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Government Reputational Effects of COVID-19 Public Health Actions: A Job Opportunity Evaluation Conjoint Experiment

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Abstract:

The tradeoff between short-term economic and public health has been very salient in debates surrounding U.S. government responses to COVID-19. But highly salient choices by very visible executive branch leaders, like state COVID-19 public health actions, have implications beyond current economic performance. We argue that by shaping perceptions of state governments, or state “reputations”, these responses may affect how individuals evaluate economic opportunities in different states. To examine this possibility, we conducted a conjoint experiment presenting subjects with different pairs of job opportunities varying many attributes of the location, job and the state governor’s response to COVID-19. We find that individuals evaluate job opportunities more favorably when a state governor has more aggressively mandated social distancing measures. These effects are largest for individuals concerned about COVID-19 and Democrats, but even Republicans prefer jobs in states where the governor took some meaningful action compared to making a purely symbolic statement. Our findings indicate that governors and their advisors should consider how their COVID-19 responses shape state reputations, which ultimately have consequences for economic performance beyond the immediate crisis.

Keywords: Bureaucratic reputation, COVID-19, Conjoint experiment, Economic performance, Employment

The COVID-19 pandemic has caused governments to take public health actions in 2020 that would have been unthinkable even in late 2019. These actions involve tradeoffs between economic health and public health, and the tension between these goals has been increasingly salient in the United States (U.S.). The debate has focused mostly on the short-term economic implications of public health actions, but we argue that there are also potentially longer-term economic repercussions: pandemic responses may affect state reputations, which in turn affect how individuals evaluate economic opportunities in different states.

The economic implications of COVID-19 public health actions are important everywhere, but perhaps even more so in the U.S., where the weak social safety net leaves workers especially vulnerable. Within the context of U.S. federalism, individual states are able to make different choices about how to respond to COVID-19. During a sudden, relatively uncommon, and harmful event, especially when decisions are being made by relatively visible state governors, policy decisions are carefully observed by the public (Birkland 1997). People have beliefs regarding whether governments are trustworthy and competent (James 2011, Tuxhorn, D'Attoma, & Steinmo 2019) and Americans have stereotypes about the values of different states (Koch et al. 2018), which in turn shape their willingness to migrate to different areas (Liu, Andris, & Desmarais 2019). If these responses to COVID-19 shape people's perceptions about or "reputations" of states and their governments, they may also then have second-order economic effects beyond the immediate economic crisis, as states compete for the economic efforts of talented and entrepreneurial individuals.

Thus far, scientists and public health officials have overwhelmingly recommended social distancing as a way to slow the spread of COVID-19 in the coming months. However, crisis situations can cause individuals, including elected officials, to think about very short-term

outcomes (Gray 1999), and the time horizons of elected officials are shorter than unelected scientists and public health officials (Dionne 2010). Furthermore, the benefits of social distancing (reduced deaths and illnesses) are harder to observe than the very real economic costs. These factors have led some state governors to not mandate or to prematurely abandon social distancing. Because many people value government adherence to scientific evidence (Bergner, Desmarais, & Hird 2019), however, state elected officials that deviate from these recommendations may pay reputational costs. Therefore, we ask: do individuals evaluate job opportunities more (less) favorably if they are located in a state where the governor (did not) more aggressively mandated social distancing?

We use a conjoint experiment to examine this possibility. We provide subjects descriptions of different job opportunities and randomize several characteristics of a hypothetical job, including the COVID-19 policy action that a state governor took, ranging from a proclamation thanking healthcare professionals to mandated “stay-at-home” orders. The conjoint approach is good for moving beyond merely expressive statements in favor of different COVID-19 policy responses or particular governors because conjoint experiments are able to measure preferences in multidimensional decisional situations, like job choices, and force individuals to weigh different considerations.

We find that, though salary is by far the most important consideration for potential job seekers, job seekers view career opportunities more favorably if they are located in a state where the governor took more aggressive action mandating social distancing, meaning that there is at least a short-term reputational effect to states for their COVID-19 responses.

These effects are strongest among Democrats and those concerned about COVID-19 but are present even for Republicans. If these reputations persist, states’ responses to the pandemic will have important implications for longer-term economic performance, because employers

will have to pay higher salaries to attract the same level of talent or settle for less talented workers. This is something that state administrations should take into account when weighing the economic costs and benefits of different public health approaches.

COVID-19 Tradeoffs, State Reputations and Long-Term Economic Performance

Though less intrusive interventions can be used (Lunn et al. 2020), experts recommend serious social distancing as the most effective means of slowing the spread of COVID-19. But government-mandated social distancing—entailing the closure of businesses and public venues—has resulted in almost immediate economic hardship throughout the world (Fernandes 2020).

Due to federal inaction and federalism, these public health decisions in the U.S. are largely taken by state governors, who vary considerably in how aggressively they have responded to the spread of the virus. For instance, Governor Mike DeWine of Ohio issued a “stay at home order” with the closure of non-essential services on March 23rd. In contrast, as of this writing in early May, 2020, Governor Kristi Noem of South Dakota has only limited the size of social gatherings, with even those limits initially being only a recommendation, and not yet issued a stay at home order.¹ Already, some state governments are beginning to “reopen” economies (e.g., Georgia) due to the economic damage inflicted by widespread business closures, even while the virus is continuing to rapidly spread.

While most of the debate thus far has understandably focused on the immediate economic impact of these public health measures, these actions also have medium and longer-term economic implications (Correia, Luck, & Verner 2020). Yet, it is easy to see why governors

would focus on the short-term. The psychology literature suggests that individuals think more about the short-term than the long-term in times of crisis (Gray 1999). And, especially for elected executives, there are considerable pressures to think about short-term economic performance which affects state revenue and electoral fortunes. Research into the AIDS crisis in Sub-Saharan Africa shows that elected executives with longer time horizons (longer elected terms, or no elections) spent more money combatting the AIDS crisis, for example (Dionne 2011). In addition, while the lives saved from social distancing will never truly be known, the economic damage it brings will be known and felt very clearly. Thus, it is in some ways understandable that elected executives have focused on short-term economic considerations and balanced these against public health needs. Yet, decisions made now regarding public health and short-term economic health may have important implications for the perceptions of and stereotypes about states and their governments and bureaucracies, or what we call *state reputations*.

It is obvious to any American that individuals have stereotypes about different states and these stereotypes include beliefs about their political characteristics and governments (Koch et al. 2018). Because of the negative connotation of the word stereotype, we prefer the term reputation. Governments develop reputations and these are important for how individuals interact with them (James 2011, Tuxhorn, D'Attoma, & Steinmo 2019) and, ultimately, their willingness to live and work under them. For instance, Liu, Andris, and Desmarais (2019) find that individuals tend to move to areas that share their political ideology. Though government is not the only thing that shapes our perceptions regarding states, it is an important consideration when people think about states (Koch et al 2018). State reputations can thus be shaped by government policies and actions and these reputations may also shape the willingness of individuals to live and pursue job opportunities in different states, ultimately affecting business performance and state economic performance.

How individuals evaluate different job opportunities in different polities is an important consideration because countries, and states within the U.S., compete to attract educated and talented individuals since they contribute to economic growth and development (Beechler & Woodward 2009, Peterson 1995). States often explicitly use public policy to attract individuals by directly making a location economically attractive (e.g., with tax policy) or investing in amenities that make an attractive quality of life (Milligan 2018, Peterson 1995, Young et al. 2016). But even decisions that are not primarily intended to attract or repel migrants may do so by leading individuals to form opinions about the abilities of different governments to respond to a crisis or about the values that governments prioritize. For example, as noted, research on migration in the U.S. shows that individuals are more likely to move to areas that share their ideology (Liu, Andris, & Desmarais 2019). We know from experimental and observational studies in human resources that pay and benefits are of primary importance for job seekers (Becker, Connolly, & Slaughter 2010, Cable & Judge 1994, Carless 2005, Kuhn & Yockey 2003, Rynes, Bretz Jr & Gerhart 1991), but Turban, Campion, and Eyring (1995) show that the “attractiveness of the location”, which was left to respondents to define, also plays an important role in whether individuals will accept jobs.

During a relatively sudden, harmful event like the COVID-19 pandemic, the public pays more attention to administrative decisions and policy making (Birkland 1997). Further, pandemic public health decisions are often being made and certainly announced (often in frequent press conferences and briefings) by one highly visible official - the state governor. Thus, citizens are certainly aware of these choices. The public seems to value adherence to scientific evidence (Bergner, Desmarais, & Hird 2019), and public health experts have almost uniformly recommended social distancing as the best way to contain the spread of COVID-

19. Indeed, as of this writing we see very high approval of government mandated social distancing among the public.² Thus, state governments that do not approach COVID-19 in this manner, or that loosen restrictions too soon, risk being viewed negatively by the public – not competent, not adhering to scientific evidence, and a less desirable place to live and work. This leads to our main hypothesis:

H1: Individuals will view jobs more favorably if they are located in states where the governor has been more aggressive in mandating social distancing.

Yet, we also examine whether there may be variation in this effect based on how concerned individuals are about COVID-19 and on their partisanship, since most of the opposition to social distancing and calls for reopening the economy have come from Republicans. This leads to:

H2: Individuals unconcerned about COVID-19 will view jobs no more favorably if the governor mandates social distancing.

H3: Social distancing will have a larger positive effect for Democrats than Republicans.

Research Design and Analysis

To investigate these hypotheses, we use a conjoint experimental approach, which is ideal for understanding how respondents weigh characteristics in making comparisons among different objects that vary on many dimensions (Hainmueller, Hopkins, & Yamamoto 2014, Jilke & Tummers 2018). In our design, we vary job offer features, including the job's pay and benefits, the company's culture, its location, and size, the partisan leaning of the state in which the job is located, and the job's starting salary. We also, of course, vary the governor's response to COVID-19.

While it would be possible to understand how state reputations are affected by asking people

to simply evaluate different state actions and directly asking them about specific state reputations, we are interested in the economic implications of reputations. Furthermore, such a research design would enable a high level of expressive and fairly partisan responding since most of the resistance to social distancing has come from Republicans and many people have preconceived notions about specific states that have nothing to do with COVID-19 decisions. By making the COVID-19 action of state governments just one factor for respondents to consider, we force them to not only express a directional opinion about this action but also implicitly state how important this state reputational factor is, compared to other factors, for an economic decision.

We surveyed about 1,000 MTurkers in April 2020 near the projected height of at least the first wave of the COVID-19 pandemic in the U.S. The merits and disadvantages of MTurk as a subject pool are well-known; we merely note that many scholars have found results from MTurk to replicate in other, more expensive samples (Berinsky, Huber, & Lenz 2012, Clifford, Jewell, & Waggoner 2015, Huff & Tingley 2015). Table A1 in the online Appendix compares the demographics of our sample to those of nationally representative surveys.

We also asked respondents how concerned they were about COVID-19, asking: “How concerned are you about a coronavirus epidemic here in the United States?” Over 85% of respondents said that they were at least “somewhat concerned” about COVID-19. 92% of Democrats, 84% of Independents, and 84% of Republicans exhibited at least moderate levels of concern about the pandemic.³

Respondents were presented with fifteen pairs of hypothetical job offers, each with six randomly assigned traits which are all fully randomized across job offers. After reading each pair of job offers, we first asked respondents to select which of the two job offers was most

attractive. Second, we asked respondents to rate the attractiveness of each job offer on a 5-point scale ranging from “Very attractive” to “Not at all attractive.”⁴ An example of a trial is shown in Figure 1.

Figure 1.

An example trial from the conjoint experiment.

“For the next few minutes, we are going to show you pairs of job offers. Imagine that you are currently looking for a new job and have received both offers. You are deciding which offer you will accept. For each pair, please indicate your feelings toward the two offers and which one you would be more likely to accept, even if you aren’t entirely sure. Please pause between each pair because every set will be different.”

	Job Offer 1	Job Offer 2
Local News	As COVID-19 (Coronavirus) began to rapidly spread in the state, the Governor decided to allow cities and local governments in the states to determine appropriate public health measures	As COVID-19 (Coronavirus) began to rapidly spread in the state, the Governor issued a proclamation thanking healthcare workers for their "dedication and sacrifice"
Location	Mid-size city	Rural Area
Company Size	500,000 Employees	500,000 Employees
Political Climate	In a state that voted heavily for Hillary Clinton in 2016	In a state that Hillary Clinton barely won in 2016
Salary	\$105,000	\$90,000
Company Culture	The company seeks to provide employees with constructive feedback to foster their career growth	You will have the ability to work on a variety of tasks and develop your skills in many areas

We focus our analysis on the first outcome variable: the respondent’s binary choice.⁵

While it is possible to rate both jobs favorably, and many respondents did, this forced choice metric requires respondents to choose only one job which ensures that the ratings of jobs are not merely expressive - they must decide which of the two jobs is *more* attractive.

Of course, we cannot directly assess behavior using this experimental approach, but evaluating jobs as positive or negative is widely viewed as an attitudinal antecedent of accepting an offer (Turban, Campion, & Eyring 1995) and there is evidence that such survey responses predict actual behavior in other contexts (Hainmueller, Hangartner, & Yamamoto

2015). Further, while very few people will be weighing competing job offers at this time, as state economies open up and recover individuals will have choices about where to live and work. One drawback of MTurk for many questions is that it provides a more highly educated sample. However, from our standpoint this is not a problem since it is precisely these individuals who are the most economically desirable residents, for state officials interested tax revenue and economic growth (Peterson 1995), and it is these individuals who will have more choices.

State Responses to COVID-19

To determine how a state's COVID-19 response shapes evaluations of job opportunities, we gave respondents a small bit of news about recent political developments in the state, using one of the following statements after the preamble "As COVID-19 (Coronavirus) began to rapidly spread in the state the Governor.....":

- issued a proclamation thanking healthcare workers for their "dedication and sacrifice."
- decided to allow cities and local governments in the states to determine appropriate public health measures.
- recommended that individuals limit gatherings to a small number of people and practice social distancing.
- issued a stay at home order which required all citizens to remain in their homes except to exercise or obtain life-sustaining products and services (groceries, pharmaceuticals and healthcare).

These items are hypothetical but similar to actual responses in many states. The exception as far as we know is the proclamation, which we created as a baseline for comparison.

Other Job Attributes

We also varied several other attributes of the hypothetical jobs. Each trial contained

information on the salary (\$75,000, \$90,000, or \$105,000), the size of the company (10, 2,500, or 500,000 employees), the location of the job (a rural area, a small college town, a mid-size city, or a major metropolitan area), four statements about the company's culture,⁶ and information about the state's political leanings (a state that either "voted heavily" for Clinton or Trump or that the candidate "barely won").

We are not very substantively interested in most of these attributes. However, the variation in pay allows us to consider the financial sensitivity to COVID-19 responses and the state partisanship attribute enables us to distinguish between partisan evaluations of COVID-19 responses and general partisan attitudes.

Statistical Approach

We analyze the experiment by estimating the average marginal component effect (AMCE) of each of the attributes of the job offer (Hainmueller, Hopkins, & Yamamoto 2014), which provides the marginal effect of each attribute over the joint distribution of the other included attributes, similar to estimating a regression with a suite of categorical variables. Estimated AMCEs are identical to the coefficients from a multivariate linear regression and must be interpreted relative to an omitted category. We cluster our standard errors at the respondent level since each rated 15 pairs of profiles.

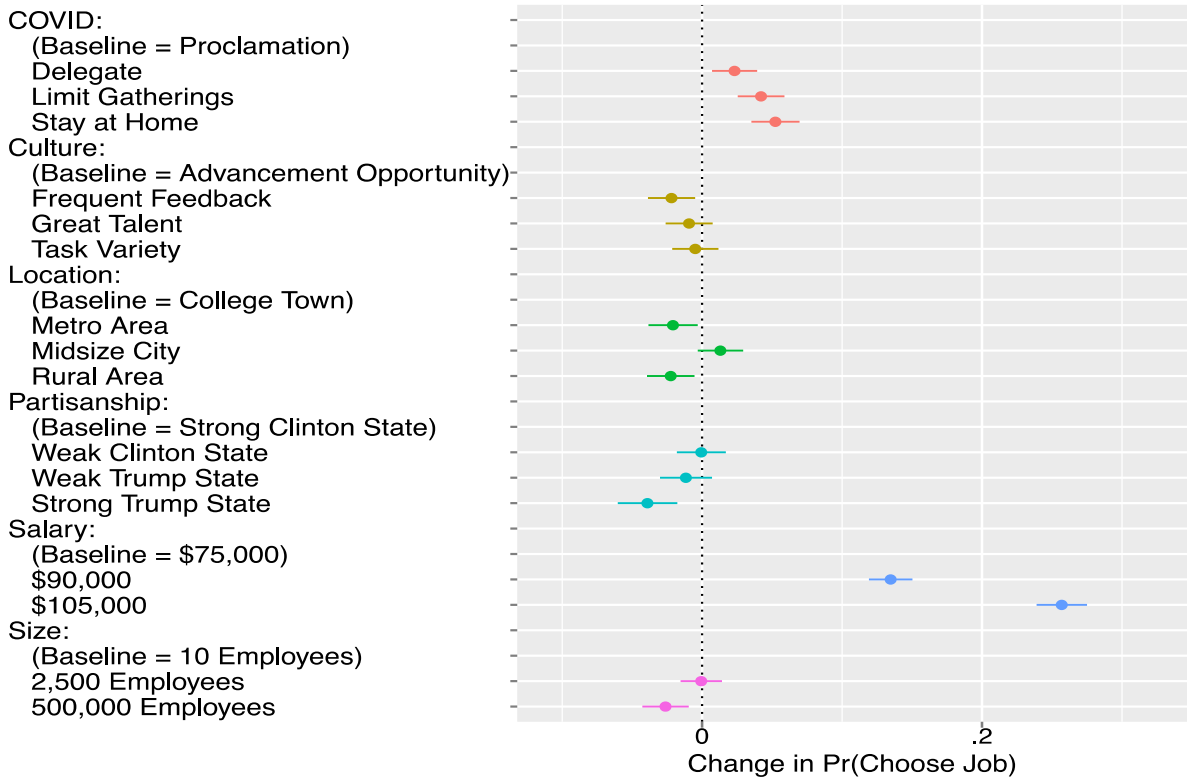
Results

The AMCE estimates are shown in Figure 2, and full statistical tables are available in the Online Appendix. As a basic test of validity, we see that jobs that offer a higher salary are more likely to be selected. The estimates in the top of Figure 2 show the change in the probability that a job was selected based on the associated gubernatorial action. We find

clear support for Hypothesis 1: individuals evaluate jobs more favorably if the governor took more aggressive action regarding social distancing. If the job is located in a state with a Stay at Home order individuals will be about 5% more likely to prefer it compared to if it is located in a state where the government only issued a proclamation. More substantive gubernatorial action in response to the pandemic leads to more positive evaluations. The gradually increasing magnitude of the estimates suggests that this relationship increases in size with the stringency of the governor's response. Indeed, the estimated AMCE for a Stay at Home Order is dwarfed only by the salary factors; it is *larger* than the effect of moving from a Strong Clinton State to a Strong Trump State. Given the substantially larger effects for salary, it would be possible for employers to purchase away employees' reservations about the state government's response to COVID-19. But this would either impose additional costs on employers or require them to settle for less talented workers. This, in turn, could lead to poorer firm and overall economic performance over the longer-term.

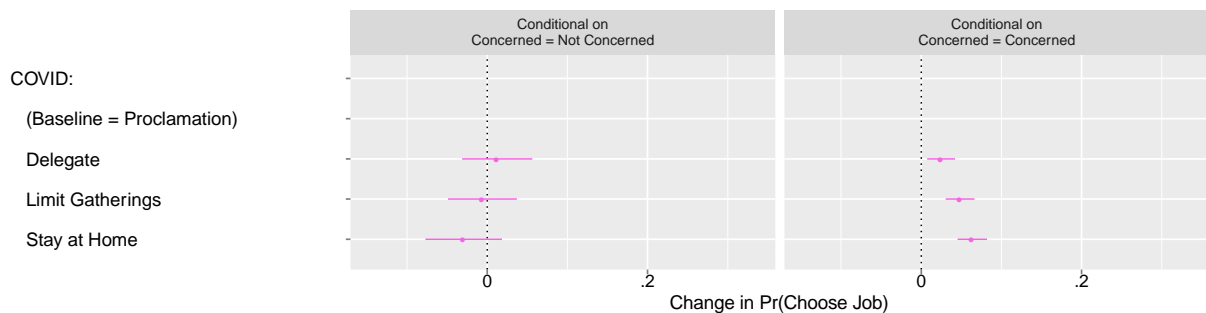
Figure 2.

Unconditional AMCE estimates from the conjoint experiment.



Hypothesis 2 suggests that governmental responses should only have meaningful effects on respondents who were concerned about the pandemic. These results are shown in Figure 3, which demonstrates support for this proposition. For individuals concerned about COVID-19 the governor issuing a Stay at Home order leads to an approximately 7% increase in the probability that a person would accept a job. For the 15% that are unconcerned about COVID-19 this gubernatorial action does not have a significant effect and the sign is actually negative.

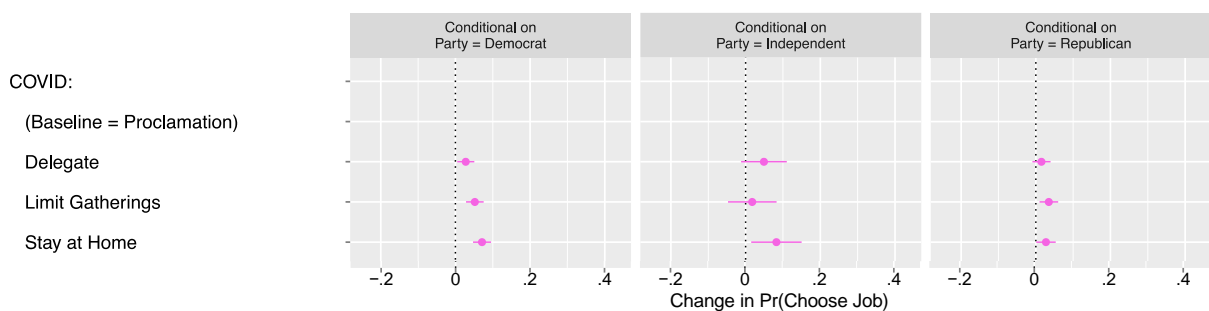
Figure 3. Results by Concern About COVID-19



Finally, Hypothesis 3 states that Democrats should be more likely to evaluate jobs in states with more aggressive social distancing more favorably. We examine the results of the experiment conditional on respondent's party affiliation in Figure 4, which provides support for Hypothesis 3. Democrats (51% of the sample) were 5% more likely to select a job in a state where the governor recommended limiting the size of gatherings and 7% more likely to select a job in a state whose governor issued a Stay at Home order. For independents (9% of the sample), only the Stay at Home order is associated with a change in the probability that a profile is selected, and it has a large effect, making independents about 9% more likely to “accept” a job. Of course, the level of uncertainty around these estimates increases because of the relatively small subgroup size. For Republicans (42% of the sample), the estimated AMCE for the Stay at Home order is less than the estimated effect for recommending limiting gatherings, though this difference is admittedly small. Yet Republicans were 3% more likely to select a job if the governor had issued a Stay at Home order compared to engaging in merely symbolic action thanking healthcare workers. Following the recent guidance from Leeper, Hobolt, and Tilley (2020) we also estimate marginal means for the subgroups and present these results in the online Appendix. The conclusions regarding the subgroup hypotheses are substantively the same.

Figure 4.

Results by Party



Conclusion

During the COVID-19 pandemic the tension between economic and public health looms large for governments, especially in the U.S. with its relatively weak social safety net compared to other affluent democracies. While there are serious short-term economic consequences of mandated social distancing, these actions might also have longer-term economic consequences by shaping state reputations.

Our conjoint experimental results showed that individuals evaluate a job opportunity more favorably if the job is located in a state where the governor took more aggressive action to contain COVID-19 with social distancing measures. Of course, as the pandemic persists, it is possible that fatigue will set in and people will become hostile to social distancing or that scientific guidance will change. Our results also cannot tell us whether these reputational effects will persist well into the future or how many people would actually ultimately decide not to pursue a job in a state where the governor had a more cavalier approach to COVID-19. This should be examined in the future. However, the human resources literature indicates that positive evaluations of job offers are important to whether they are actually chosen (Turban, Campion, & Eyring 1995) and Hainmueller, Hangartner, and Yamamoto (2015) show that results from conjoint and vignette experiments approximate actual observed behavior in other contexts quite well.

At a minimum, our results indicate that for now—and at least while public opinion remains supportive of social distancing—individuals view economic opportunities more favorably in states where governors mandate more aggressive social distancing measures in response to COVID-19. This suggests that states that fail to pursue social distancing are likely suffering some reputational damage, which could affect longer-term economic performance. Our

results also suggest that if the scientific and public health consensus changes, governments that do not follow this consensus may pay a price. Governors and their advisors and staffs should consider this possibility as they weigh the costs and benefits of different economic and public health approaches in response to the pandemic.

Author Version

Notes

1. Dates of state orders were obtained from: <https://COVID19.healthdata.org/united-states-of-america>
2. <https://www.politico.com/news/2020/04/15/poll-dont-stop-social-distancing-coronavirus-spread-187290>
3. 51% of our respondents identified as Democrats and 42% of respondents identified as Republicans.
4. 49.9% of the first column profiles were selected as more attractive; 50.1% of the second column profiles were selected.
5. We demonstrate in the on-line appendix that the results are similar when we analyze respondents' ratings of the job offers as the outcome variable.
6. The statements were: "You will have the ability to work on a variety of tasks and develop your skills in many areas," "The company seeks to provide employees with constructive feedback to foster their career growth," "Employees are given many opportunities for advancement within the organization," and "You will have many opportunities to collaborate with talented people."

Author Version

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