

The logo for PCA (Portland Cement Association) features the letters 'PCA' in a bold, white, sans-serif font. A white swoosh underline starts under the 'A' and extends to the right, ending in a registered trademark symbol (®).

PCA®

Since 1916

America's Cement Manufacturers™

Briefing: #4

(May 28, 2020)

Coronavirus Impacts on the US Cement Industry

Ed Sullivan, SVP & Chief Economist

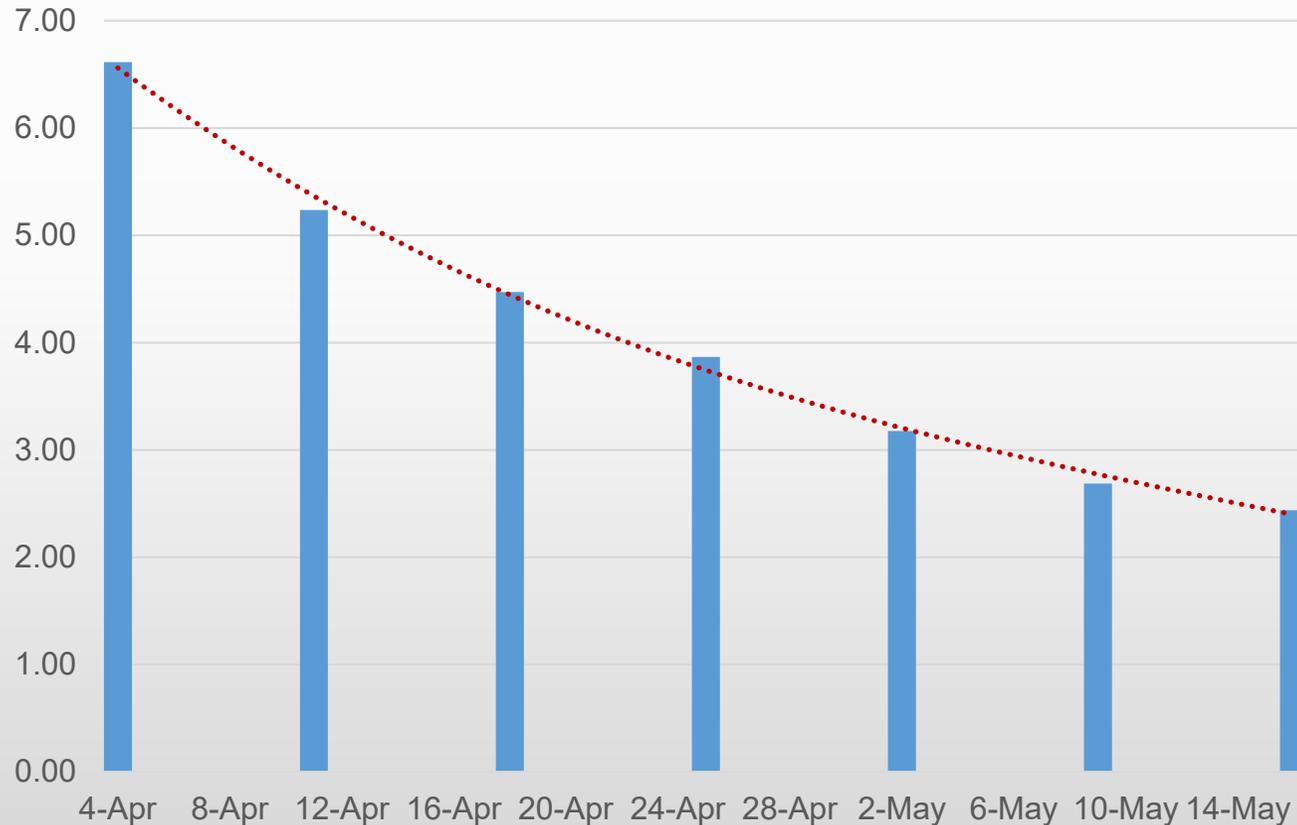
Market Intelligence's Research Focus

1. Review Recent Macroeconomic Information.
2. CEO Survey & Industry Pulse.
3. Cement Consumption Data.
4. Macroeconomic Two Year Outlook.
5. Cement Consumption Two Year Outlook.
6. Key Risks #1: State Finances
7. Key Risks #2: The Return of the Virus
8. Longer Term Considerations

Recent Data Macroeconomic

New Unemployment Claims

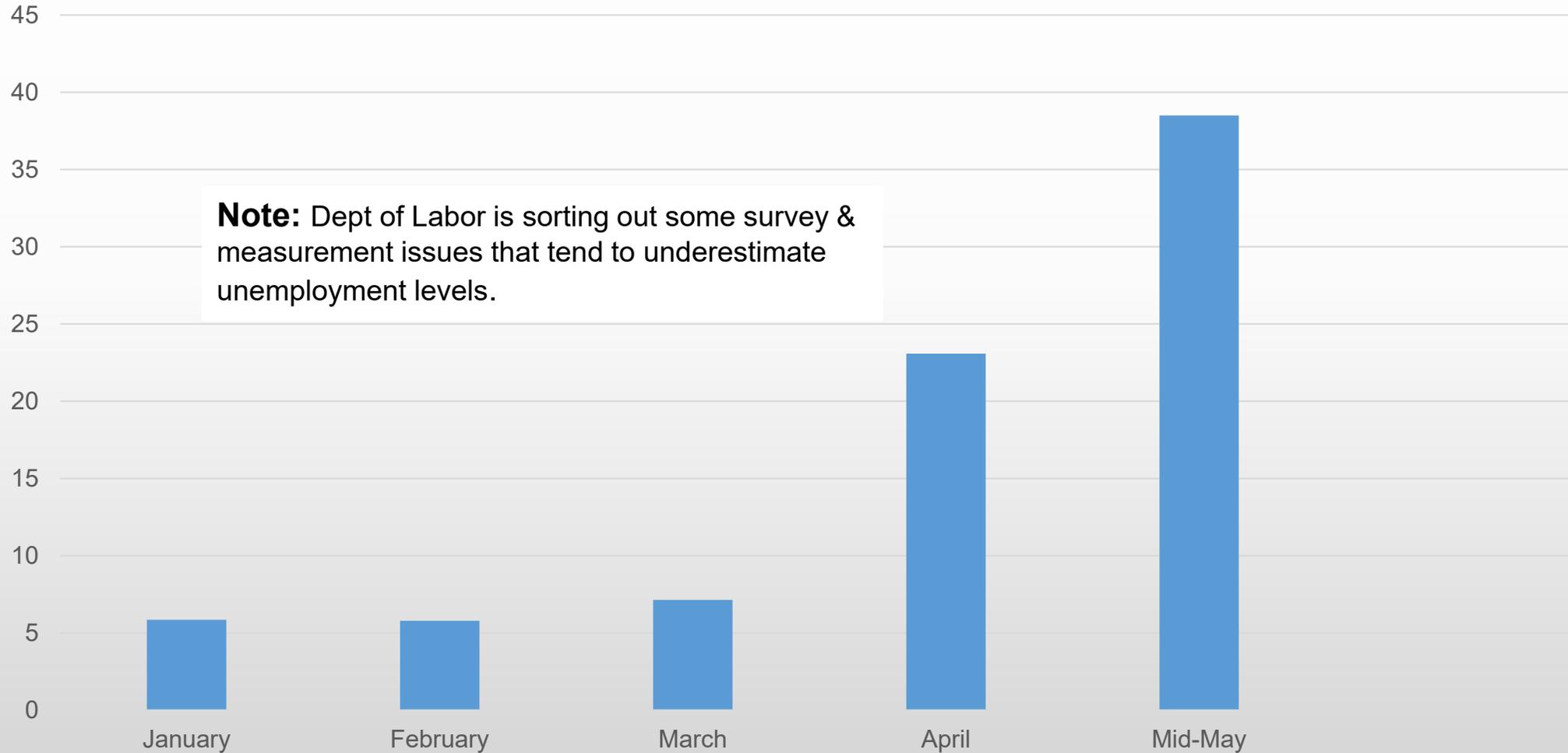
- Millions



- Job losses have been rapid, large & disturbing.
- We are reaching a trough point. We are now transitioning from worsening labor market conditions to improving labor market conditions, albeit from dire levels.
- The shut downs caused tremendous economic scarring. Some business will not re-open. Some workers will not regain their jobs. Consumers will likely remain wary of Covid and not return to pre-Covid buying patterns.
- The recovery that ensues will not include a quick recovery to pre-covid employment levels. That level may be years off.
- High levels of unemployment will characterize the economic landscape this year and next.
- The trend of weekly new unemployment claims is declining, **but will continue at a decaying rate** until the positive impact of re-openings outweigh the adverse impact of Covid.

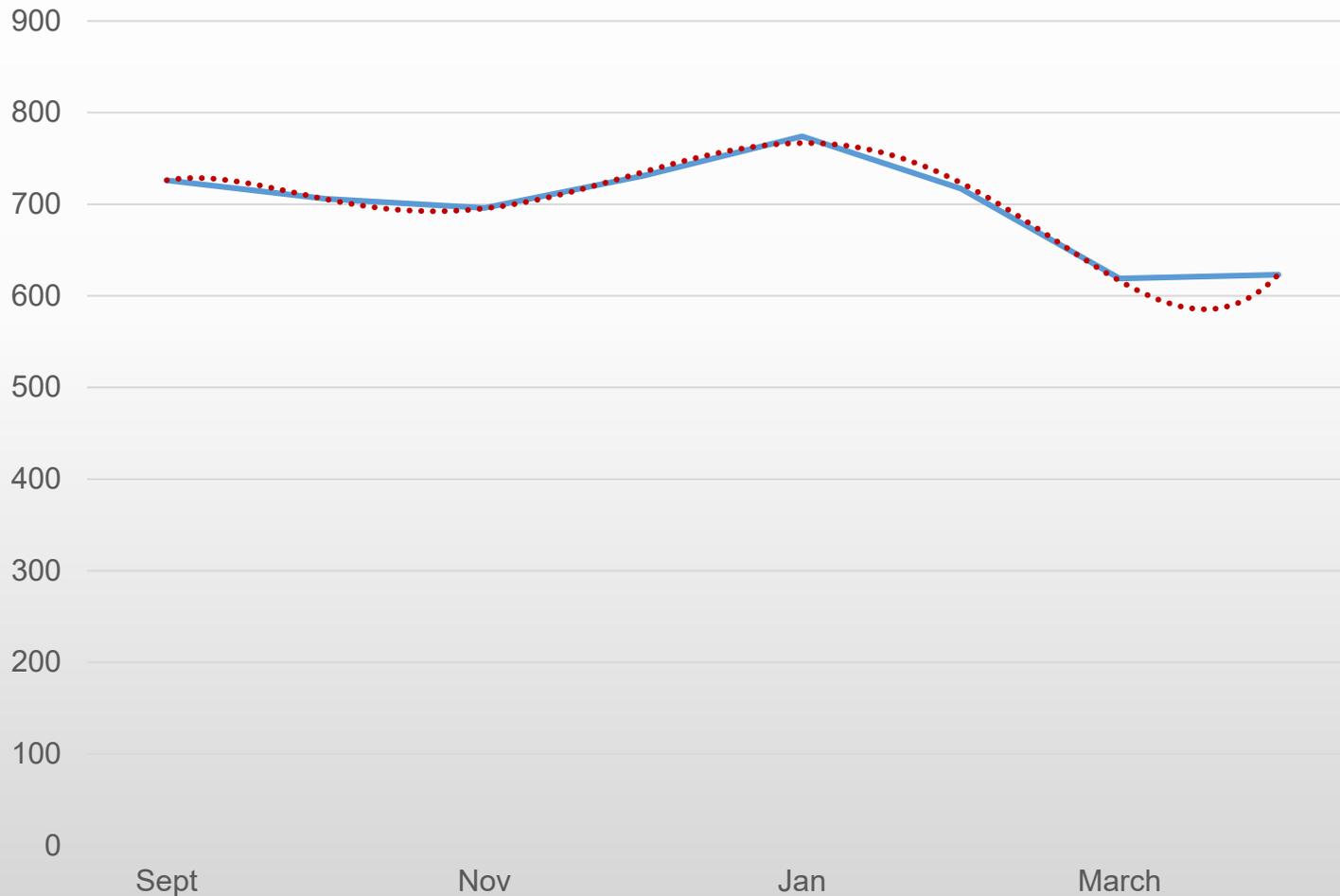
Unemployed

- Millions



Consumer Confidence

Composite Conference Board



- Consumer Confidence is a critical ingredient in determining sales and total Consumer spending activity.
- Prior to Covid, the Conference Board's Consumer Confidence Index was riding a strong high. This partially supported strong consumer spending and enabled US GDP to sustain its strength.
- Back-to-back large declines occurred in March and April.
- The **May results showed a modest improvement**. Consumer confidence is still low and remains troublesome. It is not continuing to decline.
- The trough has likely been reached. Tepid improvement is expected going forward.

New Home Sales

Seasonal Adjusted Annual Rate



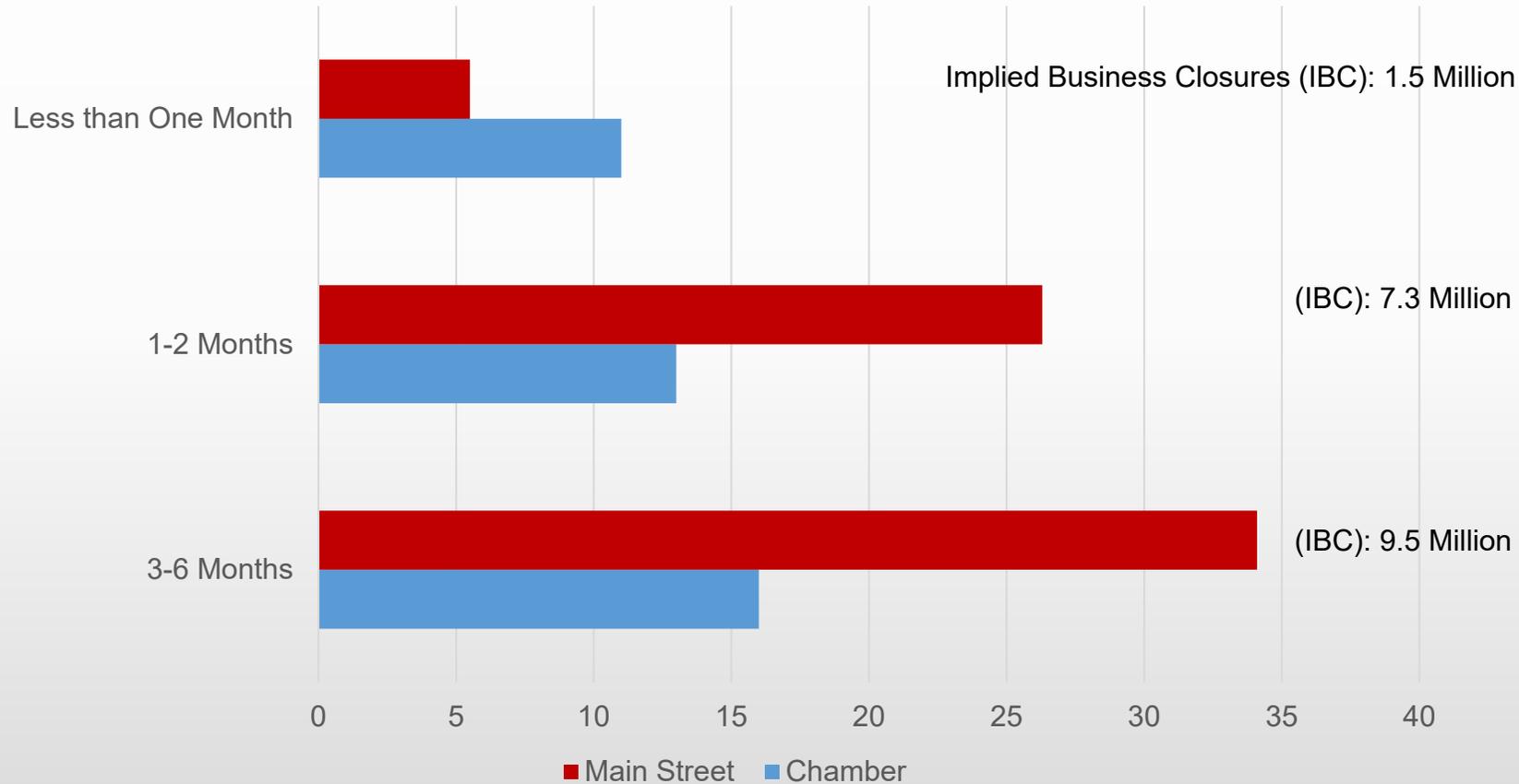
- May's ***New home sales increased slightly from April's level.*** This was an unexpected positive.
- Median new home prices declined from \$326K to \$309K – reflecting a 5.2% decline.
- Low mortgage rates continue and the national average stands at 3.69%.
- The amount of new homes for sale declined and is responsible for the decline in month's supply from 6.4 months to 6.1 months supply.
- Mortgage Bankers Association reported that new mortgage purchase applications also increased. This suggests the possible continuation in the improvement in new home sales.
- New home sales are volatile. It is too early to declare that a trough has likely been reached.

Once We Turn the Corner.

- We may be at, or near, a trough point for the economic downturn. Future data reports will increasingly show improvement.
- That improvement is expected to be tepid.
- Consumer and business have endured tremendous “scarring” and that scarring will likely continue in the months ahead.
- Consumer’s may remain fearful of Covid, despite removal of Stay-In-Place orders. The combination of fear, stressed household funds suggests a tepid consumer recovery. Aside from economics, **fear of the virus and infection** will increasingly dictate the growth path of the economy – regardless of mandated state openings/
- The extent additional Federal Relief materializes. Near term support may be delayed or significantly reduced in light of growing Federal Debt concerns.

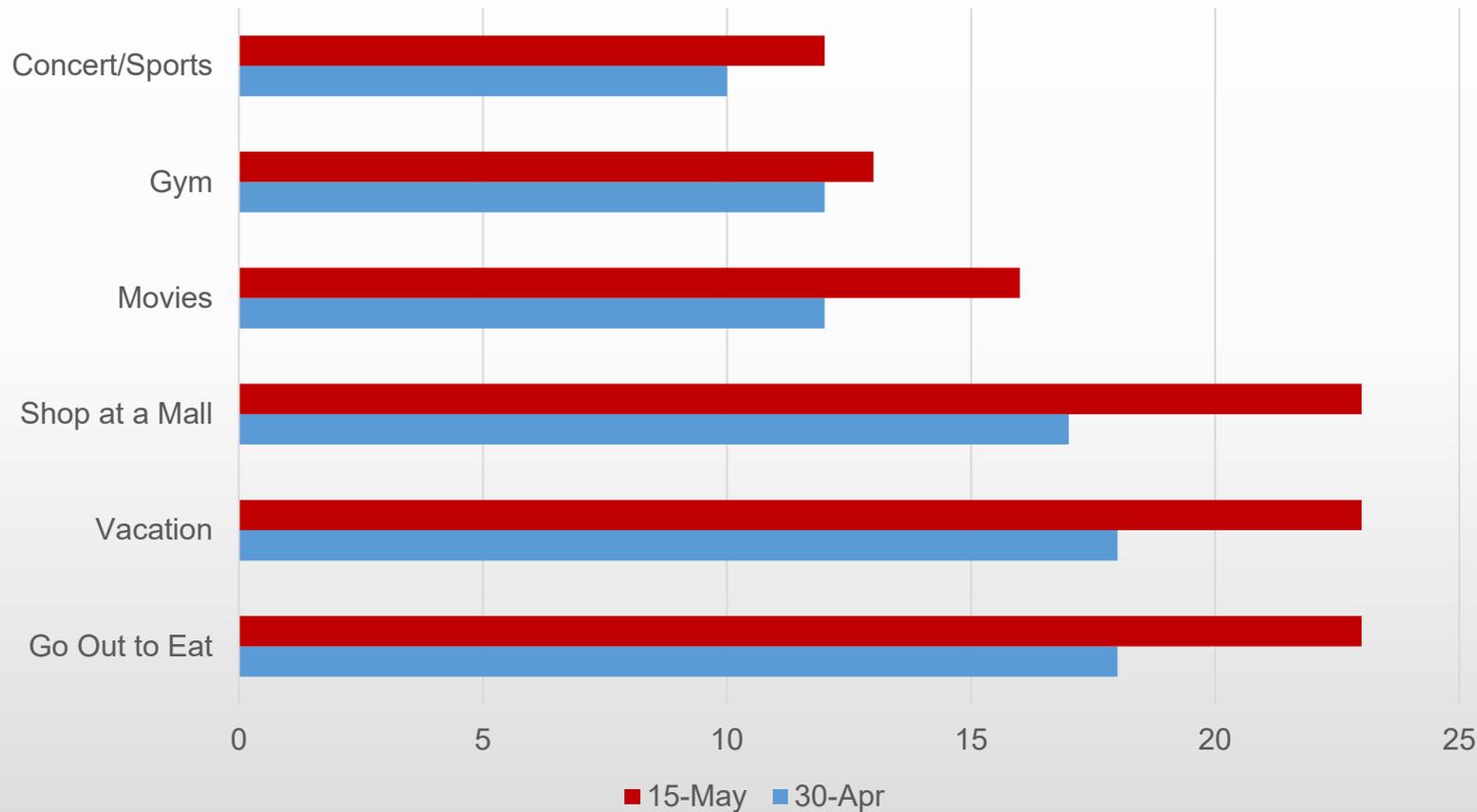
Small Business Scarring

- How long before permanent closure?



- There are roughly 28 million small businesses. These establishments employ roughly 60 million workers.
- Small business has been extremely hard hit by shutdown orders.
- Even in the wake of Federal Support (CARES), working capital has been reduced and for many are razor thin.
- Surveys by the US Chamber of Commerce & Main Street Business suggest an urgency for a recovery to begin soon.
- In view of these numbers, it is easy to understand small business' pressure on state governments to re-open.

Are you Comfortable Going to.....

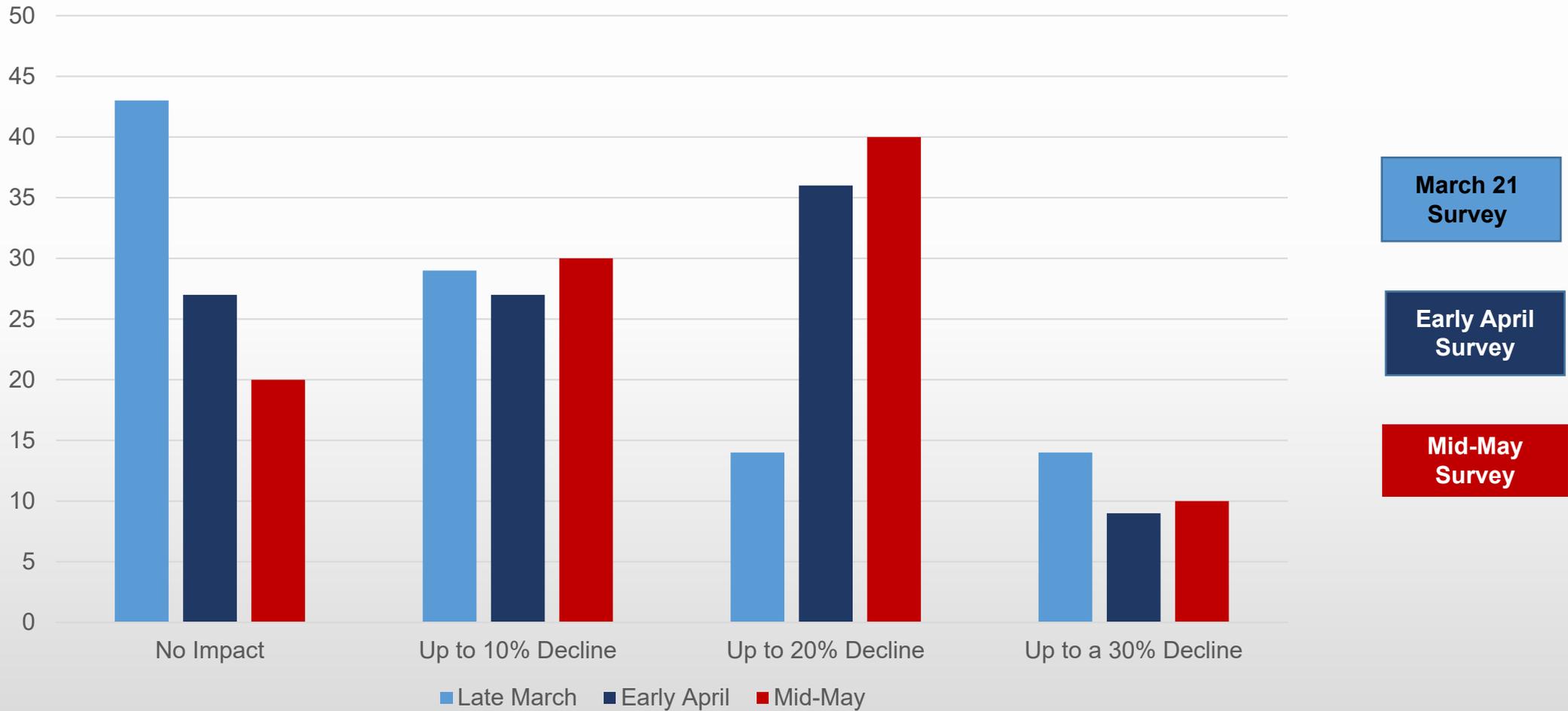


- The highest level of comfort is dining and ranks 23% of respondents saying they would be comfortable going out to dine now. That implies, 77% do not feel comfortable going out now.
- Men are 55% more comfortable than women overall.
- Baby boomers are the most cautious and are 30% less comfortable than Millennials.
- Urban dwellers are 13% less comfortable than rural dwellers.
- Republicans show twice the level of comfort than democrats.

Industry Pulse

Survey of Cement CEOs

“To what extent have you experienced shipment declines as a result of the coronavirus disruption”



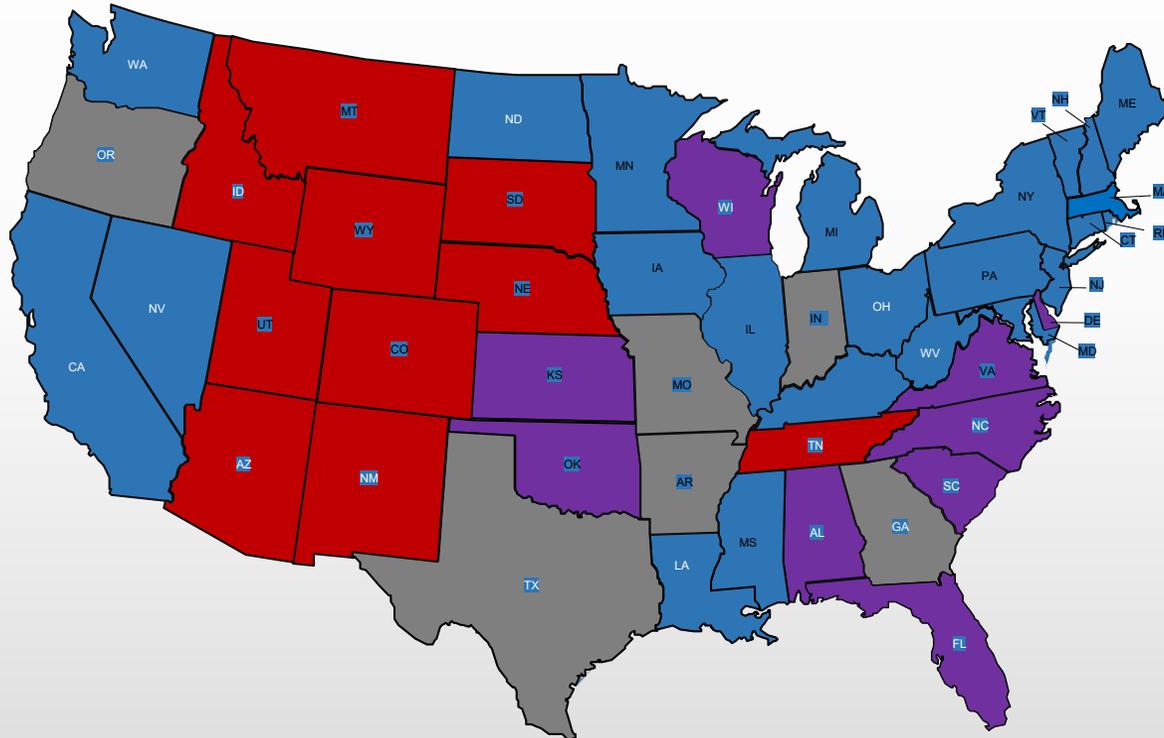
CEO Survey

- Minor disruption of petcoke supplies have been reported. Some difficulties in securing disruptions that have occurred relate to equipment deliveries, face masks, and sanitizers.
- Two reported plant shut downs. One third reported layoffs. Half reported a reduction in shifts and some have reduced overtime.
- 70% indicated that Capex had been cut particularly as it relates to climate change investments.
- CEO's are concerned about 1) state DOT funding in the context of dire state fiscal conditions, 2) the ripple effects of economic adversities on demand decay in construction activity and cement consumption, and 3) concern that in the context of financial stress, a new round of more rigid emission regulations might arise in the next few years.

Recent Cement Data

Cement Consumption Actual: April

Percent Change, Year Ago



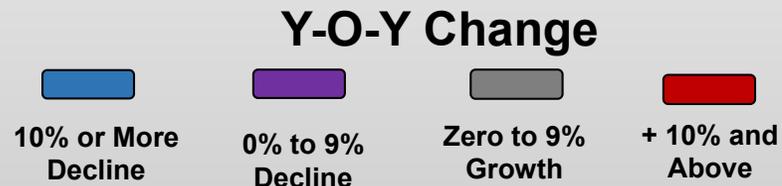
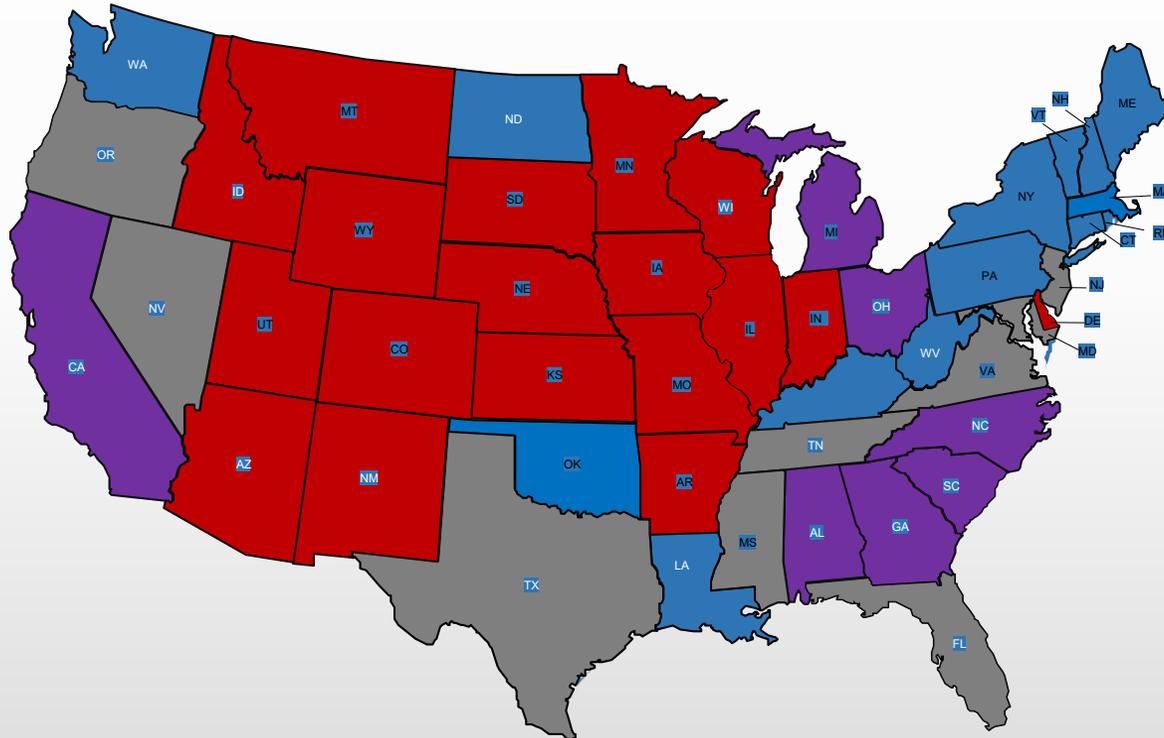
Y-O-Y Change



West North Central	+14.8%
West South Central	+1.0%
New England	-24.4%
East North Central	-4.4%
Middle Atlantic	-50.9%
South Atlantic	-6.4%
East South Central	-4.4%
Pacific	-23.6%
Mountain	+14.3%
United States	-8.2%

Cement Consumption Actual: Year-to-Date

Percent Change, Year Ago



West North Central	+23.6%
West South Central	+1.6%
New England	7.9%
East North Central	7.1%
Middle Atlantic	-12.4%
South Atlantic	-0.4%
East South Central	-3.0%
Pacific	-2.2%
Mountain	+16.3%
United States	+2.7%

Cement Consumption Disconnect to Macro

- Favorable weather led to very strong first quarter cement consumption. When we calculate an annual 2020 growth rate, it must be remember that the 1st Quarter strength will offset some of the Covid weakness experienced in later months.
- With Covid, the general economic numbers are extremely adverse. GDP, Labor, Attitudes, Bankruptcies, State Finances – all sing a grim economic tale.
- Cement consumption has been disrupted in regions where Covid has more of a presence. Outside these areas, cement consumption remains strong and shows little adverse impact.
- Wide disparities exist in market performance by region – Mountain Region is running at double digit growth. Mid-Atlantic is running double digit declines.
- Overall, on a national basis, the anticipated second quarter declines are likely to be much smaller than originally expected.

Macroeconomic Outlook

The Alphabets of Recovery



V

A Sharp deep decline, followed by a robust recovery.

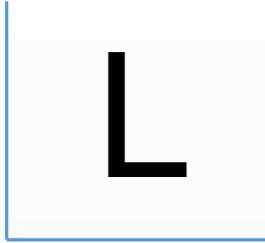
- **No scarring.**
- Jobs come back quickly.
- Business returns.
- Consumer spending and confidence returns.
- Huge Pent-up released.
- Virus does not return.



U

A Sharp deep decline, followed by a period of slow recovery, and then a more robust recovery.

- **Some Scarring.**
- Jobs come back slowly.
- Many businesses close.
- Consumer spending is hurt by debt, and lacks confidence .
- A slow shallow process of recovery.
- Virus does not return.



L

A Sharp deep decline, followed by a very lackluster recovery.

- **Deep scarring.**
- Prolonged recovery in jobs.
- Many businesses closed and are cautious in hiring..
- Consumer confidence does not recovery quickly. Spending decline prolonged.
- Virus does not return.



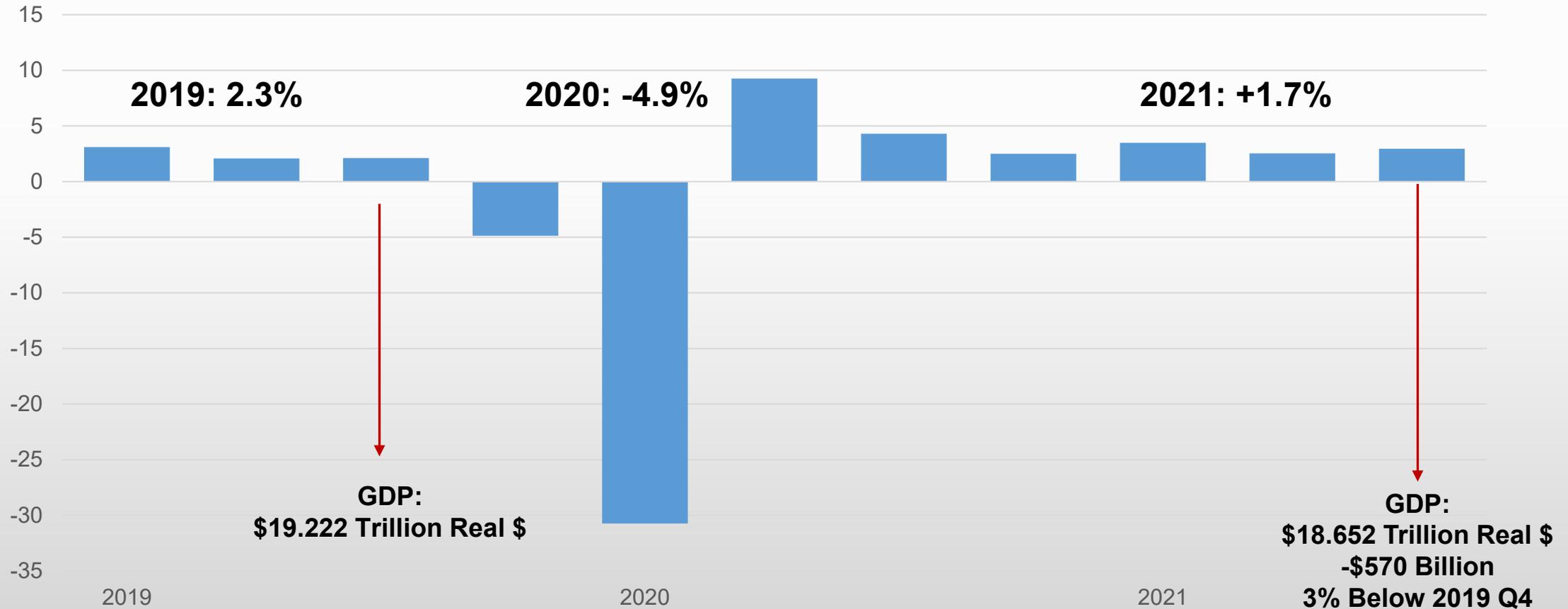
W

A Sharp deep decline, followed by a robust recovery and a slide back into recession.

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GDP

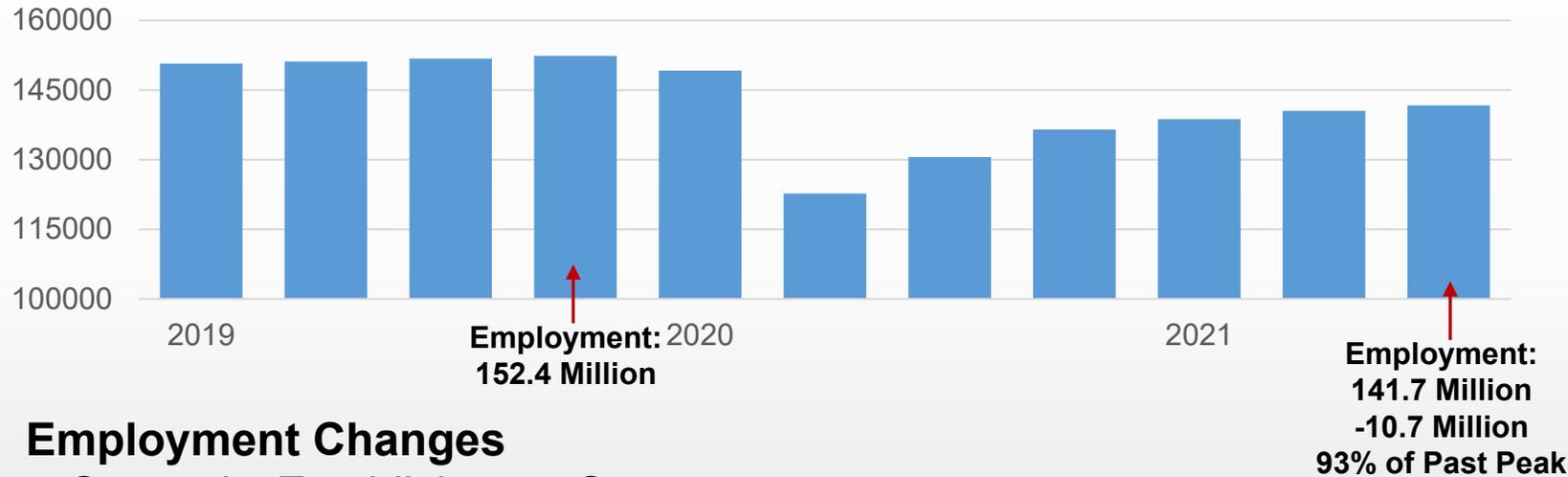
- Annualized Percent Change from Previous Quarter



U.S. Labor Market

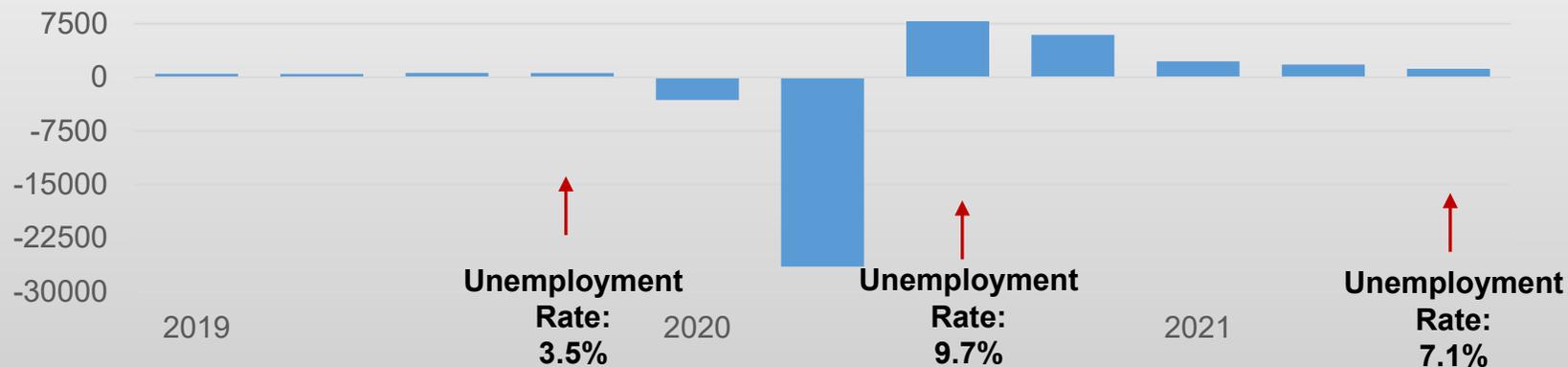
Employment

- Quarterly, Establishment Survey



Employment Changes

- Quarterly, Establishment Survey

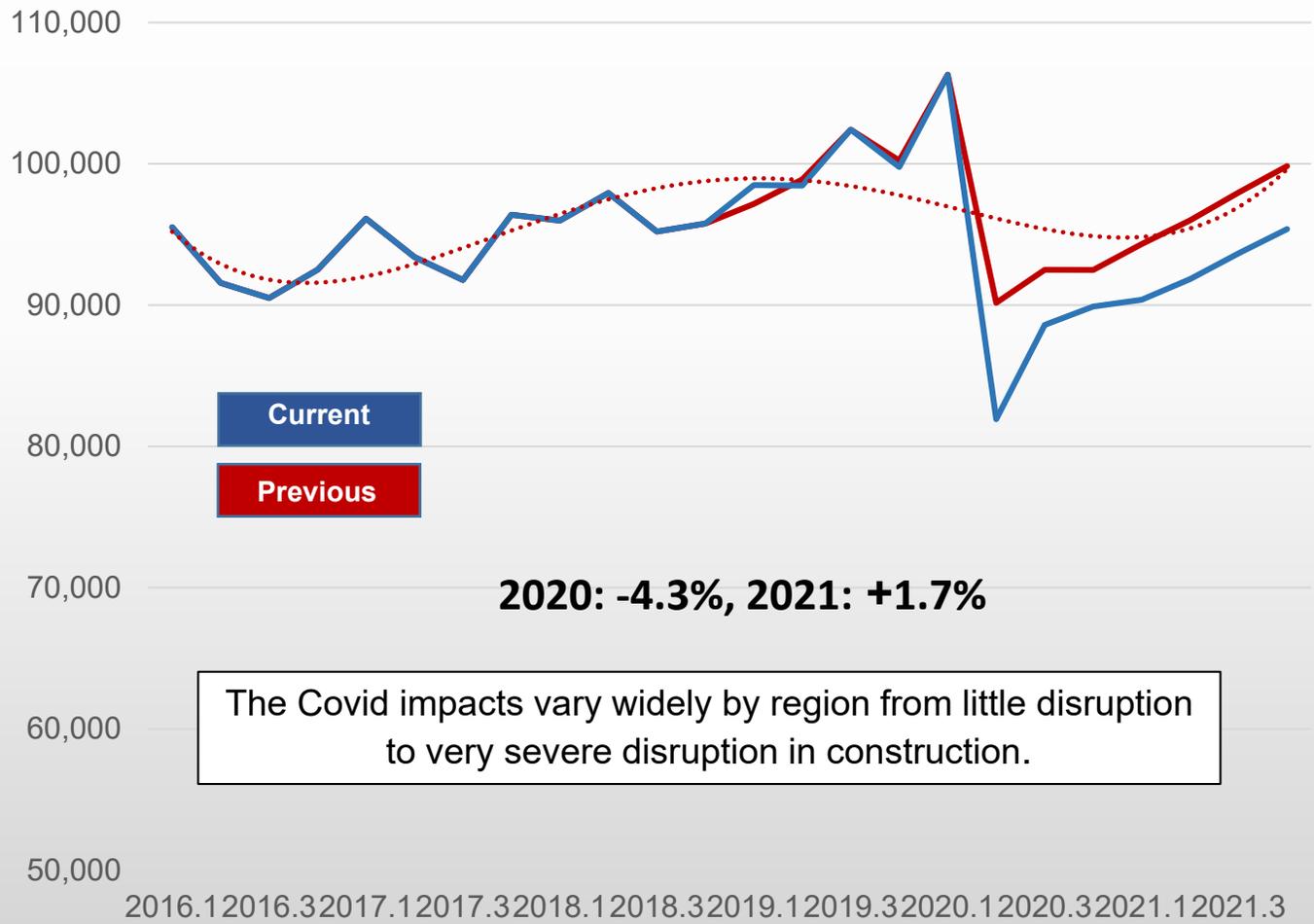


- With the May 21st Unemployment Claims Report of 2.4 million, 38.5 million jobs have been lost in nine weeks.
- Keep in mind, roughly 5.5 million were unemployed before the Covid impacts.
- The large initial increases in unemployment reflected stay-in-place shutdowns.
- As the impact of shutdowns are digested, additional additions reflect demand decay – economic based, not policy based.
- Reopening of state economies will result in some re-hirings. Third quarter job creation is expected to reach more than 7.5 million, followed by nearly 6.0 million more in the fourth quarter. Robust gains continue through 2021.
- By the end of 2021, despite sustained gains, employment is expected to lie more than 10 million jobs below 2019 Q4.

Cement Consumption Outlook

Cement Consumption: The Outlook

Quarterly, SAAR

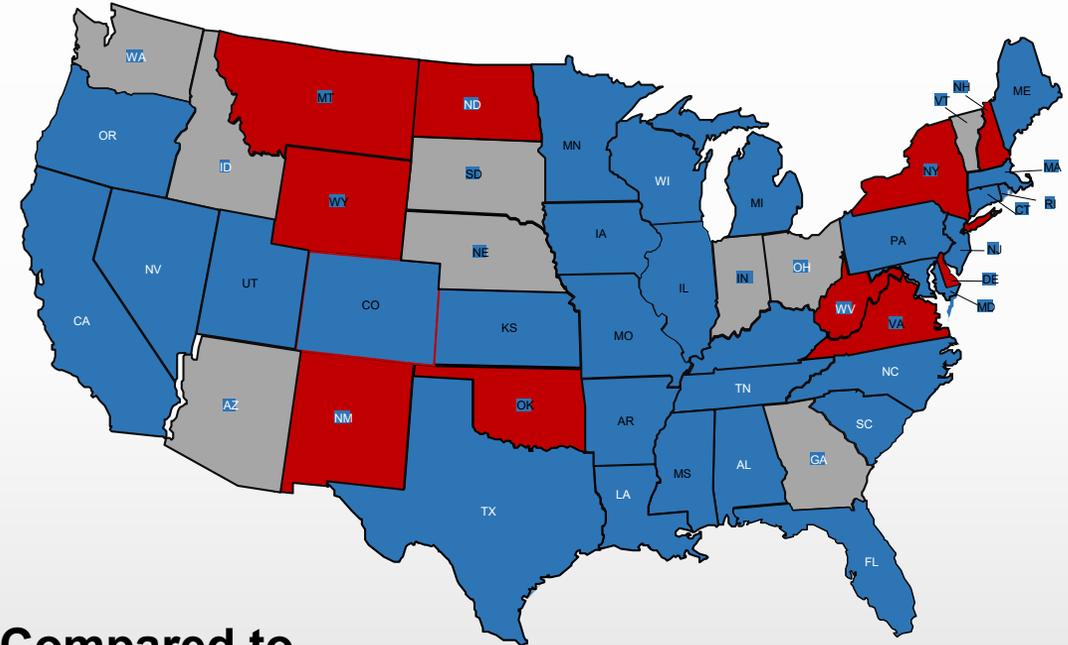
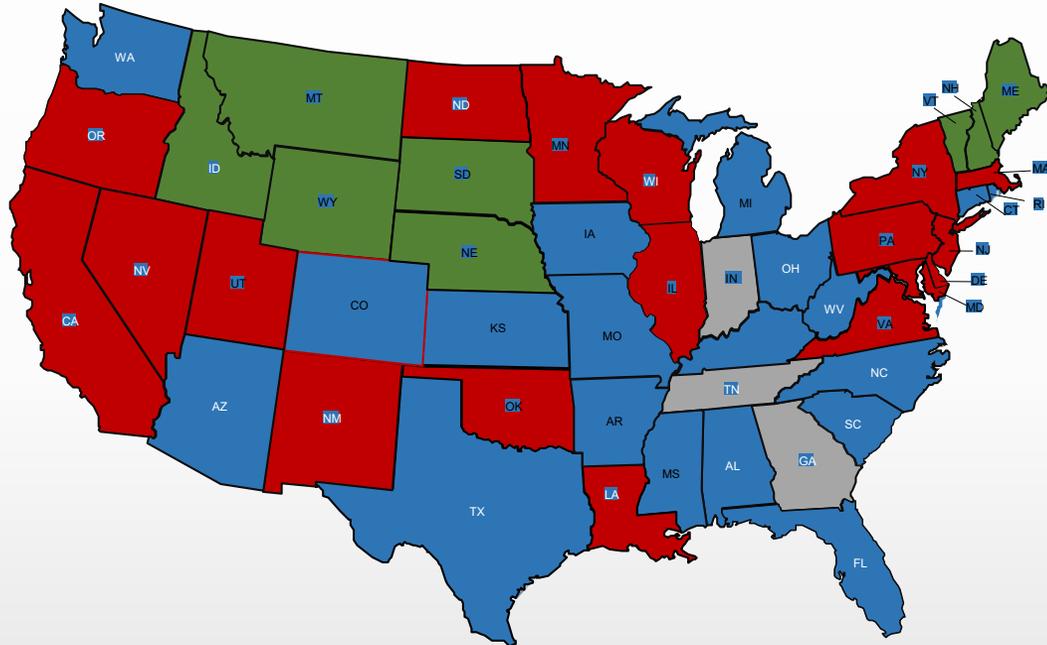


- The supported by solid economic fundamentals and favorable weather, the US cement market was experiencing strong order books and healthy growth rates during the 1st Quarter – with the US market running nearly 10% above year earlier levels.
- Despite its exempt status from Stay-In-Place, the sudden loss in economic strength, a drop in oil prices, worker fear resulting in worker shortages, supply disruptions including PPE, delays in permitting and inspections all worked together to displace construction activity.
- These adverse consequences of Covid were primarily bi-coastal. The interior sections of the country remained strong.
- Even in areas that showed resiliency, as order books are worked off, the weight of economic distress is expected to cause a slowdown in the replenishment of order books – resulting in softness.
- The gradual economic recovery implies a gradual construction and cement recovery. The cement market’s past cyclical peak is expected to be more than a two years away.

Public

State Revenues: 2020

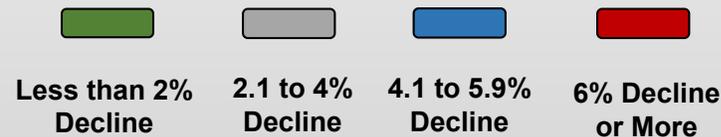
State Revenues: 2021



Revenue Decline Compared to 2019 Levels

Given our Macroeconomic Projection

- Estimate Income by State
- Consumer Spending by State
- VMT By State
- Real Estate Values

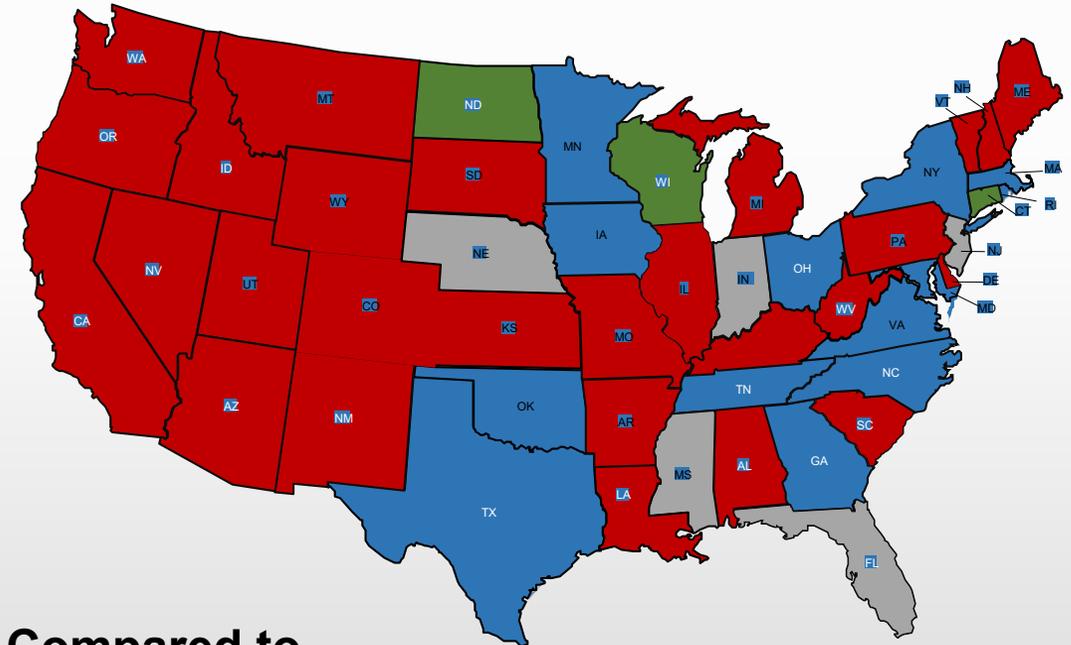
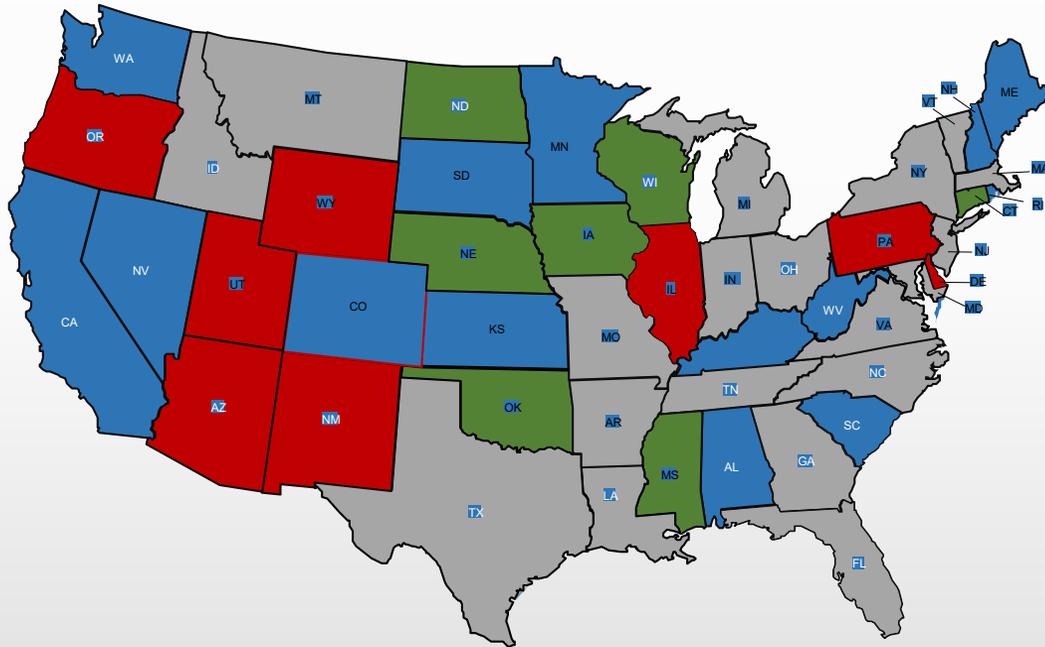


We Calculate State Revenues

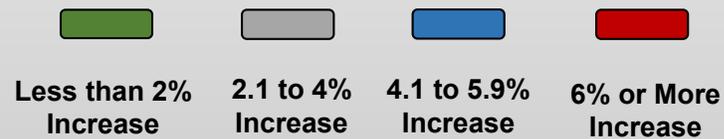
- Individual & Corporate Income Taxes
- Sales Taxes
- Fuel Taxes
- Property & All Other
- Add CARES
- Assume drawdown of rainy day fund

State Expenditures: 2020

State Expenditures: 2021



Revenue Decline Compared to 2019 Levels



State Fiscal Drag

- State rainy day funds were much stronger than they were entering the Great Recession. As a share of general fund expenditures, rainy day funds represented 7.6% going into the recession, compared to 4.5% going into the Great Recession.
- State revenues will decline fiscal 2020 and 2021. Compared to 2019 levels aggregated state revenues are expected to decline 6.1% in 2020 and 4.9% below 2019 levels in 2021.
- State expenditures will increase in fiscal 2020 and 2021. Our approach reflects trend increases in most expenditures and adds incremental unemployment costs state-by-state. Keep in mind, more urban states typically pay more generous weekly unemployment benefits and have also witnessed the largest increase in persons relying on unemployment insurance.
- Large state deficits will emerge. Based on our analysis, cumulative US state deficits exceed \$450 billion each year.

Alternative Scenario: W

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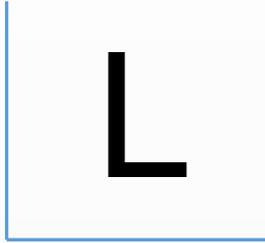
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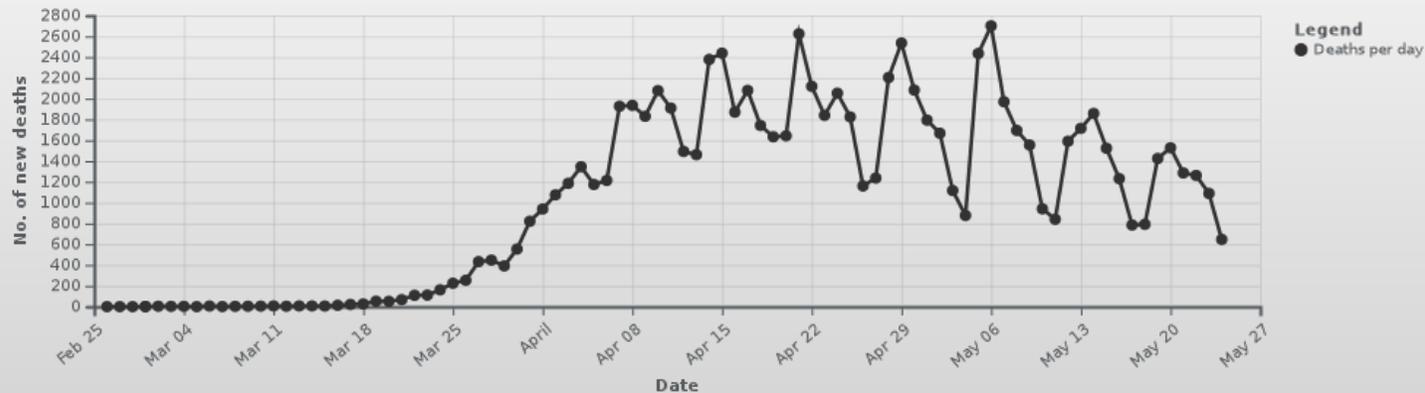
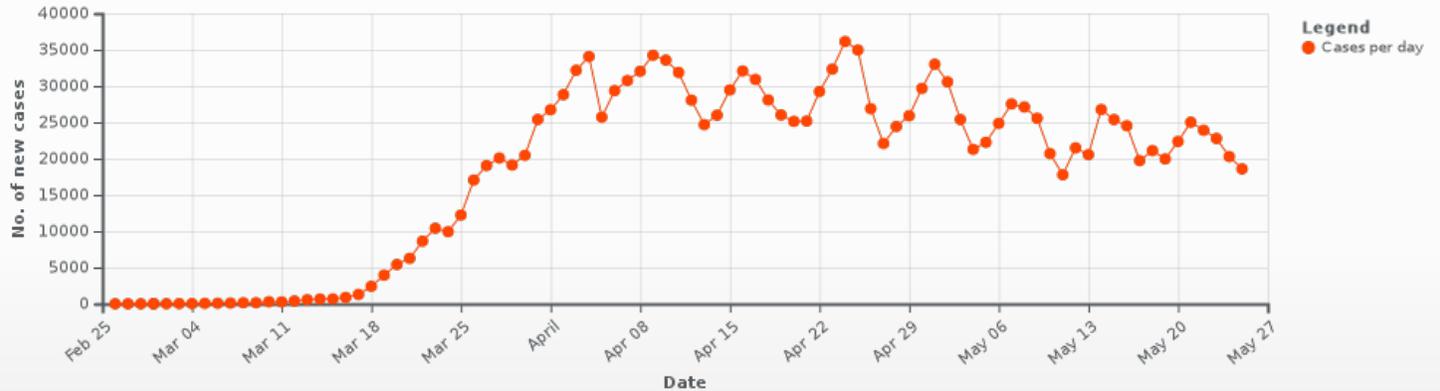


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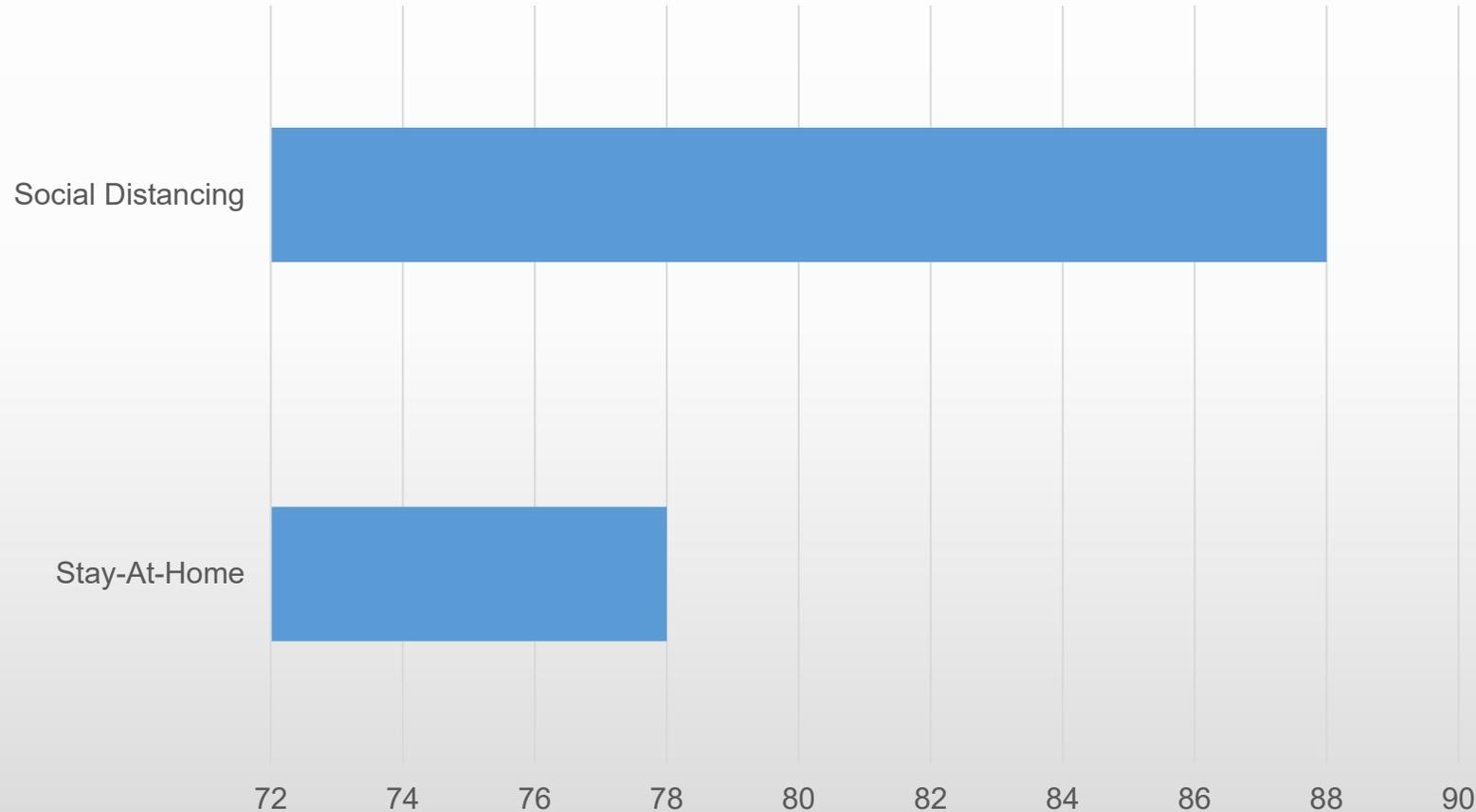
Covid: Infections & Deaths



- Based on IHME records/projections new daily infections reached a peak on April 8th. Current infections are at a level reached on March 30th.
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- CDC guideline is a sustained 14 day decline in infections. Only one state meets that criteria.
- Trade-off exists between economic scarring and optimal health guidance. Governors are trying to balance the two contradictory forces.
- According to a BankRate survey, 55% believe states are re-opening too soon.
- Time will tell if the re-opening is too soon and will require a policy reaction.

If the Virus Returns with Aggression...

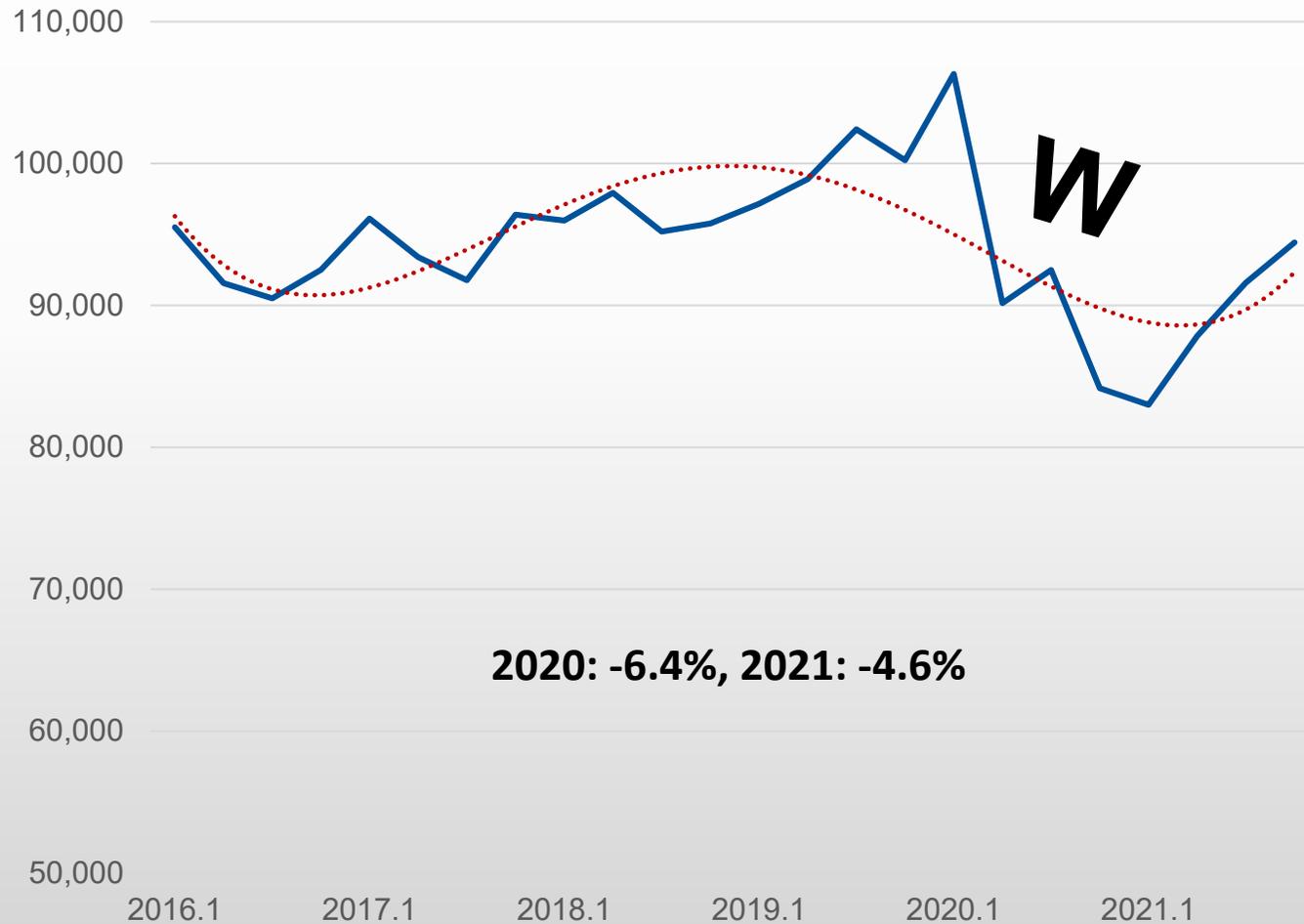
- What policies would you support to fight it.



- Surprisingly, 78% of those surveyed say that they would support another round of shutdowns to fight an aggressive return of the virus later this year or early next.
- This surprising result cuts across political lines with 69% of Republicans in support of state shut downs as a policy response.

Cement Consumption: The W Outlook

Quarterly, SAAR

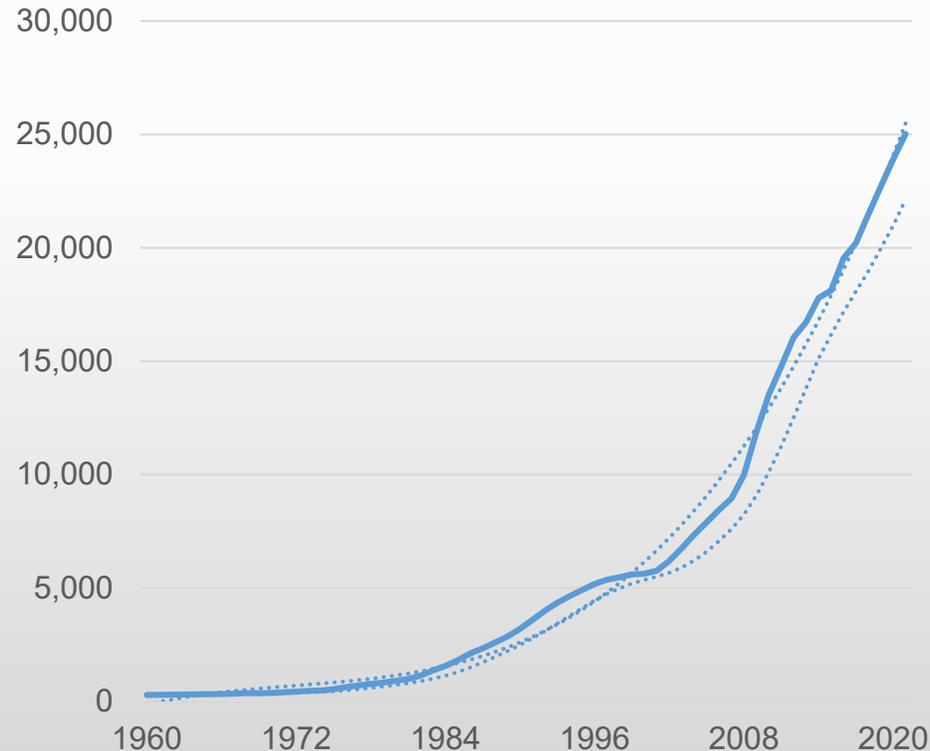


- The W recovery mirrors the U until the third quarter 2020.
- Covid cases gradually build due to the relaxation of Stay-In-Place orders. Some third quarter displacement of economic activity materializes in third quarter.
- With the return of Covid strength, either states and cities enact some measures and or business/consumer retrench.
- Fear is high. A fearful consumer pushes the economy back into retreat.
- Favorable factors that were beginning to materialize in the third quarter disappear.
- The impact has more of an impact on 2021 cement consumption than 2020.

Longer Term Issues

Longer Term Considerations

Federal Debt Trillion \$



Longer term may usher in slower growth in nonresidential construction.

- Slower overall economic growth.
- On-Line retail gains at an accelerated pace at the expense of Brick & Block.
- Increased acceptance of “work-at-home” implies less need for traditional office space. (Space efficiency & alternative space use may offset some of this).
- Even after the Covid threat has past, there may be a new acceptance of e-meetings reducing business travel and hotel construction.
- On-line learning may gain more acceptance and reduce college construction.
- The priority of Covid came at the expense of revenue generating procedures, hindering hospitals’ fiscal position.

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