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Briefing: #2

(April 9, 2020)

Coronavirus Impacts on the US Cement Industry

Ed Sullivan, SVP & Chief Economist

Market Intelligence's Research Focus

1. Review Current Macroeconomic Conditions.
2. Results from the Survey of CEOs
3. Depth of Downturn in Cement Consumption.
4. Length & Duration of the Downturn.
5. What the Recovery Might Look Like

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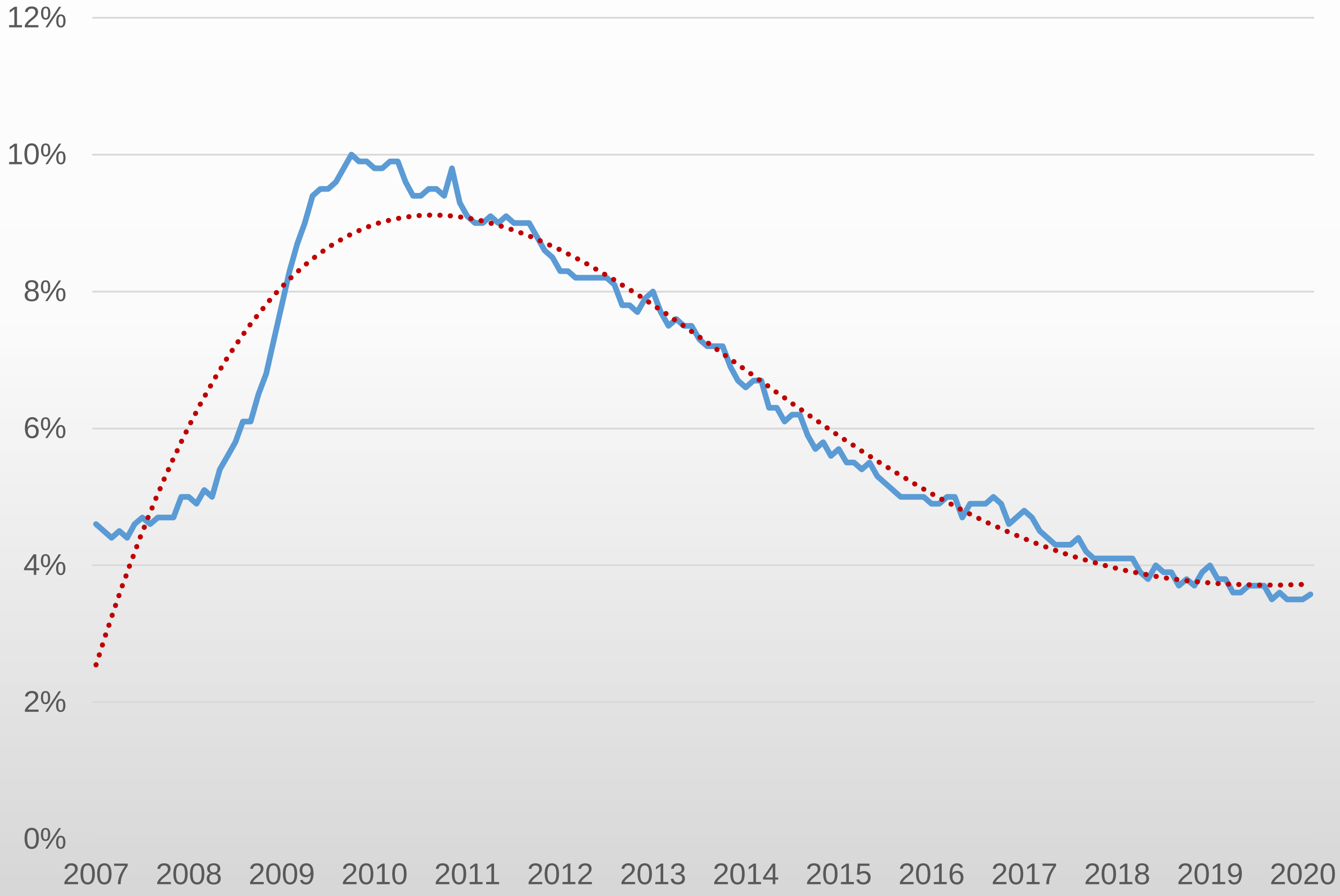
Macroeconomic Conditions

Unemployment Rate

% Unemployed



- Prior to Covid the unemployment rate had been on a declining trend for more than 10 years.
- Unemployment was near 3.5%
- Pre-Covid, total unemployed was roughly 5.5 million. Reflects a labor force of 160 million workers.
- The outlook expected a modest decline in the national unemployment rate.
- Tightness in the labor market was expected to manifest itself in shortages of skilled labor and rising wage rates.
- This labor market strength served as a key factor in consumer spending strength and the economy's overall health.

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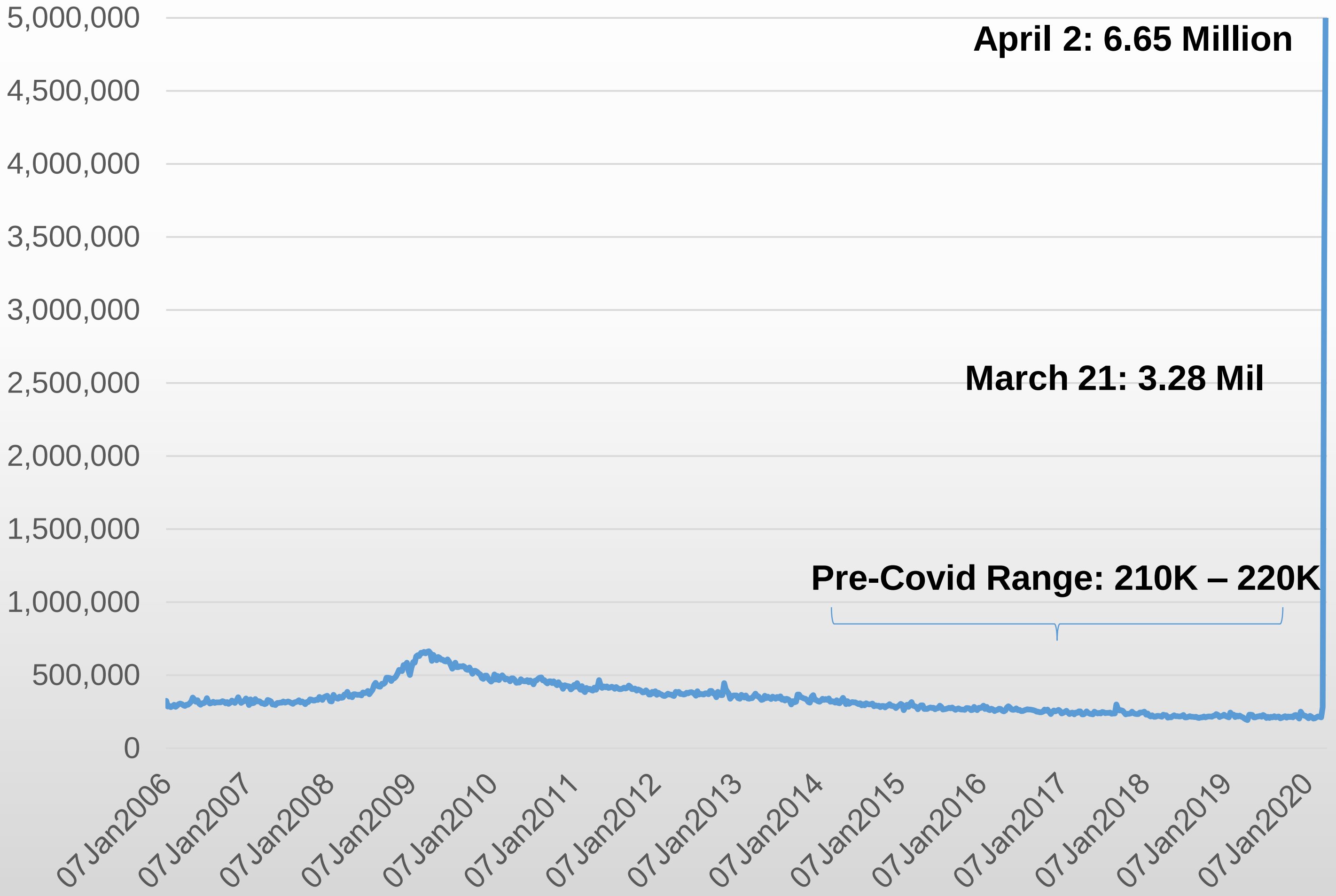
Weekly Unemployment Claims

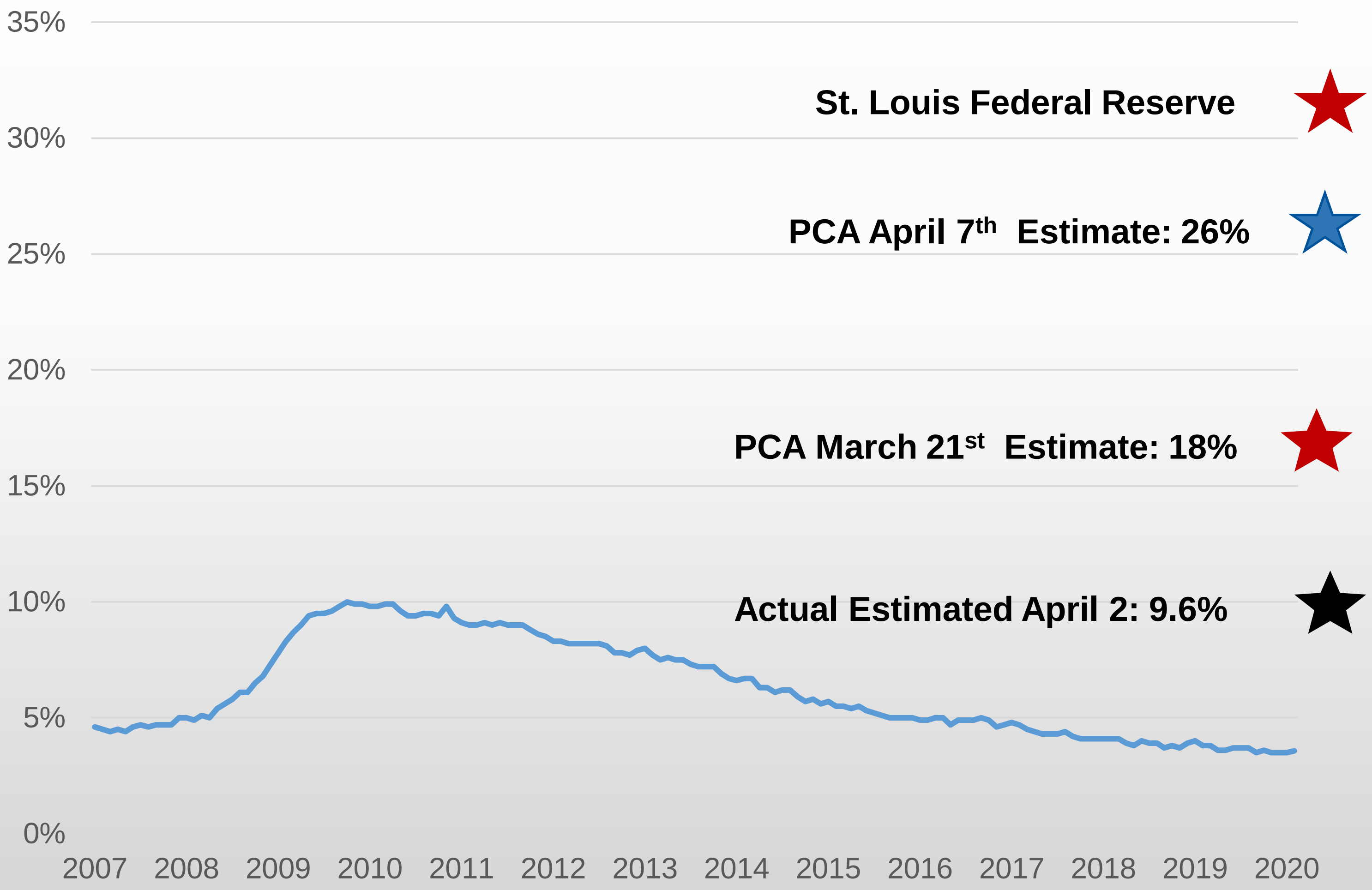
Number of new claims



- Pre-Covid, new unemployment claims settled to a range of 210,000 to 220,000 – all consistent with a very healthy economy.
- With the onset of Covid, the first week saw claims reach 3.3 million. The second week saw a doubling of that to more than 6 million.
- During the great recession weekly new unemployment claims reached a peak at roughly 650,000 new claims.
- Claims are now TENFOLD that of the highest level during the great recession.
- The disruption to the labor market in such a short period of time is unparalleled in US history.
- The basis of strength the economy prior to Covid is now gone.
- Make no mistake we are in a ***VERY DEEP*** recession.

Unemployment Rate

% Unemployed



- Despite the shocking unemployment numbers that have materialized thus far more is coming.
- A lot more.
- Keep in mind the unemployment reflected thus far are those largely associated with Stay-In-Place orders.
- These displaced workers reflect the first round of layoffs.
- Demand decay, evaporation of working capital, and secondary businesses will increasingly join in contributing to layoffs.
- This reflects the second round of layoffs. It will increasingly include white collar & management.
- PCA is now expecting unemployment will reach 26% at the depths of the layoffs.
- The disruption to the labor market in such a short period of time is unparalleled in US history.

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Light Vehicle Sales

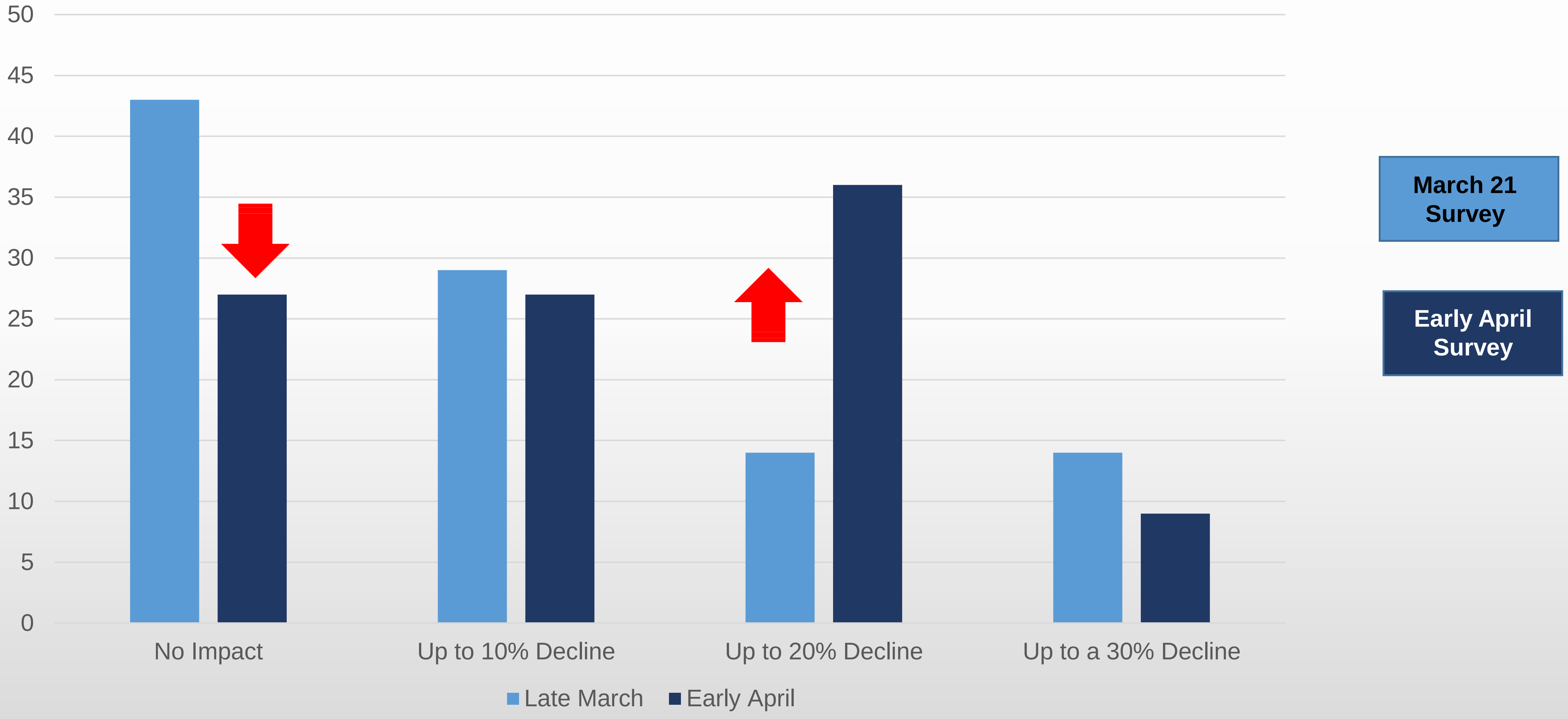
SAAR

- The first glimpse of consumer spending activity is revealed in light vehicle sales (cars and light trucks).
- March's LV sales included the first part of the month, which was probably not significantly impacted by Covid.
- Even with that, SAAR reached levels associated with the depths of the great recession.
- April will go quite a bit lower. A 5 million unit SAAR is not out of question.
- LV selling rate won't come back quickly. Consumer will be shell shocked. Uncertain. Behind on payments.
- Automotive industry employs roughly 2 million workers. Slow recovery here, reinforces the view of a slow recovery.

Industry Pulse

Survey of Cement CEOs

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



CEO Survey

- Little or no disruption in raw materials experienced thus far. The largest disruptions are related to difficulty in procuring N95 face masks, sanitizers and personal protective equipment.

- Plant shut downs have materialized but on a small scale. More that a quarter of the CEO’s surveyed mentioned layoffs. Nearly half reported a reduction in shifts.

- Longer term reduction in budgeted investments in equipment related to climate change are being evaluated and nearly three quarters have indicated some reduction has already materialized.

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Quick & Dirty Near Term Cement Consumption Estimates

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State Stay-In-Place Impacts on Construction

PCA's MI reviewed potential impacts on cement consumption on a county-by-county basis assessed the impact of the covid-19 virus' impact in areas under stay-in-place orders (State/City/County edicts), stay-in-place with construction exempt, and areas that are not currently covered by a stay-in-place order.

- Currently, 2,054 counties of a total 3,142 are under stay-in-place orders (65.4%).
- Totaling each county's historical cement consumption, this impacts 89% of the US cement market.
- Most, but not all, of the Stay-In-Place edicts exempt construction.
- Disruptions to cement consumption directly attributed to Stay-In-Place orders totals 790 counties and by itself reduces cement consumption by 9.3 million metric tons on an ***annual basis***, or roughly 9% of total.

State Stay-In-Place Impacts on Construction

Just because the state exempts construction activity from Stay-In-Place orders doesn't mean that construction will go on unimpeded. There are several factors to consider in adjusting construction activity where concerns are elevated in Stay-In-Place areas.

Construction activity can be displaced by:

- Cancelation of projects.
- Shortages of N95 respirator face masks.
- Shortages of building materials.
- Shortages of building inspectors.
- **Illnesses (Perhaps accelerated by "Exempt" employee status).**

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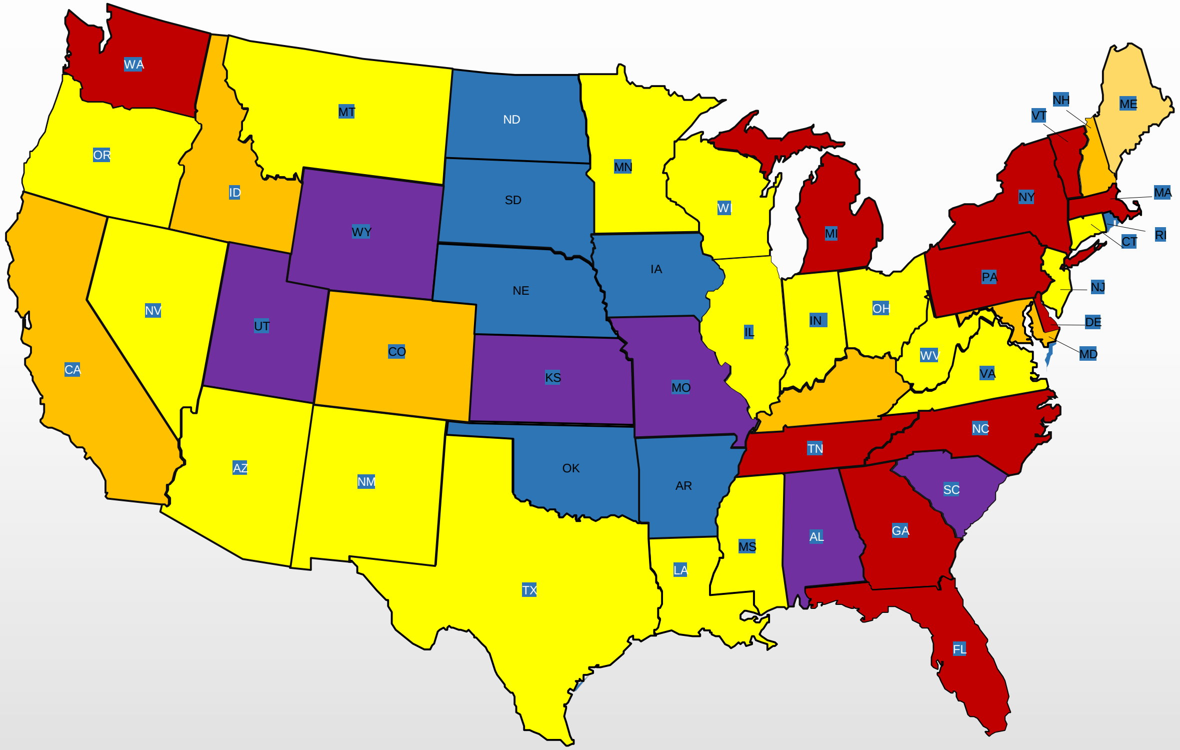
For Members of PCA, Be watching your Friday E-mail for our State-by-State release of the numbers that underlie this map.

Cement Consumption Outlook: March-Jun

Percent Change, Year Ago (April 7 Projection)



Expected Declines

0 – 10% Decline	11% to 20%	21% to 30%	31% to 40%	41% and Above
6	6	17	8	11

West North Central	-14.8%
West South Central	-15.9%
New England	-47.2%
East North Central	-30.1%
Middle Atlantic	-56.0%
South Atlantic	-40.6%
East South Central	-29.3%
Pacific	-38.2%
Mountain	-27.1%
United States	**-30.9%**

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Fiscal & Monetary Policies

Federal "Stimulus" Programs

The $2 Trillion "Stimulus" program is designed as a bridge for the most economically vulnerable to make it through to mid-year. It is not to be confused with the "Stimulus" program initiated during the great recession which was aimed at jump starting economic growth.

Unlike the "Stimulus" program of the great recession (that contained an accent on infrastructure), the current "Stimulus" program has NO direct impact on cement consumption.

The new program will keep the most vulnerable in the game. It will place a floor on how devasting this impact on the economy, communities and humanity.

It will not lead directly to a significant increase in cement consumption.

Speed & Magnitude of Crisis

- The intention to provide a massive $2 Trillion safety net works well in theory.
- Usually, recessions gradually build momentum over a long period of months. This gave time for processes and mechanisms of relief to materialize as the disturbance gained strength.
  - A rapid disturbance of smaller magnitude can be easily handled.
  - A large disturbance that gradually evolves, can also be handled.
- Unfortunately, ***speed and magnitude*** of the economic disturbance associated with Covid-19 is unparalleled.
- This crisis is both a massive and rapid economic disturbance. At least initially, it overwhelms our technical ability to provide the intended relief.
  - The unemployment office, SBA and other relief agencies technical ability to address the need is not in place.

The Scarring of the Economy

- Contrary to the design of the program, Relief will be delayed.

- This implies greater hardship on the most financially vulnerable workers and small businesses.

- The longer the it takes for relief monies to support these entities, the more scarring and the slower the recovery.

- Absent adequate relief, every small business will try to call-in receivables and postpone payables. Since nearly all are playing this game, bills, debt and payables are likely to mount. Vendor credit & relationships may sour. All of this will restrict these small businesses ability to pursue growth once the virus has lifted.
  - Small business may lack the guidance steering through the application process (Joe's Pizza (2 employees vs Acme Manufacturing with 450 employees).

- Even if these small business survive their ability to recover, rehire & respond may be scarred by the downturn.

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Phase IV in Federal Stimulus

Congress is now considering a stimulus bill to help jump start the economy once the virus recedes to a level to allow for resumption of “normal” economic activity. The stimulus will likely be similar to the program of the great recession. It may contained an ***accent on infrastructure*** and result in a direct positive impact on cement consumption.

Things to keep in mind for an infrastructure based stimulus:

- The highway trust fund will take a significant adverse hit in revenue collections due to Stay-In-Place orders that reduce travel and gas tax revenues. This could imply weakness in infrastructure spending without intervention.
- State revenue conditions will also take a major hit. State spending is the major source of spending on infrastructure. Balanced budget amendments will force states to prioritize spending. Inevitably this comes down to a decision between entitlement spending and all other. Entitlement spending will win. Transportation is in “all other”.
- Spending on major infrastructure makes sense because it carries large labor multipliers. The rule of thumb is that $1billion in infrastructure spending creates 30,000 to 40,000 jobs. The magnitude is dependent on the type of infrastructure spending.

Phase IV in Federal Stimulus

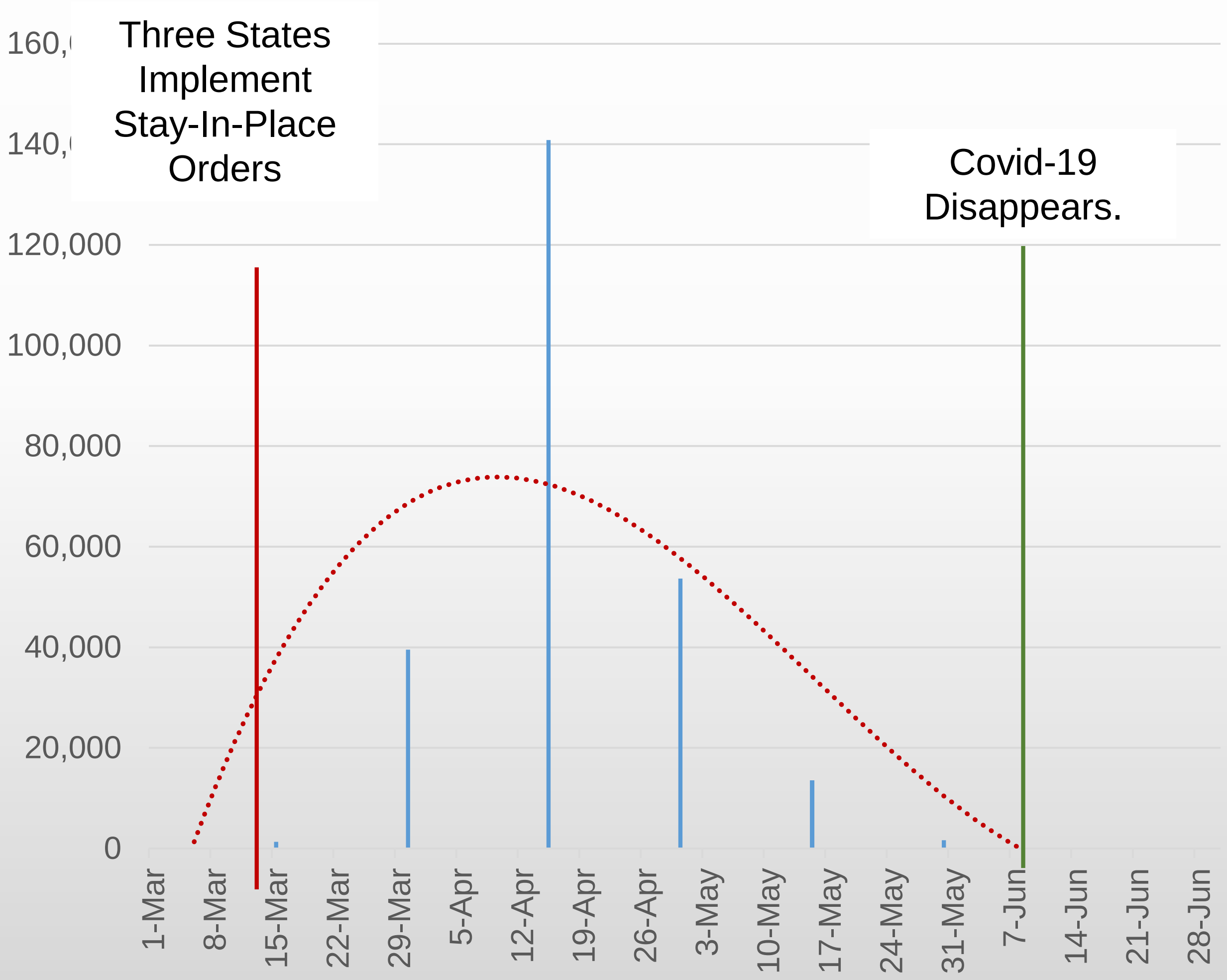
The details of a possible infrastructure bill are not yet known. Some lessons learned from the Obama infrastructure program should be considered to make the stimulus more effective:

- ***Avoid the temptation of "shovel ready" programs***. These program reflect a list of construction projects that are ready to go on a moments notice. Most do not address longer term national infrastructure needs. Further, they typically have smaller employment multipliers – diminishing the effectiveness of the stimulus.
- ***Accent construction of "major" infrastructure programs*** that address the nation's needs. Route development, widenings, bridges, water resources. While each may take longer to materialize the impact on employment is much greater.
- ***Take care of the states.*** During the Obama programs a considerable amount of Federal infrastructure stimulus was met by a reduction in state spending. The "sterilization" diminished the effectiveness of the program. States were forced to cut due to their fiscal conditions. Ample support for the states suggests a more effective stimulus.
- ***Be smart.*** The stimulus program may be large. It is important that government procurement of projects takes a long-term cost perspective and stewardship of taxpayers monies. Amplified use of Life-cycle cost analyses will help to this end.
- ***Re-vitalize small business***. Despite efforts to keep existing small business solvent, millions will fold. During the upturn, the SBA must redirect its effort to stir growth in entrepeneurship.

The Length & Depth of the Crisis

US Covid-19 Duration Scenario

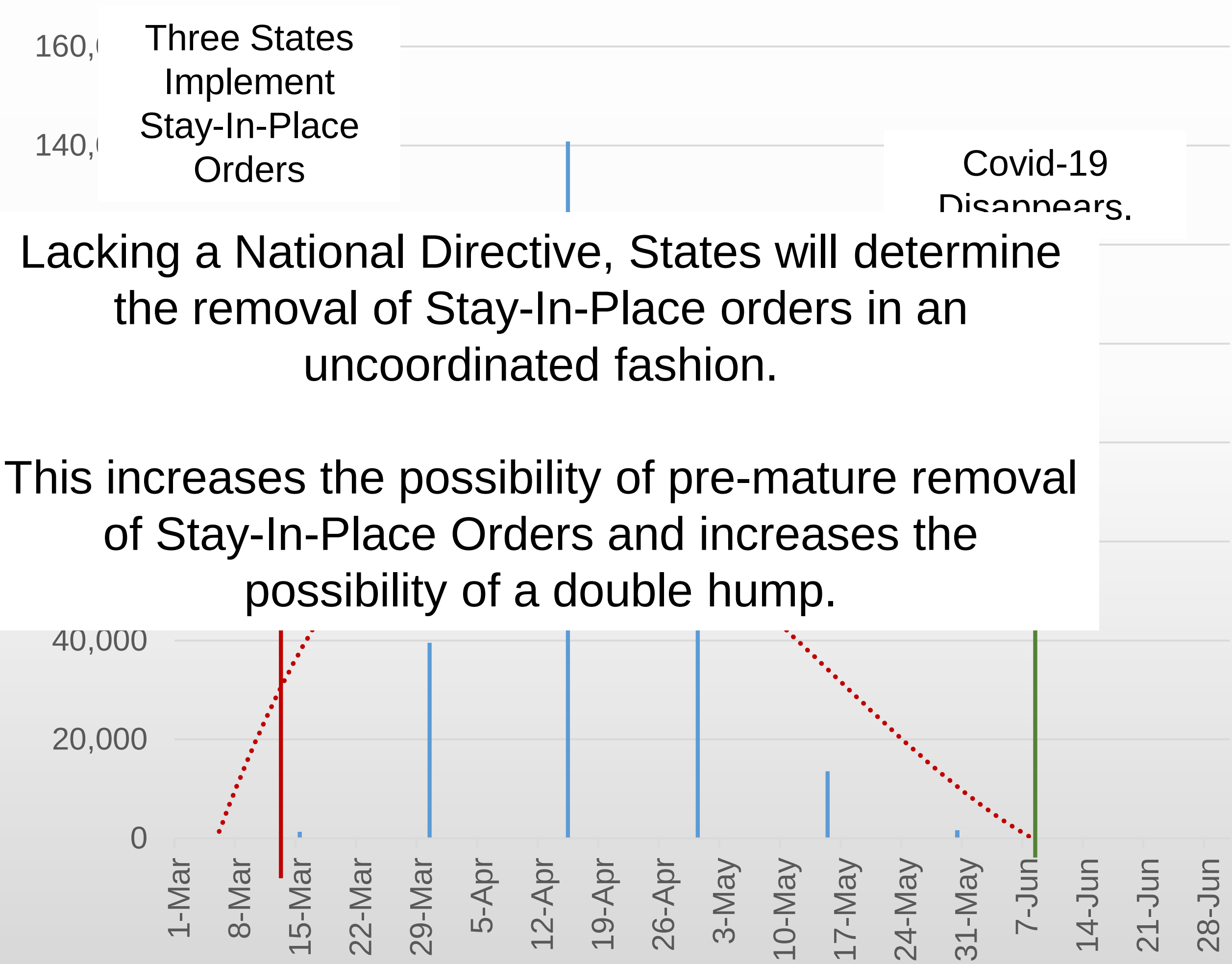
Institute of Health Metrics and Evaluation



- Institute calculates Covid-19 is gone in early June.
- This represents the latest point when the Stay-In-Place Orders are removed and the economy can **begin** it’s return.
- This implies the potential of a recovery forming in the third quarter.

US Covid-19 Duration Scenario

Institute of Health Metrics and Evaluation,



Lacking a National Directive, States will determine the removal of Stay-In-Place orders in an uncoordinated fashion.

This increases the possibility of pre-mature removal of Stay-In-Place Orders and increases the possibility of a double hump.

- It is likely, however, that policy-makers will weigh the risks of Covid versus the impact on the economy while the virus is receding, but BEFORE the virus disappears.
- Since there is no Federal directive in place, removal of Stay-In-Place orders will be done by the states.
- Should synchronize with testing & control abilities once virus has ceded to levels within our capability to control.
- Too early a removal by ONE state could undo all the sacrifice done to get it to Zero.
- If one key state errors in rescinding its Stay-In-Place order too quickly, the risk of the virus' return is increased.

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What Does The Recovery Look Like

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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.

- No scarring.
- Jobs come back quickly.
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Which Scenario is Most Likely

The depth and recovery of the economy is likely to be determined by two factors:

1. How much scarring of the economy takes place during the downturn.

2. Policy decisions to remove Stay-In-Place orders.

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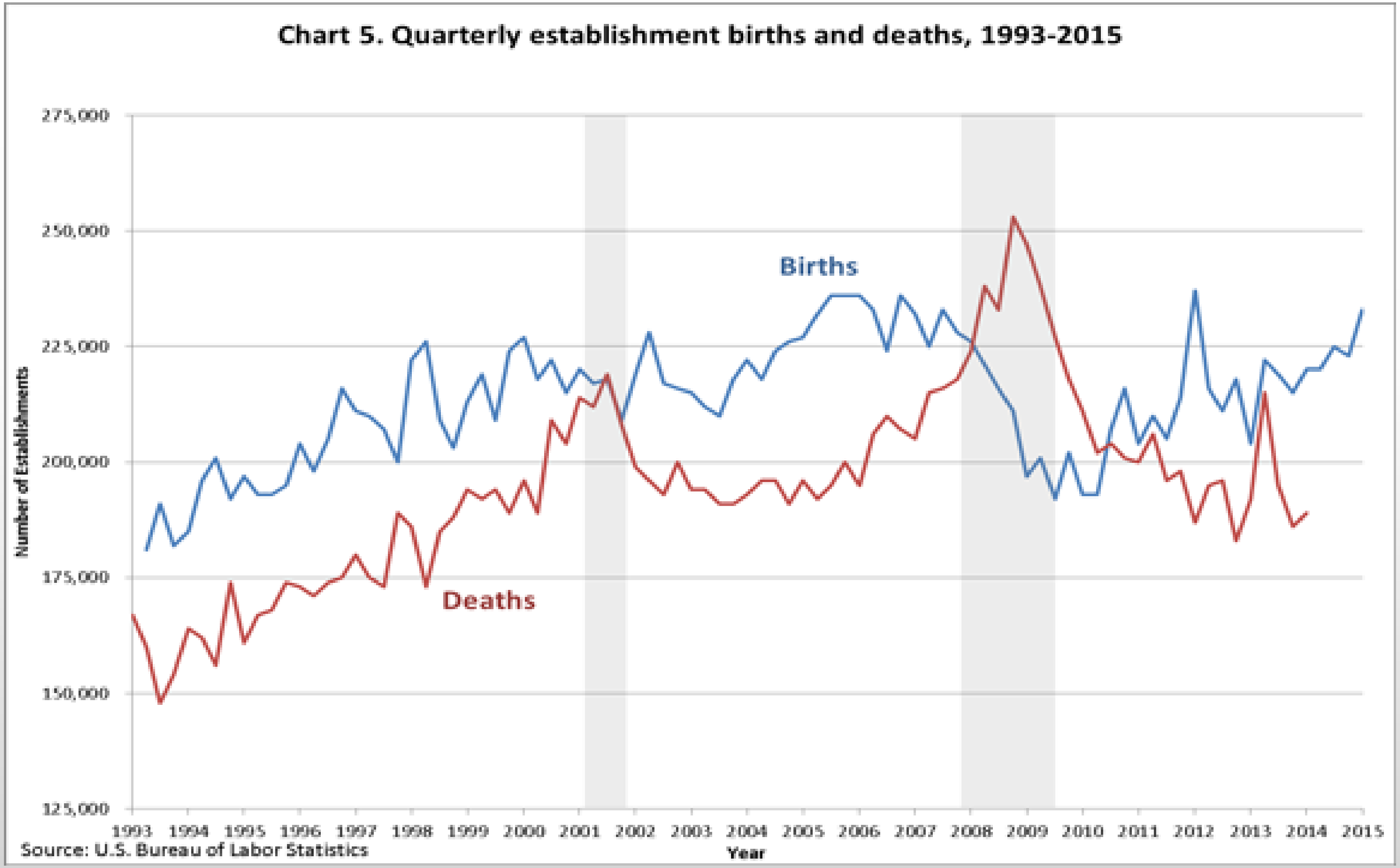
Business Start-Ups Vs Closures



During Great Recession Business **Closures** averaged 250K monthly

During Great Recession Business **Openings** averaged 200K monthly

Reflecting a **net** decline in business establishments on 50K monthly.

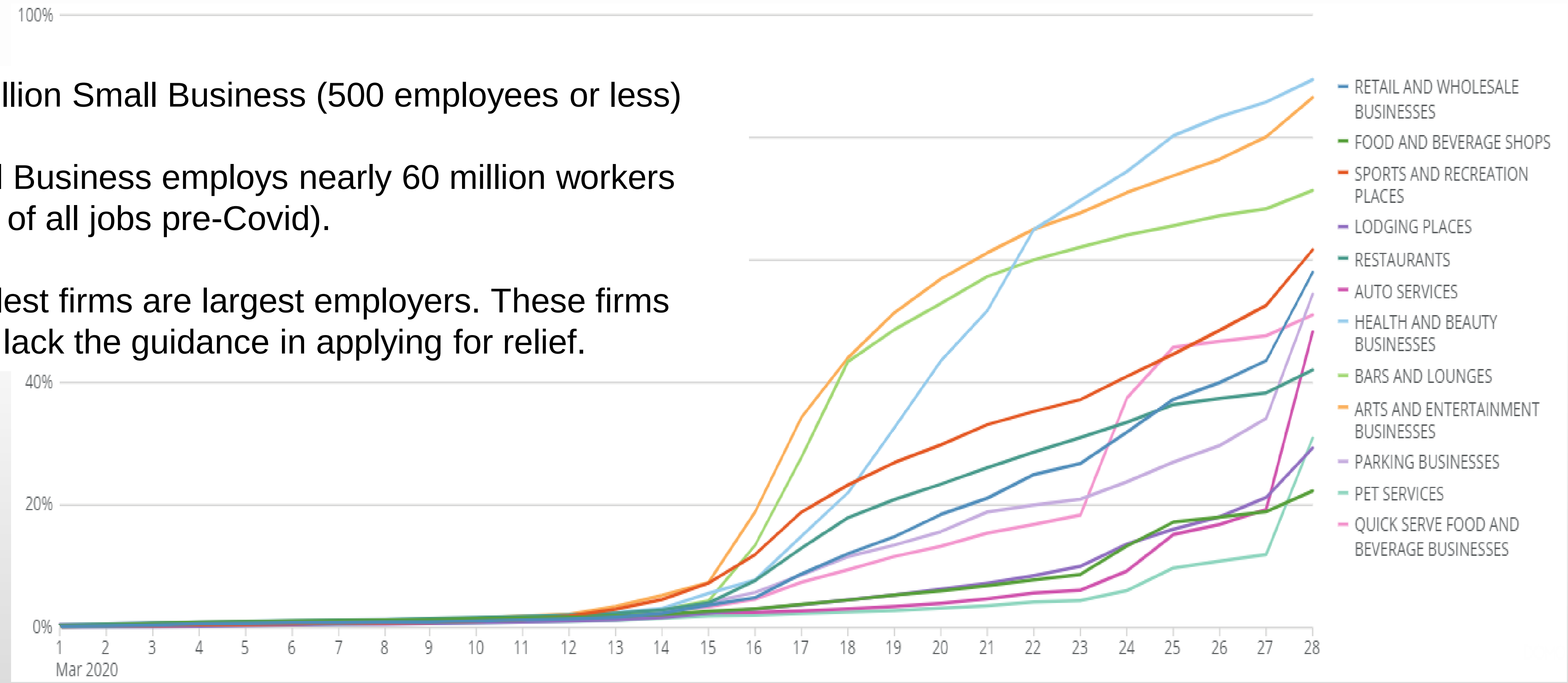
A 10 fold increase is expected.

This is scarring.

Take a Walk Down Main Street

Business Closure Rate by Category, Womply Credit Card Analysis

- 28 Million Small Business (500 employees or less)
- Small Business employs nearly 60 million workers (39% of all jobs pre-Covid).
- Smallest firms are largest employers. These firms often lack the guidance in applying for relief.



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Consumer Spending

- Pent-up demand will exist. Low interest rates will prevail. But the ability to take action may be lacking.
- Job & Income Loss.
- Credit Card usage increases.
- Elevated Debt burdens materialize. Reducing the ability to spend further and/or qualify for a loan.
- With the decline in Stock values, wealth declines.
- Confidence erodes.
- The willing and able consumer that was responsible for ten years is gone.
- As rehiring gains strength, all these adversities reverse .
- This reversal will likely take some time. How long depends on the extent of scarring.

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