

Economic Impact of COVID-19



COVID-19 and Households' Financial Distress Part 2: The Spread of COVID-19 and (Financial) Pre-Existing Conditions

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In part one of this series, we explored how the economic effects of social distancing and “shelter-in-place” orders will harm people to different extents based upon their jobs, since certain jobs are more likely to face layoffs and reduced wages than others. In particular, we illustrated that people working in the Accommodation and Food sector, which employs close to 10 percent of the workforce, were most often located in areas of highest financial distress.

Social distancing policies are being pursued, despite their consequences, because policymakers view the potential harms of COVID-19 infections spreading unchecked to be still greater. Our goal in Part 2 is to consider how the infections and deaths from COVID-19 will be associated with the observed incidence of financial distress.

Becoming sick, especially with a disease as serious as COVID-19, is associated with many economic effects. People may have to take time off work, find alternative childcare, and face medical bills, possibly without adequate health insurance. All of these effects are compounded if the sick individual was already in financial distress, because they will have less ability to make the associated

payments by drawing down on savings or taking additional loans.

To better understand the way that COVID-19 is associated with financial distress, we employ two datasets. First, we use county-level data on confirmed COVID-19 cases and deaths compiled by [USAFacts.org](https://usafacts.org) from the CDC, Johns Hopkins University, and state and local agencies. These data are then merged with 2018 county population estimates from the U.S. Census to calculate the approximate percentage of the total population that COVID-19 cases represent.

Second, from the Federal Reserve Bank of New York/Equifax (CCP) dataset, we calculate the share of people in each county whom we would consider to be “financially distressed.” For this, we proceed as we did in Part 1: We consider those who were 30 days or more delinquent on a credit card payment over the course of a year to be distressed. Difficulty in making timely payments is a good indicator of overall financial capacity. We divide all U.S. counties into five groups, or “quintiles,” defined by the incidence of financial distress so that the same number of people are represented by each group. Counties with the

lowest financial distress are in group one while counties with the highest financial distress are in group five.

Figure 1 plots the portion of the population confirmed to be sick with COVID-19 for each quintile of financial distress. The dotted lines of a matching color show the “liftoff” point when the exponential growth of COVID-19 cases began. Remarkably, the “liftoff” in each area occurs almost precisely in order of financial distress. Areas with the least financial distress seem to have been hit first, while areas with more financial distress were hit later. There could be any number of reasons for this, but one possibility is that people with less financial distress tend to be wealthier, more urbanized—and hence densely located—and apt to travel more for their jobs or for recreation. This effect could be compounded if financially stable people spend their time in communities of similar people who also travel around the world more frequently, and so it is relevant that our metric of financial distress is taken at the level of the entire county around a person.

While areas with low financial distress have been the first to liftoff, this does not imply that they always have more cases than the other quintiles. Around March 18, the second quintile surpassed the first. Since then, the third and fourth quintiles have also done so. At this point, any conclusions we can draw are speculative, but it is interesting to consider why the other quintiles seem to be growing faster than quintile one after their initial “liftoff” dates. One reason could be that communities with lower levels of financial distress are more effectively able to pursue social distancing and slow the spread of the virus. Indeed, as noted in Part 1, the larger share of people in financially distressed areas work in sectors most affected by social distancing—particularly in the “Accommodation and Food” arena—where relatively high contact with clientele is the norm. It could also be that people who are more financially prudent have better access to timely information on risks enabling them to take extra health precautions.

Figure 1: Confirmed COVID-19 Cases by Quintile of Financial Distress

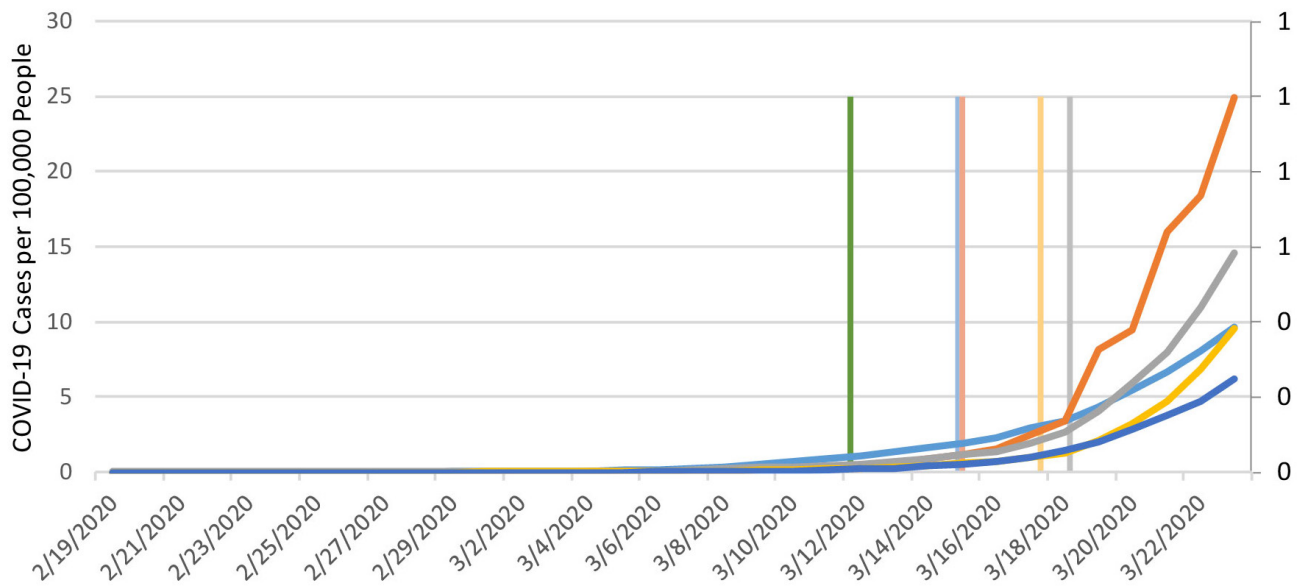
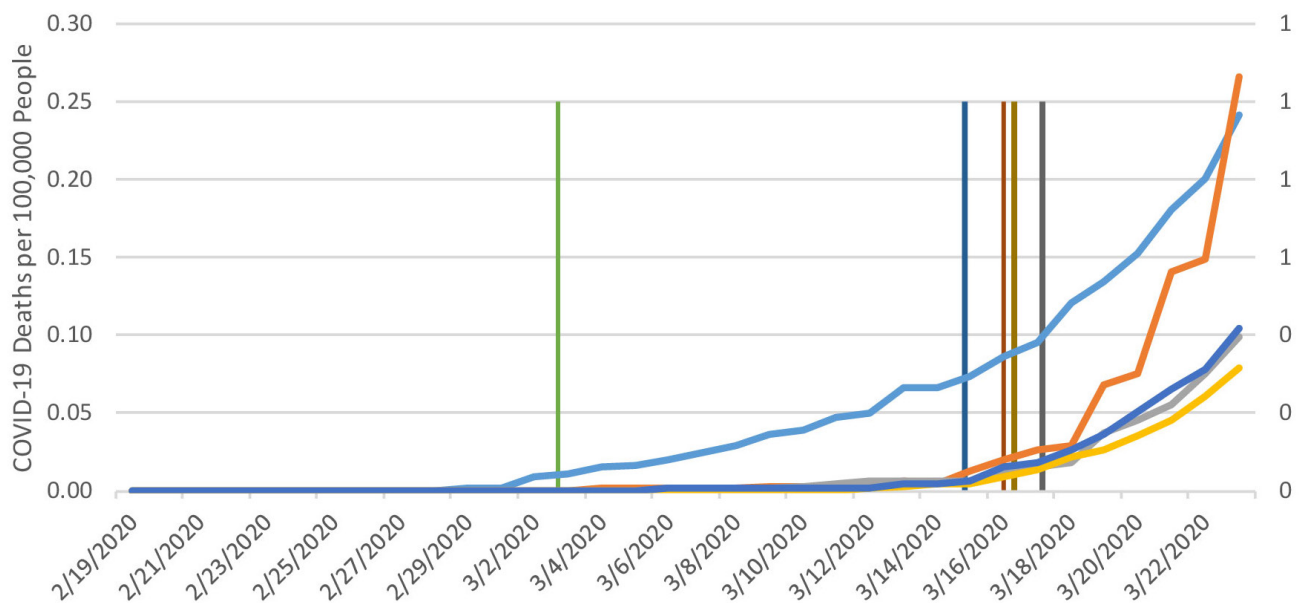


Figure 2 shows the corresponding death rates by quintile. Here as well, the “liftoff” points seem to be quite correlated with financial distress, so that areas with lower financial distress began seeing deaths related to COVID-19 sooner. At this point, only quintile two has surpassed quintile one, which may be because the death rate necessarily lags the rate at which COVID-19 spreads. Put grimly, in order to die from COVID-19, someone must first contract it. It is also true that areas with low financial distress tend to be slightly older, and the death rate among the elderly appears thus far to be far higher than among other age groups.

in the second, third, and fourth quintiles surpassing those in the first quintile of financial distress. Moreover, deaths from COVID-19 are unlikely to be selectively reported. Thus, the very similar trends in Figures 1 and 2 suggest our broad conclusions are not being severely affected by the biases present in the current testing protocol.

That noted, the broader implication of this lack of random testing is that it hinders good policymaking. After all, the consequences of a shutdown of economic activity depend heavily on how likely it is that an infected person gets seriously ill or dies.

Figure 2: Confirmed COVID-19 Cases by Quintile of Financial Distress



One possible bias that may well prove important in interpreting the data above is that our results depend on data stemming from (thus far, very) selective testing for COVID-19. At one extreme, if no testing for COVID-19 is being done in an area, then our data will show no cases for that region even if the entire population is sick. And if the better-off, i.e., those in communities with low financial distress, are also more likely to get themselves tested, this will artificially inflate the number of COVID-19 cases in that region. With this bias in mind, it is perhaps even more surprising that we observe the number of cases

However, as conveyed by [Stock \(2020\)](#), to know this we must first learn how big the asymptomatic population is. Until genuinely randomized testing is done, this cannot be known, making it an urgent priority for policymakers to know the benefits that they reap from strict social distancing guidelines.

In conclusion, it seems that COVID-19 spread most quickly in areas with low financial distress initially, but there is suggestive evidence that COVID-19 may spread most rapidly in highly

financially distressed areas moving forward. If this is true, then special consideration should be given to how the financial position of distressed communities in particular might be supported in the coming relief efforts.

In our next series, we will examine a number of policy initiatives for doing so through the lens of a quantitative model and give some initial guidance on which policies may have the most beneficial results. ■

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Endnotes

¹ As mentioned in part one of this series, we showed in a recent [working paper](#) that communities in which a higher percentage of people are in financial distress will cut their consumption much more in reaction to an economic shock than communities where a lower percentage of people are financially distressed.

² 2018 is the most recent year available for this data.

³ Specifically, we set this threshold at one in 100,000 people for figure 1 and at one in 10 million for figure 2.

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