



What we Know and Don't Know After 100 Days of Covid-19 Analytics

Reviewing the impact of the virus on the US economy and the American psyche

By Steve Roerman, Chairman and CEO, Lone Star Analysis

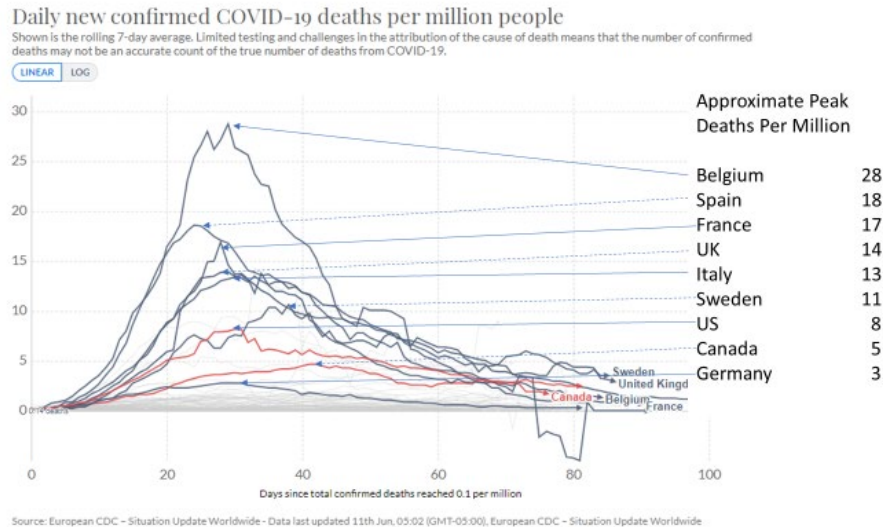
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After more than 100 days of Covid-19 analytics, it seemed time to integrate Lone Star's assessments and analysis. From our [first report](#) and [webinar](#) before government lockdowns were mandated, through this writing, some trends and risks have become clear, with policy and strategy implications for organizations of all sizes.

Background and Summary

In February, Lone Star's journey with Covid-19 began as it had in past epidemics; supporting others. We've previously done invited peer reviews for epidemic and contagion simulations, and similar pro bono assistance. By early March as concerns grew, we were being asked to provide speakers and public facing analytics. Our broad theme has been that, for most people, [your 401\(k\) is likely to be sicker than you are](#). We've published and presented about a dozen pieces. Looking across them, an intriguing feature of the contagion is this: ***perspective is shaped by where you live, what you do, and how well off you are.***

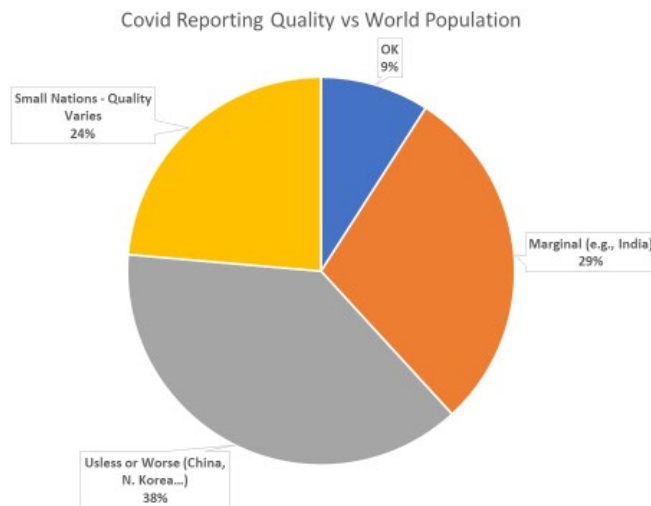
Looking at differences is a way to understand what we know, and what we don't. For example, the UK, US, and Germany might seem similar. But in the chart, we see quite different death tolls.



The risk of dying in Belgium seems about 10 times higher than Germany. Why the difference? One obvious reason is Belgium counts differently, but that doesn't fully explain a 10x change in death rate.

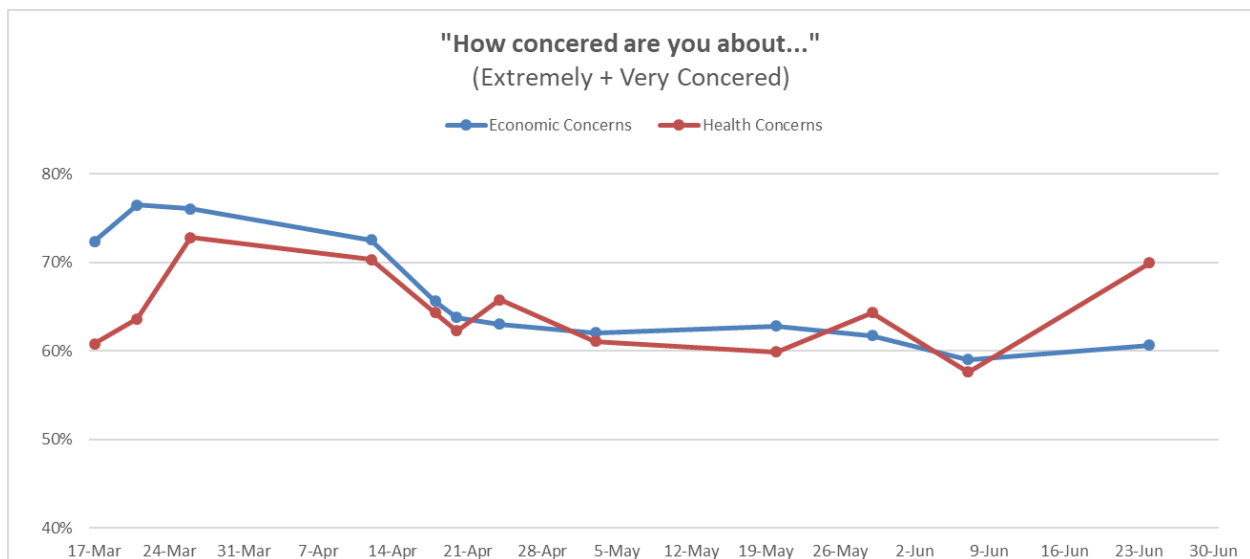
You might wonder why Spain has a negative peak of negative 5 deaths per day. In late May, Spain revised how they counted, and removed some deaths attributed to Covid-19. Spain is not alone in changing methods as the epidemic progressed. So, a second lesson of coronavirus analytics is, **"you can't read the other guy's numbers"** which suggests humility in our efforts to understand.

Of course, that assumes numbers exist. A nation-by-nation assessment suggests that only about 10% of the world's population is being reported with accuracy that approaches "ok." About a third of the world is generating data which is marginally useful. Over 40% is generating data which is useless, or even intentionally deceptive.



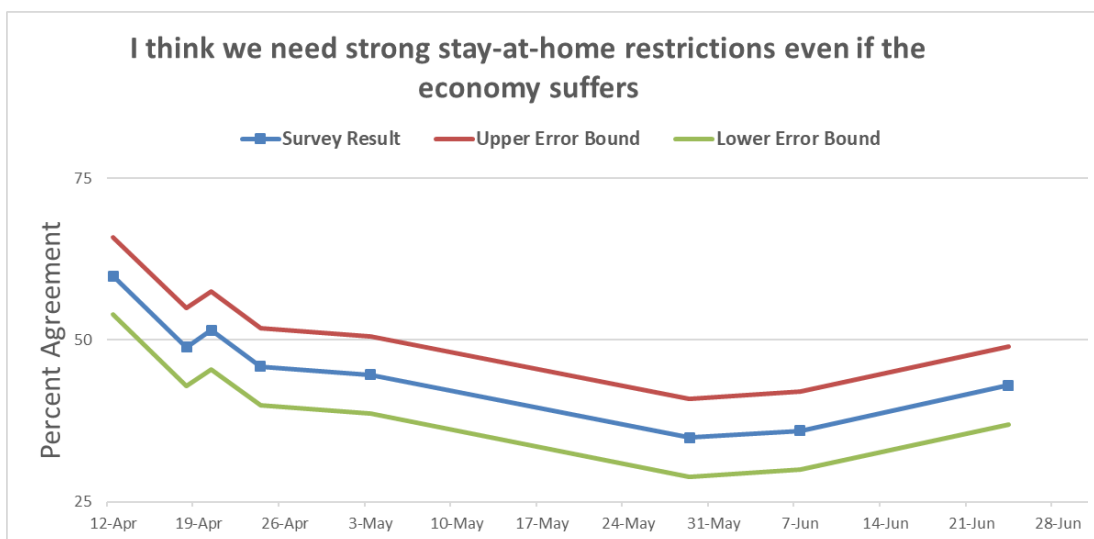
Long Term U.S. Trends

Lone Star has conducted nationwide polls of Americans since Mid-March, collecting impressions from nearly 4000 respondents. A pair of questions have been our most common query: the degree of concern about health and economic risks. Both are shown on the graph below.

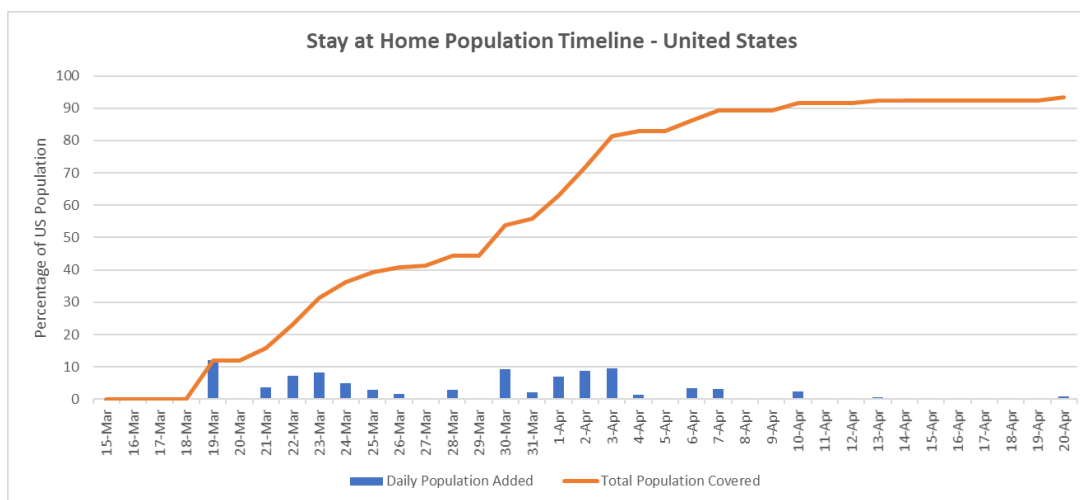


These concerns peaked in March but more than 50% of Americans remain concerned on both topics. Economic concerns tend to outstrip health concerns, though the gap has narrowed. As news of a “surge” appeared in more than 30 states, concerns about health saw an uptick in late June. In early April support for stay at home measures (below), and the level of concern (above) were both at roughly 60%. But support for stay-at-home orders fell quickly. By early May, a majority no longer supported them.

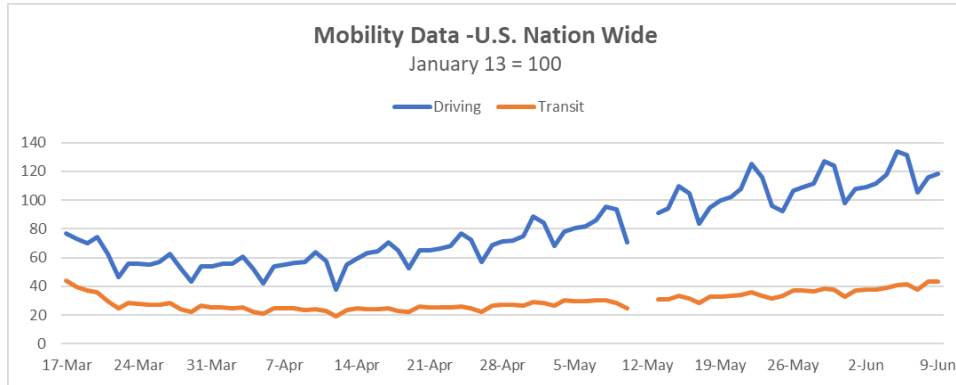
Views vary greatly with respondent income. Those with incomes below \$25,000 are more concerned (15% higher) about economics than respondents with incomes over \$100,000. Lower income respondents are also less likely to support stay at home orders and are less likely to have a job where remote working is possible. There are also regional differences. A majority of New England respondents still support the measures, but less than a third in Southwest would agree. While support for stay-at-home increased in late June, these still lack majority support.



Some data suggests voluntary choices have been more effective than formal mandates. Mobility restrictions began March 19, with California being the first state to impose them. By the end of March about half the American population was under one of these orders. A Lone Star poll in late March, when less than 50% of respondents were under stay-at-home restrictions showed an average of about 7

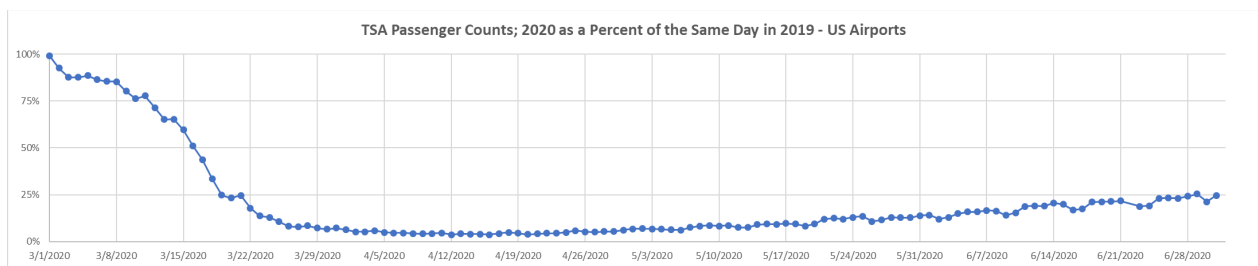


changes in behavior in response to the virus. This is a high degree of voluntary compliance to “non-pharmaceutical interventions.” Changes in behavior varied little with region. Respondents were changing behavior whether they lived in a “hot spot” area or not, and whether they lived in an area with mandated lockdowns, or not. Support for these mandates was falling by the time the last orders were imposed on April 20.



The month-long span of orders is another difference in the Covid-19 experience of Americans. And, there were striking differences by income. 70% of high-income workers were already working from home in this poll,

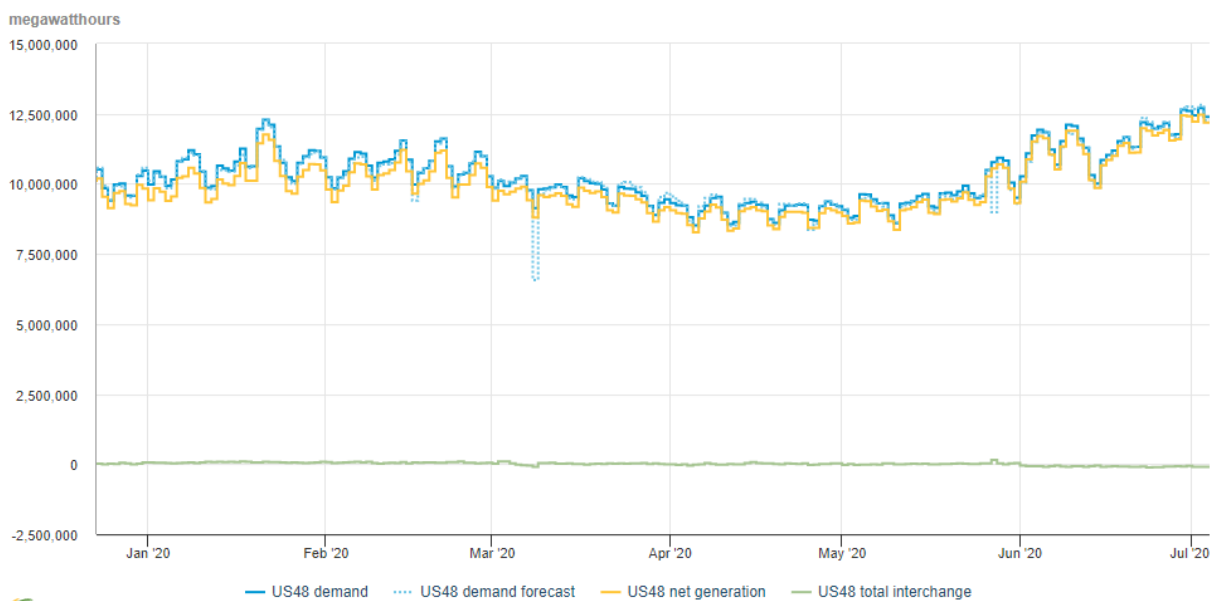
compared to 1 in 6 low-income workers, who tend to have jobs where home-based work was not an option.



Americans had begun to limit their mobility more than two weeks before the first orders. March 2 was the last time TSA passenger traffic counts were more than 90% of the same day in 2019. By the first official order on March 19, traffic was less than one fourth of the same day a year before.

Mobile phone and electricity grid data shows a similar pattern. By March 17, two days before the first order, transit traffic was less than half ridership in January. Driving also saw a steep decline. The week

U.S. electricity overview (demand, forecast demand, net generation, and total interchange) 12/23/2019 – 7/3/2020, Eastern Time



Source: U.S. Energy Information Administration

of March 20, while most states had not issued stay-at-home orders shows a noticeable flattening of weekday electricity consumption. This pattern of reduced weekday consumption peaks persisted into late May, after many states had allowed reopening. In early June, weekday-weekend peaks became pronounced, perhaps indicating some reopening of businesses, but in late June, this pattern was diminished, perhaps reflecting reports of “surges” in many states.

At the national level, electric generation is a well-established way to understand economic activity. But regional and local patterns show significant differences. Nationally, electrical generation was down 4% in March compared to February. Where restrictions were most severe, declines were dramatic. Massachusetts was down 37% and Washington D.C. was down 24%. Both California and Florida saw electric generation *rise* by more than 10%.

In Texas, electric generation fell about 2%, but economic impact varied across the state. Many small towns and suburbs have seen growth in retail sales tax revenues during the epidemic, while the six Texas cites with year-to-date sales tax payments of more than \$50 million all saw declines.

Communicating Uncertain Risks

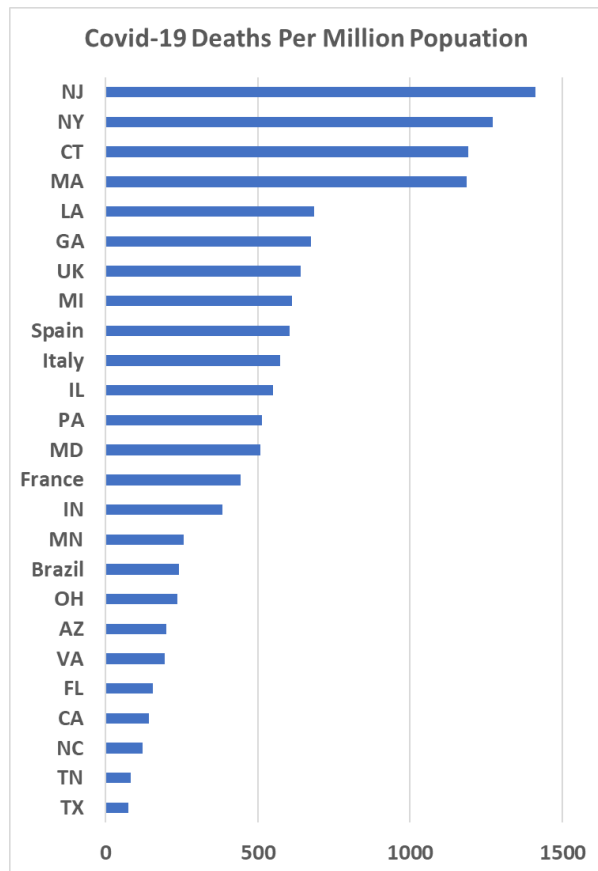
In a webinar sponsored by [SCIP](#) we talked about Prospect Theory; how humans respond to the prospect of uncertain gains or losses. Avoidance of loss is an enormously powerful force in human behavior.

There is great uncertainty around any new disease. This leads to fear. The New York Times used the word “fear” 50% more often the period March 15 – May 15, 2020 compared to the same period in 2019. Google search trends show a similar pattern, with searches on “fear” appearing from February 1 through mid-March when Lone Star polling began. The decline since then mirrors the decline in poll respondents who say they are concerned. But, even in Google searches we see differences. “Fear Mongering” is up 450%. And “Faith over Fear” is up 1700%.



Leaders in government and in business have struggled to deal with uncertainty, both in terms of how to assure citizens, and in communicating why mandated actions were taken.

As of June 25, New Jersey more than 12% of the nation’s Covid deaths, from less than 3% of the population. New York has over 23% of Covid mortality from 6% of U.S. Population. Texas has seen about 2% of the nation’s Covid deaths with nearly 9% of the national population.



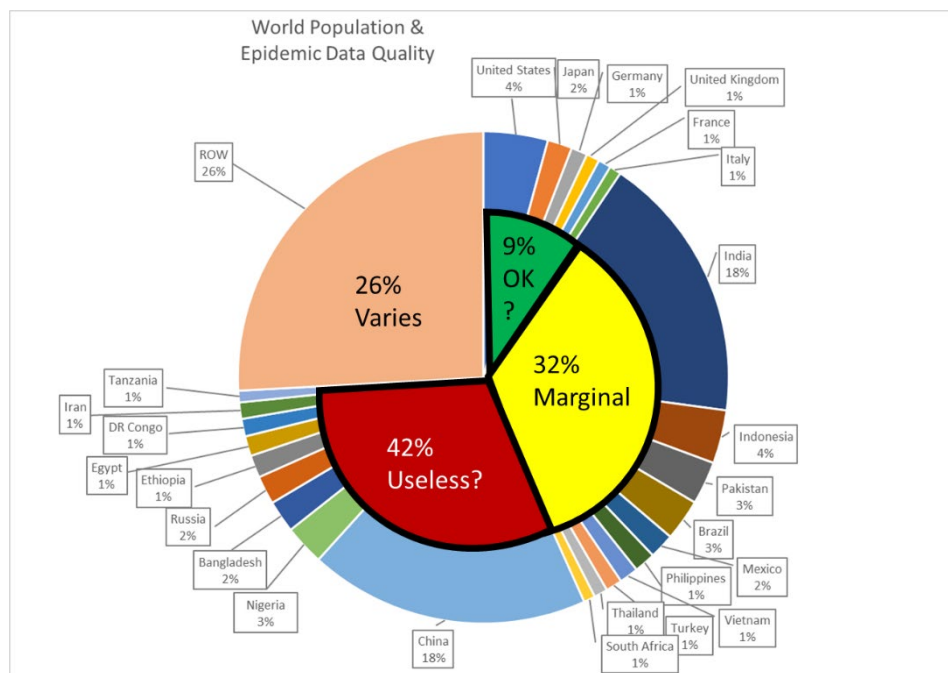
Said another way, New York and New Jersey both have more than four times it's "fair share" of deaths, while Texas saw less than 25% of its "fair share."

Actions among states have varied, in part due to vastly different experiences and concerns. Even at a state level significant differences exist. West Texas is different than Houston. Upstate New York is different than Manhattan. The American press, centered in the Northeast, has not always accurately reflected these differences.

International comparisons are even more difficult. Globally, data quality varies widely among countries. Some nations lack the ability to test and account for the epidemic. Some nations have created (perhaps unwittingly) incentives to distort data.

Some nations clearly are simply not accurately reporting their data. Kim Jong Un continues to claim (as of this writing in early July) there are zero cases of Covid-19 in North Korea.

One epidemiologist Lone Star interviewed said, "no responsible researcher is using numbers from China." Brazil and India also have significant data quality challenges.



Corporate and Public Policy Discussion

Lack of reliable data has been a challenge for leaders in governments and businesses. ***It is imperative that leaders understand they must make decisions in spite of uncertainty.***

With less than 10% of the world's population represented by data of reasonable quality, we should not expect to find "settled science" about this epidemic.

Details of the 1918 Spanish Flu are still debated after more than 100 years. Leaders can't wait for better information.

What *can* decision makers do?

1. Accept that epidemic data is complicated, polluted and confusing. If you must try to understand impacts in other organizations be careful. Remember, you can't always "[read the other guy's numbers.](#)"
2. Understand your human limits. We all respond to the risk of loss in ways that are less than 100% logical.
3. Try to find critical facts which matter to you, your business, your people, your customers. Focus on what you do know, even if some uncertainty surrounds it.
4. Recognize the crucial differences among the people you lead and customers you serve
 - a. Lower income people will tend to be in greater stress than higher paid
 - b. Some customers are doing well, and some are not
 - c. Various parts of the world, and different regions within a country are not having the same Covid experience. One size does not fit all.
5. Accept the evidence which shows the economy is recovering. Be prepared to seize the opportunities which come with that. But, don't try to time the market, and don't try to predict the bottom.

Lone Star Analysis Complete List of Covid-19 Research and Resources:

Analysis/Research:

- <https://www.lone-star.com/wp-content/uploads/2020/07/03-16-20-Covid-19-Polling-and-Analysis.pdf>
- <https://www.lone-star.com/wp-content/uploads/2020/07/03-27-20-Covid-19-Health-vs-Wealth-Effects.pdf>
- <https://www.lone-star.com/wp-content/uploads/2020/07/04-13-20-Covid-19-Polling-Update-1.pdf>
- <https://www.lone-star.com/wp-content/uploads/2020/07/04-19-20-Covid-19-Polling-Update-2.pdf>
- <https://www.lone-star.com/wp-content/uploads/2020/07/05-08-20-Covid-19-Stay-At-Home-Analysis.pdf>
- <https://www.lone-star.com/wp-content/uploads/2020/07/05-31-20-Covid-19-Polling-Results-and-Econometric-Analysis.pdf>

Blogs:

- <https://www.lone-star.com/2020/03/10/lone-star-analysis-provides-analytics-covid-19/>
- https://www.lone-star.com/2020/04/30/cant_read_other_guys_numbers/

Webinar:

- https://youtu.be/_xEv3B5AxIU – SCIP Webinar – Covid-19 Analysis - March 24