Stimulus funds really do keep people home, our research finds

Helping people pay their bills during the pandemic can boost public health

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With coronavirus rates surging, elected officials in both red and blue states are again considering new restrictions on households and businesses.

Some governors and mayors have imposed new shelter-in-place orders as a last-ditch measure to avoid overloading hospitals beyond their capacity. But lockdowns remain controversial. New survey data suggests that just half of Americans would comply with a month-long stay-at-home order; a third would refuse, up from just 15 percent in April.

Many think that public attitudes about these health orders simply reflect partisan beliefs. But our new research shows that underlying household economic security also shapes compliance with these governmental directives.

Here’s how we did our research

States and cities in the spring of 2020 turned first to shelter-in-place ordinances to try to mitigate the spread of the coronavirus. To study willingness to abide by these orders, we wanted to find a way to accurately measure compliance in a way that could be compared across different towns and cities, as well as over time as different cities and states adopted and retracted those orders.

We didn’t want to rely on public opinion surveys asking respondents whether they complied with such orders, since claims can be different from actions. Instead we examined large quantities of geolocated cellular phone device use patterns. We used raw data from the data analytics company UNACAST. They estimate such information as the number of people who are living in a home; the average time spent at home or outside;
and changes in the average distance a user traveled. Aggregated to the county level and compared over time, this information can be *used to assess compliance with orders to shelter in place*.

We obtained access to records that covered nearly all U.S. counties from February through July 2020. To determine how economic conditions shape compliance, we looked at differences in when states and municipalities rolled out their lockdown orders during March 2020, when the pandemic began. Counties vary in many ways, but for this analysis we focused on differences in average household income. We also took account of other factors that might influence county residents’ willingness to comply, including how severely each county was hit by the coronavirus, unemployment levels, population density, partisanship and *where residents can get news*.

**Economic security matters**

We found that in counties where large proportions of residents were in economic distress, residents were less likely to stay home than residents of economically secure counties. We infer that working-class families — especially those who had lost jobs or might soon lose them because of the Trump administration trade tariffs — were overall much less likely to stay home. Our interpretation is that economically vulnerable households needed to leave the house to work.

**Stimulus checks helped people stay home**

We used the same methodology to assess the effect of the individual cash payments provided in the $2.2 trillion Cares Act, which Congress and the president enacted into law in March 2020. These federal stimulus checks were scaled to earnings — meaning that relatively poorer families received the largest benefits in absolute terms.

Since not all residents received checks at the same time, we used the same cellphone movement data to assess whether household income bumps changed behavior as more of a county’s residents began receiving more stimulus payments. For stimulus recipients who used an electronic banking transfer for their tax returns and payments, the government transferred payments electronically as a trackable deposit. That allowed us to examine Zip code-level data from Facteus to generate cumulative, population-corrected approximations of stimulus transfers by county-day. Delivery of these stimulus payments was haphazard, with some beneficiaries receiving theirs weeks ahead of when others did. That quasi-random timing let us assess how much household wealth influenced their willingness to stay home or distant from others.

Indeed, as counties received more stimulus funds, their residents were more willing to stay home. When they did head out, people in counties where most had received stimulus checks traveled less than people in counties where most checks had not yet arrived.

All that was true even after accounting for a host of other factors that might have explained which communities benefited most from the stimulus funds. For every
additional dollar per capita a county received, movement temporarily declined by over 1 percent. Our data suggests that coupling targeted federal relief with stay-at-home orders could bolster individual economic security — and that this has public health implications.

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