Varieties of Anxieties: Disaggregating Emotion and Voting Behavior in the COVID-19 Era*

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Abstract

How does anxiety influence voting behavior? Whereas anxiety is usually treated as a unidimensional emotion, we highlight the multiplicity of socially contingent forms it can assume in response to societal threats. Different anxieties, we posit, can create distinct axes of political competition along which anxious voters exhibit widely varying preferences. We illustrate our argument with unique observational and experimental survey data from Spain's COVID-19 crisis, showing that individuals anxious about the pandemic's health consequences favored parties advocating stringent lockdown restrictions, whereas individuals anxious about its economic disruption preferred parties opposing such measures. Analyzing municipality-level results from Madrid's 2021 regional election, we additionally provide evidence that COVID-19 boosted support for pro-lockdown parties in areas more exposed to its health effects and support for anti-lockdown parties in areas more exposed to its economic impact. Our findings point to the importance of disaggregating complex emotional states for understanding the determinants of voting behavior.

Keywords: anxiety, voting behavior, emotions, elections, COVID-19, lockdown

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Introduction

The distressing medical, social, and economic consequences of the coronavirus (COVID-19) pandemic, accompanied by a string of surprising election results in Europe and beyond, have triggered fresh scholarly interest in the impact of anxiety on voting behavior.[1] Prior to COVID-19, research on this relationship generally concluded that anxiety encourages information-seeking and enhances the appeal of protective policies that mitigate perceived threats — policies often espoused by conservative politicians — by increasing risk aversion (Druckman and McDermott 2008; Huddy et al. 2005), susceptibility to elite persuasion (Brader, Valentino, and Suhay 2008; Albertson and Gadarian 2015; Marcus, Neuman, and MacKuen 2000), and antipathy toward outgroups (Arceneaux 2017). Developments during the pandemic, however, have led some scholars to question this conventional wisdom, particularly when anxiety stems from society-wide threats that transcend ideological divisions within the electorate.[2] Examining COVID-19's impact on the 2020 Democratic primary election in the United States, Bisbee and Honig (2022) offer evidence that anxiety induces a "flight to safety" that favors status-quo candidates regardless of their specific policy platform, a proposition for which Depetris-Chauvin and González (2023) find some support in the 2021 Chilean elections. Lehrer et al. (2021) and Erhardt et al. (2021), in contrast, present survey results from Germany and Switzerland, respectively, suggesting that anxiety reduces support for incumbents.

Drawing on insights from psychology and public health, we seek to contribute to this important debate by arguing for an alternative approach that recognizes and takes seriously the multidimensional, socially contingent nature of complex emotional states such as anxiety. Our *varieties of anxieties* (VoA) perspective is motivated by a simple observation: a given societal

[1] Unexpected national election outcomes include losses for previously dominant governing parties in Bulgaria, the Czech Republic, Germany, and Norway and the victory of a far-right populist party in Italy.

[2] Such threats are described by Albertson and Gadarian (2015) as "unframed," since their broadly agreed-upon causes of harm render them more difficult to politicize than "framed" threats with more debatable logics.

threat can elicit multiple forms of anxiety centered on distinct potential harms — exposure to which varies across socio-demographic groups — with heterogeneous consequences for electoral preferences. Different types of anxiety, we posit, can give rise to discrete axes of political competition around threat mitigation and resolution that overlap with, yet are not fully subsumed by, traditional cleavages. As policies designed to address one kind of anxiety may have little bearing on — or even exacerbate — another kind, voters concerned about the same threat may favor candidates with widely varying platforms. Understanding the electoral implications of anxiety therefore requires asking not simply: "How anxious are voters?" We must also know: "What types of anxiety are voters experiencing?"

During the peak of the COVID-19 pandemic, two kinds of anxiety became particularly prevalent in the general population: anxiety about the disease's adverse effects on physical health; and anxiety about its damaging economic impact. We argue that these emotional states have conflicting implications for perhaps the defining public policy issue of the pandemic, namely, the stringency of lockdown measures aimed at containing COVID-19 transmission. While assuaging health anxiety by reducing local infection rates, strict lockdowns are likely to deepen economic anxiety by curtailing opportunities for commercial and business activity. We thus expect voters with high levels of health anxiety to favor political platforms that endorse stringent lockdown restrictions, and voters with high levels of economic anxiety to prefer platforms that oppose such constraints. Heeding findings from the public health literature, however, we emphasize that these emotions are not randomly distributed across the population but rooted in socio-demographic characteristics affecting personal exposure to threats. Health anxiety, though common, should be more acute among groups at greater risk of developing severe COVID-19 symptoms, such as the elderly and people with underlying medical conditions. Analogously, economic anxiety should be higher among groups that stand to lose more from pandemic-induced business disruption, such as workers in close-contact occupations and individuals at the extreme ends of the wealth distribution.

To test these propositions, we investigate the impact of COVID-related health and economic anxieties on voting behavior during Spain's pandemic, leveraging a variety of data sources and empirical strategies. To our knowledge, Spain is the only country whose citizens were widely surveyed by a trusted public research institution — El Centro de Investigaciones Sociológicas (CIS) — on both their voting intentions and their levels of different COVID-related anxieties in the intense early months of the pandemic. Pooling monthly waves of this survey, we establish two theory-affirming patterns. First, controlling for socio-demographic attributes and partisan attachments, individuals primarily concerned about COVID-19's health effects were more likely to vote for parties that backed the Spanish government's stringent lockdown measures, whereas individuals primarily concerned about its economic ramifications tended to favor parties that rejected these restrictions. Second, COVID-related health anxiety is an increasing function of age, a key predictor of vulnerability to serious illness from the disease, while economic anxiety is most severe at very low and very high levels of income and education, predictors of exposure to the pandemic's "pocketbook" consequences.

To substantiate a causal interpretation of these findings, we then present a preregistered survey experiment on Spanish voters in which we randomize the assignment of prompts emphasizing COVID-19's adverse impact on either public health or the economy. If our observational results were driven by an unmeasured source of variation in COVID-related anxieties and voting intentions, we would expect to see no average difference in political preferences between the treatment and control groups. Instead, respondents receiving the health-focused frame — who report higher levels of anxiety about the pandemic's medical consequences — strongly preferred a hypothetical political candidate who advocates stringent lockdown restrictions to a similar candidate who opposes such measures. Respondents receiving the economy-focused frame — who report greater anxiety about the pandemic's material implications — expressed the reverse preference. In addition, we find that the former treatment effect increases with respondent age and possession of an underlying medical condition, while the latter treatment

effect is larger for respondents in the lowest and highest categories of education and income.

Finally, we assess our argument with real voting data from the 2021 Madrid regional election, a major subnational contest in which the stringency of lockdown measures was the pivotal political issue. Analyzing changes in municipality-level vote shares since the previous election, we find that COVID-19 incidence is more strongly associated with (1) support for pro-lockdown parties in areas with a higher proportion of elderly people and individuals with respiratory conditions; and (2) support for anti-lockdown parties in areas with larger hospitality industries and extreme (top or bottom 5%) average incomes. To address possible concerns about endogeneity in the geographical distribution of COVID-19 cases, we show that these results are robust to instrumenting infection rates with pre-election weather patterns, which we argue to be plausibly exogenous to other municipal-level factors affecting disease transmission and vote choice.

Our findings point to the value of a more nuanced understanding of how — and with what political consequences — voters develop feelings of anxiety in response to societal threats. Disaggregating anxiety helps us to make sense of voting patterns that are difficult to rationalize if we treat this emotion as uniform or homogeneous, such as the sharp division in support for pro-lockdown parties among Spanish voters concerned about COVID-19. By opening up this emotional "black box," the VoA approach enables us to more clearly delineate the scope conditions for existing theories of anxiety's impact on voting behavior. For example, our result that many COVID-anxious voters opposed pro-lockdown parties may initially seem to defy the predictions of the self-protection and flight-to-safety perspectives mentioned earlier. Once we distinguish between voters whose worries centered on health issues and voters whose worries centered on economic matters, however, it becomes clear that these theories can shed light on political preferences *within* each group, whose members can be seen as favoring what they consider protective policies or safe candidates. As discussed in the concluding section, we believe that the VoA perspective has broad applicability across policy areas and, with appropriate

contextualization, can improve our grasp of how other complex emotional states shape political behavior.

Disaggregating Anxiety: Theory and Application

Anxiety is usually understood as an unpleasant and aversive emotional state characterized by feelings of tension, apprehension, or stress arising from uncertainty about a perceived threat (Baumeister and Tice 1990; Eysenck 2013). Following Spielberger et al. (1983), psychologists distinguish between "trait anxiety," which derives from stable features of an individual's personality, and "state anxiety," a more transient response to a specific threat.[3] State anxiety, the more common focus of social science research, can take numerous forms; indeed, one literature review identifies more than 30 distinct state anxieties that have been operationalized and measured by researchers, including dental anxiety, cancer anxiety, cardiac anxiety, and pregnancy anxiety in the public health field and flight anxiety, mathematics anxiety, test anxiety, and social anxiety in other disciplines (Rose and Devine 2014). Notably, these emotional states often derive from the *same* perceived threat. For instance, standardized assessments have been shown to arouse not only test anxiety but also mathematics anxiety and social anxiety in students (Dowker, Sarkar, and Looi 2016).

Individuals are not equally susceptible to state anxieties. A central finding of the public health literature is that the onset and intensity of such worries are predicted by an array of socioeconomic and demographic attributes associated with heightened exposure to potential harms. Cancer anxiety, for example, tends to be higher among individuals with a family history of the disease, poor general health, weak social support systems, and low levels of education, all of which are well-established risk factors (Hidalgo et al. 2015). In addition, state anxieties comprise a more subjective component reflecting personality, upbringing, ideology, and so-

[3]This is similar to the distinction sometimes drawn between generalized and situational anxiety.

cialization — including persuasion by political elites — which interacts with and may be shaped by socio-demographic factors.

In the political domain, these findings suggest, some societal threats may carry the potential to elicit multiple forms of anxiety in voters, the severity of which varies with socio-demographic characteristics. This heterogeneity could open up salient dimensions along which politicians compete for votes by proposing policies to avert or relieve threat-related harms. Ideally, these interventions would simultaneously alleviate all forms of anxiety provoked by a given threat; in practice, they may ease some types while making little difference to — or intensifying — other types. For example, counterterrorism laws introduced in the wake of a suicide bombing help to ease security anxiety among the general public but may induce social anxiety in voters with perceived affinities to the terrorist group (such as Muslims in the case of an Islamic organization) (Lynch and McGarrity 2008). It is entirely possible that these conflicting effects offset one another — within individual voters or the electorate as a whole — nullifying the overall impact of anxiety on vote choice.

More formally, this line of reasoning implies a straightforward extension to the canonical spatial model of voting, in which vote choice is a function of the distance between a voter's ideal policy and each candidate's platform plus a valence component capturing non-policy candidate attributes (such as leadership and charisma). Assume that voter i is choosing between n candidates and that there are two policy dimensions: x, an existing axis of political competition (e.g., the traditional left-right spectrum); and y, an emergent dimension centering on the response to an unanticipated societal threat. Let x_i and y_i denote voter i's preference on x and y, respectively, and let x_j and y_j denote candidate j's position on these issues. Voter i's utility from supporting candidate j can be expressed as:

$$u_{ij}(x_j, y_j, x_i, y_i) = -(1 - \omega_i)[(x_j - x_i)^\alpha - \lambda_i(y_j - y_i)^\alpha] + \omega_i V_j \tag{1}$$

where V_j is the valence component for j; ω_i is the weight i attaches to this component; α is the shape of the distance between voter and candidate policy positions; and λ_i is the weight i places on dimension y relative to dimension x. Considering all n candidates, i selects the one that maximizes utility:

$$U_i = max\{u_i(x_j, y_j, x_i, y_i), \ldots, u_i(x_n, y_n, x_i, y_i)\}. \tag{2}$$

Existing theoretical approaches imply that anxiety affects vote choice through either y_i (e.g., the self-protection perspective) or V_j (e.g., the flight-to-safety perspective). The VoA perspective, too, focuses on y_i but analyzes it as a complex function of multiple types of anxiety elicited by the societal threat:

$$y_i = \sum_{k=1}^{A} f_{ik}(a_{ik}) \tag{3}$$

where a_{ik} is voter i's level of anxiety type k. The intensity of a_{ik}, in turn, depends on a vector of socio-demographic characteristics affecting i's exposure to potential harms, $\mathbf{X}_i$, which can also be thought of as k-specific expected costs. It additionally includes a subjective component, t_i, which could similarly be endogenous to $\mathbf{X}_i$:

$$a_{ik} = g(\mathbf{X}_i, t_i). \tag{4}$$

As the function f varies with k in Equation 3, one type of anxiety may have a different relationship with y_i to another type, causing anxious voters to form varying preferences over this dimension. For example, if high values of y assuage anxiety type $k = 1$ but exacerbate type $k = 2$, the effects of these emotions on preferred levels of y may cancel each other out, such that y_i is identical to the preference of a non-anxious voter. The upshot is that we may not be able to predict vote choice solely from a voter's *overall* degree of anxiety about a given societal threat; we must additionally take into account the relative intensity of different kinds

of anxiety and the extent to which each one is alleviated by policies designed to address this threat.

Varieties of Anxieties in the COVID-19 Era

The COVID-19 pandemic represents a fruitful setting in which to apply and empirically evaluate the VoA framework. First, it is one of the clearest examples of a salient societal threat in recent decades, tangibly impacting the welfare of virtually every segment of the electorate in most democratic countries. Second, a growing body of research indicates that the pandemic gave rise to multiple types of anxiety, among which COVID-related health and economic anxieties became especially pervasive (Maaravi and Heller 2020; Bareket-Bojmel, Shahar, and Margalit 2021).[4] Third, as an unanticipated shock originating outside the democratic world, COVID-19 was not initially "framed" by political elites, helping us to mitigate — though not eliminating — the potentially confounding impact of partisanship on anxiety and electoral preferences (Gadarian, Goodman, and Pepinsky 2022). Where appropriate, our empirical analyses seek to more directly address this issue by controlling for partisan affiliation.

A striking feature of COVID-related health and economic anxieties is that they imply opposing attitudes toward lockdown measures, the principal non-pharmaceutical policy intervention against the disease. Lockdowns involve the implementation of restrictions — including on movement, access to public spaces, and social contact — intended to reduce the frequency of interactions between infected and non-infected individuals. Insofar as they suppress COVID-19's reproduction rate and hence the risk of personal infection, stringent lockdowns should alleviate anxiety about its health consequences. This should be felt more keenly by individuals liable to suffer severe respiratory, muscular, or neurological COVID-19 symptoms, such as elderly people and bearers of underlying health conditions. Indeed, a consistent finding of the

[4]To the extent that economic anxiety stems from the prospect of lost earnings due to COVID-19's physiological symptoms, these two types of anxieties are linked. This overlap is limited, however, as the pandemic primarily affected earnings through the supply side of the labor market.

growing literature on attitudes toward COVID-19 policy is that these two groups expressed strong support for lockdown rules (Faia et al. 2021; Settele and Shupe 2022).

A further corollary of restrictions on in-person interaction, of course, is more limited opportunities for commercial and business activity. Lockdown measures can intensify anxiety about COVID-19's economic consequences by adversely impacting both income and wealth. Negative income effects arise from the loss of regular employment earnings, usually due to a reduction in (aggregate or sector-specific) demand for goods and services in and around locations under lockdown.[5] Negative wealth effects occur when declining demand and output growth put downward pressure on asset prices. Taken together, these effects should elicit more intense anxiety in individuals at the lowest and highest ends of the economic distribution: the poorest have the fewest resources with which to survive negative income shocks, while the richest tend to be disproportionately affected by negative wealth shocks. Another clear finding of scholarship on attitudes toward COVID-19 policy is that support for lockdown measures is weaker not only among the poorer and less educated but also among owners of property, stocks, and other forms of wealth (Faia et al. 2021; Peretti-Watel, Verger, and Launay 2020; Settele and Shupe 2022). In addition, we might expect individuals whose occupation requires close contact with customers or colleagues and thus cannot easily be conducted from home, such as most hospitality, construction, and arts and entertainment workers (Faber, Ghisletta, and Schmidheiny 2020), to experience greater economic anxiety in the face of the COVID-19 threat.

What are the implications for voting behavior? Returning to the framework set out in the previous section, assume that the stringency of COVID-19 lockdown restrictions is the emergent issue dimension y. Voter i's preferred degree of stringency, y_i, depends on i's level of COVID-related anxiety, a_{ic}, which is composed of health anxiety, $a_{ic(h)}$, and economic

[5]For individuals who were unemployed at the onset of the pandemic, these effects instead stem from a reduced likelihood of finding employment.

anxiety, $a_{ic(e)}$:

$$y_i = f_{ic(h)}(a_{ic(h)}) + f_{ic(e)}(a_{ic(e)}) \tag{5}$$

where

$$\frac{\partial f_{ic(h)}}{\partial a_{ic(h)}} > 0\,,\ \frac{\partial f_{ic(e)}}{\partial a_{ic(e)}} < 0. \tag{6}$$

That is, y_i is a positive function of $a_{ic(h)}$ but a negative function of $a_{ic(e)}$. Other things equal, when $a_{ic(h)}$ is high relative to $a_{ic(e)}$ (the state of health-weighted anxiety), voter i will derive greater utility from a candidate who endorses strict lockdown measures; when $a_{ic(e)}$ is high relative to a_h (the state of economy-weighted anxiety), i will derive greater utility from a candidate who favors weak restrictions. In more general terms, *COVID-related health anxiety is positively associated with support for pro-lockdown political platforms, whereas COVID-related economic anxiety is positively associated with support for anti-lockdown platforms.* The distribution of these two emotions in the population of interest, in turn, determines the relationship between overall COVID-19 anxiety and support for each type of platform. If COVID-related health and economic anxieties are roughly balanced, their opposing effects on lockdown preferences could counterbalance one other, resulting in a weak or non-existent association.

With respect to socio-demographic sources of COVID-related anxieties ($\mathbf{X}_i$ in our framework), the preceding discussion suggests two propositions. First, *COVID-related health anxiety is positively associated with characteristics that increase exposure to severe COVID-19 symptoms*, such as advanced age and the presence of an underlying medical condition. Second, *COVID-related economic anxiety is positively associated with characteristics that increase exposure to significant financial loss due to the pandemic*, such as an extremely low or high income and an occupation requiring human-to-human contact (e.g., hospitality worker).

Observational Survey Evidence: *La Pandemia de España*

Owing to the availability of nationally representative, high-frequency survey data on political preferences and key varieties of COVID-related anxiety, we test our hypotheses in the context of the early Spanish pandemic. We begin by providing a brief overview of the political landscape and evolution of COVID-19 in Spain. We then describe our data, empirical strategy, and results, focusing first on the relationship between different COVID-related anxieties and voting intentions and next on the sources of these emotions.

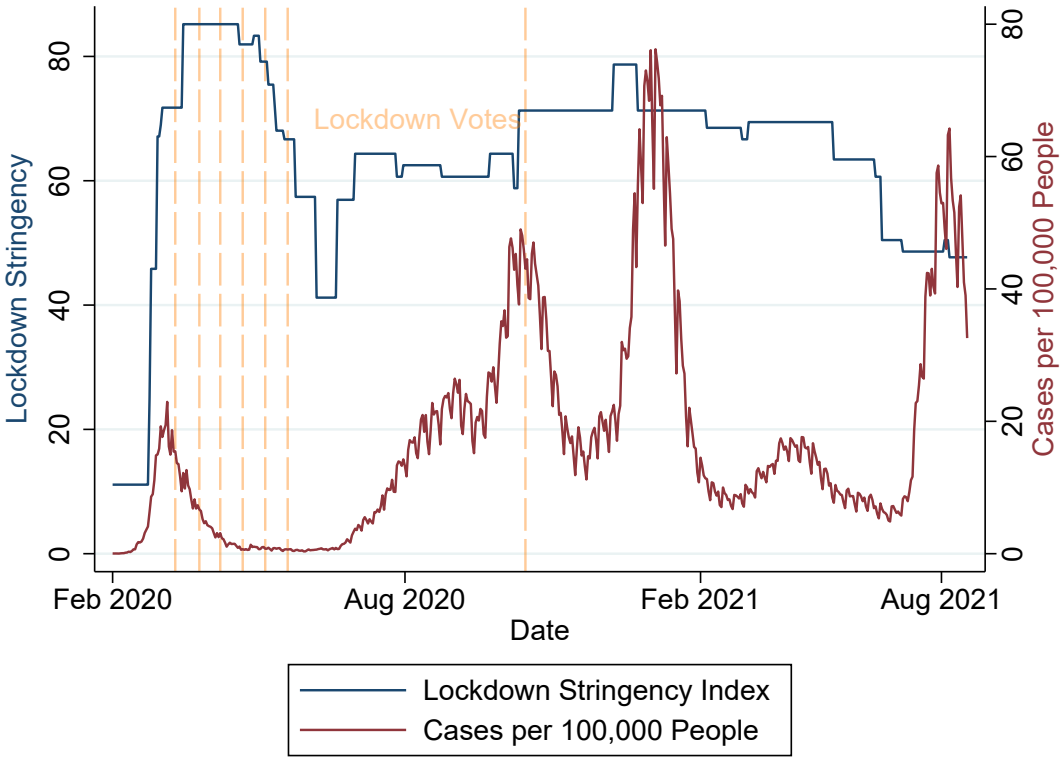
Background and Political Context

In Spain's multiparty parliamentary system, five parties have dominated national politics in recent years: (1) Partido Popular (PP), a Christian democratic party that held power until shortly before the pandemic; (2) Partido Socialista Obrero Español (PSOE), a social democratic party that has frequently been in government; (3) Podemos, a left-wing populist party; (4) Ciudadanos, a center-right liberal party; and (5) Vox, a right-wing populist party.[6] In January 2020, a few weeks before the country's first recorded COVID-19 case, PSOE joined forces with Podemos and several small left-wing and independent parties to form the first national coalition government of the modern era. After initially underestimating the seriousness of COVID-19, the coalition shifted policy in mid-March, declaring a nationwide state of alarm under which citizens were required to remain in their normal residence except to purchase food and medicines, attend work, and address emergencies.

Figure 1 illustrates the subsequent evolution of Spain's lockdown measures (left y-axis) and COVID-19 incidence (right y-axis). With the backing of parliament, the government extended the initial state of alarm six times between March and June 2020 (indicated by dotted

[6]On the COVID-19 pandemic's impact on support for right-wing populist parties, see Lall, Davidson, and Hagemeister (2023).

FIGURE 1. Evolution of COVID-19 Cases and Lockdown Restrictions in Spain



Notes: The left *y*-axis measures the stringency of Spanish lockdown policies using an index from the Oxford COVID-19 Government Response Tracker (Hale et al. 2021); the right *y*-axis measures the number of new COVID-19 cases per 100,000 residents with data from Spain's National Epidemiological Center (El Centro Nacional de Epidemiología 2022). Dotted vertical lines denote parliamentary votes on whether to declare a national state of alarm; see Table A1 in Online Appendix A for party voting decisions.

vertical lines), after which it relaxed restrictions and granted more policy discretion to regional governments. An unexpected surge in cases over the summer triggered a new state of alarm including a mandatory curfew, which parliament extended for six months in late October. A successful vaccination campaign in 2021 permitted a gradual easing of controls, with most forms of movement, social interaction, and commercial activity authorized by the end of the year.

Among the five major parties, there were sharp differences in support for lockdown measures. As indicated by government policy, PSOE and Podemos favored the robust restrictions

recommended by most Spanish and international public health experts.[7] Opposition parties were more divided. Ciudadanos was moderately supportive of the government's position, voting for proposed extensions of the state of alarm while continually emphasizing that "we cannot prolong confinement excessively" and that "economic activity should resume as quickly as possible."[8] PP initially backed lockdown restrictions but refused to vote in favor of the state of alarm from May 2020 onward, arguing that sustained closure jeopardized livelihoods, rights, and freedoms. Finally, Vox presented the stiffest and most consistent opposition to lockdown, only voting for the initial state of alarm and repeatedly criticizing the government's position as inimical to economic liberties and business interests (Zanotti and Turnbull-Dugarte 2022). Table A1 in Online Appendix A records each party's votes on the seven state-of-alarm extensions; Table A2 presents a selection of policy statements illustrating their general stance on COVID-19 containment measures.

Party positions on lockdown stringency therefore varied *within* the right side of the ideological spectrum, again helping us to tease apart the effects of anxiety and partisanship on voting behavior. Our argument implies that, holding constant partisan attachments, anxiety about COVID-19's health consequences was positively associated with support for PSOE and Podemos (strong pro-lockdown stance); ambiguously associated with support for Ciudadanos (lukewarm pro-lockdown stance); and negatively associated with support for PP and Vox (strong anti-lockdown stance). Anxiety about COVID-19's economic implications should be characterized by the opposite relationships.

[7] On the World Health Organization's (WHO) recommendations, see Lall (2023*b*). For broader discussions of the international public health regime, see Lall (2017, 2023*a*).

[8] https://thespainjournal.com/arrimadas-the-state-of-alarm-cannot-be-eternal-we-negotiated-to-untie-the-aid-and-create-an-exit-plan/.

COVID-19 Anxieties and Voting Intentions

In the first part of our empirical investigation, we examine the relationship between COVID-related anxieties and voting intentions using detailed individual-level data collected by CIS.[9] In every month except August, CIS conducts a public opinion survey containing questions on electoral preferences, socio-demographic characteristics, and, since April 2020, attitudes toward the pandemic and the policy response to it. The survey is administered to approximately 2,500 adults selected via a stratified random sampling procedure based on regional population, with quotas ensuring appropriate gender and age group representation.

Usefully for our purposes, the CIS survey includes a question not only on respondents' overall level of anxiety about COVID-19 (April 2020 onward) but also on whether they are more concerned about its economic consequences or its health consequences (May 2020 – July 2020).[10] Pooling available survey waves over the severe phase of the pandemic stretching from April 2020 to July 2021 (see Table A4 in Online Appendix B.2 for summary statistics), we regress the intention to vote for a given party on responses to these two questions using the following logistic model:

$$\begin{aligned} logit(P(\text{Vote Choice}_{itp} = 1)) = \beta_0 + \beta_1 \begin{cases} \text{COVID Anxiety}_{it} \\ \text{Health-Weighted Anxiety}_{it} \end{cases} + \beta_2 \text{Log COVID} \\ \text{CPC}_{jt} + \beta_3 \text{Previous Vote}_{itp} + \gamma_j + \phi_t + \theta \mathbf{X}'_{it} + \epsilon_{ijtp}. \end{aligned} \tag{7}$$

Vote Choice$_{ijtp}$, the dependent variable, is a dummy for whether respondent i in NUTS-3 region j in survey wave t would vote for party p if general elections were held tomorrow. *COVID Anxiety*$_{it}$, the first explanatory variable, is based on the question: "Thinking about the

[9] All surveys are available at: https://www.cis.es/cis/opencm/ES/11_barometros/index.jsp.

[10] Table A3 in Online Appendix B.1 provides the full text, response options, and coding rules for all survey items used in our analysis.

effects of this pandemic, would you say that COVID-19 worries you a lot, quite a bit, a little, or not at all?"[11] The variable has an ordinal scale ranging from 1 for the response "not at all" to 5 for "a lot." The second explanatory variable, *Health-Weighted Anxiety*$_{it}$, is a categorical variable based on the question: "At this time, what are you more concerned about: the effects of the [COVID-19] crisis on health, or the effects of the [COVID-19] crisis on the economy and employment?" It takes three values: 1 for the response "health effects," 0.5 for "both equally," and 0 for "economic effects." The mean value across the three survey waves that feature the question is 0.59, indicating a rough balance between COVID-related health and economic anxieties among respondents.

Turning to control variables, *Log COVID CPC*$_{jt}$ is the logarithm of cumulative COVID-19 cases per capita in NUTS-3 region j in wave t, data on which come from Spain's National Epidemiological Center (El Centro Nacional de Epidemiología 2022). *Previous Vote*$_{itp}$ is a dummy for whether respondent i voted for p in the 2019 Spanish general election, a proxy for partisanship.[12] $\mathbf{X}'_{it}$ is a vector of six sets of socio-demographic dummies, which are transformed from their original categorical form: age (six categories), gender (two categories), social class (five categories), education level (four categories), labor situation (four categories), and job type (10 categories). We discuss these variables in more detail below.

Finally, γ_i and ϕ_t are NUTS-3 and survey wave fixed effects, respectively, which control for time-invariant geographical and location-invariant temporal characteristics. For robustness, we additionally estimate Equation 7 with NUTS-2 $\times$ survey wave ($\delta_k \times \phi_t$) fixed effects, thereby capturing region- *and* time-varying factors (which in some periods include subnational lockdown measures). We cluster heteroskedasticity-robust standard errors at the NUTS-3 level.

[11] All questions and response options are translated from Spanish.
[12] In a robustness check discussed below, we also control for left-right ideology.

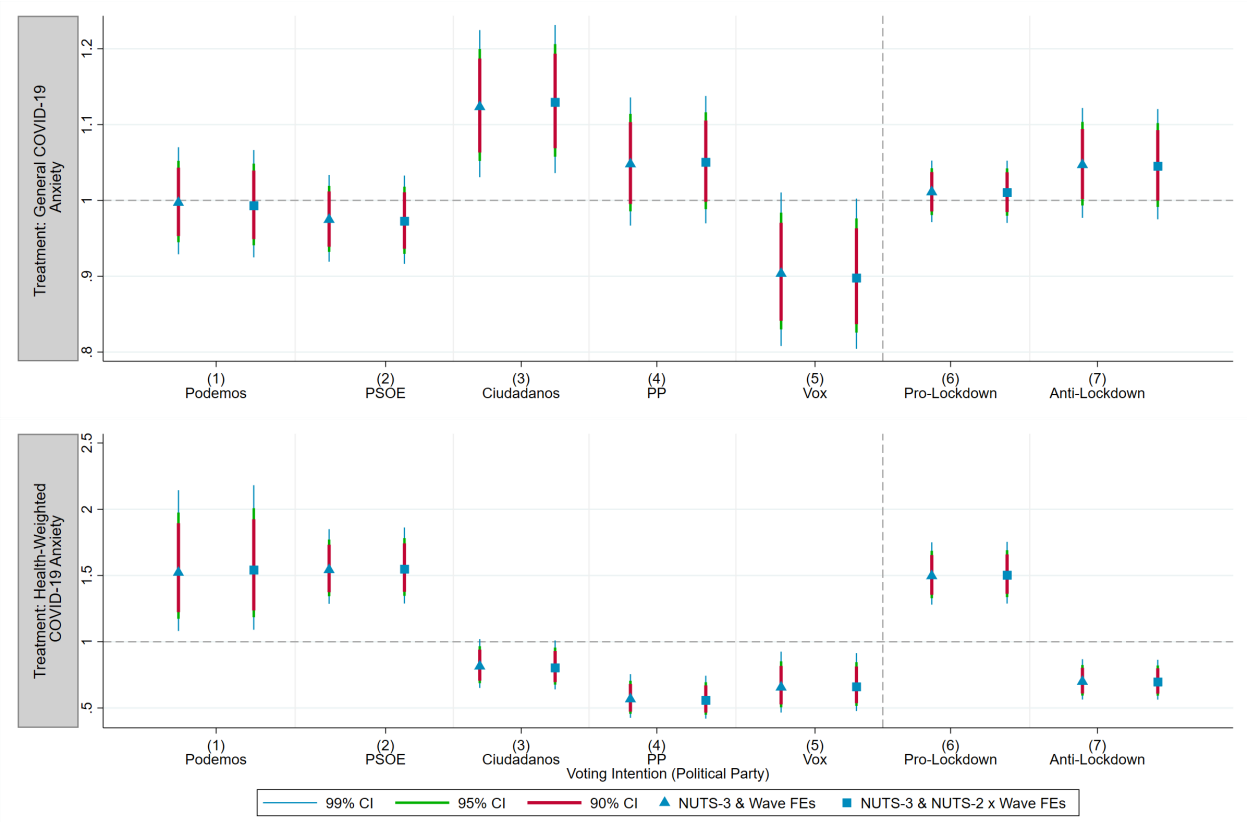
Results

The top row of Figure 2 plots odds ratios for the estimated coefficients on *COVID Anxiety*$_{it}$ with 90%, 95%, and 99% confidence intervals, both including (right estimate within each column) and excluding (left estimate within each column) NUTS-2 $\times$ survey wave fixed effects.[13] Interestingly, regardless of specification, no clear relationship emerges between overall COVID-19 anxiety and support for parties that favor stringent lockdown measures. COVID-anxious individuals were more likely to vote for Ciudadanos (column 3), which modestly backed restrictions, yet no more likely to vote for Podemos (column 1) or PSOE (column 2), which ardently endorsed them. Among anti-lockdown parties, *COVID Anxiety*$_{it}$ is associated with a lower likelihood of voting for Vox (column 5) but with no difference in the likelihood of voting for PP (column 4). When we aggregate preferences for pro-lockdown (column 6) and anti-lockdown (column 7) parties, the odds ratios are indistinguishable from 0 at a 5% significance level.

The bottom row displays the equivalent odds ratios for *Health-Weighted Anxiety*$_{it}$ in the second variant of Equation 7. Our expectations find support with both sets of fixed effects: *Health-Weighted Anxiety*$_{it}$ is positively related to voting for Podemos and PSOE, unrelated to voting for Ciudadanos, and negatively related to voting for PP and Vox. Accordingly, the odds ratio is positive and highly significant for pro-lockdown parties as a whole and negative and highly significant for anti-lockdown parties. This discrepancy is substantively large: respondents with health-weighted anxiety are 50% more likely to vote for a pro-lockdown party and 30% less likely to vote for an anti-lockdown party. These results suggest that the weak relationship between overall COVID-19 anxiety and support for pro- and anti-lockdown parties may be masking important *heterogeneity* in how distinct forms of this emotion shape voting

[13] In Table A5 of Online Appendix B.3, we show that all results in this section are robust to several alternative (linear and interactive) combinations of NUTS-2, NUTS-3, and survey wave fixed effects and standard error clustering structures, in addition to controlling for left-right ideology.

FIGURE 2. Relationship between COVID-Related Anxieties and Voting Intentions



Notes: Odds ratios for the coefficients on *COVID Anxiety*$_{it}$ (top row, $N = 39,688$) and *Health-Weighted Anxiety*$_{it}$ (bottom row, $N = 9,723$) in Equation 7; bars represent confidence intervals of varying levels based on robust standard errors clustered by NUTS-3 region. In addition to the fixed effects specified in the legend, all models control for gender, age, education level, social class, labor situation, job type, previous vote choice, and NUTS-3-level COVID-19 incidence.

preferences.

Sources of Health-Weighted COVID-19 Anxiety

Moving to our second set of hypotheses, we next regress *Health-Weighted Anxiety*$_{it}$ on the dummies for age, education level, social class, labor situation, and job type in Equation 7:

$$\text{Health-Weighted Anxiety}_{it} = \beta_0 + \beta_1 \text{Socio-Demographic Dummy}_{it} + \beta_2 \text{Log COVID CPC}_{jt} + \gamma_j + \phi_t + \theta \mathbf{X}'_{it} + \epsilon_{it} \quad (8)$$

where $\mathbf{X}'_{it}$ now comprises all remaining controls from Equation 7. As *Health-Weighted Anxiety*$_{it}$ is an ordinal variable with three levels, we switch to an OLS estimator, employing ordinal logistic regression as a robustness check.

Figure 3 displays the coefficients on *Socio-Demographic Dummy*$_{it}$ with the same model variations as in Figure 2. Whether the interactive fixed effects are included (middle column) or excluded (left column), there is broad support for our conjectures about the sources of COVID-related health and economic anxieties. Older individuals tend to experience stronger health-weighted anxiety, though the second oldest category (55-64 years old) is slightly more skewed in this direction than the oldest category (65+ years old).[14] As a result, the largest gap occurs between individuals aged 18-24 years, who are 8 percentage points less likely than other age groups to report health-weighted anxiety, and individuals aged 55-64 years, who are 3 percentage points more likely.

In contrast, health-weighted anxiety declines — and thus economy-weighted anxiety increases — at *both* extremes of social class, education level, and employment status, where we expect exposure to COVID-induced economic disruption to be highest. Working class and upper class respondents report lower levels of health-weighted anxiety than lower middle class, middle class, and upper middle class respondents. The same is true of the employed and the unemployed relative to students and retirees, and of individuals with no education and with tertiary education relative to individuals with primary or secondary education. Statistically, these relationships are significant at the 1% level for working class individuals, who are 10-11 percentage points less likely to experience health-weighted anxiety than other respondents; for upper class individuals, who are 6 percentage points less likely; and for the unemployed, who are 5 percentage points less likely.

Our expectations also find some support in the employment category estimates. The strongest

[14] This may be because members of the latter group are typically retired and therefore in a more precarious economic situation.

FIGURE 3. Sources of Health-Weighted COVID-19 Anxiety

Notes: Coefficients on *Socio-Demographic Dummy*$_{it}$ in Equation 8 with confidence intervals of varying levels based on robust standard errors clustered by NUTS-3 region. In addition to the fixed effects specified in the column headers, we control for gender and the four remaining sets of socio-demographic dummies in the figure.

finding here is that managers and directors, the most senior and well-remunerated category, have a far lower probability — 11 percentage points, on average — of experiencing health-weighted anxiety. While the results for the remaining categories are more mixed, it is noteworthy that service and agricultural workers, whose remuneration lies at the other end of the spectrum and whose duties frequently require interpersonal contact, are also more concerned about COVID-19's economic impact than its health effects. Conversely, scientists, intellectuals, and mid-level professionals, who are relatively well compensated and typically work in small groups or alone, exhibit the opposite pattern.

As indicated in the right column of Figure 3, replacing OLS with an ordinal logistic estimator does not meaningfully alter the results.

Survey Experimental Evidence

Despite their battery of control variables and fixed effects, the previous analyses do not allow us to conclusively rule out sources of unmeasured confounding. In the second stage of our investigation, therefore, we conduct a survey experiment modeled on that of Bisbee and Honig (2022), which tested the flight-to-safety hypothesis by randomly assigning respondents an anxiety-inducing or anxiety-relieving vignette about COVID-19, before asking them to evaluate hypothetical establishment and antiestablishment candidates for executive office. We instead randomize exposure to three conditions — a prompt intended to elicit COVID-related health anxiety, a prompt intended to elicit COVID-related economic anxiety, and no prompt (the control condition) — and distinguish the candidates by whether they advocate or oppose stringent lockdown measures. Using a combination of the Amazon Mechanical Turk crowdsourcing platform and advertising on social media, we administered the survey to almost 750 adults in Spain amid an upsurge of COVID-19 in mid-2023. As discussed in Online Appendix C, the sample is approximately representative of Spain's overall population in terms of age,

gender, ethnicity, and education level.

Our two prompts were based on recent media reporting as well as expert assessments of the pandemic's impact in Spain. The first highlights COVID-19's negative public health consequences:

> *The COVID-19 pandemic has been one of the deadliest plagues in history. In Spain alone, there have been 13.8 million confirmed cases and at least 120,000 deaths. Even among those who have survived, more than 40% have suffered long-lasting symptoms, including organ damage affecting the heart, kidneys, skin, and brain. Some experts believe that another pandemic could occur in the near future and have even more damaging health consequences.*[15]

The second vignette focuses on the economic damage wrought by the pandemic:

> *The disruption caused by the COVID-19 pandemic sent shock waves through the world economy and triggered the largest global economic crisis for more than a century. Spain's economy contracted by more than 10 percentage points in 2020 and remains smaller than before the pandemic, with high inflation and low growth expected to persist for several years. Some experts believe that another pandemic could occur in the near future and have even more damaging economic consequences.*

After reading one — or neither — of these prompts, respondents were invited to choose between (1) a pro-lockdown candidate who, in the event of a major resurgence of COVID-19 or a similar pandemic in the future, "favors a prudent and vigilant response that protects all members of society"; and (2) an anti-lockdown candidate who "is keen to protect people's livelihoods by minimizing any economic disturbance or damage that may arise."[16] In addi-

[15] As the survey was conducted in Spanish, this and the next quotation are translations.

[16] We further randomized four candidate characteristics: age (46 or 48 years old), occupation (accountant or lawyer), educational background (chemistry or biology), and hobbies (cycling and guitar or tennis and cooking).

tion, they were asked to report their level of COVID-related health and economic anxiety on a scale of 1-10.

We model candidate choice as a logistic function of treatment assignment plus a host of (individual-level) socio-demographic, political, and COVID-related controls:

$$logit(P(\begin{cases}\text{Pro-Lockdown Candidate}\\ \text{Anti-Lockdown Candidate}\end{cases}=1)) = \beta_0 + \beta_1 \begin{cases}\text{Health Prime}\\ \text{Economy Prime}\end{cases} + \beta_2 \text{Previous} \\ \text{Infection} + \vartheta \mathbf{P}' + \theta \mathbf{X}' + \epsilon \tag{9}$$

where *Pro-Lockdown Candidate* and *Anti-Lockdown Candidate* are dummies for whether a respondent prefers the pro-lockdown candidate and the anti-lockdown candidate, respectively; *Health Prime* and *Economy Prime* are dummies for whether a respondent received the health-focused prompt and the economy-focused prompt, respectively; *Previous Infection* is a dummy for whether a respondent has been infected with COVID-19; $\mathbf{P}'$ is a vector of dummies for whether a respondent identifies with each of the major political parties; and $\mathbf{X}'$, the socio-demographic controls, are age (continuous scale), gender (dummy for female), ethnicity (dummy for white), and education level (dummies for seven categories ranging from no school to graduate school).[17] To ensure that treatment effects are estimated against the appropriate baseline — members of the control group — both variants of the specification exclude respondents under the alternative treatment condition.

Odds ratios from Equation 9 are presented in panels A and D of Table 1, beginning with a bivariate correlation between the treatment and outcome (column 1), before adding the socio-demographic (column 2), political (column 3), and previous infection (column 4) controls. In accordance with our argument, all estimations reveal a positive and highly significant (p<0.01) relationship between (1) assignment to the health-focused prompt and a preference for the

[17]Summary statistics for the survey experimental dataset are presented in Table A7, Online Appendix C.

pro-lockdown candidate and (2) assignment to the economy-focused prompt and a preference for the anti-lockdown candidate. The treatment effects are sizable: individuals receiving the health-focused prompt are 3.5-3.7 times more likely to favor the pro-lockdown candidate than members of the control group (panel A), while individuals receiving the economy-focused prompt are 3-3.3 times more likely to favor the anti-lockdown candidate (panel D). In column 5, we show that these estimates almost double when the sample is expanded to individuals assigned the alternative treatment.[18]

To confirm that these results reflect our posited causal mechanism, we replace the dependent variable in Equation 9 with the scales of COVID-related health anxiety (first variant) and economic anxiety (second variant), employing an OLS estimator due to their continuous 1-10 scale. The treatment coefficients remain positive and significant at the 1% level across both sets of models (panels C and F).

In addition to testing our main hypothesis, we take advantage of exogenous treatment assignment — a feature not guaranteed in the observational analysis — to probe two more subtle implications of VoA logic. First, the health-focused treatment will have a larger effect on support for the pro-lockdown candidate among individuals more exposed to COVID-19's health consequences. Second, the economy-focused treatment will have a larger effect on support for the anti-lockdown candidate among individuals more exposed to the pandemic's economic disruption. We test the former proposition by interacting *Health Prime* with (1) age and (2) a dummy for the possession of an underlying medical condition; and the latter proposition by interacting *Economy Prime* with (1) a dummy for whether a respondent's annual income is either less than €10,000 (the lowest category) or more than €60,000 (the highest category) and (2) a dummy for whether a respondent's education level is either elementary school and below (the lowest two categories) or graduate school (the highest category). As reported in panels B

[18] In Table A8 of Online Appendix C.4, we demonstrate robustness to restricting the sample to "attentive" respondents who spent at least three minutes completing the survey.

TABLE 1. Survey Experiment Results

	(1)	(2)	(3)	(4)	(5)
Panel A: Odds Ratios, Outcome = Preference for Pro-Lockdown Candidate (0/1)					
Health Prime	3.467***	3.664***	3.683***	3.737***	6.391***
	(0.713)	(0.788)	(0.797)	(0.813)	(1.189)
Panel B: Odds Ratios, Outcome = Preference for Pro-Lockdown Candidate (0/1)					
Health Prime × Age	1.039**	1.043***	1.044***	1.046***	1.032**
	(0.0155)	(0.0160)	(0.0161)	(0.0163)	(0.0138)
Health Prime × Underlying Health Issue	5.470***	6.564***	6.934***	6.648***	4.387***
	(3.103)	(3.867)	(4.114)	(3.963)	(2.404)
Panel C: OLS Estimates, Outcome = Anxiety about COVID-19's Health Effects (1-10)					
Health Prime	3.629***	3.620***	3.602***	3.603***	3.688***
	(0.210)	(0.215)	(0.216)	(0.217)	(0.180)
Panel D: Odds Ratios, Outcome = Preference for Anti-Lockdown Candidate (0/1)					
Economy Prime	2.998***	3.391***	3.389***	3.335***	5.840***
	(0.593)	(0.713)	(0.723)	(0.713)	(1.046)
Panel E: Odds Ratios, Outcome = Preference for Anti-Lockdown Candidate (0/1)					
Economy Prime × Primary/Tertiary Education	8.566***	7.994***	8.034***	7.859***	4.975***
	(3.994)	(3.814)	(3.850)	(3.770)	(2.090)
Economy Prime × Poor/Rich	3.811***	4.615***	4.675***	4.711***	3.647***
	(1.901)	(2.410)	(2.474)	(2.498)	(1.732)
Panel F: OLS Estimates, Outcome = Anxiety about COVID-19's Economic Effects (1-10)					
Economic Prime	2.234***	2.266***	2.275***	2.252***	3.191***
	(0.213)	(0.218)	(0.220)	(0.220)	(0.185)
N	470	470	470	470	734
Demographic Controls	✗	✓	✓	✓	✓
Political Controls	✗	✗	✓	✓	✓
Previous COVID Infection Control	✗	✗	✗	✓	✓
Full Sample (Both Treatment Groups)	✗	✗	✗	✗	✓

Notes: Odds ratios from logistic regressions in panels A, B, D, and E; OLS estimates in panels C and F. Robust standard errors in parentheses. Socio-demographic controls: age, gender, ethnicity, education level. Political controls: strength of affiliation with PP, PSOE, Podemos, and Vox. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

and E of Table 1, both implications find robust support: in every specification, the coefficients on the four interaction terms are positive and significant at the 5% level or below. Figure A2 in Online Appendix C.4 shows that the marginal effects of *Health Prime* and *Economy Prime* on *Pro-Lockdown Candidate* and *Anti-Lockdown Candidate*, respectively, rise sharply with each moderator (while remaining positive at all levels).[19]

[19]The bottom row of Figure A2 plots the marginal effect of *Economy Prime* across ordinal versions of the income and education moderators using a kernel smoothing model, which allows for nonlinearities. We observe the expected U-shaped curves, indicating a larger effect at the extremities of the moderator distribution.

Electoral Evidence: The 2021 Madrid Regional Election

Does evidence for the VoA approach extend to real voting decisions? In this section, we turn our attention to electoral outcomes during Spain's COVID-19 pandemic. While no general election took place in the peak years of the pandemic, regional elections were held in Galicia (July 2020), the Basque Country (July 2020), Catalonia (February 2021), and Madrid (May 2021). We focus on the Madrid election for two reasons. First, the other three regions have powerful and long-standing nationalist movements, introducing a cross-cutting policy dimension that could obscure or confound the relationship between COVID-related anxieties and vote choice. Second, and relatedly, whereas the severity of lockdown measures was one of several major issues on which Galician, Basque, and Catalonian parties campaigned, it was the defining axis of political contention in the Madrid election, making this an ideal context in which to assess our argument.

Background and Expectations

Since the mid-1990s, PP has been the dominant force in Madrilenian politics, leading all 10 regional governments. In the years leading up to the pandemic, however, support for the party was steadily dwindling. In 2019, PP failed to win a regional election for the first time since 1989, placing second behind PSOE. Nevertheless, the latter party was unable to find enough partners to form a government, allowing PP to return to power in coalition with Ciudadanos and Vox.

When the pandemic struck, Madrid's president, Isabel Díaz Ayuso, sought to revive PP's fortunes by opposing national lockdown restrictions on economic and rights-based grounds. PP was joined in this stance by only one of its two coalition partners — Vox — creating tensions that triggered a snap election in May 2021. Ayuso framed the vote as a choice between

"*comunismo o libertad*" (communism or freedom), campaigning for the "rights of the family, the self-employed, the business person to remain in control of their lives" (Dombey 2021). Podemos, PSOE, and Ciudadanos ran on a platform of responsible pandemic management and political moderation, with the first adopting the counter-slogan "*democracia o fascismo*" (democracy or fascism).[20] Stringent lockdown policies were also endorsed by Más Madrid, a regional party founded in 2019 by former Podemos politicians.

PP's strategy largely bore fruit. The party received 45% of votes cast in the election, more than doubling its previous share.[21] As illustrated in panel A of Figure 4, which maps the vote share of pro-lockdown parties minus that of anti-lockdown parties in Madrid's 179 municipalities, PP made inroads not only in traditionally conservative central and northern neighborhoods but also in the left-leaning industrial "red belt" around the southern periphery. Even so, the party failed to secure enough votes to rule alone, ultimately forming an anti-lockdown coalition government with Vox. Ciudadanos lost all of its parliamentary seats as its vote share plummeted from 19.5% to 3.6%, while PSOE suffered a smaller drop (from 24% to 17%). Podemos and Más Madrid saw small increases in support (from 6% to 7% and from 15% to 17%, respectively).

In panel B of Figure 4, Madrid's municipalities are shaded by the logarithm of cumulative COVID-19 cases per capita as of the election. Comparing panels A and B suggests only a modest association between COVID-19 incidence and the excess vote share of pro-lockdown parties. For instance, anti-lockdown parties enjoyed sizable gains in many high-incidence municipalities in the south and northeast of Madrid, while pro-lockdown parties performed strongly in many medium- and low-incidence municipalities in central western areas. The overall correlation between the two shading variables is just $r = 0.07$.

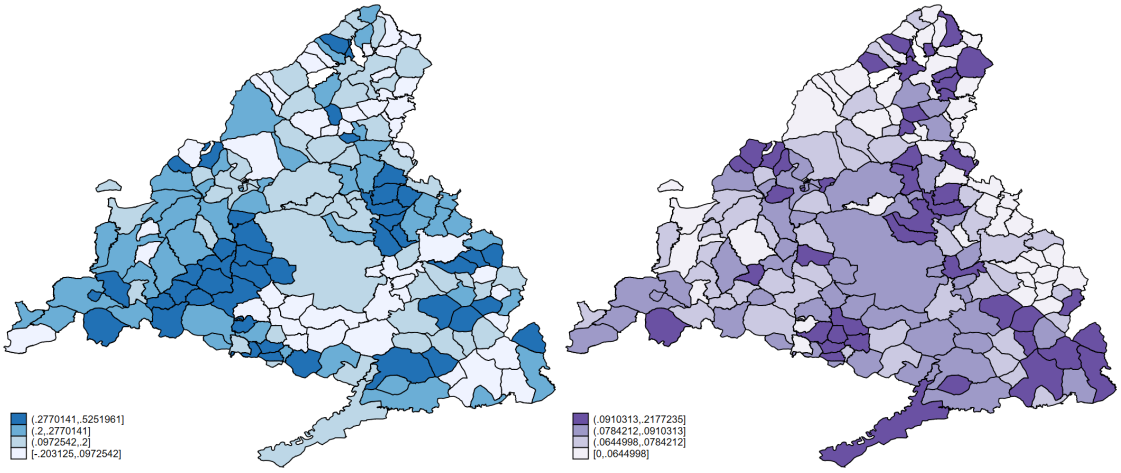
If the VoA approach is correct, however, this pattern may be concealing important hetero-

[20] Figure A4 in Online Appendix E displays PP and Podemos' opposing slogans in their original Twitter form.
[21] Figure A5 in Online Appendix E compares each party's vote share in the 2021 and 2019 Madrid regional elections.

FIGURE 4. COVID-19 Incidence and Voting Patterns in Madrid, May 2021

(A) Difference in Vote Share between Pro- and Anti-Lockdown Parties

(B) Log Cumulative COVID-19 Cases per Capita



Notes: Municipalities are shaded by the excess vote share of pro-lockdown parties over anti-lockdown parties in the 2021 Madrid regional election in panel A; and by the logarithm of cumulative COVID-19 cases per capita on the date of this election (May 4) in panel B.

geneity in the relationship between distinct COVID-19 anxieties and support for pro- versus anti-lockdown parties. To generate testable implications from the framework, we follow Bisbee and Honig (2022) and Depetris-Chauvin and González (2023) in assuming that concern about COVID-19 increases with local infection rates. As shown in Table A9 of Online Appendix D, the CIS data offer support for this assumption: conditional on the controls and fixed effects in Equation 7, $Log\ COVID\ CPC_{jt}$ is a strong positive predictor of $COVID\ Anxiety_{it}$.[22] In addition, aggregate trends in new COVID-19 cases and $COVID\ Anxiety_{it}$ broadly tracked one another prior to the election (Figure A3).

Taking local COVID-19 rates as a proxy for general anxiety about the disease enables us to derive two hypotheses about voting patterns in the Madrid election. First, in municipalities where voters are more vulnerable to COVID-19's health consequences, such as those with a higher proportion of elderly citizens or people with underlying medical conditions, COVID-

[22] In addition, this table documents a similar association between the severity of a respondent's past COVID-19 symptoms and $COVID\ Anxiety_{it}$.

19 incidence is positively associated with support for pro-lockdown parties (i.e., PSOE, Podemos, Ciudadanos, Más Madrid) and negatively associated with support for anti-lockdown parties (i.e., PP and Vox). Second, in municipalities where voters are more exposed to COVID-19's economic costs, such as those at the extremities of the income distribution and with sizable hospitality or construction sectors, COVID-19 incidence is negatively associated with support for pro-lockdown parties and positively associated with support for anti-lockdown parties.

Data and Specification

We test our conjectures at the municipality level, regressing changes in the vote share of pro- and anti-lockdown parties since Madrid's previous (2019) election on interactions between COVID-19 incidence and socio-demographic proxies for exposure to COVID-19's health and economic consequences:

$$\begin{aligned}\Delta\text{Vote Share}_{mp} = \beta_0 + \beta_1\text{Log COVID CPC}_m + \beta_2\text{Exposure}_m + \beta_3\text{Log COVID CPC}_m \\ \times\ \text{Exposure}_m + \theta\Delta\mathbf{X}'_m + \lambda_j + \epsilon_m\end{aligned} \tag{10}$$

where the dependent variable, $\Delta \textit{Vote Share}_{mp}$, is the difference in party group p's vote share in municipality m between the 2019 and 2021 elections; Log COVID CPC$_m$, the explanatory variable, is the logarithm of cumulative COVID-19 cases per capita in m by the 2021 election; $\mathbf{X}'_m$ is a set of demographic (population, male-female ratio, age distribution), economic (employment rate, GDP per capita), and COVID-related (nursing places per capita, altitude, share of agricultural land, voter turnout) controls, most of which are first-differenced between 2018 and 2020;[23] and λ_j denotes fixed effects for NUTS-4 regions, a territorial unit designated by Madrid authorities that is similar to a district. We employ four measures of $\textit{Exposure}_m$, the first

[23]The remaining controls are measured in 2020, either because they do not change between the two periods (altitude, agricultural land share) or because data for 2018 are not available (GDP per capita, nursing places per capita).

two focusing on health effects and the last two on economic effects:

1. *Elderly Share*$_m$: the share of municipality m's population aged above 65 years in 2020.

2. *Log Respiratory DPC*$_m$: the logarithm of respiratory deaths per capita in m in 2020.

3. *Top/Bottom Income*$_m$: a dummy for whether m's per capita income is in the top or bottom 5% of Madrid municipalities in 2020.

4. *Hospitality Share*$_m$: the share of the hospitality and distribution sector in m's GDP in 2020.[24]

Electoral results come from the Madrid regional government (Comunidad de Madrid 2022), nursing home statistics from Spain's Ministry of Economy and Competitiveness (Envejecimiento en Red 2022), and data on the exposure proxies and remaining controls from Madrid's statistics office (Instituto de Estadística de la Comunidad de Madrida 2022). Robust standard errors are clustered by NUTS-4 region.[25]

As there were no COVID-19 cases in 2019, Equation 10 is effectively a first-difference estimator. In our two-period setting, it is thus similar to a standard difference-in-differences estimator with unit (i.e., municipality) and time (i.e., election) fixed effects. While we favor the first-difference approach due to its parsimony and statistical power — with two periods and many units, a difference-in-differences strategy entails a high ratio of variables to observations — the latter yields comparable results (see Table A11 in Online Appendix E.2). In both designs, the key identifying assumption is that the pretreatment trend in the dependent variable does not differ between the treated and control groups. Figure A6 in Online Appendix E.3 provides graphical evidence for this assumption: between the 2007 and 2019 Madrid elections, the average vote share of pro- and anti-lockdown parties evolved in an essentially identical

[24]This sector includes lodging, food and drink, event planning, tourism, wholesale trade, retail, and franchising and commission agents' services.

[25]Descriptive statistics for the full dataset are provided in Table A10, Online Appendix E.1.

fashion in municipalities (1) in each quartile of *Log COVID CPC*$_m$ and (2) above and below the median of *Log COVID CPC*$_m$.

Results

Table 2 reports the coefficient on the interaction terms in Equation 10, introducing the economic, demographic, and COVID-related controls in separate models (lower-order terms are omitted to save space). As hypothesized, the interactions between *Log COVID CPC*$_m$ and the two proxies for exposure to health consequences — *Elderly Share*$_m$ and *Log Respiratory DPC*$_m$ — have a positive and significant association with ΔVote Share$_m$ for pro-lockdown parties (panel A, columns 1-4) but a negative and significant association with ΔVote Share$_m$ for anti-lockdown parties (panel A, columns 5-8). When we substitute in the proxies for economic exposure — *Top/Bottom Income*$_m$ and *Hospitality Share*$_m$ — the results are almost exactly reversed, with the interactions negatively related to the pro-lockdown ΔVote Share$_m$ (panel B, columns 1-4) and positively related to the anti-lockdown ΔVote Share$_m$ (panel B, columns 5-8).

As illustrated in Figure A7 of Online Appendix E.4, the marginal effect of *Log COVID CPC*$_m$ on the pro-lockdown ΔVote Share$_m$ (including all controls) is close to 0 at low levels of each exposure proxy; positive and significant at high levels of the health exposure proxies; and negative and significant at high levels of the economic exposure proxies. For the anti-lockdown ΔVote Share$_{mp}$, the marginal effect is similar at low values of the proxies but reversed at high values. For example, a 1-percentage-point rise in a municipality's cumulative COVID-19 cases per capita by the 2021 election is associated with an increase in the pro-lockdown vote share of 0.04 percentage points at the median of *Elderly Share*$_m$ and of 0.84 percentage points at the maximum; versus a decline in the anti-lockdown vote share of 0.06 percentage points and 1.07 percentage points, respectively. The same rise comes with an increase in the pro-lockdown vote share of 0.39 percentage points at the median of *Hospitality Share*$_m$ and a decline of 0.94

TABLE 2. Relationship between COVID-19 Incidence and Support for Pro- and Anti-Lockdown Parties in Madrid Regional Elections

Dep. Var. = Δ Vote Share of:	Pro-Lockdown Parties				Anti-Lockdown Parties			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Exposure to Health Consequences								
Log COVID CPC ×	3.963***	2.774**	3.108***	3.216***	-4.611***	-3.538***	-3.921***	-4.012***
Elderly Share	(1.167)	(0.983)	(0.917)	(0.857)	(1.240)	(1.034)	(0.966)	(0.916)
R^2	0.548	0.573	0.599	0.606	0.533	0.567	0.586	0.591
Log COVID CPC ×	63.46***	69.94***	89.40***	87.31***	-76.58***	-85.73***	-103.5***	-102.7***
Log Respiratory DPC	(5.266)	(10.98)	(14.71)	(16.28)	(6.677)	(12.68)	(16.23)	(17.18)
R^2	0.457	0.586	0.625	0.629	0.452	0.588	0.618	0.622
Panel B: Exposure to Economic Consequences								
Log COVID CPC ×	-0.438**	-0.585***	-0.765***	-0.932***	0.295	0.508**	0.671**	0.831***
Top/Bottom Income	(0.142)	(0.163)	(0.173)	(0.177)	(0.170)	(0.224)	(0.237)	(0.181)
R^2	0.438	0.571	0.601	0.611	0.424	0.562	0.582	0.590
Log COVID CPC ×	-0.465**	-0.417*	-0.415**	-0.385**	0.516**	0.463**	0.456***	0.437***
Hospitality Sector	(0.185)	(0.188)	(0.154)	(0.167)	(0.215)	(0.145)	(0.120)	(0.124)
R^2	0.449	0.573	0.599	0.603	0.441	0.566	0.583	0.586
N	178	177	177	177	178	177	177	177
NUTS-4 FEs	✓	✓	✓	✓	✓	✓	✓	✓
Demographic Controls	✗	✓	✓	✓	✗	✓	✓	✓
COVID-Related Controls	✗	✗	✓	✓	✗	✗	✓	✓
Economic Controls	✗	✗	✗	✓	✗	✗	✗	✓

Notes: OLS estimates of Equation 10 with robust standard errors, clustered by NUTS-4 region, in parentheses. Demographic controls: Δ population, Δ age distribution, Δ gender ratio. COVID-related controls: log nursing home places per capita, share of agricultural land, altitude, Δ turnout. Economic controls: Δ unemployment rate, log GDP per capita. Lower-order interaction terms are not reported. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

percentage points at the maximum; versus a decline of 0.48 percentage points and an increase of 1.03 percentage points, respectively, in the anti-lockdown vote share.

Instrumental Variables Strategy

COVID-19 levels were not randomly distributed across municipalities before the 2021 election, and it is conceivable that they were influenced by unobserved municipality- and time-varying factors that also impacted voting decisions. To address this possibility, we build on Qiu, Chen,

and Shi's (2020) analysis of community COVID-19 transmission by pursuing an instrumental variables strategy that exploits local weather patterns in the run-up to the election.[26] The transmissibility of SARS-CoV-2 particles is known to be a decreasing function of three components of weather: rainfall, temperature, and wind speed. Pre-election trends in these variables are likely to predict *Log COVID CPC*$_m$ yet, conditional on covariates, unlikely to influence attitudes toward pro- and anti-lockdown parties (as distinct blocs) via an alternative channel. While election-day weather patterns have been found to directly influence party vote shares through channels such as turnout and voter mood (Mellon 2023), we measure our instrument over a six-month period ending *before* the Madrid regional election (May 4, 2021), rendering the exclusion restriction substantially more plausible.

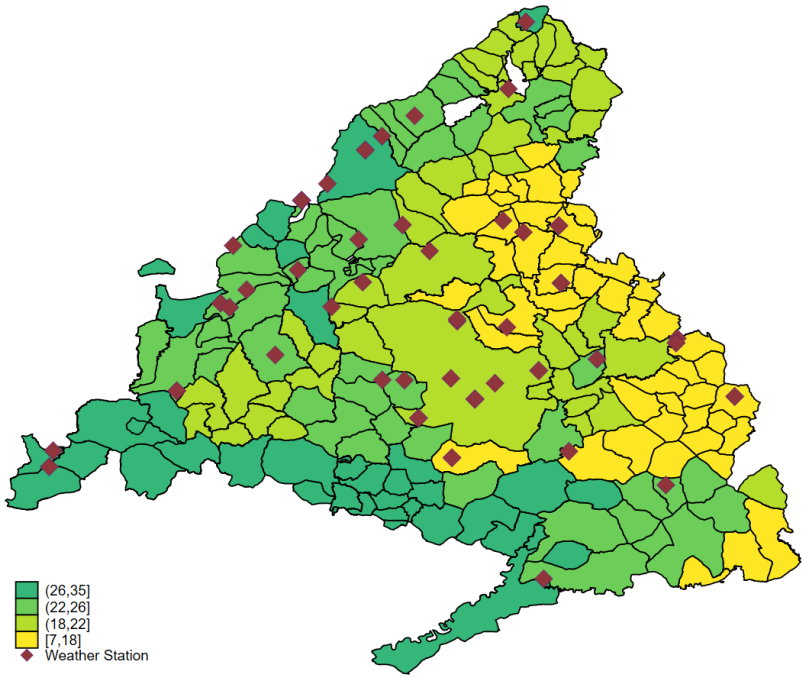
Specifically, following Qiu, Chen, and Shi, we instrument *Log COVID CPC*$_m$ with four month-level weather variables, all of which are averaged between November 1, 2020 and April 30, 2021 (i.e., four days before the election): (1) *Rainfall*$_m$, municipality m's rainfall in millimeters; (2) *Temperature*$_m$, m's mean daily temperature in degrees Celsius; (3) *Wind Speed*$_m$, m's maximum wind speed in kilometers per hour; and (4) *Temperature*$_m$ $\times$ *Wind Speed*$_m$. We acquired data on these variables through a purchase agreement with Spain's State Meteorological Agency, which takes measurements from 40 weather stations marked in Figure 5. To generate values for municipality m, we use Qiu, Chen, and Shi's method of computing the weighted average of measurements taken from all stations within 100km of m's centroid, where the weight is the inverse distance between m's centroid and each station.

In Figure 5, municipalities are shaded by their quartile ranking on the sum of the four instruments.[27] Consistent with a negative relationship between the instruments and pre-election

[26] Other instruments used in analyses of COVID-19's impact on political outcomes include the share of employment in meat-processing factories (Baccini, Brodeur, and Weymouth 2021) and the share of residents in nursing homes (Lake and Nie 2021), both of which were common sites of "superspreader events." These variables strike us as more likely than weather trends to be correlated with unobserved social and economic characteristics that impact voting behavior.

[27] Figure A8 in Online Appendix E.5 disaggregates this map by instrument.

FIGURE 5. Weather Patterns before 2021 Madrid Regional Election



Notes: Municipalities are shaded by their quartile ranking on the sum of our four month-level weather instruments: rainfall, mean temperature, maximum wind speed, and rainfall × maximum wind speed from November 1, 2020 to April 30, 2021.

COVID-19 incidence, municipalities in lower quartiles (lighter shading) — indicating more favorable weather conditions for the spread of the disease — generally recorded higher cumulative cases per capita in panel B of Figure 4 (darker shading).

We implement the instrumental variables analysis using a two-stage least squares (2SLS) estimator, the first stage of which takes the form:

$$\text{Log COVID CPC}_m = \beta_0 + \sum_{\eta=1}^{4} \beta_\eta \text{Instrument}_{m\eta} + \beta_5 \text{Exposure} + \sum_{\eta=1}^{4} \beta_{\eta+5} \text{Instrument}_{m\eta} \times \text{Exposure}_m + \theta \mathbf{X}'_m + \lambda_j + \epsilon_m \tag{11}$$

where $Instrument_m = \{Rainfall_m, Temperature_m, \text{Wind Speed}_m, Temperature_m \times Wind\ Speed_m\}$. The second stage is identical to Equation 10, except that $Log\ COVID\ CPC_m$ is replaced with

TABLE 3. Madrid Election Analysis: Instrumental Variables Results

Dependent Variable = Δ Vote Share of:	Pro-Lockdown Parties		Anti-Lockdown Parties	
	(1)	(2)	(3)	(4)
Panel A: Exposure to COVID Health Consequences				
Log COVID CPC × Elderly Population	11.04*		-12.07**	
	(6.474)		(5.669)	
Log COVID CPC × Log Respiratory DPC		26.23**		-23.78*
		(11.81)		(13.79)
First-Stage F-Statistic	206.9	1758.7	206.9	1758.7
Panel B: Exposure to COVID Economic Consequences				
Log COVID CPC × Top/Bottom Income	-1.694***		1.697***	
	(0.433)		(0.395)	
Log COVID CPC × Hospitality Share		-0.427		0.103
		(0.311)		(0.282)
First-Stage F-Statistic	134.7	141.9	134.7	141.9
N	177	177	177	177
NUTS-4 FEs	✓	✓	✓	✓
Demographic Controls	✓	✓	✓	✓
COVID-Related Controls	✓	✓	✓	✓
Economic Controls	✓	✓	✓	✓

Notes: Second-stage 2SLS estimates with robust standard errors, clustered by NUTS-4 region, in parentheses. The first stage is described by Equation 11. In both stages, the controls are the same as in Table 2. Lower-order interaction terms are omitted. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

predicted values from the first stage ($Log\ \widehat{COVID}\ CPC_m$). As before, robust standard errors are clustered by NUTS-4 region.

Table 3 presents the results. As indicated by the high first-stage F-statistics reported in the bottom row of each panel, weather patterns are a strong predictor of COVID-19 incidence at the municipality level, allaying any potential concerns about weak instrument bias. The second-stage estimates are consistent with those in Table 2, albeit with some changes in size and significance level. The coefficients on $Log\ COVID\ CPC_m$'s interactions with $Elderly\ Share_m$ (panel A, columns 1 and 3), $Log\ Respiratory\ DPC_m$ (panel A, columns 2 and 4), and $Top/Bottom\ Income_m$ (panel B, columns 1 and 3) maintain significance and grow by 2.5 fold, on average. Those on $Log\ COVID\ CPC_m \times Hospitality\ Share_m$ (panel B, columns 2 and 4), in contrast, become slightly smaller and fall just short of significance.

Overall, these results suggest that the OLS estimates were not merely an artifact of endogeneity in the geographical distribution of COVID-19 incidence; rather, any unobserved heterogeneity across municipalities appears to have primarily worked against rather than in favor of our hypotheses.

Discussion

While increasingly sensitive to the wide array of subjective mental states that make up the human experience, scholarship on the determinants of voting behavior has tended to treat anxiety in an undifferentiated fashion, placing voters on a one-dimensional continuum between "anxious" and "not anxious." This study has made the case for a more nuanced perspective that acknowledges and gives centrality to the multiplicity of anxieties that can arise from individual societal threats, their uneven distribution across socio-demographic groups, and their distinctive implications for political strategy and preference formation. Since one type of anxiety may be alleviated by a different or conflicting policy to another type, our VoA approach contends, these emotions can engender new bases of competition between political elites, with the potential upshot that — rather than behaving as a homogeneous bloc — anxious voters exhibit disparate behavior at the ballot box.

As a mass societal threat that has spawned multiple forms of anxiety, the COVID-19 pandemic presents a useful opportunity to illustrate and assess the VoA framework. Our empirical examination focused on various phases of Spain's pandemic, drawing on a combination of nationally representative survey data, an original survey experiment, and municipal-level electoral results. We adduced consistent evidence for two key implications of the framework. First, anxiety about COVID-19's health consequences is positively associated with support for parties that champion stringent lockdown restrictions — rules that curtail disease transmission at the expense of disrupting trade and business — while anxiety about its economic implications

is positively associated with support for parties that back more permissive measures. Second, COVID-related health anxiety is an increasing function of socio-demographic characteristics that render individuals more vulnerable to severe COVID-19 symptoms; COVID-related economic anxiety increases with characteristics that expose individuals to serious financial damage as a result of the pandemic.

These findings showcase a central payoff of the VoA approach, namely, its ability to account for heterogeneity in electoral preferences *among* worried voters that we would not expect if anxiety were a unidimensional emotion. In shedding such light, it complements and helps to clarify the scope of existing theories of how anxiety influences voting behavior. Through a VoA lens, for instance, the common view that anxiety disposes voters toward protective policies requires a crucial caveat: what voters perceive as protective is itself contingent upon the particular type of anxiety they experience. The VoA approach hence adds nuance to foundational spatial models of voting, drawing attention to both the emotional complexity underlying voter utility functions and the essentially subjective nature of the valence component, which can result in sharp cleavages among voters who value the same candidate qualities.

Our perspective is less compatible with the stronger claim that anxiety benefits conservative parties or hurts incumbents. When societal threats emerge as axes of political competition, it can be challenging for any party — conservative or opposition — to formulate policies that alleviate *all* forms of anxiety afflicting the electorate. In the 2021 Madrid regional election, for example, endorsing lockdown restrictions provoked a heavy backlash against both Ciudadanos, a conservative party, and PSOE, the main opposition party. Identifying anxiety's electoral winners and losers, the VoA approach implies, requires a careful understanding of the varied forms it may assume in response to societal threats, the socio-demographic contexts in which they arise, and the strategies political elites pursue to address them.

Implicit in this discussion is an important set of scope conditions for the VoA approach itself: societal threats carry heterogeneous welfare implications for major socio-demographic

groups and are sufficiently salient to create tradeoffs between competing public policy objectives. When tackling a given threat is welfare-enhancing for all or an extremely high proportion of voters, as we might expect in the case of a nuclear war or humanitarian catastrophe, the approach's additional explanatory power is likely to be limited. Even setting aside COVID-19, however, salient threats that entail challenging tradeoffs for policymakers are not difficult to find, from transnational terrorism and climate change to immigration shocks and financial crises. We are thus confident that our framework can be applied to diverse issues of interest to social scientists, while acknowledging that there are circumstances in which alternative perspectives may be more useful.

In addition, we believe that the principles of the VoA approach can be fruitfully extended to the analysis of other complex emotions that play a role in political life, such as anger, fear, disgust, sadness, hope, and enthusiasm (e.g., Brader 2005; Hatemi et al. 2013; Clifford and Jerit 2018). While social scientists have made considerable progress in conceptualizing and delineating emotions with similar characteristics, such as anger and fear, less attention has been paid to the diversity of forms each one can take — and still less to the causes and consequences of such variation. Anger, for instance, can be triggered by any number of social, cultural, and economic phenomena, giving rise to distinct emotional states associated with varying — potentially conflicting — political attitudes and preferences (e.g., anger about immigration versus anger about racial injustice) (Erhardt et al. 2021). A systematic exploration of the rich variety inherent in individual emotional states can, in our view, yield significant dividends for the study of political behavior.

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Online Appendices for:

Varieties of Anxieties: Disaggregating Emotion and Voting Behavior in the COVID-19 Era

Ranjit Lall David Vilalta

May 12, 2024

Contents

A Spanish Party Positions on Lockdown

TABLE A1. Parliamentary Votes on COVID-19 State of Alarm, April 2020-May 2021

Party	25 Mar	9 Apr	22 Apr	6 May	20 May	3 Jun	29 Oct
PP	✓	✓	✓	Abs.	✗	✗	Abs.
PSOE	✓	✓	✓	✓	✓	✓	✓
Ciudadanos	✓	✓	✓	✓	✓	✓	✓
Podemos	✓	✓	✓	✓	✓	✓	✓
Vox	✓	✗	✗	✗	✗	✗	✗
Más País	✓	✓	✓	✓	✓	✓	✓
End of Extension:	Apr 12 2020	Apr 26 2020	May 10 2020	May 24 2020	Jun 7 2020	Jun 21 2020	May 9 2021

Notes: This table records how Spain's five major national parties voted on the seven extensions of the state of alarm imposed by the Congress of Deputies (parliament) on March 14, 2020 in response to the COVID-19 pandemic. Data are from congressional voting records, accessed at: https://www.congreso.es/opendata/votaciones. We additionally include Más País, a regional party that features in our case study of Madrid's 2021 regional election.

TABLE A2. Party Statements on Lockdown Policy

Party	Official	Position	Date	Statement (Translated)	Source
PP	Pablo Casado	President	May 6, 2020	"The exceptional situation does not allow for a constitutional dictatorship. . .We do not support this overstepping of legal boundaries that has turned into a covert state of exception."	Legislative record[a]
Vox	Santiago Abascal	President	May 6, 2020	"You, Mr Sánchez, are trying to blackmail this chamber. . .into renewing a power that you have abused. Maintaining the state of alarm [. . .] saves neither lives nor jobs. What would save lives and jobs would be a change of government."	Legislative record[a]
Ciudad.	Inés Arrimadas	President	May 6, 2020	"The state of alarm can not be an eternal mechanism, we must think of a plan B and untie the aid to families, self-employed or SMEs of this exceptional period."	Press release[b]
PSOE	Pedro Sánchez	Secretary-General	May 6, 2020	"There are no absolutely correct decisions. . .but lifting the state of alarm now would be an absolute mistake"	Legislative record[a]
Podemos	Pablo Echenique	Congress spokesman	May 4, 2020	"The state of alarm is indispensable for the confinement measures, and it is these measures that have made it possible to subdue the epidemic."	ESdiario newspaper[b]

[a] https://www.congreso.es/public_oficiales/L14/CONG/DS/PL/DSCD-14-PL-21.PDF.

[b] https://www.ciudadanos-cs.org/prensa/prensa/12168?lg=va.

[c] https://www.esdiario.com/espana/563129816/Echenique-acusa-a-Casado-de-provocar-miles-de-muertos-si-no-traga-con-Sanchez.html.

B CIS Survey Analysis

B.1 Survey Questions

TABLE A3: CIS Survey Questions and Response Options

Question in Spanish (Original)	Question in English (Translation)	Waves (MM/YY)	Response Options	Coding (New = Old)
Me gustaría hacerle algunas preguntas sobre la crisis del coronavirus. Pensando en todos los efectos de esta pandemia, ¿diría Ud. que la crisis del coronavirus le preocupa mucho, bastante, poco o nada?	*I would like to ask you some questions about the coronavirus crisis. Thinking about all the effects of this pandemic, would you say that the coronavirus crisis worries you a lot, a lot, a little, or not at all?*	04/20 - 05/21	1: A lot 2: Quite a bit 3: Not much 4: Average 5: None	$1 = 5$ $2 = 3$ $3 = 4$ $4 = 2$ $5 = 1$
En estos momentos, ¿qué le preocupa a Ud. más, los efectos de esta crisis sobre la salud, o los efectos de la crisis sobre la economía y el empleo?	*At this time, what are you more concerned about, the effects of this crisis on health, or the effects of the crisis on the economy and employment?*	05/20 - 07/20	1: The effect on health 2: The effect on the economy and employment 3: Both equally 4: Neither	$0 = 2$ $0.5 = 3$ $1 = 1$ (for *Health-Weighted Anxiety*)
¿Cuántos años cumplió Ud. en su último cumpleaños?	*How old were you on your last birthday?*	All (04/20 - 05/21)	Continuous	$1 = < 25$ $2 = 25 - 34$ $3 = 35 - 44$ $4 = 45 - 54$ $5 = 55 - 64$ $6 = > 64$
¿Cuáles son los estudios de más alto nivel oficial que Ud. ha cursado (con independencia de que los haya terminado o no)?	*What is the highest level of formal education you have completed (whether you have finished it or not)?*	All (04/20 - 05/21)	1: No studies 2: Primary education 3: Secondary education (1st stage) 4: Secondary education (2nd stage) 5: Vocational training 6: Further studies	$1 = 1$ $2 = 2$ $3 = 3, 4$ $4 = 5$ $5 = 6$

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TABLE A3: CIS Survey Questions and Response Options (Continued)

Question in Spanish (Original)	Question in English (Translation)	Waves (MM/YY)	Response Options	Coding (New = Old)
¿A qué clase social diría Ud. que pertenece?	*What social class would you say you belong to?*	All (04/20 - 05/21)	1: Upper class 2: Upper middle class 3: Middle class 4: Lower middle class 5: Working class 6: Poor class 7: Underclass 8: Proletariat 9: The ones below 10: Excluded 11: Common people 12: Lower class	$1 = 6, 7, 8$ $2 = 5, 12$ $3 = 4$ $4 = 3$ $5 = 2$ $6 = 1$
¿En qué situación laboral se encuentra Ud. actualmente?	*What is your current employment situation?*	All (04/20 - 05/21)	1: Works 2: Retired or pensioner (previously worked) 3: Pensioner (not previously employed) 4: Unemployed and has worked before 5: Unemployed and looking for his first job 6: Student 7: Unpaid domestic work	$0 = 2, 3, 4, 5$ $1 = 1$

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TABLE A3: CIS Survey Questions and Response Options (Continued)

Question in Spanish (Original)	Question in English (Translation)	Waves (MM/YY)	Response Options	Coding (New = Old)
¿Me puede decir cuál es su ocupación actual?	*What is your current occupation?*	All (04/20 - 05/21)	1: Directors and managers 2: Scientists and intellectuals 3: Technicians and mid-level professionals 4: Administrative staff 5: Service workers and vendors 6: Farmers and skilled agricultural, forestry and fishery workers 7: Office workers, operators and craftsmen 8: Plant and machine operators 9: Elementary occupations 10: Military and police	1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = 10
¿Cual es su sexo?	*What is your sex?*	All (04/20 - 05/21)	1: Man 2: Woman	0 = 2 1 = 1
¿Y cómo evolucionó su enfermedad?	*And how did your illness evolve? [for those who report testing positive for COVID-19]*	05/20 - 05/21	1: I had mild symptoms and spent the period at home 2: I had important symptoms, but I spent the period at home 3: I was admitted to hospital	1 = 1 2 = 2 3 = 3
Suponiendo que mañana se celebrasen nuevamente elecciones generales, es decir, al Parlamento español, ¿a qué partido votaría Ud.?	*Supposing that tomorrow general elections were held again, that is, for the Spanish Parliament, which party would you vote for?*	All (04/20 - 05/21)	Every party (p) with parliamentary representation	0 = would not vote for party p 1 = would vote for party p
Situándonos en una escala de 10 casillas, como un termómetro, que van del 1 al 10, en la que 1 significa "lo más a la izquierda" y 10 "lo más a la derecha," ¿en qué casilla se colocaría Ud.?	*On a scale of 10 boxes, like a thermometer that ranges from 1 to 10, where 1 means "furthest to the left" and 10 means "furthest to the right," in which box would you place yourself?*	All (04/20 - 05/21)	Continuous: 1 (furthest left) to 10 (furthest right)	1 (furthest left) to 10 (furthest right)

Continued on next page

TABLE A3: CIS Survey Questions and Response Options (Continued)

Question in Spanish (Original)	Question in English (Translation)	Waves (MM/YY)	Response Options	Coding (New = Old)
¿Y podría decirme a qué partido o coalición votó en las últimas elecciones generales?	*And could you tell me which party or coalition you voted for in the last general elections?*	All (04/20 - 05/21)	Every party (p) running in the election	0 = did not vote for party p 1 = voted for party p

B.2 Summary Statistics

TABLE A4. Summary Statistics for CIS Survey Dataset

	N	Mean	Std. Dev.	Min.	25%	50%	75%	Max.
COVID Anxiety	46,523	4.42	0.78	1	4	5	5	5
Health-Weighted Anxiety	11,006	0.59	0.42	0	0	0.50	1	1
COVID-19 Symptoms	1,574	1.43	0.70	1	1	1	2	3
Age Group	46,523	4.04	1.57	1	3	4	6	6
Gender: Female	46,523	0.52	0.50	0	0	1	1	1
Social Class	43,050	3.48	0.93	1	3	4	4	5
Job Type	46,523	5.07	2.29	1	2	7	7	7
Labor Situation	46,433	1.82	1.11	1	1	1	2	6
Level of Studies	46,296	3.26	0.73	1	3	3	4	4
Left-Right Scale	42,310	4.61	2.08	1	3	5	6	10
Log COVID CPC	46,523	1.34	0.76	0.059	0.61	1.55	2.03	2.56
Previous Vote: Vox	42,002	0.063	0.24	0	0	0	0	1
Previous Vote: PP	42,002	0.13	0.34	0	0	0	0	1
Previous Vote: Ciudadanos	42,002	0.083	0.28	0	0	0	0	1
Previous Vote: PSOE	42,002	0.28	0.45	0	0	0	1	1
Previous Vote: Podemos	42,002	0.12	0.32	0	0	0	0	1

Notes: This table presents summary statistics for our CIS survey dataset. The dataset pools available monthly survey waves conducted between April 2020 and July 2021. All waves are accessed from: https://www.cis.es/cis/opencm/ES/11_barometros/index.jsp.

B.3 Additional Regression Results

TABLE A5. Robustness Checks: Relationship between Overall COVID-19 Anxiety and Voting Intentions

Dependent Variable = *Intention to Vote for*:	Pro-Lockdown Party						Anti-Lockdown Party					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
COVID Anxiety	1.022	1.020	1.016	1.013	1.009	1.009	1.093***	1.096***	1.049**	1.044*	1.053*	1.053**
	(0.0162)	(0.0156)	(0.0194)	(0.0193)	(0.0164)	(0.0183)	(0.0325)	(0.0337)	(0.0246)	(0.0250)	(0.0295)	(0.0272)
N	39,688	39,688	39,688	39,688	39,668	39,668	39,688	39,490	39,688	39,490	39,035	39,035
Fixed Effects	N-2 + Wave	N-2 ×Wave	N-2 + Wave	N-2 ×Wave	N-3 ×Wave	N-3 ×Wave	N-2 + Wave	N-2 ×Wave	N-2 + Wave	N-2 ×Wave	N-3 ×Wave	N-3 ×Wave
SE Cluster	N-2	N-2	N-2 ×Wave	N-2 ×Wave	N-3	N-3 ×Wave	N-2	N-2	N-2 ×Wave	N-2 ×Wave	N-3	N-3 ×Wave
Regular Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ideology Control	✓	✓	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗

Notes: This table shows that the results of the first variant of Equation 7 are robust to several alternative configurations of fixed effects and standard error clusters as well as to controlling for left-right ideology. All models control for age, gender, social class, education level, employment status, job type, COVID-19 incidence, and previous vote choice. In the bottom panel, N-2 = NUTS-2, N-3 = NUTS-3. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

TABLE A6. Robustness Checks: Relationship between Health-Weighted COVID-19 Anxiety and Voting Intentions

Dependent Variable = *Intention to Vote for*:	Pro-Lockdown Party						Anti-Lockdown Party					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Health-Weighted Anxiety	1.325***	1.328***	1.506***	1.505***	1.505***	1.505***	0.776***	0.772***	0.716***	0.704***	0.698***	0.698***
	(0.0892)	(0.0887)	(0.0932)	(0.0926)	(0.0913)	(0.0875)	(0.0667)	(0.0695)	(0.0672)	(0.0664)	(0.0608)	(0.0639)
N	9,723	9,723	9,723	9,723	9,723	9,723	9,723	9,636	9,723	9,636	9,495	9,495
Fixed Effects	N-2 + Wave	N-2 ×Wave	N-2 + Wave	N-2 ×Wave	N-3 ×Wave	N-3 ×Wave	N-2 + Wave	N-2 ×Wave	N-2 + Wave	N-2 ×Wave	N-3 ×Wave	N-3 ×Wave
SE Cluster	N-2	N-2	N-2 ×Wave	N-2 ×Wave	N-3	N-3 ×Wave	N-2	N-2	N-2 ×Wave	N-2 ×Wave	N-3	N-3 ×Wave
Regular Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ideology Control	✓	✓	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗

Notes: This table shows that the results of the second variant of Equation 7 are robust to several alternative configurations of fixed effects and standard error clusters as well as to controlling for left-right ideology. All models control for age, gender, social class, education level, employment status, job category, COVID-19 incidence, and previous vote choice. In the bottom panel, N-2 = NUTS-2, N-3 = NUTS-3. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

C Survey Experiment

Our survey experiment was preregistered on August 1, 2023 and implemented between August 23 and September 29. We recruited 734 adult residents of Spain through two channels: (1) Amazon Mechanical Turk (AMT), a popular crowdsourcing website that permits "Requesters" to specify the location of "Workers"; and (2) advertising on social media networks, principally Spanish public Facebook groups. AMT Workers do not constitute a random sample of Spain's overall population. Nevertheless, several empirical results based on nationally representative samples have been replicated on the platform (Berinsky, Huber, and Lenz 2012; Clifford, Jewell, and Waggoner 2015; Crump, McDonnell, and Gureckis 2013). Facebook is more widely used and can generate samples as representative as those recruited via traditional methods in a variety of settings (Thornton et al. 2016; Whitaker, Stevelink, and Fear 2017). Importantly, our sample is similar to the wider Spanish population on key demographic characteristics, exhibiting only a small bias toward younger, male, nonwhite, and more educated individuals:

1. *Age*. The median age in our sample is 39 years, compared with 43.9 years in Spain as a whole (UN Department of Economic and Social Affairs 2022).
2. *Gender*. The male-female ratio in our sample is 1.09, compared with 0.96 in Spain as a whole (UN Department of Economic and Social Affairs 2022).
3. *Ethnicity*. The proportion of whites in our sample is 81%, compared with an estimated 84% in Spain as a whole.[1]
4. *Education level*. The proportion of our sample whose highest educational qualification is a secondary school diploma is 23.6%, while the proportion with an undergraduate, graduate, or professional degree is 42.5%. In Spain as a whole, 23% of people between 25 and 64 years old have an upper secondary but non-tertiary qualification and 41% have a tertiary qualification (OECD 2023, 50).

[1] CIA World Factbook, accessed at https://www.cia.gov/the-world-factbook/countries/spain/.

FIGURE A1. Survey Experiment Structure

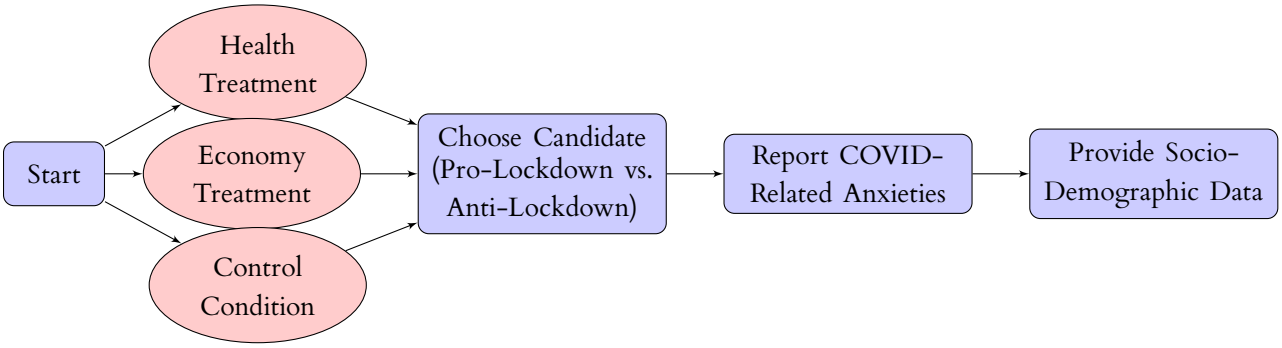


Table A7 presents summary statistics for these and the remaining variables in our survey experimental analysis.

The survey, which was conducted in Spanish, was divided into four sections (summarized in Figure A1). First, after providing informed consent, respondents were either asked to read one of two vignettes describing the pandemic's impact on Spanish society or transferred to the second section (the control group). Since we are interested in the effect of different COVID-related anxieties on political preferences, we randomized these prompts to emphasize the pandemic's adverse consequences for either public health or the economy.[2] Second, respondents were presented with descriptions of two hypothetical candidates running for political office (provided below) and invited to choose between them. Third, respondents were asked to report their level of anxiety about the pandemic's health and economic ramifications on a 1-10 scale. Finally, they were requested to disclose basic demographic and socioeconomic information (age, sex, race, education level, income bracket, health status, party affiliation) as well as whether they have been personally infected by COVID-19. The average survey completion time was 4.3 minutes (258 seconds).

[2]In total, 266 respondents were assigned the health-focused prompt, 264 were assigned the economy-focused prompt, and 204 received neither treatment.

TABLE A7. Summary Statistics for Survey Experimental Dataset

	N	Mean	Std. Dev.	Min.	25%	50%	75%	Max.
Prefer Pro-Lockdown Candidate	734	0.53	0.50	0	0	1	1	1
Prefer Anti-Lockdown Candidate	734	0.47	0.50	0	0	0	1	1
Health Prime	734	0.36	0.48	0	0	0	1	1
Economy Prime	734	0.36	0.48	0	0	0	1	1
Health Anxiety	734	5.37	2.90	1	3	5	8	10
Economic Anxiety	734	5.77	2.78	1	3	6	8	10
Age	734	41.5	14.0	18	30	39	52	78
Gender: Female	734	0.48	0.50	0	0	0	1	1
Race: White	734	0.81	0.40	0	1	1	1	1
Party Identification: PP	734	0.26	0.44	0	0	0	1	1
Party Identification: PSOE	734	0.24	0.43	0	0	0	0	1
Party Identification: Vox	734	0.11	0.31	0	0	0	0	1
Party Identification: Podemos	734	0.13	0.34	0	0	0	0	1
Education: None	734	0.012	0.11	0	0	0	0	1
Education: Primary	734	0.22	0.41	0	0	0	0	1
Education: High School	734	0.24	0.42	0	0	0	0	1
Education: Vocational	734	0.11	0.31	0	0	0	0	1
Education: Community College	734	0.074	0.26	0	0	0	0	1
Education: Undergraduate	734	0.26	0.44	0	0	0	1	1
Education: Graduate School	734	0.095	0.29	0	0	0	0	1
Primary / Tertiary education	734	0.33	0.47	0	0	0	1	1
Poor / Rich	734	0.23	0.42	0	0	0	0	1
Underlying Health Issue	734	0.27	0.44	0	0	0	1	1
COVID-19 Infection	734	0.50	0.50	0	0	0	1	1

C.1 Candidate Descriptions

In the following descriptions presented to respondents, which are translated from Spanish, candidate A is always in favor of strong lockdown restrictions, while candidate B is always opposed to them. Sentences 2, 3, and 4 of each text are randomly assigned to the candidates.

> *If there is a resurgence of COVID-19 or a similar pandemic in the near future, Candidate A favors a prudent and vigilant response that protects all members of society. He supports robust lockdown measures where they are appropriate.* [SENTENCE 2]. [SENTENCE 3]. [SENTENCE 4].

> *If there is a resurgence of COVID-19 or a similar pandemic in the near future, Candidate B is keen to protect people's livelihoods by minimising any economic disturbance or damage*

that may arise. He opposes robust lockdown measures that risk undermining this goal. [SENTENCE 2]. [SENTENCE 3]. [SENTENCE 4].

Sentence 2: (A) *He is 48 years old, and was born and brought up in your area, before going to university to study chemistry*; (B) *He is 46 years old, lives in your district, and studied biology at university*.

Sentence 3: (A) *After university he trained as an accountant, and set up a company 10 years ago; it now employs nine people*; (B) *After university he trained as a lawyer, and set up a practice 10 years ago; it now employs eight people*.

Sentence 4: (A) *He likes cycling and is a keen guitarist*; (B) *He likes tennis and is a keen chef*.

C.2 Ethical Considerations

The survey received research ethics approval from both of the authors' institutions. In general, we do not believe that the exercise raised any ethical issues specific to the Spanish context — in which our questions were unlikely to be perceived as particularly sensitive or controversial — or physical or psychological risks to the research team. Respondents were provided with an informed consent form detailing the purpose of the research, the survey procedure, their right to withdraw, confidentiality arrangements, remuneration, the complaints procedure, and contact information. Compensation was substantially higher than the Spanish minimum wage ($5 for an activity typically taking less than five minutes). As discussed earlier, the sample was approximately representative of the Spanish population on several demographic variables, reducing the likelihood that participation differentially benefited or harmed any specific group.

C.3 Departures from Pre-Analysis Plan

In implementing the survey, we deviated from our pre-analysis plan in three ways, none of which concerns our hypotheses or materially alters our empirical strategy. First, rather than recruiting all participants through AMT, we employed a combination of this platform and advertising on social media websites (mainly Facebook). We made this decision shortly after

launching the survey, when it became clear that there were substantially fewer Spain-based AMT Workers than we had anticipated. In addition, since social media networks are widely used across the Spanish population, we believed that incorporating them into our recruitment strategy would enhance the sample's representativeness. Second, our pre-analysis plan specified that all respondents would be assigned one of the two treatment vignettes. After receiving additional feedback on the plan, we realized that a control group — a set of respondents who receive neither prompt — would be needed to estimate treatment effects relative to the appropriate baseline of "unprimed" individuals (Gaines, Kuklinski, and Quirk 2007). Third, to test our posited causal mechanism, we also followed advice to include posttreatment questions on COVID-related health and economic anxieties.

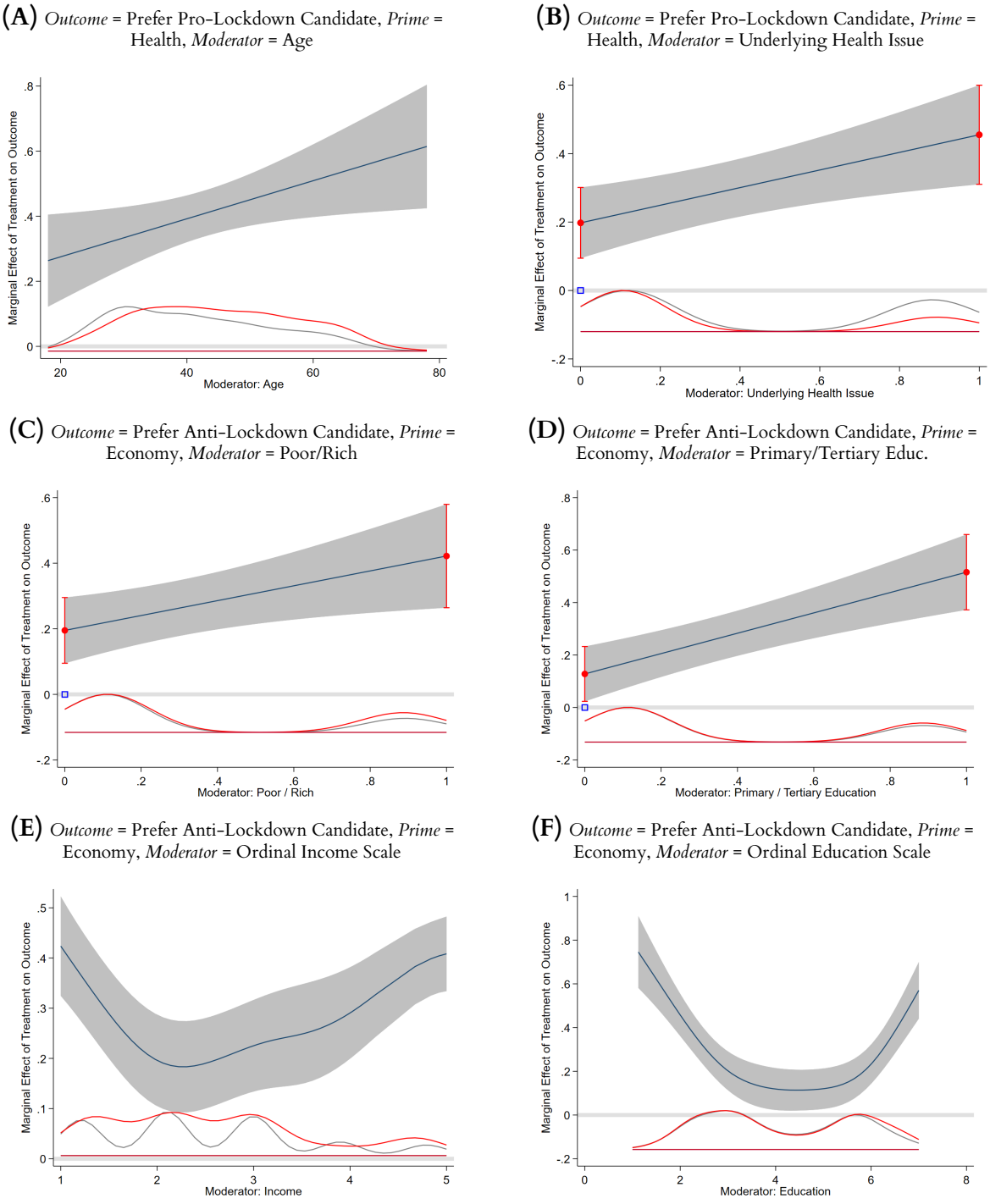
C.4 Additional Regression Results

TABLE A8. Survey Experiment Results: Attentive Subsample

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Outcome = Prefer Pro-Lockdown Candidate						
Health Prime	3.431***	0.453	2.854***			
	(0.904)	(0.379)	(0.938)			
Health Prime × Age		1.049**				
		(0.0197)				
Health Prime × Underlying Health Issue			4.363**			
			(2.923)			
Panel B: Outcome = Prefer Anti-Lockdown Candidate						
Economy Prime				4.034***	2.813***	2.127**
				(1.028)	(0.834)	(0.634)
Economy Prime × Poor/Rich					7.941***	
					(4.989)	
Economy Prime × Primary/Tertiary Education						8.752***
						(4.990)
N	385	385	385	383	383	383
Demographic Controls	✓	✓	✓	✓	✓	✓
Political Controls	✓	✓	✓	✓	✓	✓
Infection Controls	✓	✓	✓	✓	✓	✓

Notes: This table replicates column 4 in Table 1, restricting the sample to "attentive" respondents who spent at least three minutes completing the survey. Odds ratios from logistic regressions, with robust standard errors in parentheses. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

FIGURE A2. Marginal Effects in Survey Experiment



Notes: Marginal effects plots with shaded 95% confidence intervals. Panels A-D show linear estimates corresponding to column 5 of panels B and D in Table 2. Panels E and F show kernel smoothing estimates for a modified version of panels C and D in which the moderator is an ordinal scale rather than a dummy variable. Graphs generated using the **interflex** package in Stata (Hainmueller, Mummolo, and Xu 2019).

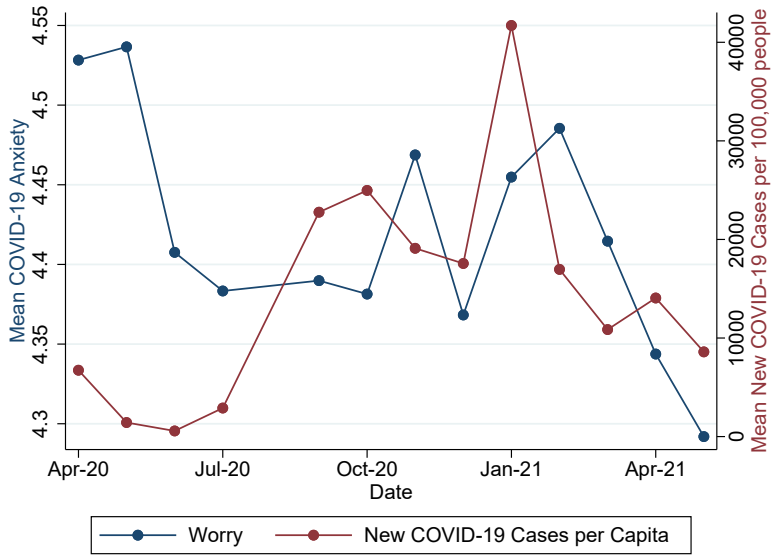
D COVID-19 Incidence and Anxiety

TABLE A9. Relationship between COVID-19 Incidence and COVID-19 Anxiety

Dependent Variable = COVID Anxiety	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Independent Variable = COVID Cases						
Log COVID CPCLog COVID cases pp	0.177***	0.126**	0.177***	0.126***	0.177***	0.126**
	(0.0436)	(0.0514)	(0.0309)	(0.0381)	(0.0626)	(0.0626)
N	46523	39700	46523	39700	46523	39700
R^2	0.019	0.047	0.019	0.047	0.019	0.047
Panel B: Independent Variable = COVID Symptoms						
Severity of COVID-19 Symptoms	0.112***	0.0822***	0.112***	0.0822***	0.112***	0.0822**
	(0.0231)	(0.0259)	(0.0164)	(0.0170)	(0.0318)	(0.0326)
N	1554	1304	1554	1304	1554	1304
R^2	0.142	0.198	0.142	0.198	0.142	0.198
NUTS-3 FEs	✓	✓	✓	✓	✓	✓
NUTS-2 × Wave FEs	✓	✓	✓	✓	✓	✓
Socio-Demographic Controls	✗	✓	✗	✓	✗	✓
SE Cluster	NUTS-3	NUTS-3	NUTS-2	NUTS-2	NUTS-2 × Wave	NUTS-2 × Wave

Notes: OLS regressions with robust standard errors, clustered as indicated in the bottom panel, in parentheses. All models control for age, gender, class, and education level. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

FIGURE A3. New COVID-19 Cases and COVID-19 Anxiety, April 2020–May 2021



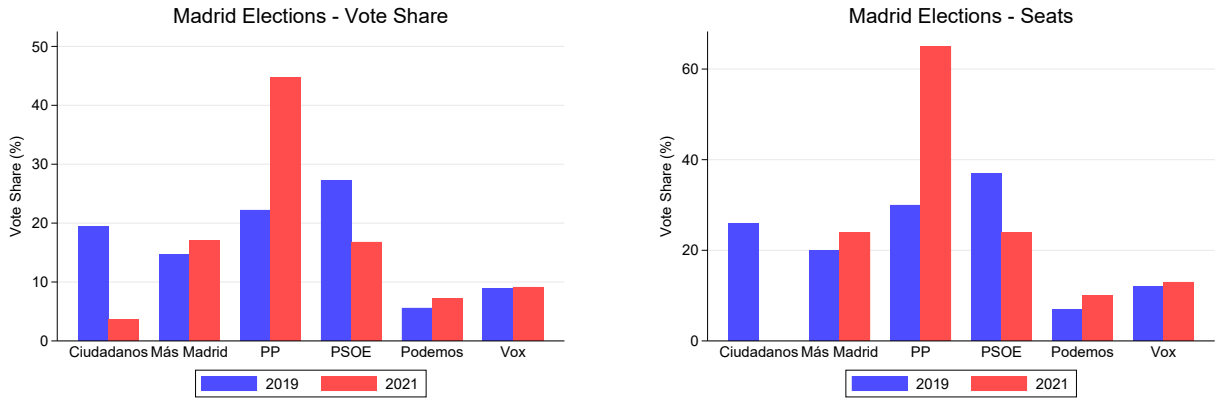
Notes: This graph plots the mean value of $COVID\ Anxiety_{it}$ and Spain's mean number of new COVID-19 cases per 100,000 population between April 2020 and May 2021.

E Madrid Regional Election Analysis

FIGURE A4. Campaign Slogans in 2021 Madrid Regional Election

Notes: The left tweet, published by PP's leader in the run-up to the Madrid 2021 regional election, translates to "COMMUNISM OR FREEDOM. 4th of May." The right tweet, published in response by Podemos' leader, translates to "Democracy or fascism. 4th of May."

FIGURE A5. Madrid Regional Election Results, 2021 versus 2019



Notes: The left panel displays the vote share of the five major parties in the Madrid regional elections of 2021 and 2019. The right panel shows their share of seats in the Madrid parliament.

E.1 Summary Statistics

TABLE A10. Summary Statistics for Madrid Regional Election Dataset

	N	Mean	Std. Dev.	Min.	25%	50%	75%	Max.
Log COVID CDC	179	0.077	0.027	0	0.064	0.078	0.091	0.22
Δ Population	179	650.8	5133.8	-270	19	78	226	68604
Δ Proportion of Women	179	0.00084	0.0066	-0.032	-0.0016	0.00025	0.0026	0.045
Δ Proportion Aged 0-20	177	0.00059	0.013	-0.046	-0.0054	0.00054	0.0062	0.062
Δ Proportion Aged 21-35	177	-0.056	0.044	-0.16	-0.085	-0.056	-0.036	0.10
Δ Proportion Aged 36-50	177	0.054	0.049	-0.076	0.022	0.047	0.086	0.21
Δ Proportion Aged 51-65	177	0.017	0.061	-0.059	-0.021	-0.000033	0.034	0.35
Δ Proportion Aged 66+	177	-0.055	0.086	-0.21	-0.12	-0.065	-0.017	0.24
Δ Voter Turnout	179	0.040	0.059	-0.15	0.0061	0.051	0.089	0.14
Nursing Places per Capita	179	0.017	0.029	0	0	0.0053	0.023	0.17
Altitude	179	810.7	209.0	476	652	744	941	1434
Area of Agricultural Holdings (ha)	179	2150.4	2430.4	0	801	1568	2783	21946
Δ Percentage Employed	179	-0.00079	0.019	-0.063	-0.0085	-0.0012	0.0071	0.12
Log GDP per Capita	179	22.1	12.7	6.93	13.4	18.4	26.3	83.3
Δ Vote Share of Pro-Lockdown Parties	179	-0.20	0.058	-0.34	-0.25	-0.22	-0.17	-0.025
Δ Vote Share of Anti-lockdown Parties	179	0.21	0.058	0.0031	0.17	0.22	0.25	0.34
Proportion Aged 66+	179	0.17	0.061	0.059	0.13	0.17	0.20	0.46
Log Respiratory DPC	179	0.0012	0.0026	0	0.00038	0.00068	0.0012	0.029
Top/Bottom Income	179	0.095	0.29	0	0	0	0	1
Hospitality Share	179	0.55	0.41	0	0.29	0.43	0.73	3.45

Notes: This table presents summary statistics for our Madrid regional election dataset. Electoral variables are differenced between the 2021 and 2019 elections; other variables are either differenced between 2020 and 2018 or measured at their 2020 level. Electoral data are from the Madrid regional government (Comunidad de Madrid 2022), nursing home statistics from Spain's Ministry of Economy and Competitiveness (Envejecimiento en Red 2022), and data on the remaining variables from Madrid's statistics office (Instituto de Estadística de la Comunidad de Madrida 2022).

E.2 Difference-in-Differences Analysis

TABLE A11. Difference-in-Differences Version of Madrid Regional Election Analysis

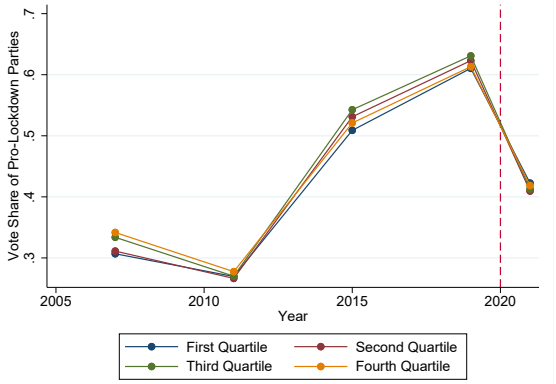
Dependent Variable = Δ Vote Share of:	Pro-Lockdown Parties						Anti-Lockdown Parties					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Panel A: Health Exposure Proxies												
Log COVID CPC	-0.967**	-0.991**	-1.002**	-0.341	-0.0315	-0.0523	0.930**	1.144***	1.155***	0.318	0.0126	0.0352
	(0.396)	(0.424)	(0.421)	(0.301)	(0.151)	(0.151)	(0.422)	(0.438)	(0.437)	(0.309)	(0.159)	(0.160)
Elderly Share	0.224***	0.142	0.143		0.356***	0.356***	-0.218***	-0.0884	-0.0888		-0.346***	-0.346***
	(0.0773)	(0.139)	(0.137)		(0.0825)	(0.0817)	(0.0790)	(0.146)	(0.144)		(0.0875)	(0.0867)
Log COVID CPC × Elderly Share	4.310***	4.516**	4.473**				-4.392**	-5.387***	-5.346***			
	(1.618)	(1.862)	(1.803)				(1.755)	(1.979)	(1.925)			
Respiratory DPC				-1.941	0.183	-0.0779				2.638	0.464	0.748
				(1.839)	(1.118)	(1.083)				(1.978)	(1.118)	(1.084)
Log COVID PC × Respiratory DPC				133.9***	59.53**	59.58**				-144.8***	-72.78**	-72.83**
				(31.49)	(26.13)	(25.67)				(32.56)	(29.35)	(28.81)
N	354	354	354	358	354	354	354	354	354	358	354	354
R^2	0.973	0.974	0.974	0.952	0.974	0.975	0.974	0.975	0.975	0.955	0.975	0.975
Panel B: Economic Exposure Proxies												
Log COVID CPC	0.543	0.382	0.355	0.0598	0.0582	0.155	-0.613	-0.463	-0.437	-0.212	-0.107	-0.212
	(0.414)	(0.295)	(0.285)	(0.305)	(0.301)	(0.178)	(0.448)	(0.331)	(0.319)	(0.198)	(0.326)	(0.198)
Hospitality Sector	0.0355	0.0209	0.0204				-0.0358	-0.0228	-0.0224			
	(0.0261)	(0.0202)	(0.0199)				(0.0263)	(0.0219)	(0.0217)			
Log COVID CPC × Top/Bottom Income	-0.895**	-0.475	-0.468*				0.914**	0.515*	0.508*			
	(0.410)	(0.288)	(0.283)				(0.413)	(0.310)	(0.304)			
Top/Bottom Income				0.0383	0.0440	0.0589**				-0.0574*	-0.0370	-0.0574*
				(0.0439)	(0.0459)	(0.0279)				(0.0295)	(0.0470)	(0.0295)
Log COVID CPC × Hospitality Sector				-0.545	-0.624	-0.723*				0.665	0.499	0.665
				(0.709)	(0.704)	(0.387)				(0.403)	(0.714)	(0.403)
N	358	354	354	358	358	354	358	354	354	354	358	354
R^2	0.950	0.974	0.974	0.947	0.947	0.974	0.952	0.974	0.974	0.974	0.949	0.974
Municipality FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: This table presents a difference-in-differences version of our analysis of the relationship between COVID-19 incidence and Madrid regional election vote shares as moderated by exposure to the pandemic's health (panel A) and economic (panel B) consequences. OLS estimates with robust standard errors, clustered by municipality, in parentheses. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$.

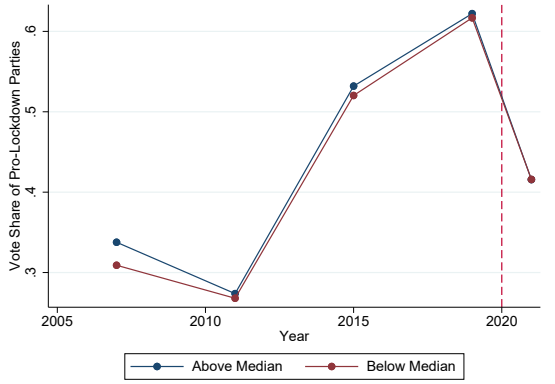
E.3 Parallel Trends Assumption

FIGURE A6. Evidence of Parallel Trends in Vote Shares of Pro- and Anti-Lockdown Parties

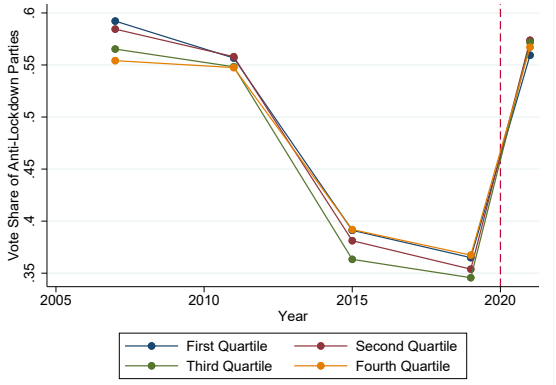
(A) Pro-Lockdown Parties, by COVID-19 Incidence Quartile



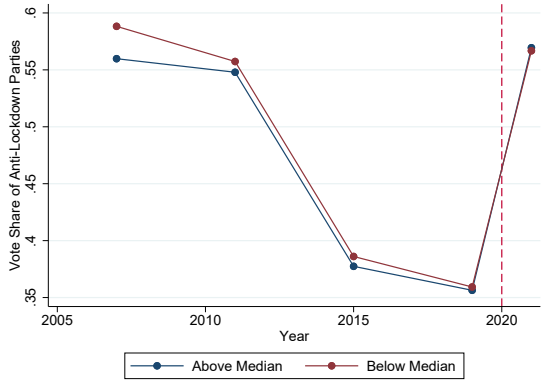
(B) Pro-Lockdown Parties, by COVID-19 Incidence Median



(C) Anti-Lockdown Parties, by COVID-19 Incidence Quartile



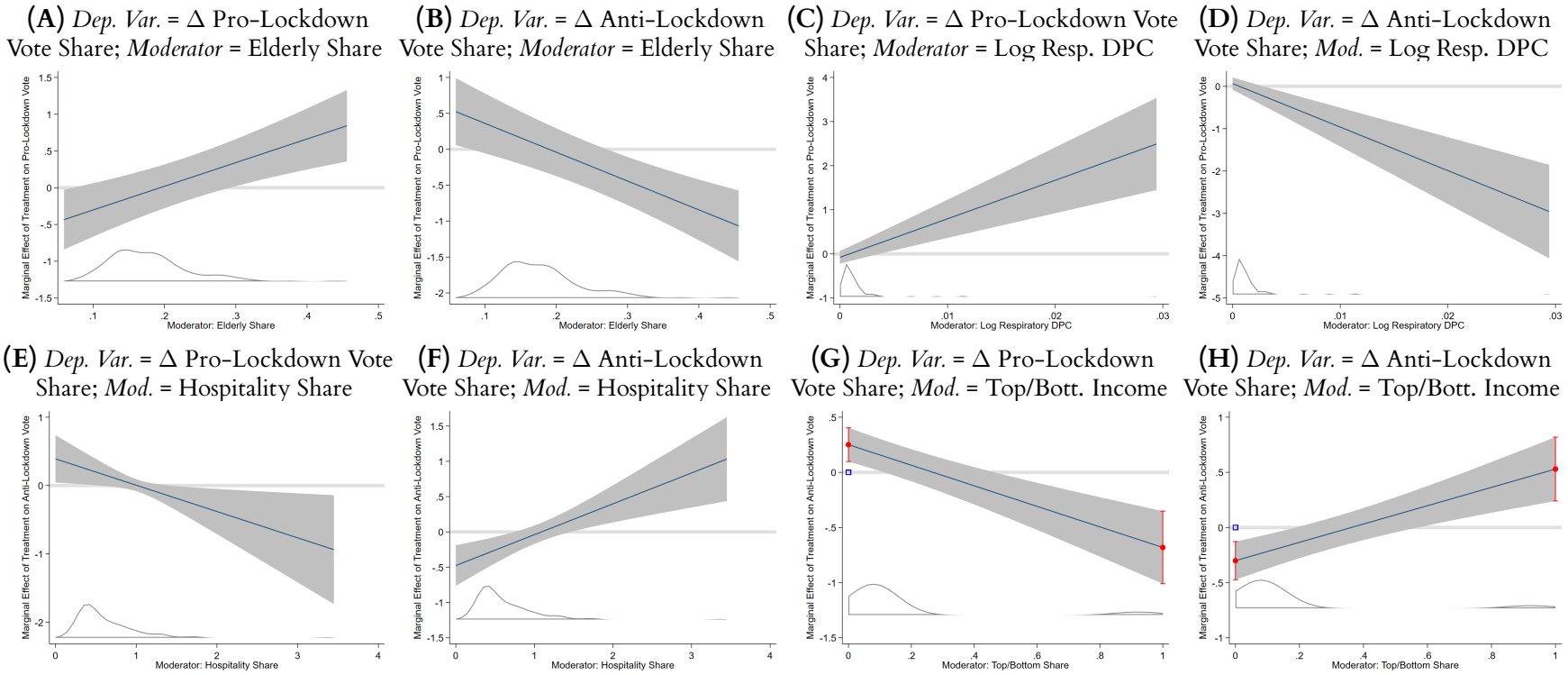
(D) Anti-Lockdown Parties, by COVID-19 Incidence Median



Notes: This figure shows that the combined vote shares of pro- and anti-lockdown parties in the 2021 Madrid regional election have followed approximately parallel trends since the 2007 election. In the left column (panels A and C), municipalities are divided by quartile of the logarithm of cumulative COVID-19 cases per capita as of the 2021 election (May 4). In the right column (panels B and D), they are grouped by whether their value of this variable is above or below the sample median.

E.4 Marginal Effects

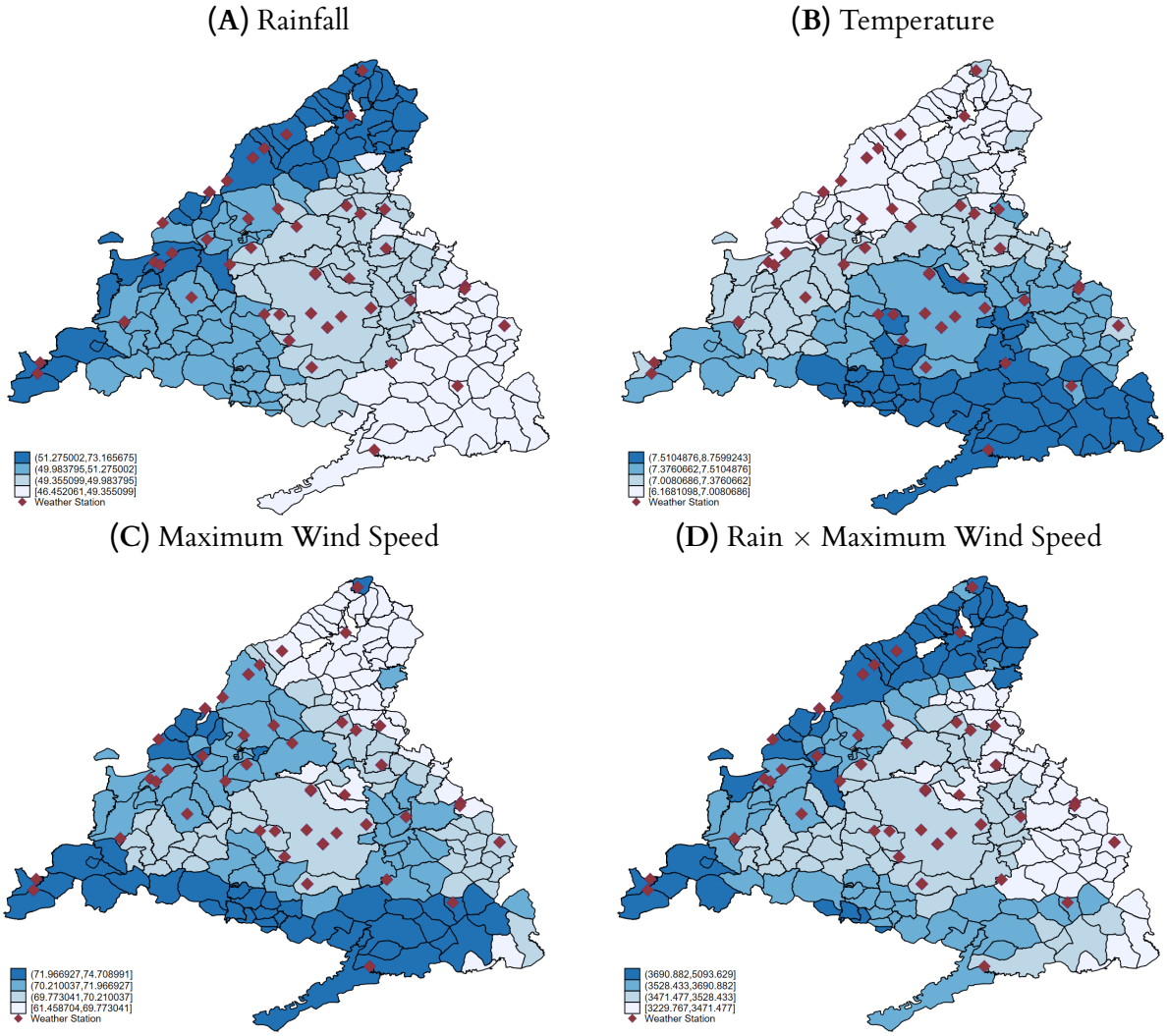
FIGURE A7. Marginal Effect of COVID-19 Incidence on Vote Shares of Pro- and Anti-Lockdown Parties in Madrid Elections Across Proxies for Health and Economic Exposure



Notes: Marginal effects plots with shaded 95% confidence intervals. The estimates correspond to the fully specified models in Table 2: moving clockwise, to column 4 of panel A, column 8 of panel A, column 4 of panel A, column 8 of panel A, column 4 of panel B, column 8 of panel B, column 4 of panel B, and column 8 of panel B. Graphs generated using the **interflex** package in Stata (Hainmueller, Mummolo, and Xu 2019).

E.5 Instrumental Variables Analysis

FIGURE A8. Geographical Distribution of Weather Instruments



Notes: Madrid municipalities are shaded by their quartile ranking on our four month-level weather instruments: total rainfall (panel A), mean daily temperature (panel B), maximum wind speed (panel C), and rainfall × maximum wind speed (panel D) over the six months from November 1, 2020 to April 30, 2021. Diamonds represent weather stations from which measurements were taken. Data were acquired via purchase from Spain's State Meteorological Agency.