

Can Correlation Between Governor's Party and COVID-19 Morbidity Be Explained by the Differences in COVID-19 Mitigation Policies in the States?



In their Letter to the Editor, Drs. Dupont, Chirumamilla, and Paras posed questions about our recent research brief, “Governor’s Party, Policies, and COVID-19 Outcomes: Further Evidence of an Effect,” which we are happy to answer here.¹

Dupont et al.² raised the concern that our findings do not establish causality. We would like to clear this confusion; as explicitly stated in our original paper, we do not make a causal claim but rather test hypotheses (what their letter calls “an a priori conclusion”). Building on Neelon and colleagues’³ findings of a correlation between the Governor’s party and coronavirus disease 2019 (COVID-19) morbidity and mortality, we hypothesized that at least a part of this correlation can be explained by the differences in COVID-19 mitigation policies made at the state level. To test this, we conducted an observational study because an experimental design was neither feasible nor ethical in the study of health policies. To be specific, the analysis included 2 parts. We quantified the association between policy stringency and the rate of state’s infection spread and separately compared policy stringencies achieved in Republican- and Democrat-led states. The research brief reports the model-implied difference in the rate of COVID-19 spread that corresponds to the average policy stringency difference.

The letter also inquires about our measure of case counts. As cited in our research brief, the data source is the Centers for Disease Control and Prevention (Reference 8 in the original work). We published the code and data to further facilitate the replication of our analyses.⁴

Our measure of mitigation policy stringency, the Protective Policy Index, is constructed for a global subnational sample entirely from the COVID-19 policies that carry behavioral public health mandates for the populations and captures the level of policy effort by political incumbents to reduce the spread of infection. This effort, policy stringency, substantially varied across American states. The authors of the brief are among the authors of the data set as cited in the brief. As the pandemic started <2 years ago, this index is indeed relatively new. Our first peer-reviewed publications based on the data in the first wave of this data set were in July and September, 2020.^{5,6} The data have been referenced or used by scholars other than ourselves in >20 studies with peer-reviewed publications in public health, public policy, and social sciences, all positively with the exception of the current letter by Dupont et al.

Regarding Figure 3 in the original brief, which is expanded in Figure 1 below, we are happy to offer more detail. The figure presents stringency of policies at pandemic peaks that occurred at different times in different states. Such stringency illustrates a government’s choice of mitigation effort in the direst situation. We used box plots to show the distributions of these peak stringencies conditional on Governor’s party.

We hope these clarifications help and would be glad to continue the discussion in greater depth. Our goals are full transparency and replicability and to start, rather than close, a conversation on the political and institutional determinants of public health outcomes in the pandemic.

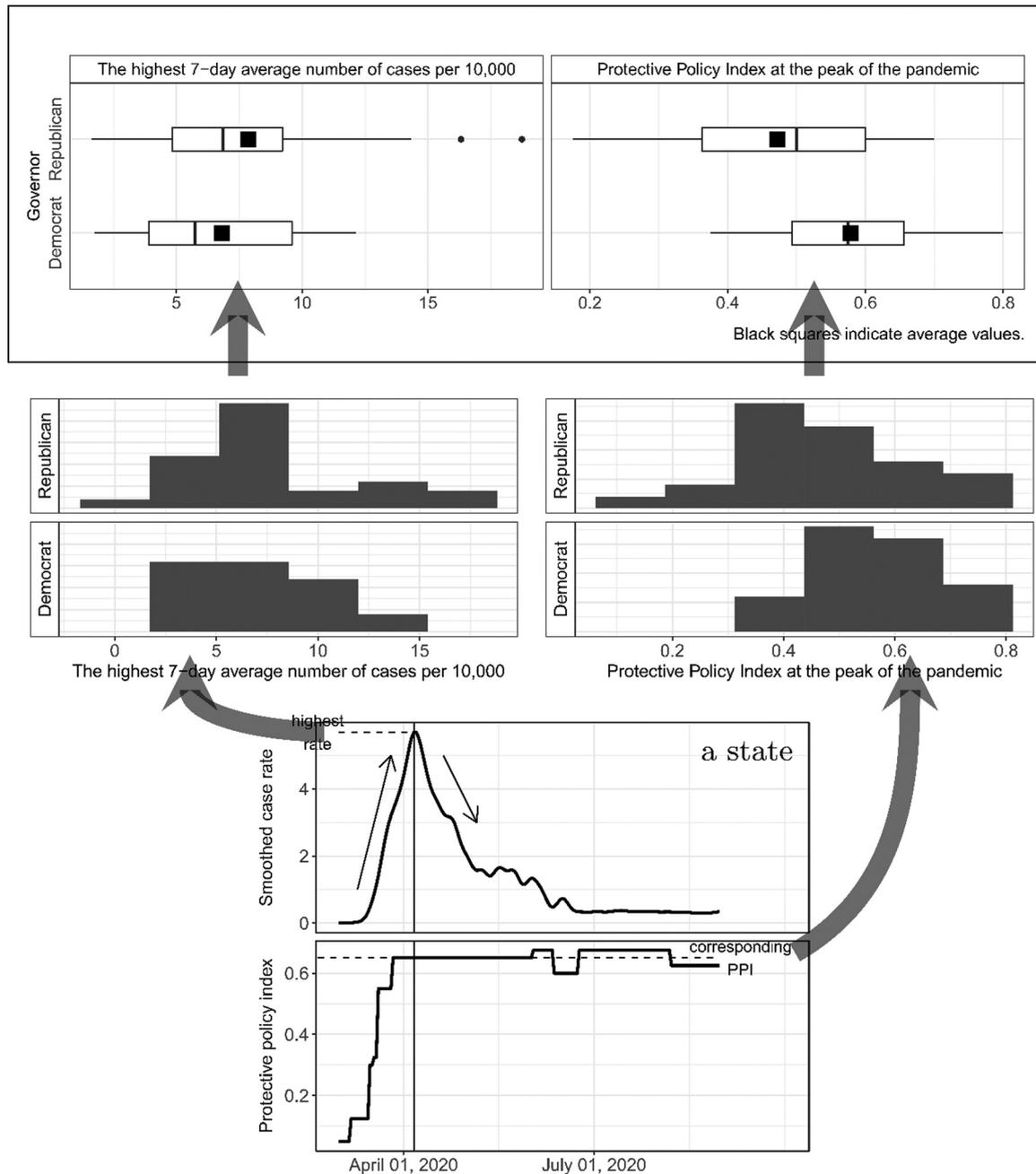


Figure 1. The construction of Figure 3.

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