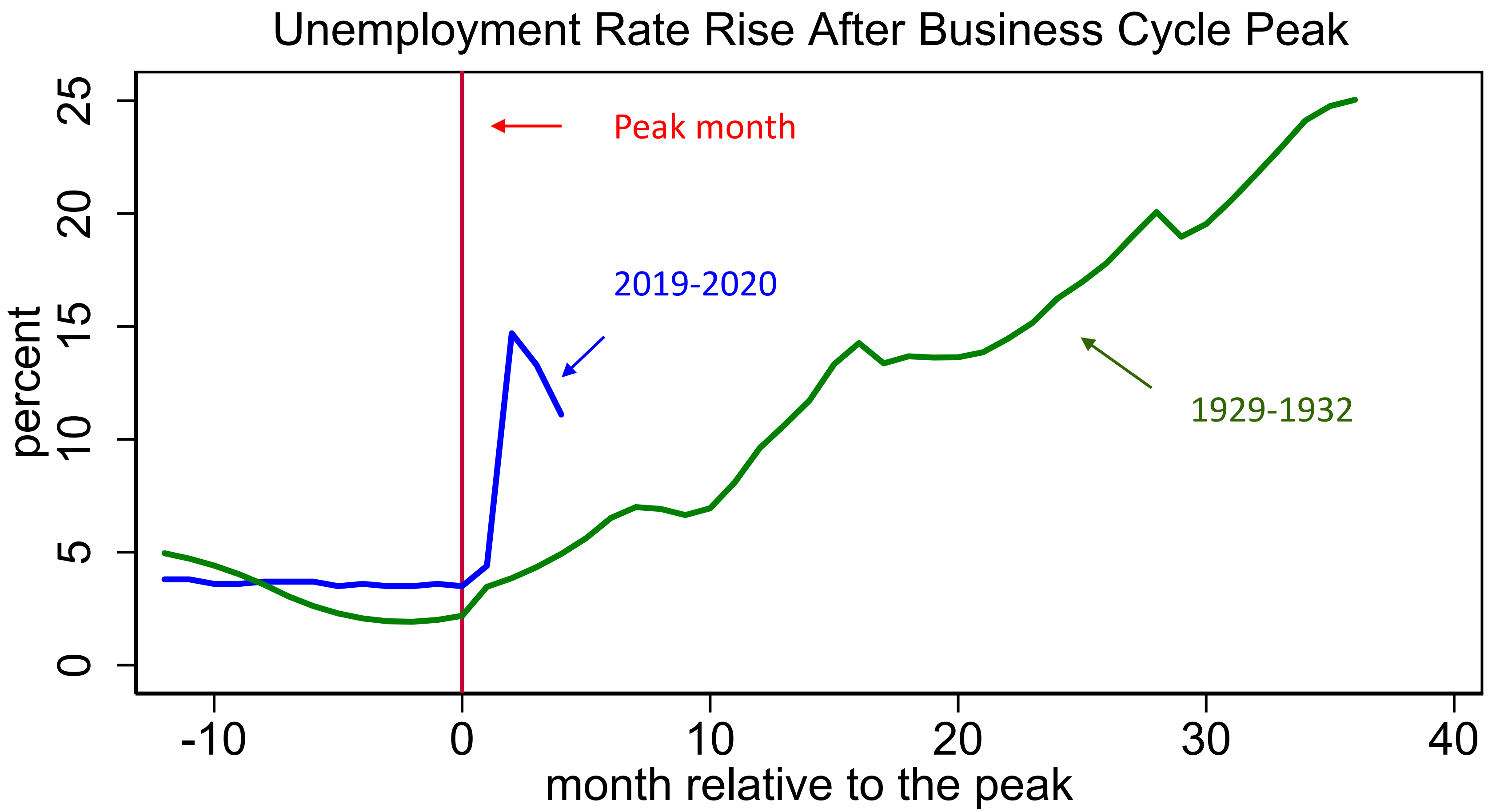
Comparing the Unemployment Rise to the Great Depression



August 1929 was the peak before the Great Depression

February 2020 was the peak before the current recession

Comparing the Unemployment Rise to the Great Depression



2020 rise was much faster than the Great Depression.

Fortunately, it was short-lived.

Comparison to the 1918 Influenza Pandemic

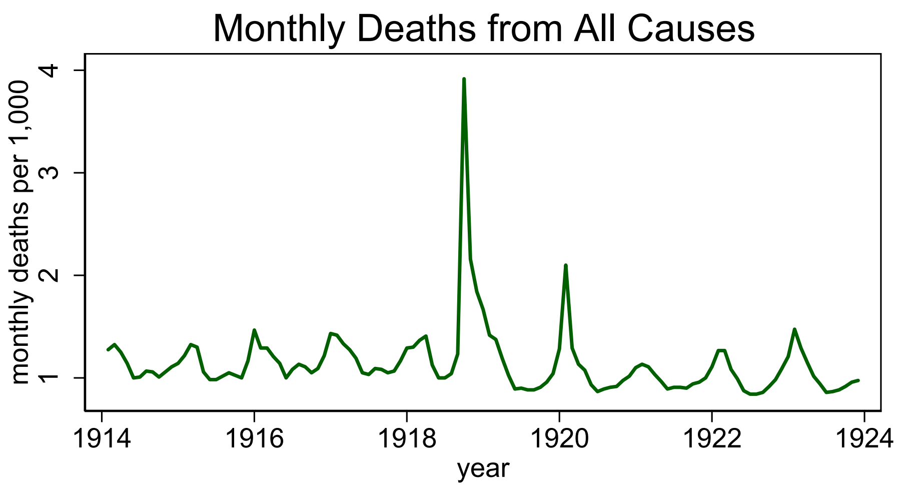
- **Deaths**

  - 50 million deaths worldwide

  - 675,000 deaths in U.S. (0.6% of 104 million population)

- **U.S. Waves**

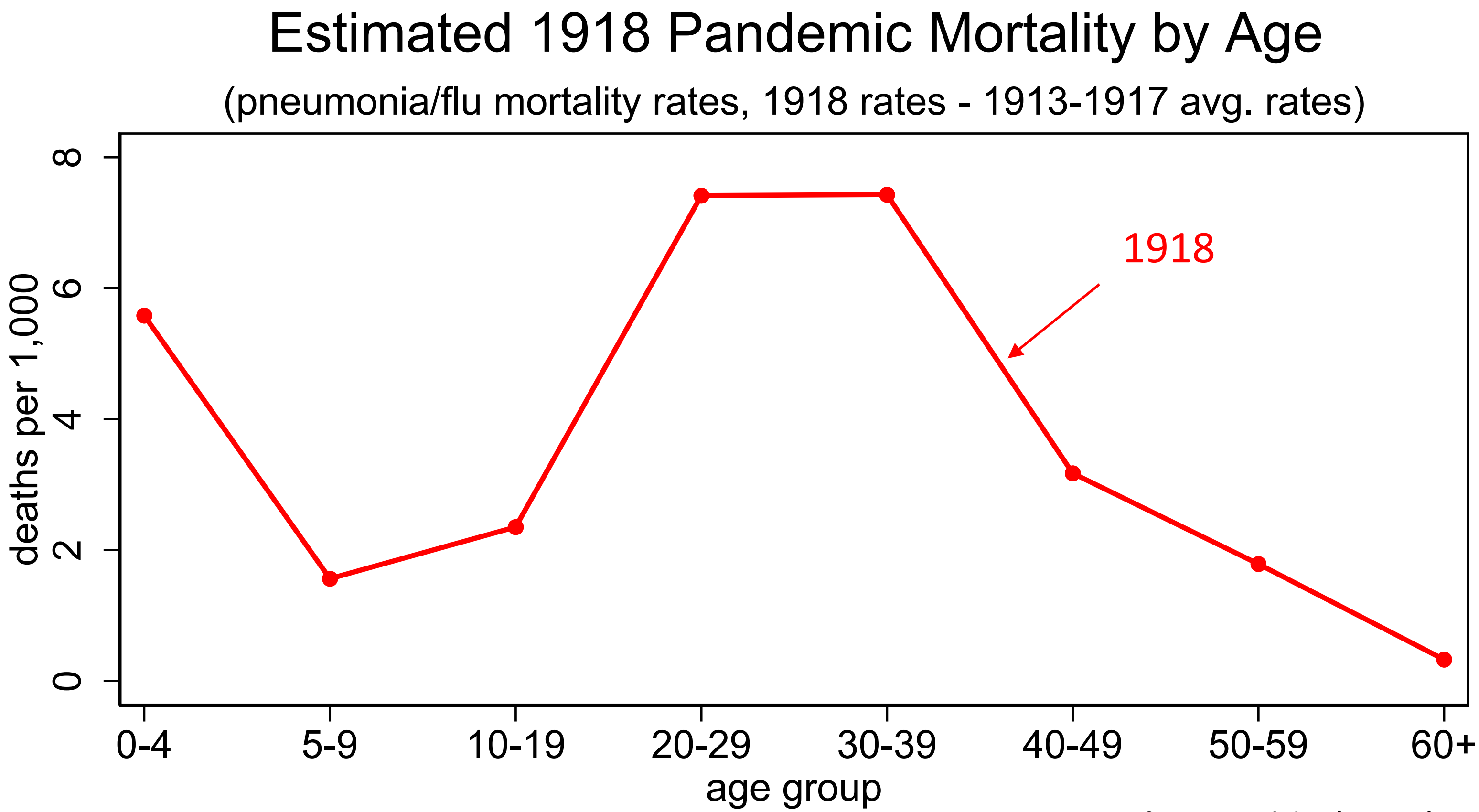
  - Spring 2018: small wave, brought home by troops
  - Fall 2018: more lethal mutation, peak October 2018.
  - Winter 2019 – small wave in some parts of the country.



Data from **François Velde,** "What Happened to the U.S. Economy During the 1918 Influenza Pandemic?" 2020.

https://www.chicagofed.org/publications/working-papers/2020/2020-11

The 1918 Flu was More Lethal to Younger Adults



Data from Velde (2020)

In contrast, with COVID-19 mortality is near 0 for the young, but rises rapidly with age 60+

Policy Responses to the 1918 Pandemic

- **Cities and a few states imposed "non-pharmaceutical interventions"**

  Shut down large public gatherings, staggered business hours, closed some businesses, closed schools, imposed quarantines on infected people, required masks.

Fans at a football game

- **Most cities imposed these measures in Fall 1918. The median duration of the partial business closures was 28 days.**

Policy Responses to the 1918 Pandemic

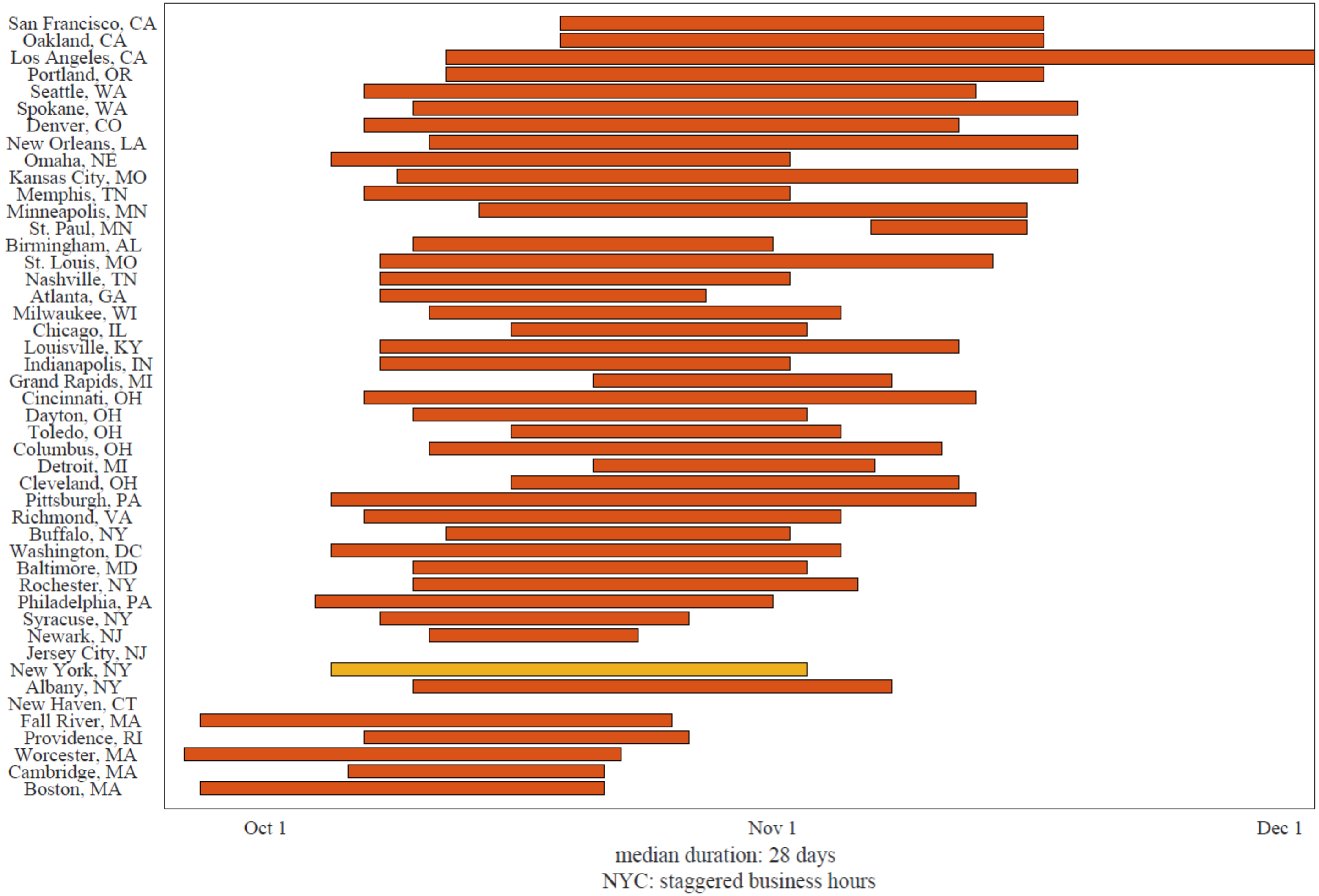


Figure 4: Timing and duration of closings in 43 US cities. Source: Hatchett, Mecher, and Lipsitch (2007), http:influenzaarchive.org, and various newspapers.

From Velde (2020)

The Economic Impact of the 1918 Pandemic

Burns and Mitchell (1946) –creators of the official NBER business cycle chronology

- Business cycle peak in August 1918, trough in March 2019
- Called it a contraction "of exceptional brevity and moderate amplitude."

The Economic Impact of the 1918 Pandemic

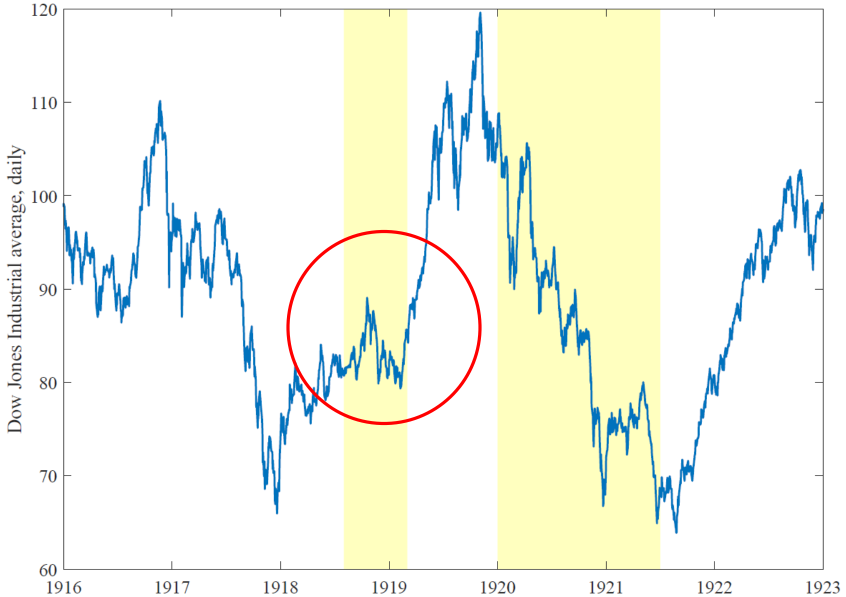


Figure 31: Dow-Jones industrial stocks index, daily, Jan 1916 - Dec 1921. Source Bloomberg.

The stock market fell in late 1918/early 1919 but surged thereafter

Industrial production fell but rebounded quickly

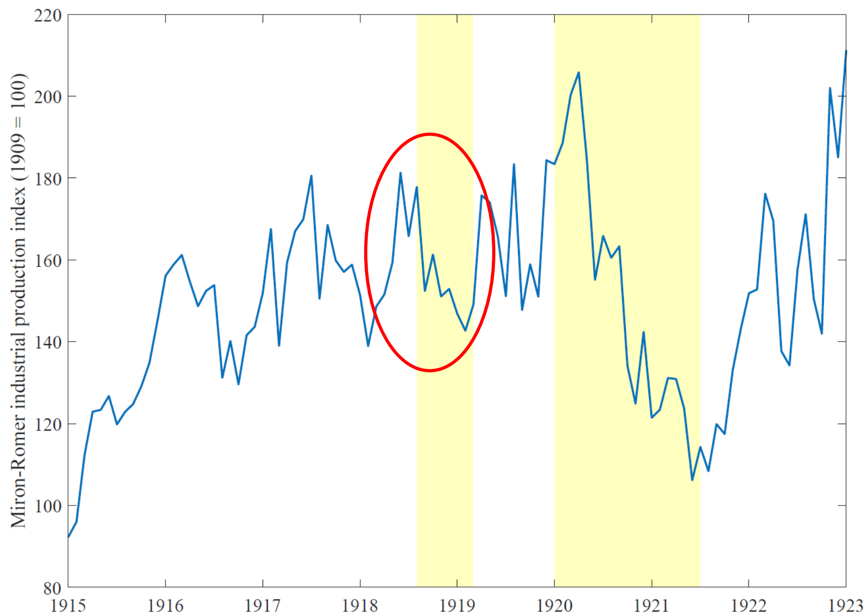
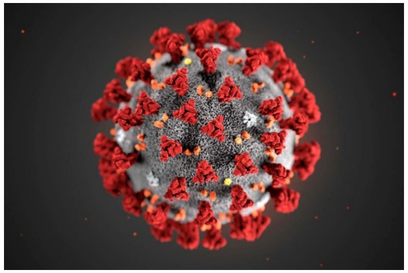


Figure 6: Industrial production. Source: Miron and Romer (1990).

Figures from Velde (2020)

Back to the Present:

The Economic Effects of COVID-19



Measuring the Economic Effects of COVID-19

- Events are happening quickly – we can't wait for the usual government data

- Fortunately, we now have private-label high-frequency "Big Data" to track the economy's movements

Much of the data I will use is from the Chetty, Friedman, Hendren, Stepner Opportunity Insights Economic Tracker

Tracktherecovery.org

Some Key Indicators

- Consumer Spending
- Small Business Revenue
- Employment and Unemployment

Consumer Spending

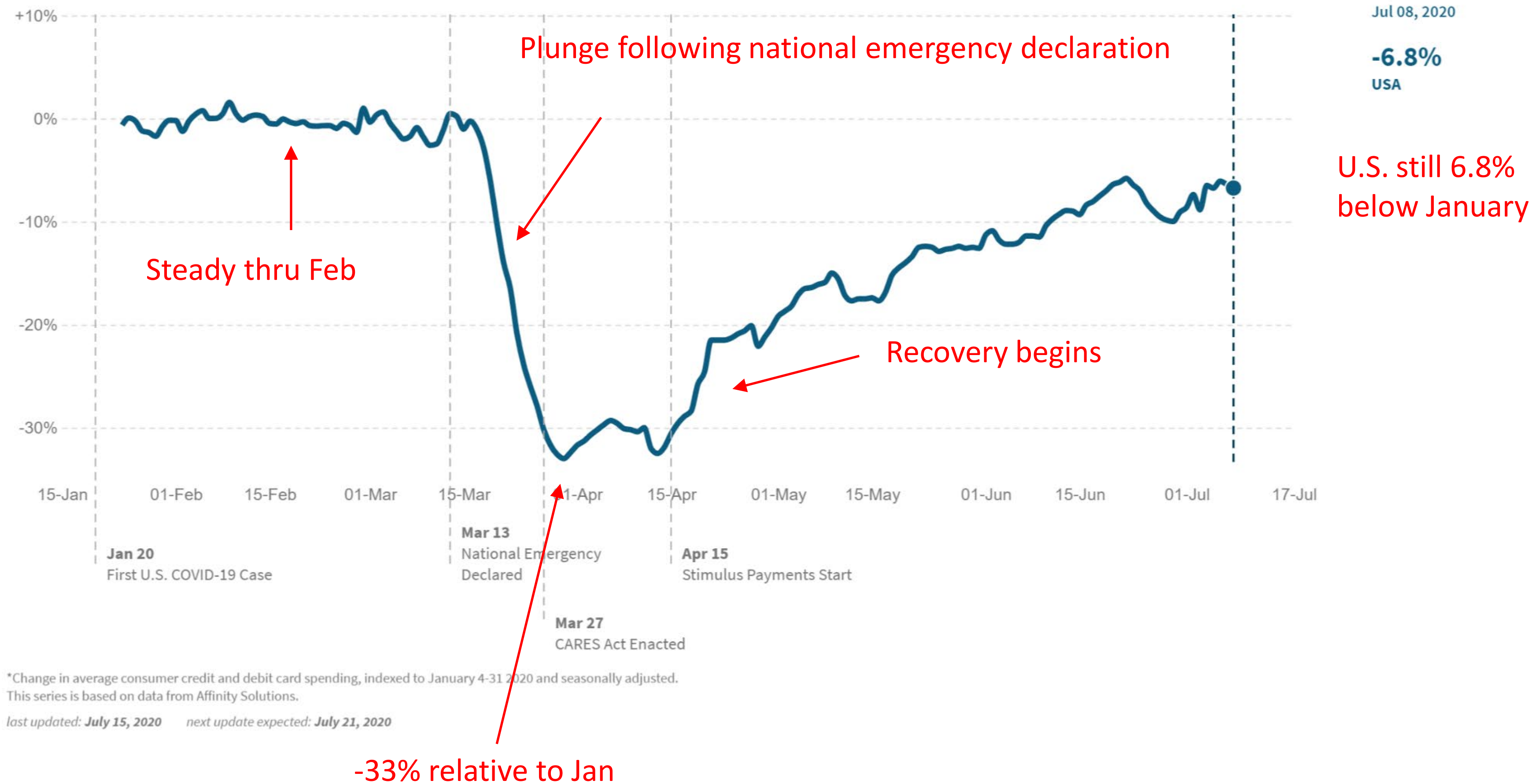
Daily data from Opportunity Insights, which

- uses data from Affinity Solutions
- benchmarks to aggregate data on retails sales and consumer spending

OPPORTUNITY INSIGHTS ECONOMIC TRACKER

Percent Change in All Consumer Spending*

In **the United States**, as of July 08 2020, total spending by all consumers decreased by **6.8%** compared to January 2020.

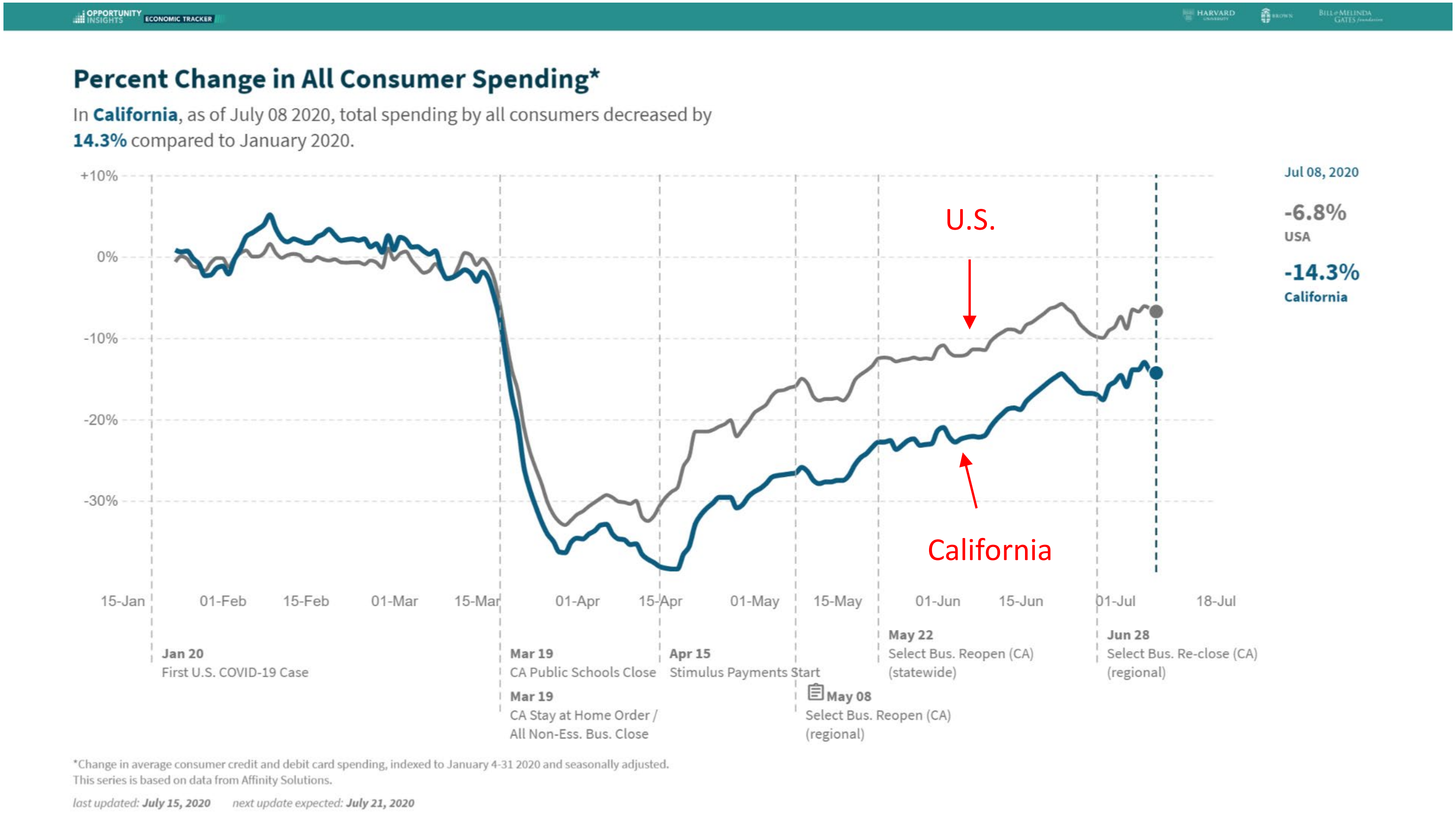


*Change in average consumer credit and debit card spending, indexed to January 4-31 2020 and seasonally adjusted.
This series is based on data from Affinity Solutions.

last updated: ***July 15, 2020*** *next update expected:* ***July 21, 2020***

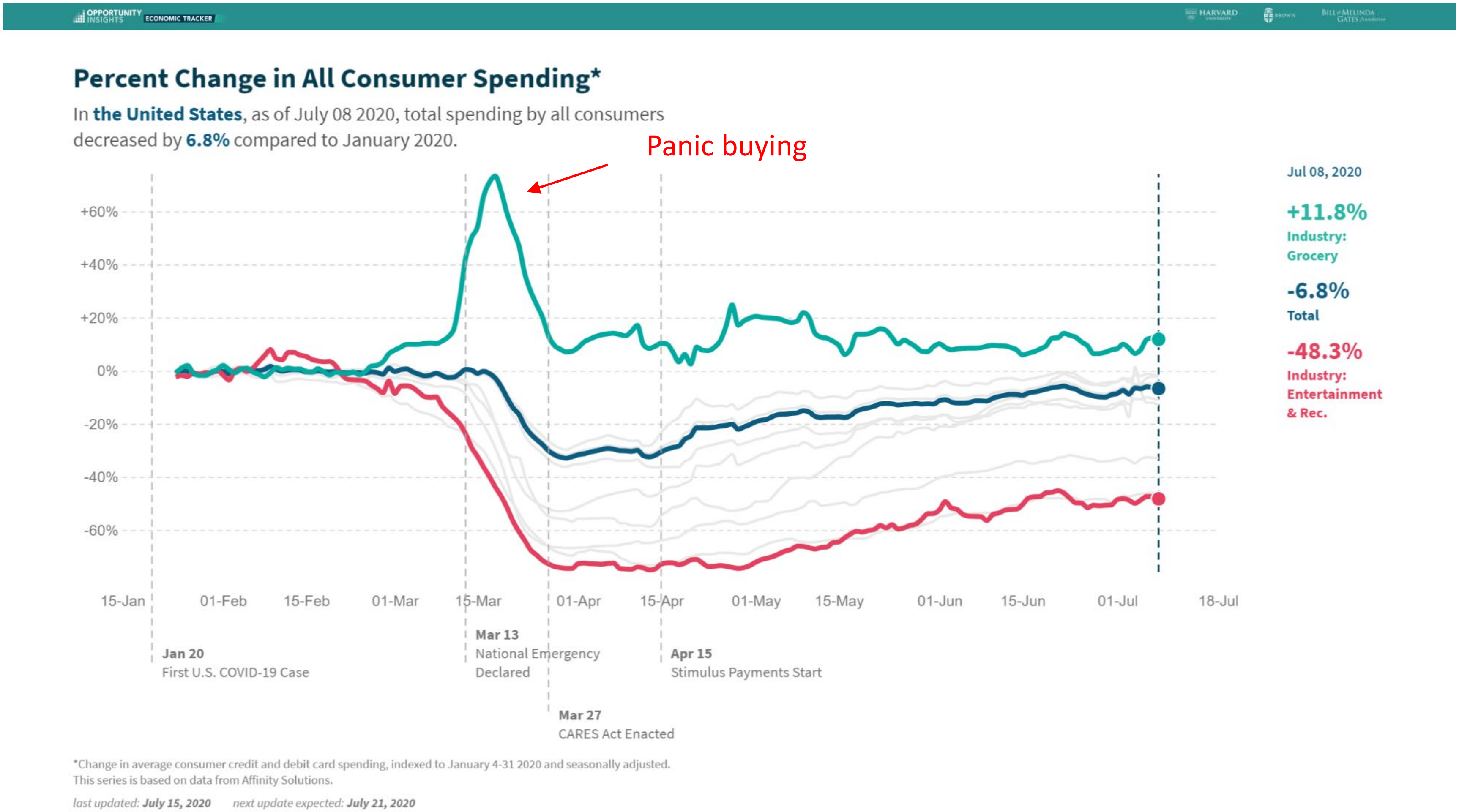
Now let's compare California to the national numbers

Consumer Spending: California vs. U.S.



California spending fell farther (-38% at trough) and has recovered less than national spending

National Consumer Spending: By Category



National Consumer Spending: More Categories

OPPORTUNITY INSIGHTS ECONOMIC TRACKER

Percent Change in All Consumer Spending*

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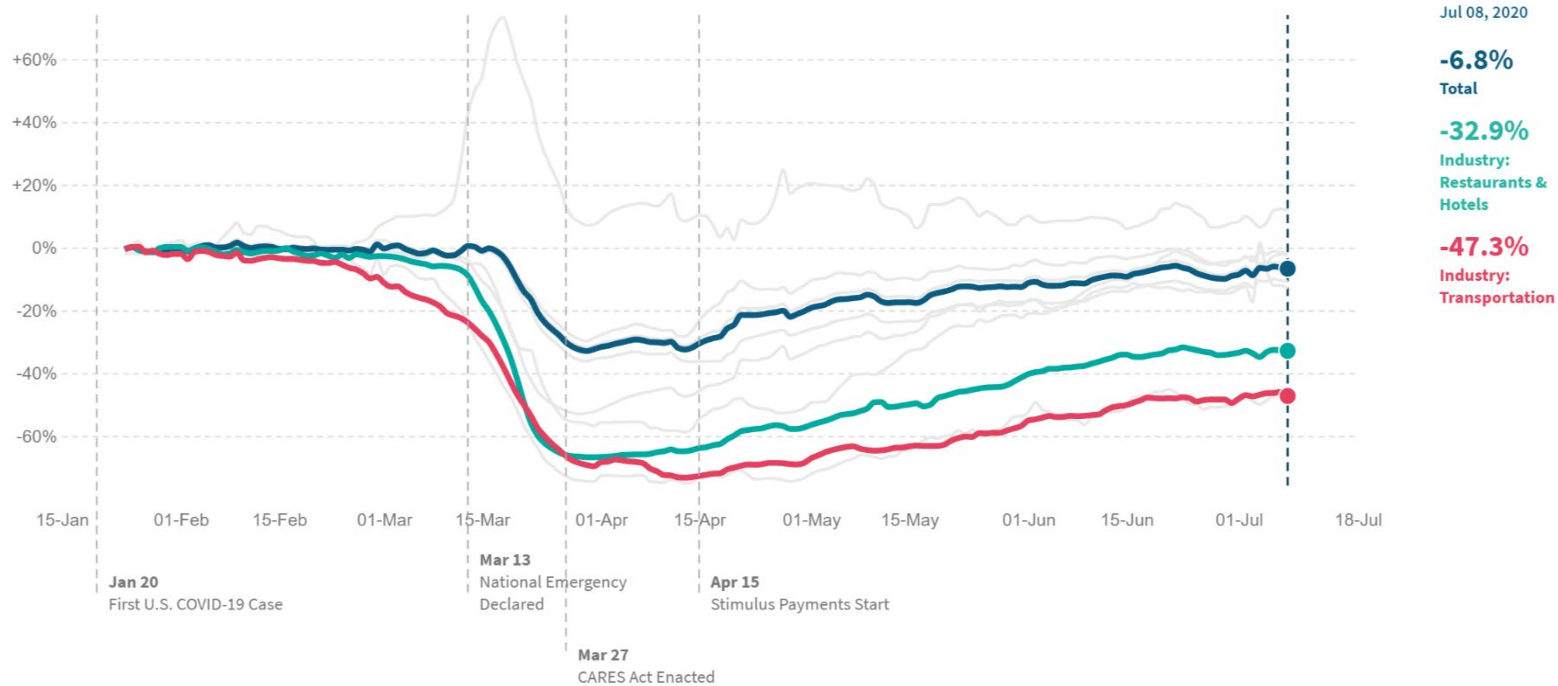

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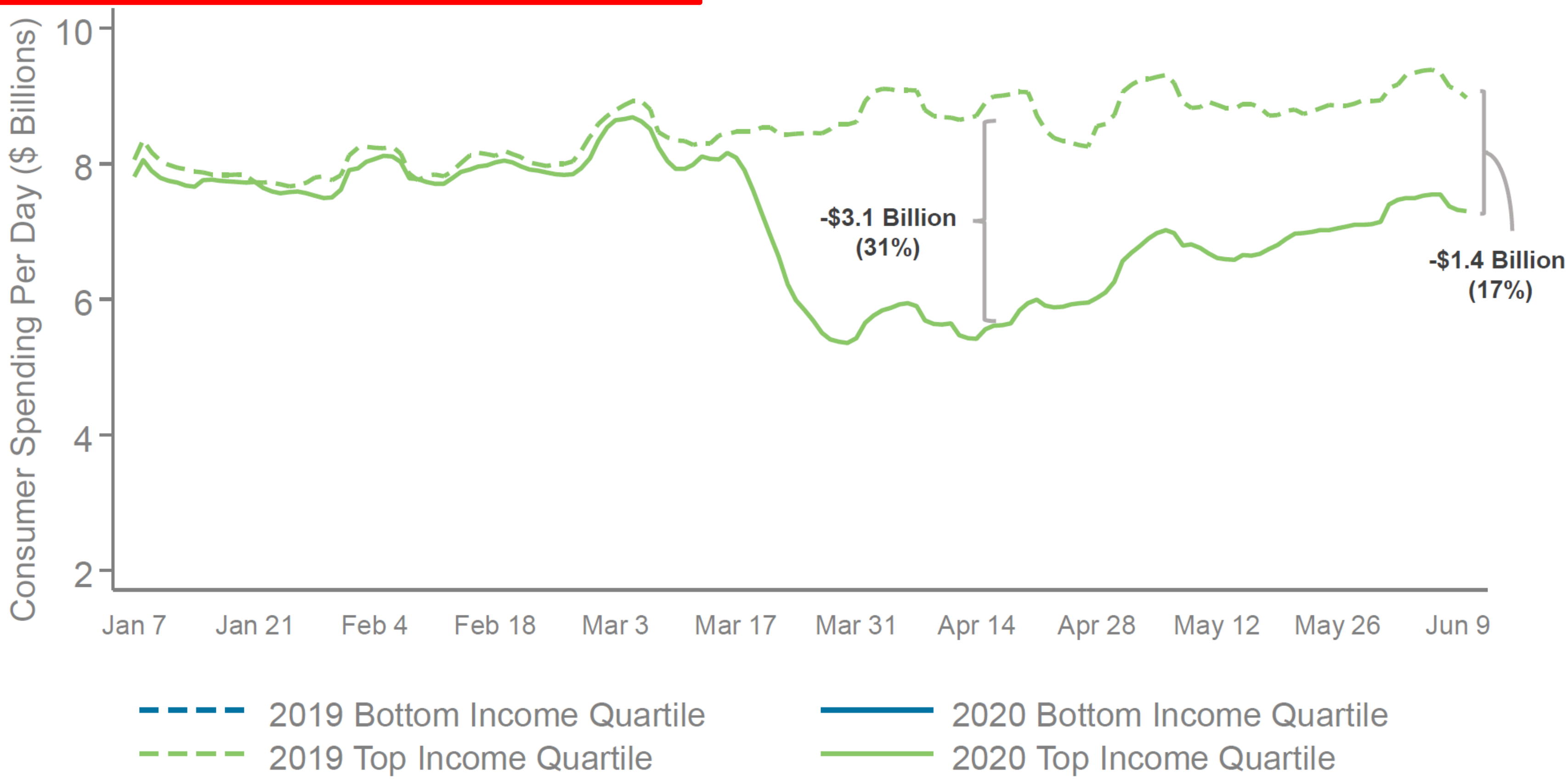
last updated: ***July 15, 2020*** *next update expected:* ***July 21, 2020***

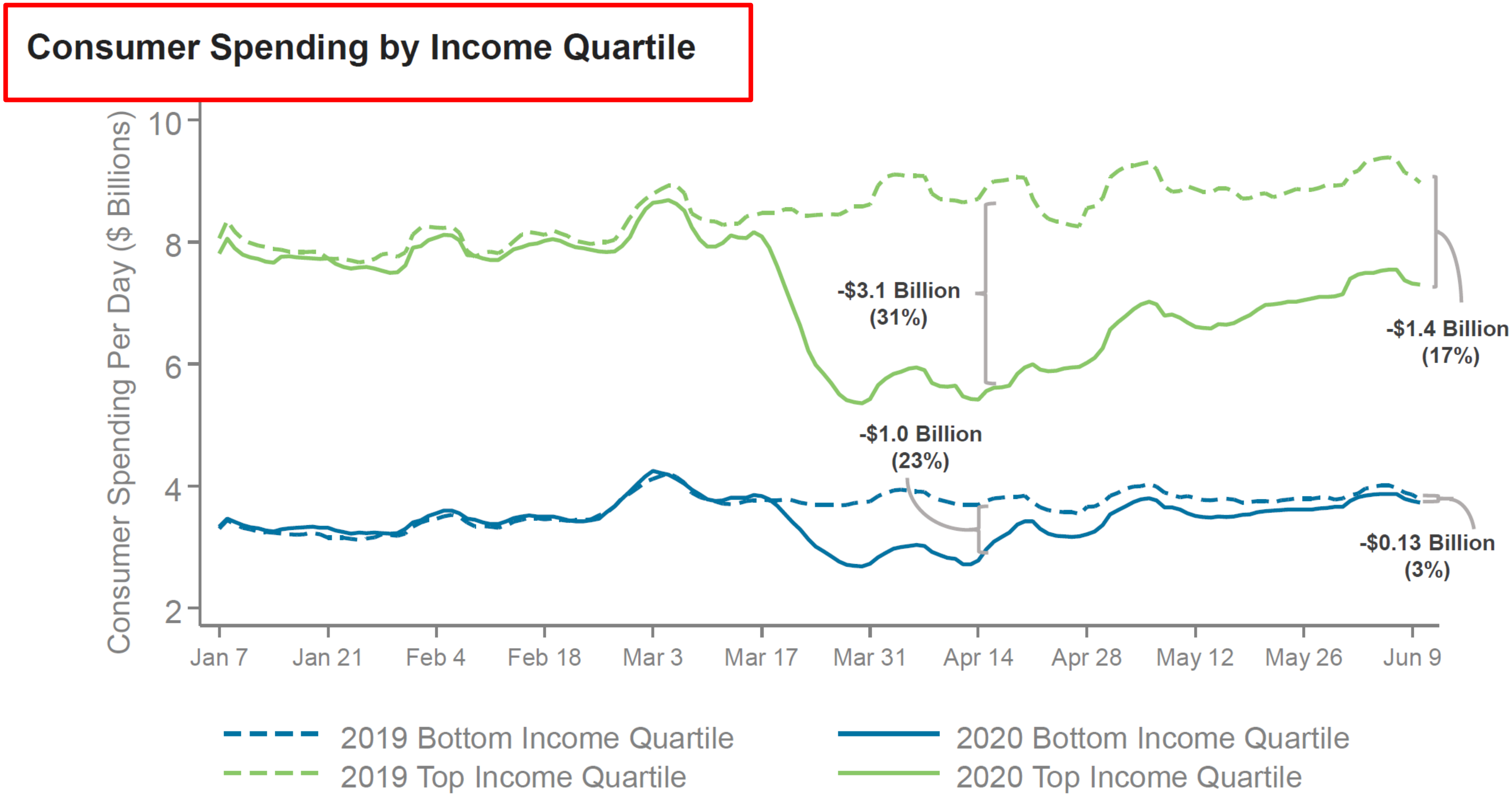
Slide from Raj Chetty, June 17, 2020
Princeton webinar

Consumer Spending by Income Quartile



https://bcf.princeton.edu/event-directory/covid19_24/

Slide from Raj Chetty, June 17, 2020
Princeton webinar



- Spending of high income households fell more – major factor in decline in aggregate spending.
- Spending of low income households recovered very quickly.

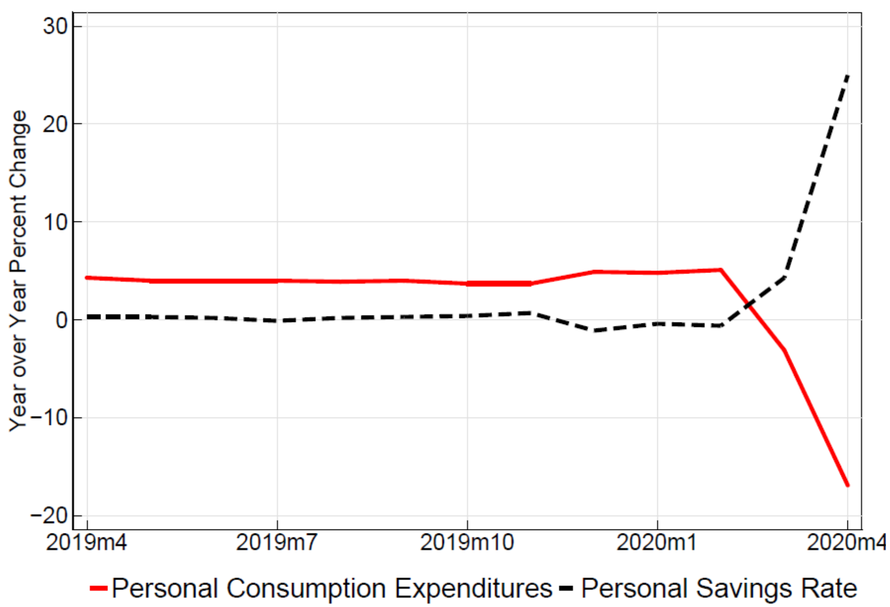
Why Did Spending Fall?

Spending declines are more health-driven, rather than income-driven. How do we know?

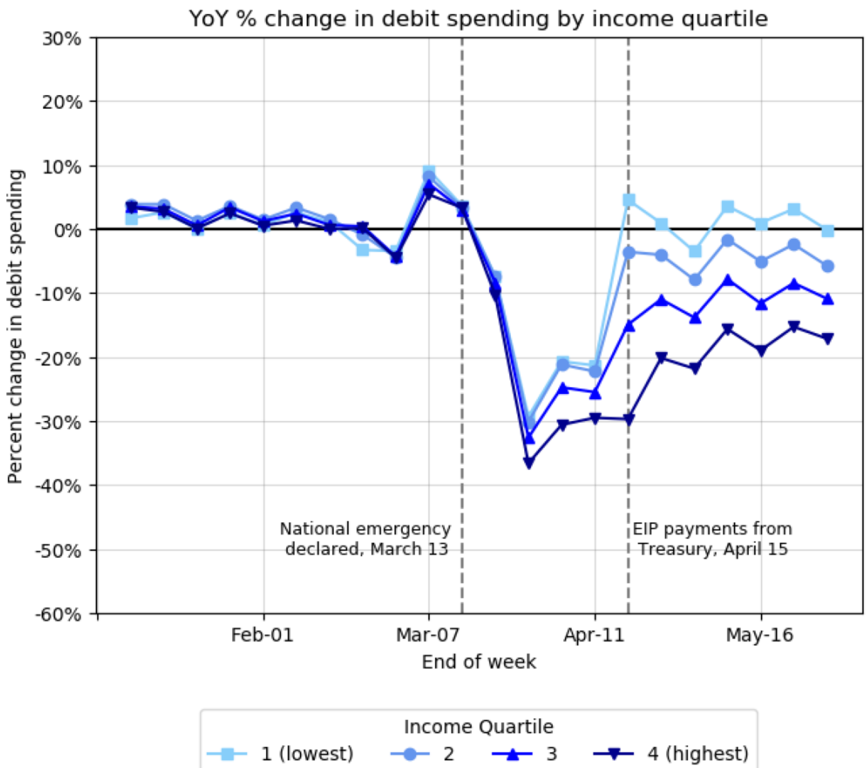
- Spending on "**in-person services**" declined the most
- **Small income losses** for high-income households
- **Unemployment insurance** more than fully replaced income losses of low-income households
- Counties with **higher prevalence** of COVID cases experienced greater spending declines

Evidence that Spending Decline was Not Income-Driven

From Cox et al., “Initial Impacts of the Pandemic on Consumer Behavior”



Source: Bureau of Economic Analysis.



Spending declined and saving rates soared.

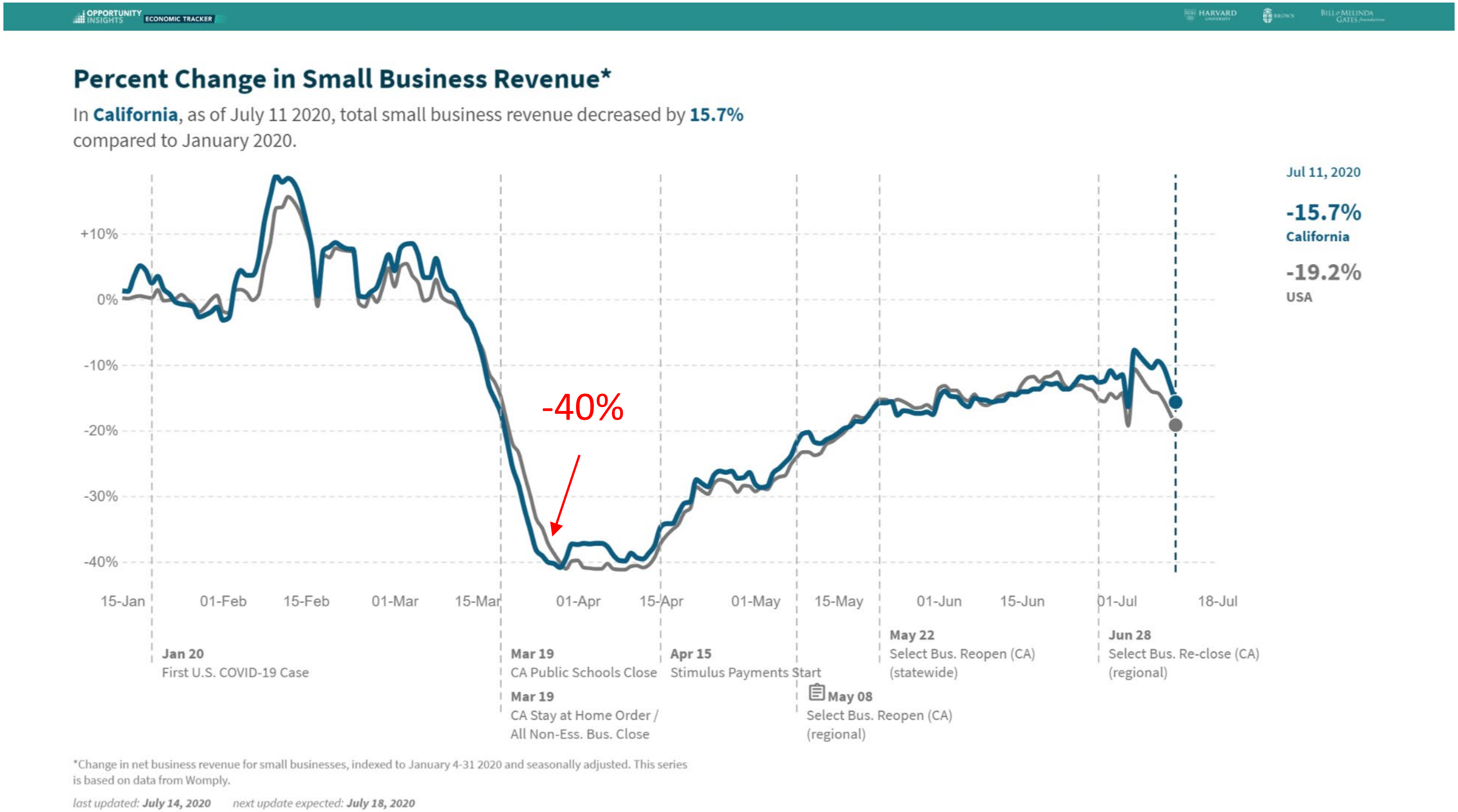
After stimulus payments arrived, spending by the lowest income households completely recovered.

https://www.brookings.edu/events/webinar-special-edition-bpea-2020-covid-19-and-the-economy/

Small Businesses

Data from Opportunity Insights, Balla-Elliott et al. (2020)

Small Business Revenue



Small business revenue declined significantly.
California was similar to the national decline.

From Balla-Elliott et al. “Business Reopening Decisions and Demand Forecasts”

Share Temporarily Closed (May 9)

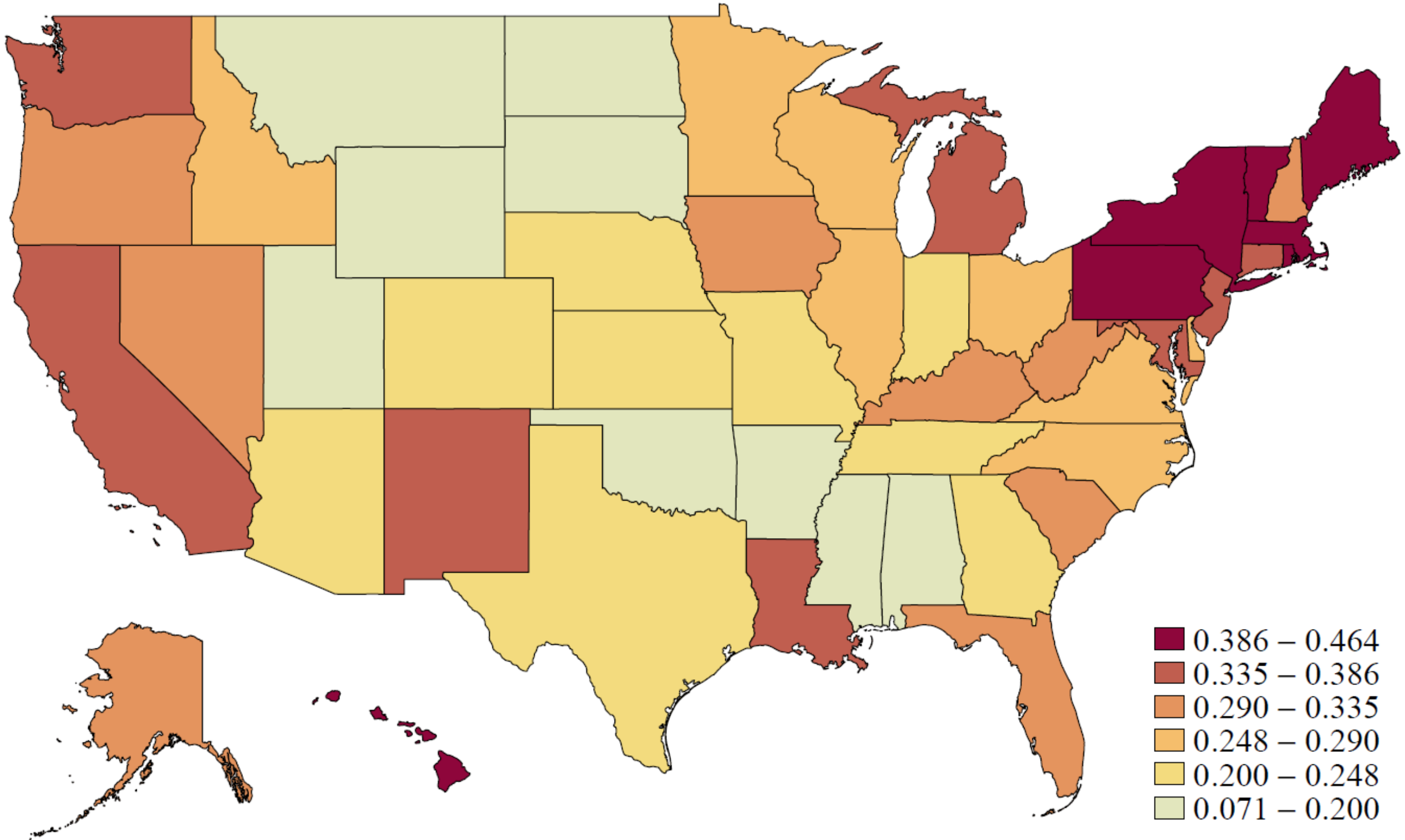


Figure 4: Shares of businesses temporarily closed by state in the May 9, 2020 survey

This figure plots the share of firms that are temporarily closed businesses as of the May 9th survey wave. N=33,001.

dfdf

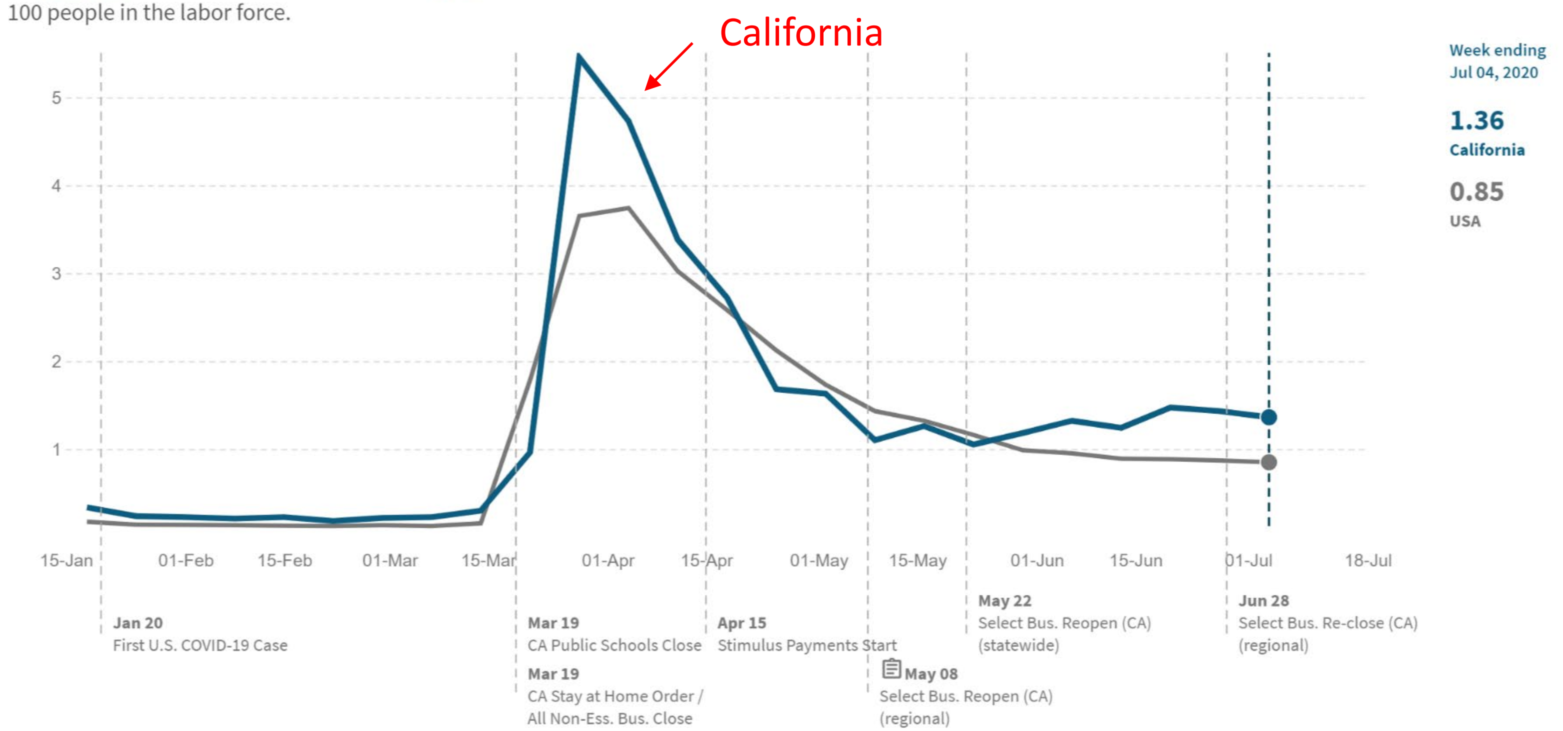
Employment and Unemployment

Data from Opportunity Insights, BLS, and ADP

Initial Unemployment Insurance Claims

Current Unemployment Claims per 100 People*

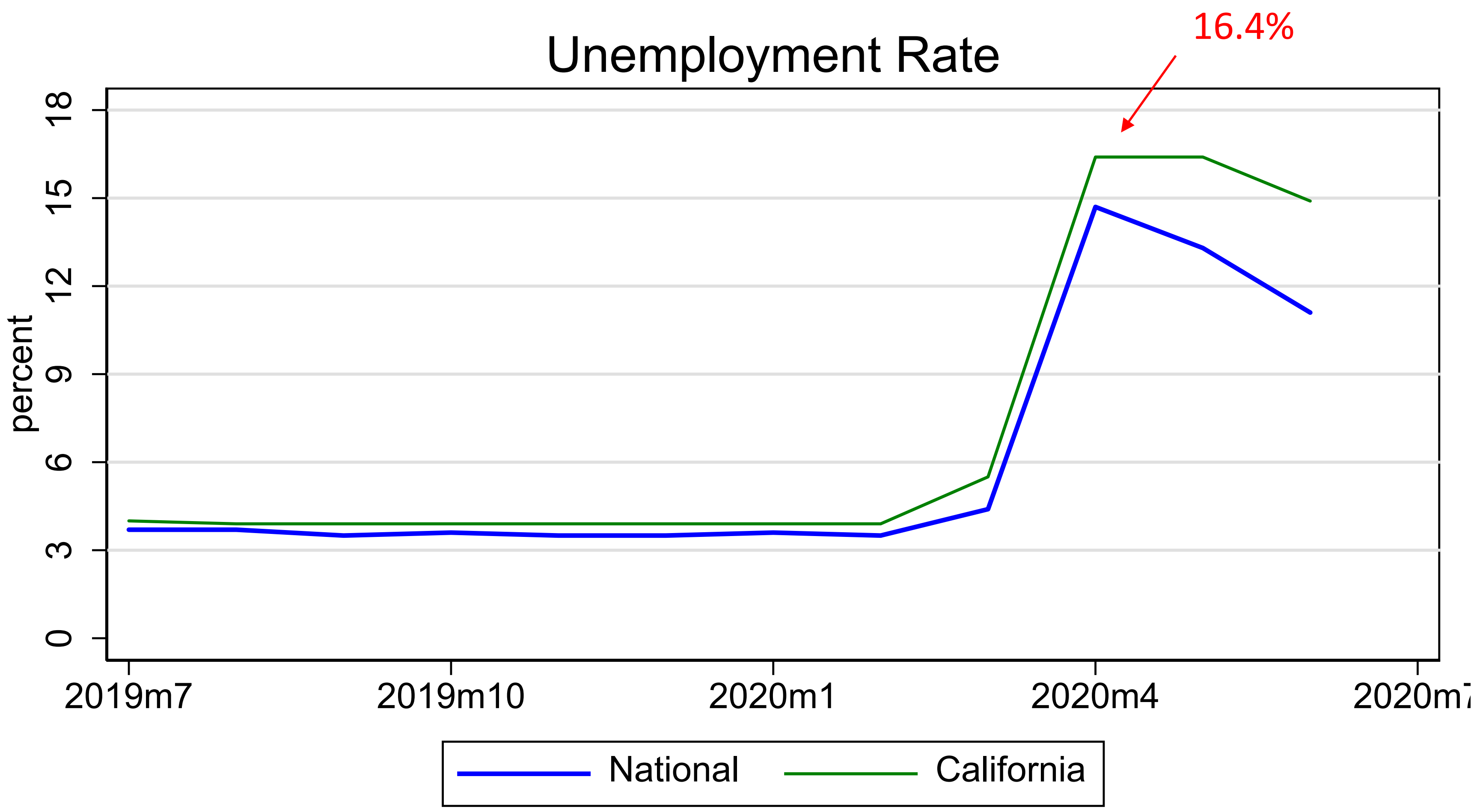
In **California**, as of July 04 2020, there were **1.36** initial unemployment claims per 100 people in the labor force.



*Number of unemployment benefit claims filed with state unemployment offices per 100 people in the labor force. This series is based on data published by the Department of Labor.

last updated: ***July 14, 2020*** *next update expected:* ***July 18, 2020***

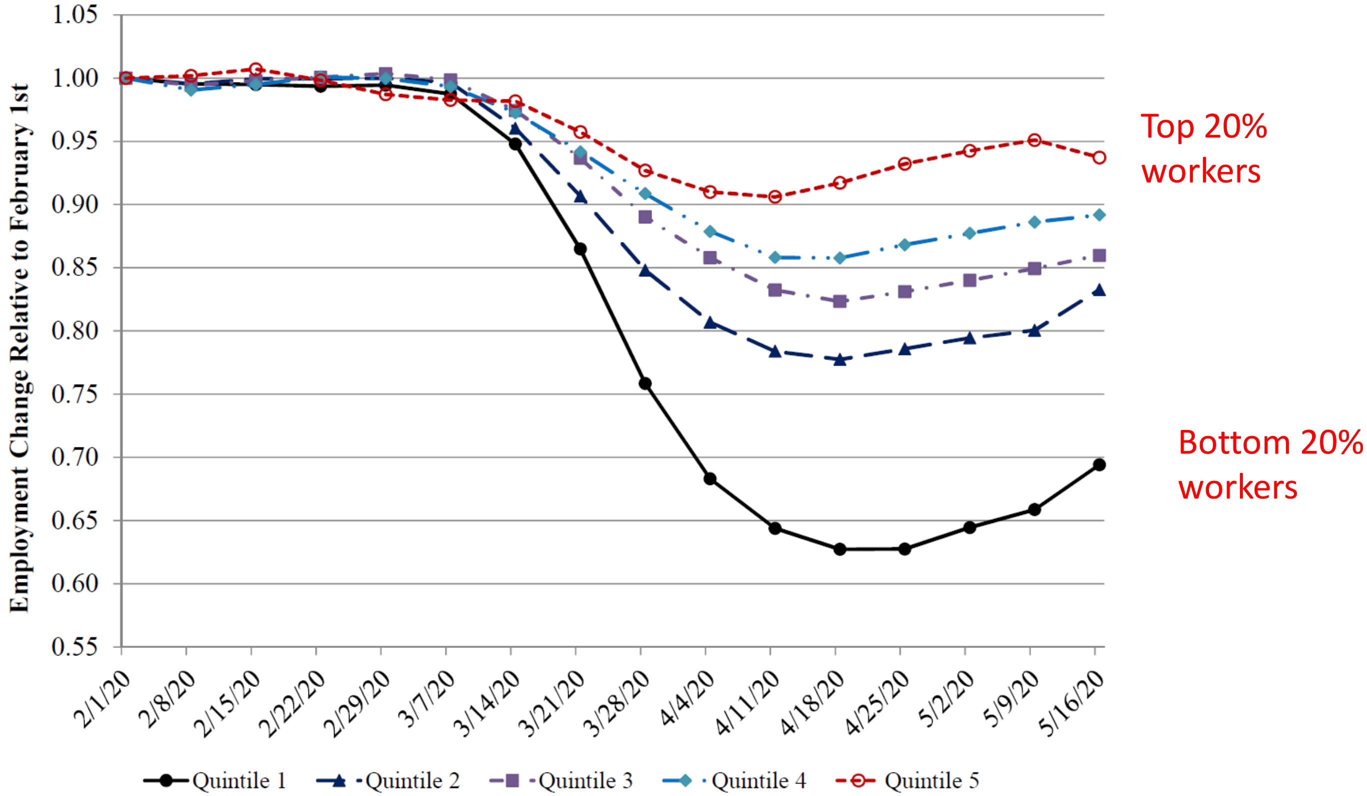
California's rise was greater than the national rise.



California’s unemployment rate rose more and has stayed higher than the national rate.

Employment Declines by Initial Wage Quintile

National



The lowest wage workers have borne the greatest employment losses.

Based on slide from Erik Hurst, June 26, 2020 Princeton webinar, ADP data.
https://bcf.princeton.edu/event-directory/covid19_27/

Paid Employment Changes By 2-Digit Industry

National

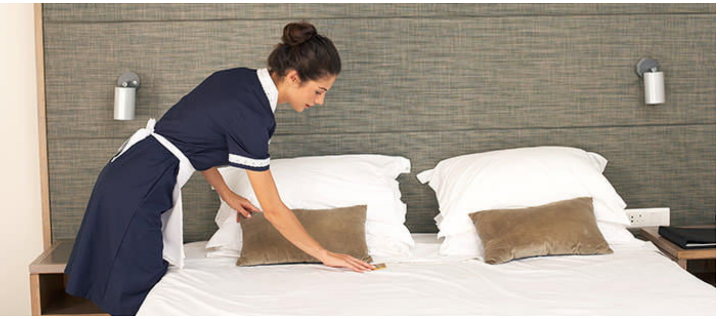
Industry	2/15-4/25	2/15-5/30
Arts, Entertainment and Recreation	-50.7%	-41.5%
Accommodation and Food Services	-45.5%	-34.1%
Retail Trade	-28.7%	-18.5%
Other Services	-25.0%	-17.1%
Transportation and Warehousing	-21.7%	-23.2%
Real Estate, Rental and Leasing	-20.9%	-19.6%
Wholesale Trade	-17.6%	-12.3%
Administrative and Support	-17.0%	-17.1%
Educational Services	-16.6%	-17.5%
Health Care and Social Assistance	-16.5%	-8.8%
Construction	-13.5%	-4.5%
Manufacturing	-12.4%	-8.6%
Professional, Scientific, and Tech Services	-12.1%	-9.1%
Finance and Insurance	-1.3%	-0.7%

Based on slide from Erik Hurst, June 26, 2020 Princeton webinar, ADP data

Trickle Down

The evidence suggests that spending by high income individuals has led to job losses by low wage individuals. Why?

- The high income individuals are much more likely to be able to work from home and can shelter in place more comfortably
- This has led to significant declines in spending on in-person services and on businesses-related travel
- These types of businesses employ many low-wage workers



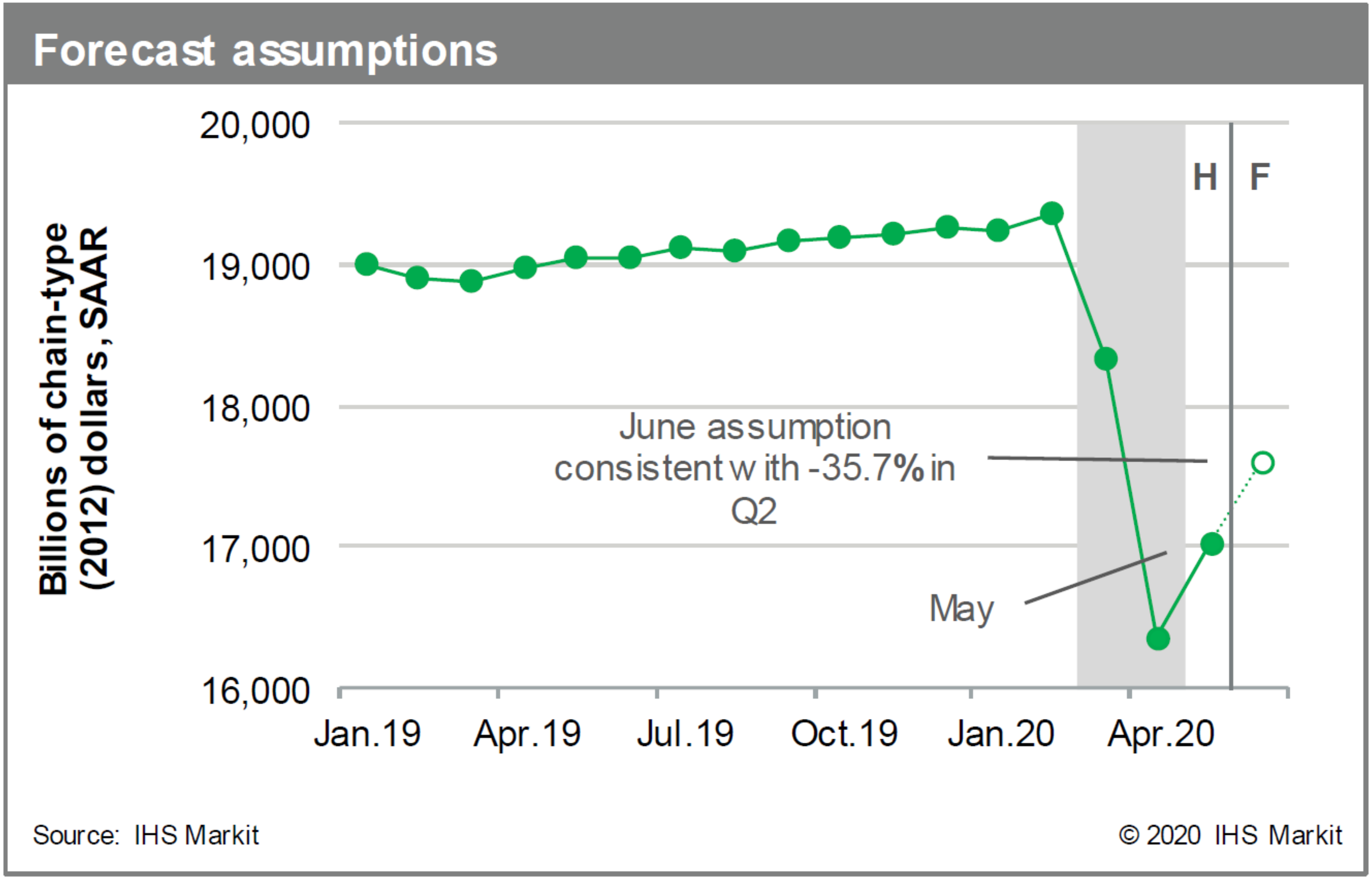
Where is the Economy Now?

Forecasts from IHS Markit

HIS Markit produces monthly GDP estimates

Forecasts for Q2 GDP

IHS Markit Forecasts a -35.7% (annual rate) decline from Q1



What will Happen Over the Next 6 Months?

V W L ?

Much depends on the progress of the disease and on medical technology.

- Individual behavior can have a big effect

- Policy responses matter

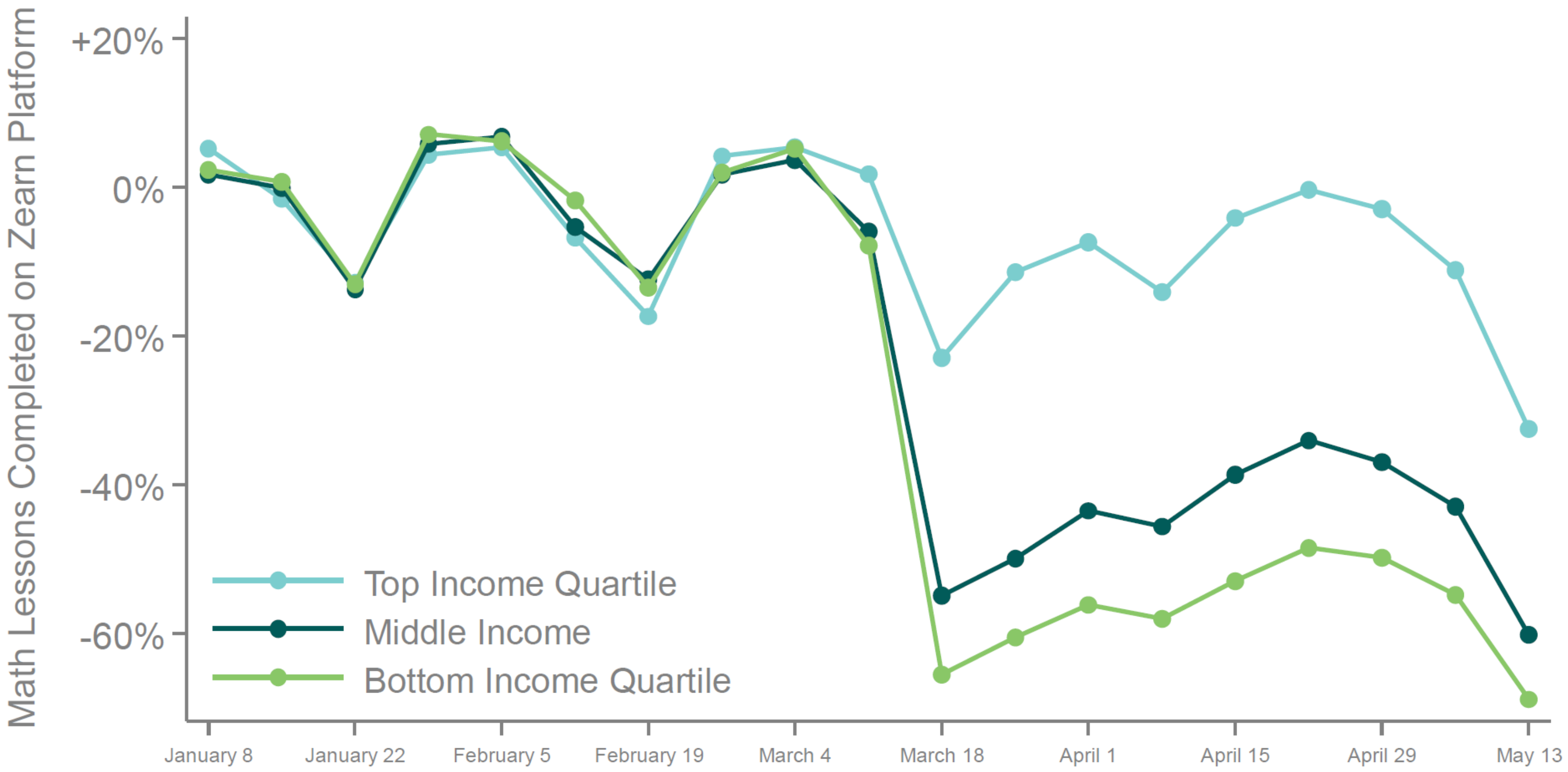
Longer Run Effects on the Economy

Possible Longer-Run Consequences

- If business must stay closed for longer, many jobs are likely to be destroyed.
- Acceleration of the decline of brick-and-mortar retailing.
- Acceleration of the substitution of capital for labor in service sector (Roomba for housekeeper, self-ordering at fast food restaurants, etc.).
- Permanent decline in the amount of travel due to substitution of virtual meetings for in-person meetings.
- Threat of future pandemics could lead to:
  - More uncertainty, especially for some businesses.
  - Changes in commercial building architecture
  - Reversal of agglomeration benefits (i.e. dense cities with public transport vs. spread-out activity)
- Human capital and inequality

Human Capital and Inequality

Effects of COVID on Educational Progress by Income Group



Slide from Raj Chetty, June 17, 2020 Princeton webinar

Some Final Thoughts

- It is no exaggeration to state that the recent economic events are unprecedented.

- Even if a vaccine were approved for widespread use tomorrow, there would be lasting economic effects.

- One hopes that we learn from some of the missteps during the current pandemic so that we are better able to deal with future ones.

Thank you!