Democracy, State Capacity, and COVID-19 Related School Closures

Axel Cronert*

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Abstract

This study investigates the institutional determinants of the timing of COVID-19 related school closures around the world, focusing on the role of democracy and administrative state capacity. Relying foremost on Cox proportional hazards models of up to 167 countries observed daily between late January and early April of 2020, the study finds that other things being equal, democratic countries tended to implement school closures quicker than those with a more authoritarian regime, while countries with high government effectiveness tended to take longer than those with less effective state apparatuses. A supplementary analysis that distinguishes between the two democratic dimensions of competition and participation indicates that it is the existence of competitive elections that prompts democratic leaders to respond more rapidly. Lastly, auxiliary evidence indicates that demography and family systems may also help determine countries' pandemic responses.

Keywords: coronavirus disease 2019 (COVID-19), democracy, administrative state capacity, school closures, survival analysis, Cox models

*Department of Government, Uppsala University. Email: axel.cronert@statsvet.uu.se. I am grateful for constructive comments from seminar participants at the Department of Political Science at Lund University, as well as Rafael Ahlskog, Marcus Österman, Michal Smrek, and Erik Vestin.

Introduction

The past weeks have seen governments across the globe act rapidly and with unprecedentedly disruptive measures to address the spread of coronavirus disease 2019 (COVID-19), including non-pharmaceutical interventions such as school closures, travel restrictions, curfews and quarantines. Yet, there is also considerable variation in terms of the timing and stringency of countries' response strategies (Hale and Webster 2020). As questions about how to understand and handle the pandemic and its aftermath now surge on the research agendas across academic disciplines, a key task for political scientists will be to explain why different governments responded the way they did.

Although it is still too early for any all-encompassing analysis of the crisis responses around the world, it is possible to analyze one non-pharmaceutical measure that has already been remarkably widely implemented and for which comprehensive and comparable data is already available, namely school closures. As shown by the data reported in Figure 1 for 169 countries enjoying at least some degree of functional and/or formal sovereignty, the initial four weeks after the first school closures were implemented in China and Mongolia at the end of January saw few new countries reporting their first case of COVID-19 and few new school closures. But as the virus started to spread more widely at the end of February, the number of countries implementing school closures began to increase rapidly. Between February 25 and March 25, the number rose from 6 to 160 and after one additional week it plateaued at 164. Although five of the observed countries—Belarus, Burundi, Cabo Verde, Nicaragua, and Singapore—had still not seen a school closure by April 7, it is safe to say that we have already witnessed the vast majority of potential initial closures.

The widespread implementation of school closures may not come as a surprise, given that they may help slow the spread of the virus by increasing social distancing and the likelihood that exposed individuals develop their symptoms while not in school (CDC 2020; Jackson et al. 2013; WHO 2019). However, depending on when and for long they are implemented, school closures may also put older relatives at higher risk, have detrimental effects on student performance and well-being, and decrease the workforce in health care and other important capacities as more parents stay home with children (Brown et al. 2011; CDC 2020). Using terminology from earlier pandemic response research, the timing of a school closure can to some extent be understood as reflecting the government's trade-off between a *precautionary* strategy, through which the entire population is led to make sacrifices for the sake of vulnerable individuals—which would imply a rapid school closure—or a more *proportional* strategy, where school closures are postponed in favor of less disruptive measures, such as interventions to isolate individuals that are vulnerable or infected (Baekkeskov and Rubin 2014).

Previous research has observed that countries' political and administrative institutions can systematically influence how governments respond to pandemics and other crises (Salajan et al. 2020; Weible et al. 2020). Thus, considering that the timing of school closures may both be of importance for their public health

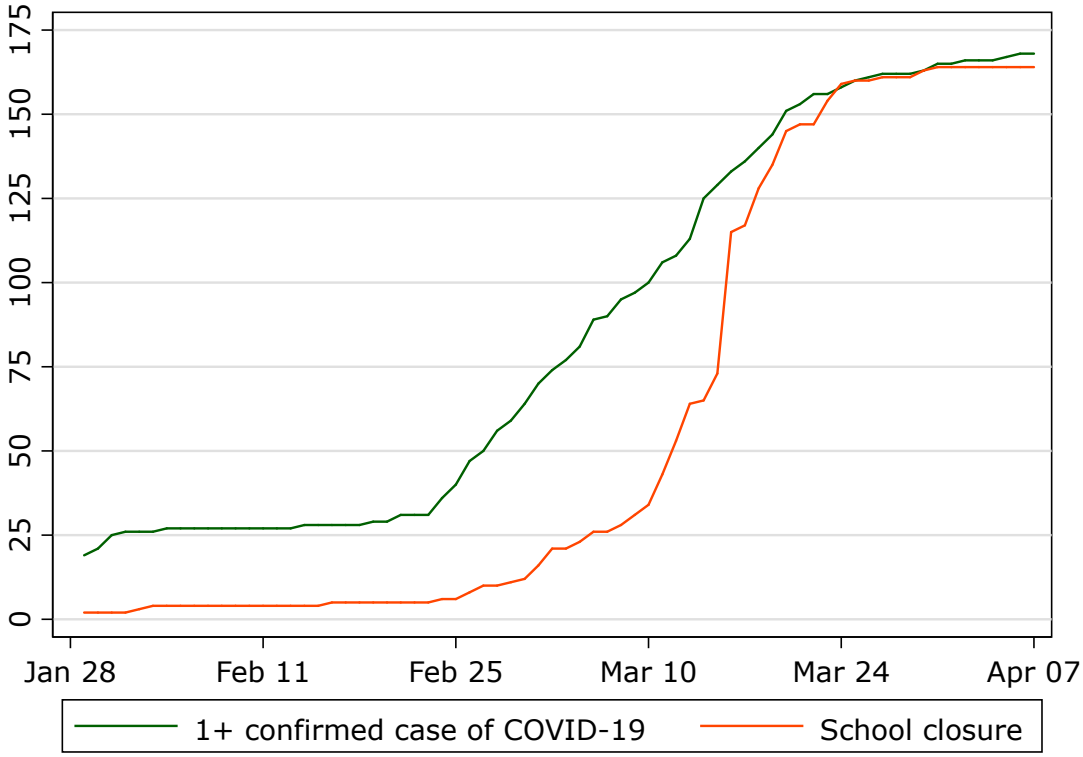

Figure 1: Countries with one or more confirmed case of COVID-19 and countries with a national or localized COVID-19 related school closure, as observed between January 28 and April 7, 2020. Covers 169 countries. Sources: Dong et al. (2020), Hale and Webster (2020), and UNESCO (2020).

outcomes and say something about a country's overall pandemic strategy, it is worthwhile to investigate whether such institutional factors also mattered for the timing of school closures in response to COVID-19. Besides being of interest in their own right, the results from such an investigation may also serve to inform scholars' expectations when analyzing other pandemic interventions going forward.

Democracy, State Capacity, and the Timing of School Closures: Theoretical Considerations

This study focuses on two institutional factors of longstanding interest to social scientists—which have also been brought up in the nascent conversation on COVID-19 (e.g., Fukuyama 2020; Przeworski 2020)—namely democracy and administrative state capacity. For each of them, conflicting expectations can be derived from existing research as to whether we should expect it to make countries more likely to adopt a more precautionary or a more proportional strategy.

Democracy

Consider first democracy, which is commonly conceived as the extent to which rulers and the policy choices they make are responsive to citizens, as achieved through fair and competitive elections combined with wide suffrage and extensive political involvement (Boix et al. 2013; Dahl 1971; Vanhanen 2000). According to a political survival logic (de Mesquita Bruce et al. 2003), leaders in democratic countries should be more likely to quickly adopt a precautionary strategy in times of national crisis, especially in cases where an election is imminent. Existing crisis management research points to two reasons (Baekkeskov 2016). First, democratically accountable leaders should have stronger incentives to respond promptly to avoid the threat of electorally harmful blame, whether from the opposition or the mass media (Baekkeskov and Rubin 2014; Besley and Burgess 2002). Second, democratic governments have been found to use emergencies as an opportunity to demonstrate their value to contested constituencies (Healy and Malhotra 2009; Reeves 2011).

Furthermore, in democratic countries the institutionalized freedom of expression improves the quality of information available to governments, which may enable a quicker crisis response (Kahn 2005; Persson and Povitkina 2017). In addition, to the extent that a more rapid response indeed reflects a greater commitment to public health, we should expect democracies to act faster as they tend to put higher priority on safeguarding the population's well-being (Besley and Kudamatsu 2006; Bollyky et al. 2019; Cronert and Hadenius forthcoming).

On the contrary, arguments also exist for why we should expect a null or even negative effect of democracy on the timing of school closures. To begin with, authoritarian regimes may also be worried about the possible damage that a slow or unnoticeable crisis response could do to popular support for the government, especially considering that such damage may simultaneously challenge the legitimacy of the entire political regime (Baekkeskov and Rubin 2017). It is furthermore possible that a measure as disruptive as a school closure is more difficult to enact in a democratic country where a larger share of the population—many of whom will be personally and immediately affected by the measure—are able to have a say in politics, whether individually or through civil associations. For a formal argument along these lines, applied to the case of mass vaccination, see Ahlskog (2017). Lastly, given that we should expect a higher degree of public deliberation on pandemic response policy in democracies (Baekkeskov and Öberg 2017), we should perhaps also expect that it takes longer for democratic governments to decide on their preferred strategy.

Administrative State Capacity

Let us turn next to administrative state capacity, by which we typically refer to the extent to which competent, impartial and efficient state agencies enable the government to take action in an appropriate and effective manner[1] (Bäck and

[1]In principle, competence, impartiality and efficiency should be regarded as theoretically distinct dimensions of administrative state capacity (Rothstein and Teorell 2008). However, available indicators for a cross-section of 109 countries from Dahlström et al. (2015) and Kaufmann et al.

Hadenius 2008; Cronert and Hadenius forthcoming; Skocpol 1985). On the one hand, drawing on earlier research about the importance of government effectiveness for a successful response to natural disasters as well as pandemics, one might expect that high state capacity enables countries to prepare for and implement school closures more rapidly (DSB 2011; Kahn 2005; Persson and Povitkina 2017; Raschky 2008).

On the other hand, it is possible that countries with more well-functioning state agencies also have a larger set of policy tools available for consideration, and thus are in a better position to suspend drastic precautionary measures like school closures longer in favor of a more proportional strategy with less disruptive initial responses. Such a reasoning was, for instance, provided by the Singaporean minister of education when explaining its government's decision to keep schools open: "We still have options. We are not like many countries, where they are forced into sudden school closures" (Teng and Davie 2020).

This is not to suggest that epidemiologists and other experts at the involved state agencies cannot make different judgments about the appropriateness of different strategies (cf. Baekkeskov 2016; Weible et al. 2020). The point is simply that when such agencies are able to exert more influence on governments' pandemic responses, we should expect decisions about school closures to be guided relatively more by criteria related to necessity and proportionality than by a presumed political pressure for a precautionary response (for evidence on the prominence of necessity and proportionality considerations in public health officials' decisions on school closures during the 2009 H1N1 influenza outbreak in the US, see Kayman et al. 2015).

Another way in which the existence of a competent and effective administrative apparatus might lead to later school closures is by making it possible for political leaders to shield themselves from potential blame for a slow response, by shifting the responsibility for the strategy to the certified expertise (Baekkeskov and Öberg 2017; Weible et al. 2020). The Swedish response to COVID-19 may illustrate this mechanism. When other European democracies began closing schools in early March, the powerful Public Health Agency firmly defended the country's deviating strategy with reference to the large disruptions and to the importance of timing, while government representatives made it "somewhat of a mantra" to state that they were following the agency's recommendations (Rothschild 2020). On March 18, Sweden implemented a partial national closure, affecting only upper secondary schools and universities (UNESCO 2020).

What the discussions above furthermore imply is that in principle, we might expect administrative state capacity to have a moderating impact on the presumed expediting effect of democracy. More specifically, the political survival logic discussed above should be more dominant in the absence of a competent and effective administrative apparatus that can serve to obscure political accountability of strategic decisions.

(2011) show that their intercorrelations are high ($r = 0.73$–0.85), which makes them difficult to disentangle empirically.

Empirical Analysis

In the following, I investigate the role of democracy and administrative state capacity in determining the timing of COVID-19 related school closures around the world. This is done first by means of a simple graphical exercise, and second by means of regression analyses in a survival analysis (event history) framework. In the interest of making these analyses as comprehensive as possible, efforts have been made to include all countries that enjoy at least some degree of functional and/or formal sovereignty as defined by the Varieties of Democracy (V-Dem) Institute (Coppedge et al. 2020). Out of these 178 countries, 9 (5%) must be excluded altogether since they lack the necessary data on COVID-19 cases reported by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University[2] (Dong et al. 2020).

To enable a meaningful comparison of timing, we need to define a common starting point for the analyses. To reconcile comparability and inclusiveness, I have chosen two different starting points. For the graphical analysis, the point of reference is the day of the first confirmed case of COVID-19. However, given that a considerable number of countries closed schools already before having their first confirmed case, this starting point is inappropriate for the survival analyses. To include as many countries as possible in these models, their starting point for all countries is January 28, the day after the first school closures where implemented in China and Mongolia (UNESCO 2020). Accordingly, this set of analyses includes at most 167 countries, 162 of which had implemented a school closure by April 7 when the period of observation ends.

Key Variables

To measure a country's level of democracy in 2019, I primarily rely on the electoral democracy index provided by the V-Dem Institute, which is based on sub-indices that measure freedom of association, clean elections, freedom of expression, elected officials, and suffrage (Coppedge et al. 2020). As an indicator of administrative state capacity, I use the Worldwide Governance Indicators' (WGI) 2018 estimate of government effectiveness, which considers the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies (Kaufmann et al. 2011). In a robustness check with fewer countries, I use the 2019 Freedom House/Imputed Polity level of democracy indicator (Freedom House 2019) and the 2016 ICRG indicator of quality of government (PRS Group 2019; Teorell et al. 2020). All four indicators are transformed to range between 0 and 10.

The dichotomous indicator on incidents of school closures is measured daily and based primarily on information from two independent data collection efforts carried out by UNESCO (2020) and Hale and Webster (2020). In each case where the two

[2]These are the Comoros, Lesotho, North Korea, Solomon Islands, Somaliland, Tajikistan, Turkmenistan, Vanuatu, and Zanzibar.

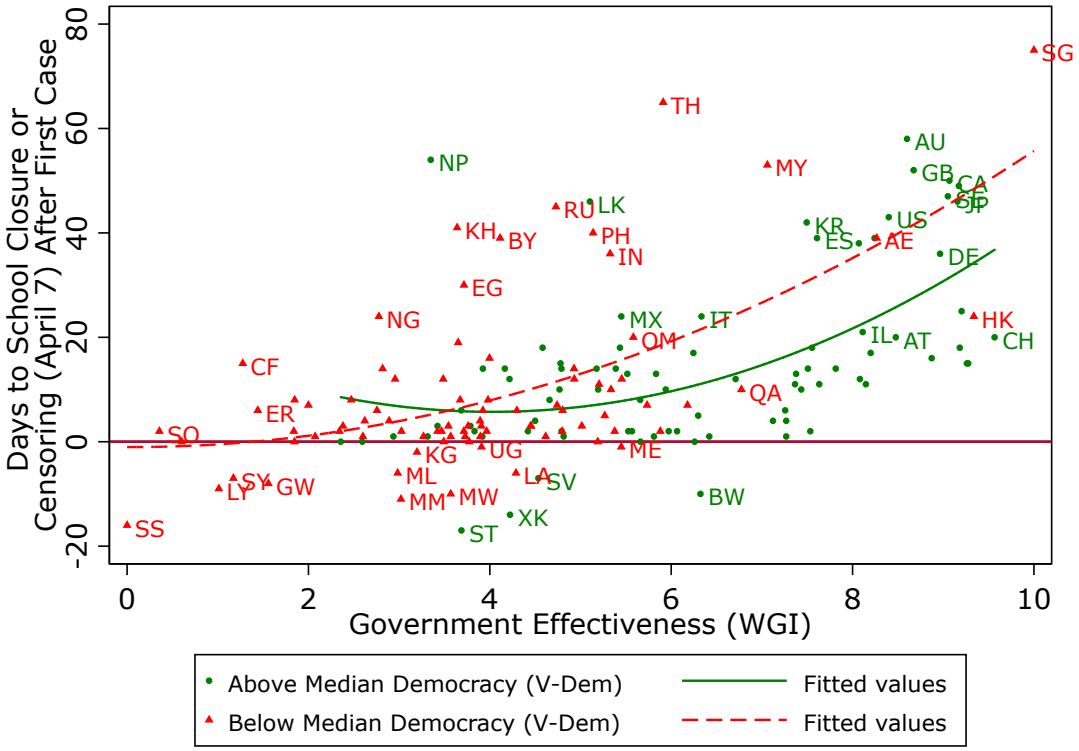

Figure 2: Y-axis: Days to school closure or right censoring (April 7) after the first confirmed COVID-19 case. X-axis: Government effectiveness (WGI). Green triangles denote above-median democracy (V-Dem) and red circles denote below-median democracy. The green solid line and red dashed line represent quadratic predictions for the two subsets. Includes 166 countries, omitting China, Mongolia, and Yemen. Sources: Dong et al. (2020), Hale and Webster (2020), and UNESCO (2020).

sources disagree, an independent opinion has been formed based on reviews of the original sources as well as various newspaper reports. The indicator reflects the first day with ordered or advised school closures, typically set to the first working day after announcement, or the day of announcement in cases where ongoing school breaks were extended. It includes both national and sub-national measures but disregards occasional reports on spontaneous school closures ahead of government interventions (e.g., United Kingdom in late February). Measures that only pertain to universities (e.g., Nigeria on March 20) or nurseries (United Arab Emirates on March 1) are disregarded (they are in all cases shortly followed by more general school closures).

Daily data on logged confirmed cases of COVID-19 come from the CSSE at Johns Hopkins University (Dong et al. 2020). A number of additional control variables are included in the various models and are discussed subsequently. See the Appendix for definitions and sources, and Tables 1 and 4 therein for summary statistics and a country-wise list of the key variables.

Descriptive Evidence

Let us begin by considering some graphical descriptive evidence. For all countries except China, Mongolia, and Yemen,[3] Figure 2 plots the number of days between the country's closure (or April 7 for right censored observations) and the day of its first confirmed COVID-19 case against the country's government effectiveness rating. The color and shape of the markers indicate whether the country has a below-median (red circles) or above-median (green triangles) democracy rating.

Two observations can be made from the two lines that represent quadratic predictions fitted to the two subsets of the data. First, the slopes show a clear positive relationship between administrative state capacity and time to school closure. Second, judging from the positive difference between the red (dashed) and the green (solid) line at most values of government effectiveness, it appears that less democratic countries tended to implement school closures somewhat later than more democratic countries.

Cox Proportional Hazards Models

The takeaway from the graphical exercise above is that democracies appear to have implemented school closures more quickly than more authoritarian countries in response to the spread of COVID-19, while countries with high government effectiveness tended to take longer than those with less effective state apparatuses. As it turns out, similar results are retrieved from the survival analyses that are summarized in Figures 3 and 4 and reported in full in the Appendix, Table 2.

These analyses are based on the Cox proportional hazards model, which unlike parametric duration models does not require an assumption about the shape of the baseline hazard. The data are structured as country-date panels, beginning for each country on January 28 and ending on the day of the first school closure event or on April 7. Exploratory analyses indicate that no country-specific frailties are needed, but for the proportional hazards assumption to be satisfied the observations are stratified by the day of the country's first confirmed case of COVID-19. This stratification accounts for the generally higher baseline hazard of school closure among countries that were hit later by the pandemic, which is likely in part due to their opportunity to learn from the policy responses in countries that were affected earlier (Weible et al. 2020).

The first Cox model A applies the V-Dem Institute's democracy index and the WGI government effectiveness indicator as the key independent variables. As controls, it includes the daily (logged) number of confirmed domestic COVID-19 cases as well as a set of region dummies that serve to absorb any unobserved regional confounders.[4] To control for the possibility that a faster spread of the virus in a country's region may prompt a more rapid response, the model furthermore includes a daily indicator of the share of countries in the region—excluding the country itself—that had at least one confirmed case of COVID-19. It furthermore

[3]For Yemen, the first confirmed case occurred on April 10.

[4]Eight regions are considered: East Asia and the Pacific, South Asia, Caucasus and Central Asia, Europe, Middle East and North Africa, Sub-Saharan Africa, and the Americas.

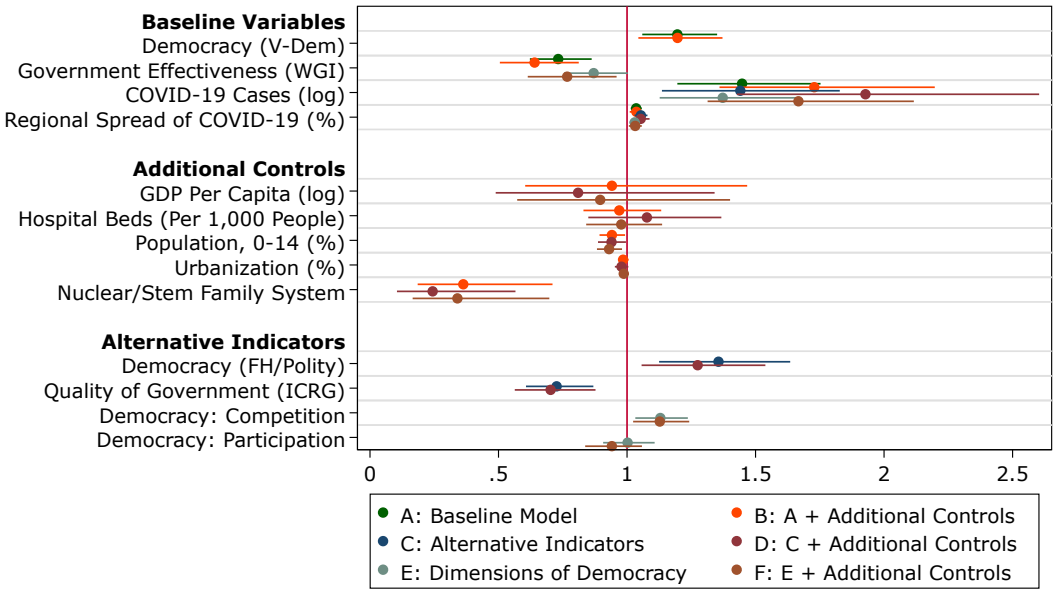

Figure 3: Hazard ratio estimates and 95% confidence intervals from pooled Cox models of school closures between January 28 and April 7, 2020. Observations are stratified on date of first confirmed COVID-19 case. Robust standard errors are applied. All models also include a set of region indicators and an indicator of weekend days. Number of observations/countries included: A: 7944/167, B: 7568/158, C: 6309/134, D: 6254/132, E: 7781/162, F: 7561/157. For full model output, see the Appendix, Table 2.

adds a time-varying dummy indicating country-specific weekend days, considering that a school closure should be much more likely to begin on a working day.

The results from model A show that when holding region and the spread of the virus constant, democratic countries are likely to implement school closures sooner than those with a more authoritarian regime. The hazard ratios reported in Figure 3 indicate that an increase in democracy by one unit (on a 0–10 scale) is associated with an increase in the relative risk of school closure of around 19 percent. As to administrative state capacity, a one unit increase in the WGI indicator is associated with a 26 percent lower relative risk of school closure. Both results are statistically significant at conventional levels. There is furthermore a significant positive relationship between confirmed COVID-19 cases—both domestically and regionally—and the relative risk of school closures.

Model B includes five additional control variables, which may be correlated with democracy and state capacity, and which may also affect the time to school closure. The first is a measure of (logged) GDP per capita, which was found positively associated with state-level implementation of social distancing policies in one of the first studies on the timing of COVID-19 responses among US states (Adolph et al. 2020). The second is a measure of the number of hospital beds per 1,000 people, which may reduce the urgency of precautionary measures. The third is the share of the population aged 0-14 and is meant to capture that a larger youth

population might make a school closure costlier and more difficult to implement. The fourth is a measure of urbanization, which might make school closures both more urgent and easier to implement. The fifth variable is meant to capture the core features of a country's family system, and measures the proportion of its current population whose ancestors resided in nuclear or stem families, rather than polygamous or community families (Giuliano and Nunn 2018). In countries with a tradition of nuclear and stem families, households tend to be smaller (Rijpma and Carmichael 2016), people report more freedom of choice within the family (Rijpma and Carmichael 2016), pre-primary and primary school enrollment tends to be higher (Teorell et al. 2020), and retirement ages tend to be higher. All of these are factors that may make school closures costlier to implement and sustain, but since reliable data is lacking for a sufficiently large number of countries, I instead rely on this family system based proxy.

The results from model B indicate that a younger population and a nuclear or stem family system are indeed associated with a significantly lower relative risk of school closure. However, since including these control variables reduces the sample size by 9 countries while increasing the coefficient for administrative state capacity, I hold a slight preference for the more encompassing and conservative model A.

Next, models C and D replicate models A and B but substitutes the baseline democracy and administrative state capacity measures for the 2019 Freedom House/Imputed Polity level of democracy indicator and the 2016 ICRG indicator of quality of government. The two samples are reduced by around 30 countries, but the baseline results remain intact.

As discussed in the subsequent section and reported in the Appendix (Table 3), I also run extended versions of the aforementioned models, which add an interaction term between democracy and administrative state capacity. In line with expectations, these models finds that administrative state capacity has a substantial and significant moderating impact on the expediting effect of democracy.

Substantive Interpretation of the Results

To help interpret the results from the baseline models A and B in policy-relevant terms, Figure 4 reports the marginal changes in expected time to school closure given a change in administrative state capacity or democracy from the 25th to the 75th percentile respectively, estimated using the Cox ED procedure (Kropko and Harden 2020). The estimates for these models indicate that such an increase in the level of government effectiveness—roughly equivalent to a change from that of Egypt to that of Italy—corresponds to an increase in the average expected time to school closure by around 6 days. A change in democracy of an equivalent size—i.e., from that of Turkey to that of Chile—is on average associated with a reduction in expected duration of 4–7 days depending on specification.

However, the estimates from the two corresponding interaction models plotted in the bottom panel (A+ and B+), suggest that the marginal effect of democracy varies systematically across countries with different levels of administrative state capacity. At low levels of government effectiveness, the estimated change in expected duration given a change in democracy is substantially higher (7–10 days

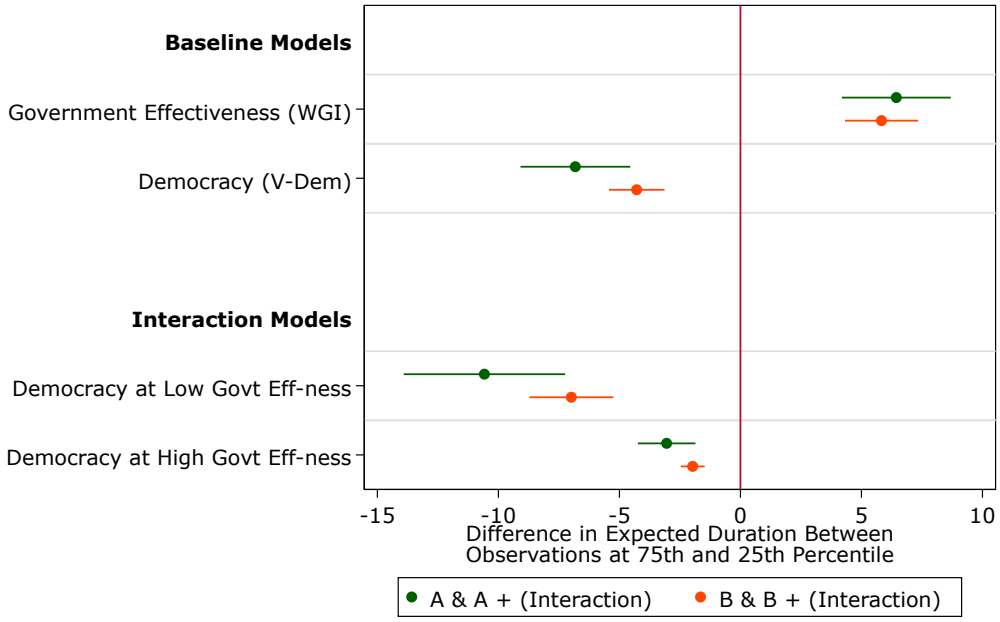

Figure 4: Expected change in time to school closure, by institutional factor. Estimates of average marginal effects obtained by post-estimation simulation from baseline models A and B, and interaction models A+ and B+, using the nonparametric step-function version of the Cox ED procedure (Kropko and Harden 2020). High and low levels of government effectiveness are the 25th and 75th percentiles respectively. Standard errors are bootstrapped by country with 200 iterations. For full model output, see the Appendix, Tables 2 and 3.

at the 25th percentile) than at high levels (2–3 days at the 75th percentile).

Which Aspect of Democracy Expedites Response?

As discussed above, democracy is a multi-faceted concept, the full realization of which is commonly seen as requiring both a high degree of electoral competition and a high degree of popular participation (Boix et al. 2013; Dahl 1971; Vanhanen 2000). In an effort to elucidate which of these characteristics of democracies that drives their quicker response, I run two supplementary models that substitute the V-Dem democracy indicator for the two 2018 indicators on political competition and political participation developed by Vanhanen (2000, 2019), which are the most recent measures available for all but a handful of countries (both are rescaled to 0–10).

Computed primarily based on the size of the largest party, the competition indicator has been found to be empirically related to the likelihood that the incumbent executive will be ousted from office at the next election (Cronert and Nyman forthcoming). As reported in Figure 3, the models in question (E and F) indicate that it is this competitive aspect of democracies that accounts for their

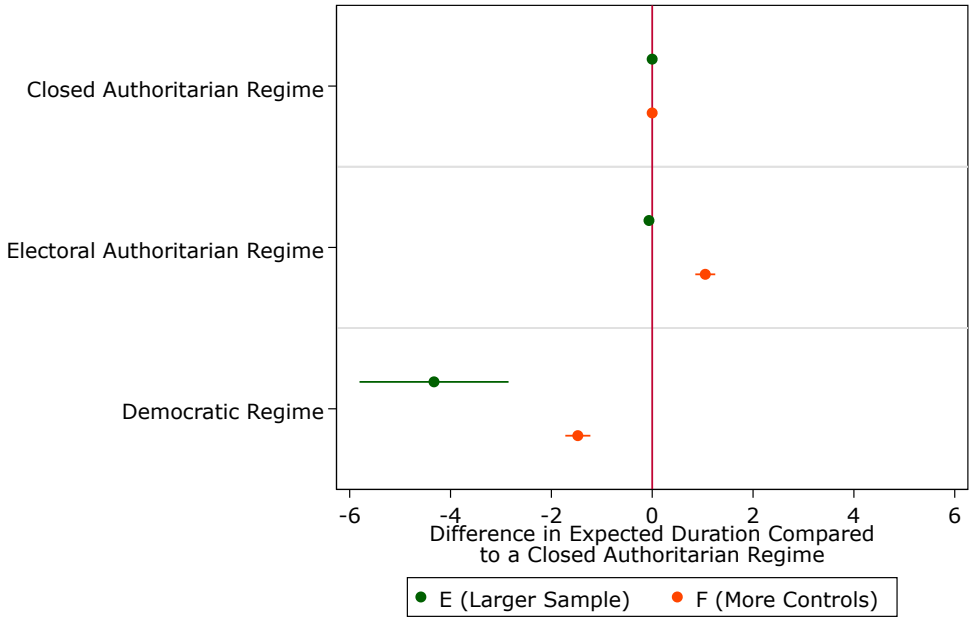

Figure 5: Expected difference in time to school closures, by regime type. Estimates of average marginal effects obtained by post-estimation simulation from models E and F using the nonparametric step-function version of the Cox ED procedure (Kropko and Harden 2020). Standard errors are bootstrapped by country with 200 iterations. For full model output, see the Appendix, Table 2.

increased relative risk of school closures. By contrast, participation—a measure based on voter turnout and referendums—is insignificant and not at all or even negatively associated with the relative risk of school closures.

To illustrate the substantive implication of these results, I estimate the expected time to school closure for three fictive regime types: a closed authoritarian regime with relatively low (25th percentile) values on both dimensions (similar to Iran), a democratic regime with fairly high (75th percentile) values on both dimensions (e.g., Spain), and an electoral authoritarian regime with low competition but high participation (e.g., Belarus). The estimated differences between the closed authoritarian regime and the two others are reported in Figure 5. Based on models E and F, these results suggest that while the democratic regime is expected to take 1.5–4.5 days *less* to close its schools, the electoral authoritarian regime is expected to take about the same time or even slightly longer.[5]

The diverging responses to COVID-19 by the neighbouring countries Poland and Belarus are consistent with these results. In Poland, where a relatively competitive presidential election was scheduled for May 10, 2020, the government quickly adopted a precautionary strategy, including a school closure and a lock-down within two weeks after the first confirmed case. Possibly out of concern that the incumbent president Duda's re-election prospects would deteriorate if the election

[5]The estimated difference between the electoral authoritarian regime and the democratic regime, according to models E and F, is 4 and 2.5 days respectively.

were to be postponed until a later stage of the pandemic aftermath, the governing party insisted on conducting the election as soon as possible (Associated Press 2020). By contrast, in Belarus, where elections are inclusive but non-competitive, long-time president Lukashenko has rejected any precautionary measure to tackle COVID-19—including school closures—despite facing a presidential election in August, 2020 (Karmanau 2020).

Concluding Remarks

This study has investigated how two institutional factors—democracy and administrative state capacity—help determine the varying timing of countries' implementation of school closures in response to the spread of COVID-19 in the spring of 2020.

Overall, the evidence from Cox proportional hazards models of up to 167 countries indicates that a higher level of democracy in a country is associated with a several days' shorter time to school closure, whereas a higher government effectiveness is associated with a more delayed implementation. The results furthermore indicate that the political survival logic that presumably drives democratic leaders' more rapid response is more dominant in the absence of a well-functioning state apparatus. In addition, auxiliary evidence suggests that factors related to demography and family systems may also help determine countries' pandemic responses and may deserve more attention in future analyses of COVID-19 interventions.

A few caveats are warranted here. First, although including up to 95 percent of all formally and/or functionally sovereign countries, the analyses leave out a few countries for which no data on COVID-19 cases are reported. Second, among countries that do report cases, the quality of the information is likely to vary in a non-random manner. This might affect the results in various ways, given the importance of the case-related variables in all models. In an attempt to assess the sensitivity of the results to this issue, I have checked that the results hold in a sensitivity analysis that assumes a three-day delay and 33 percent under-reporting of COVID-19 cases in countries that are in the bottom decile with respect to democracy and/or government effectiveness[6] (Appendix, Table 3, models G and H). Third, state capacity is a multi-dimensional concept, and it is possible that states' extractive (fiscal) or coercive capacity also influence their response strategies. To investigate this matter, a supplementary analysis adds two indicators commonly used to capture these two capacities, but finds that none of them influences the model (Appendix, Table 3, model I).

Lastly, it should be emphasized that school closure is only one among many government responses to COVID-19, and it is not clear how the patterns observed here travel to other types of more or less precautionary and disruptive measures. As more data become available—for instance through the Oxford COVID-19 Government Response Tracker (Hale and Webster 2020)—comparing different types of interventions will be a crucial research endeavor. Given that the findings

[6]This conclusion is not sensitive to the exact parameters used in these assumptions.

herein suggest that different aspects of democracy and different state capacities may be differently related to countries' pandemic response strategies, it appears crucial that future theoretical and empirical work involving these concepts makes sure to take their multi-dimensionality to heart.

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Appendix

Variables and Data

- *School Closures:* Daily data (January 27–April 7, 2020). Dichotomous variable based on the first day with ordered or advised school closures, typically set to the first working day after announcement, or the day of announcement in cases where ongoing school breaks were extended. Includes both national and sub-national measures but excludes occasional reports on spontaneous school closures ahead of government decisions (e.g., United Kingdom in late February). Measures that only pertain to universities (e.g., Nigeria on March 20) or nurseries (United Arab Emirates on March 1) are disregarded (they are in all cases shortly followed by more general school closures). See Table 4 for a list of closure dates for the 169 countries included in the analysis.

- *Democracy (V-Dem) (2019):* The Varieties of Democracy Institute's electoral democracy index, which measures to what extent the ideal of electoral democracy in its fullest sense is achieved, and measures when suffrage is extensive; political and civil society organizations can operate freely; elections are clean and not marred by fraud or systematic irregularities; and elections affect the composition of the chief executive of the country. Rescaled to 0–10. Source: Coppedge et al. (2020).

- *Government Effectiveness (WGI) (2018):* A composite measure that considers the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies. Rescaled to 0–10. Source: Worldwide Governance Indicators (Kaufmann et al. 2011), retrieved primarily from Teorell et al. (2020).

- *Democracy (Freedom House/Imputed Polity) (2019):* Scale ranges from 0-10 where 0 is least democratic and 10 most democratic. Average of Freedom House is transformed to a scale 0-10 and Polity is transformed to a scale 0-10. These variables are averaged into fh_polity2. The imputed version has imputed values for countries where data on Polity is missing by regressing Polity on the average Freedom House measure. Source: Freedom House (2019), retrieved from Teorell et al. (2020).

- *Quality of Government (ICRG) (2016):* The mean value of the ICRG variables Corruption, Law and Order and Bureaucracy Quality, scaled 0-10. Higher values indicate higher quality of government. Source: PRS Group (2019) retrieved from Teorell et al. (2020).

- *Democracy: Competition*: Portrays the electoral success of smaller parties, that is, the percentage of votes gained by the smaller parties in parliamentary and/or presidential elections. Calculated in most cases by subtracting from

100 the percentage of votes won by the largest party in parliamentary elections or by the party of the winning candidate in presidential elections. Pertains to 2018, although for seven countries, values for 2017 are used. Rescaled to 0–10. Source: Vanhanen (2019).

- *Democracy: Participation*: Portrays the voting turnout in each election, and is calculated in most cases as the percentage of the total population who actually voted in the election. In the case of indirect elections, only votes cast in the final election are taken into account. Pertains to 2018. Rescaled to 0–10. Source: Vanhanen (2019).

- *COVID-19 Cases (log):* Daily data (January 22–April 7, 2020) on confirmed cases retrieved from Johns Hopkins University (Dong et al. 2020). Computed as ln(1 + cases). Five countries had confirmed cases already before these data start on January 22—China, Japan, South Korea, Thailand and the United States. For these countries, the date of the first confirmed case is retrieved from various newspaper reports.

- *Regional Spread of COVID-19:* Based on daily data (January 22–April 7, 2020) on confirmed cases retrieved from Johns Hopkins University (Dong et al. 2020). Computed for each country and day as the proportion of countries in the region—excluding the country itself—with one or more reported cases of COVID-19. Eight regions are considered: East Asia and the Pacific, South Asia, Caucasus and Central Asia, Europe, Middle East and North Africa, Sub-Saharan Africa, and the Americas.

- *Weekend*: A dummy for days that are not working days, as listed on Wikipedia (2020). Saturday–Sunday is assumed if information is missing.

- *GDP Per Capita (log)*: Measured in in current US dollars. Source: The World Bank's World Development Indicators, retrieved primarily from Teorell et al. (2020).

- *Hospital Beds Per 1,000 People:*. Online dataset. Latest available observation based on data from the World Health Organization, supplemented by country data. Source: The World Bank's World Development Indicators.

- *Population, 0–14 (2016):* Population ages 0-14 as a percentage of the total population. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. Source: The World Bank's World Development Indicators, retrieved from Teorell et al. (2020).

- *Urbanization (2016):* Urban population (% of total population). Refers to people living in urban areas as defined by national statistical offices. The data are collected and smoothed by United Nations Population Division. Source: The World Bank's World Development Indicators, retrieved from Teorell et al. (2020).

- *Nuclear/Stem Family System*: Defined based on Rijpma and Carmichael (2016) as the proportion of a country's contemporary population whose ancestors resided in nuclear or stem families, rather than polygamous or community families, divided by 1 less the share for which data is missing. Computed using variables *v8_grp1–v8_grp9* in the etnhnographic database provided by Giuliano and Nunn (2018).

- *Taxes (% of GDP)*: Taxes including social contributions. Is intended to capture states' extractive (fiscal) capacity in model I, Table 3. Source: The ICTD/UNU-WIDER Government Revenue Dataset (ICTD/UNU-WIDER 2019), retrieved from Teorell et al. (2020).

- *Political Terror Scale*: Measures violations of physical integrity rights carried out by states or their agents. Based on the U.S. State Department Country Reports on Human Rights Practices. Ordinal variable with five scale steps. Is intended to capture states' coercive capacity in model I, Table 3. Source: Gibney et al. (2019), retrieved from Teorell et al. (2020).

Table 1: Summary statistics

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**	**N**
School Closures	0.02	0.141	0	1	7944
Democracy (V-Dem)	5.274	2.438	0.23	9	7944
Government Effectiveness (WGI)	4.967	2.236	0	10	7944
Democracy (FH/Polity)	6.431	2.986	0	10	7841
Quality of Government (ICRG)	5.261	2.134	0.833	9.722	6309
Democracy: Competition	6.524	2.978	0	10	7781
Democracy: Participation	5.484	2.406	0	10	7781
Weekend	0.271	0.445	0	1	7944
COVID-19 Cases (log)	0.649	1.374	0	8.814	7944
Regional Spread of COVID-19 (%)	28.199	29.675	0	100	7944
GDP Per Capita (log)	8.459	1.485	5.642	11.526	7944
Hospital Beds (Per 1,000 People)	2.746	2.327	0.1	13.4	7840
Population, 0-14 (%)	28.599	11.077	12.289	50.157	7775
Urbanization (%)	58.739	22.377	12.388	100	7775
Nuclear/Stem Family System	0.452	0.441	0	1	7634
Taxes (% of GDP)	21.884	10.767	1.07	50.808	7009
Political Terror Scale	2.546	1.18	1	5	7805

Table 2: Cox proportional hazards models of time to school closure (A–F).

	(A)	(B)	(C)	(D)	(E)	(F)
Democracy (V-Dem)	0.179***	0.179***				
	(0.062)	(0.070)				
Government Effectiveness (WGI)	-0.311***	-0.445***			-0.139*	-0.265**
	(0.083)	(0.121)			(0.072)	(0.114)
Democracy (FH/Polity)			0.305***	0.243**		
			(0.095)	(0.096)		
Quality of Government (ICRG)			-0.320***	-0.352***		
			(0.092)	(0.113)		
Democracy: Competition					0.122***	0.120**
					(0.046)	(0.049)
Democracy: Participation					0.002	-0.061
					(0.051)	(0.060)
East Asia & Pacific (ref.)	0.000	0.000	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)	(.)	(.)
Europe	-0.469	-0.556	-0.398	-0.622	-0.463	-0.633
	(0.427)	(0.516)	(0.455)	(0.627)	(0.386)	(0.466)
The Americas	-0.038	0.424	0.595	1.325**	0.189	0.594
	(0.359)	(0.485)	(0.403)	(0.584)	(0.329)	(0.457)
Middle East & North Africa	1.185***	1.299**	2.665***	2.891***	1.260***	1.098**
	(0.456)	(0.559)	(0.763)	(0.874)	(0.487)	(0.550)
South Asia	-0.425	-0.697	-0.222	-1.157	-0.303	-0.550
	(0.629)	(0.665)	(0.777)	(0.985)	(0.601)	(0.635)
Sub-Saharan Africa	0.436	0.664	1.175**	1.268*	0.492	0.687
	(0.425)	(0.608)	(0.552)	(0.767)	(0.425)	(0.551)
Caucasus & Central Asia	1.612***	1.297**	2.424***	1.538	1.679***	1.259**
	(0.554)	(0.628)	(0.867)	(0.961)	(0.555)	(0.597)
Weekend	-2.682***	-2.714***	-38.239***	-36.256***	-2.565**	-2.559***
	(0.900)	(0.698)	(3.748)	(0.817)	(1.135)	(0.788)
COVID-19 Cases (log)	0.370***	0.547***	0.365***	0.656***	0.317***	0.511***
	(0.098)	(0.122)	(0.121)	(0.153)	(0.101)	(0.122)
Regional Spread of COVID-19 (%)	0.035***	0.036***	0.053***	0.052***	0.030***	0.031**
	(0.011)	(0.013)	(0.012)	(0.016)	(0.010)	(0.012)
GDP Per Capita (log)		-0.060		-0.211		-0.110
		(0.227)		(0.257)		(0.228)
Hospital Beds (Per 1,000 People)		-0.030		0.075		-0.023
		(0.079)		(0.121)		(0.077)
Population, 0-14 (%)		-0.060**		-0.062**		-0.072***
		(0.027)		(0.029)		(0.027)
Urbanization (%)		-0.015		-0.022		-0.013
		(0.011)		(0.014)		(0.010)
Nuclear/Stem Family System		-1.014***		-1.412***		-1.078***
		(0.342)		(0.430)		(0.366)
Countries	167	158	134	132	162	157
Observations	7944	7568	6309	6254	7781	7561
AIC	288.071	272.603	195.487	188.947	286.360	274.136
BIC	364.853	383.510	269.734	296.803	369.874	391.959

Coefficient estimates and 95% confidence intervals from pooled Cox models of school closures between January 28 and April 7, 2020. Observations are stratified on date of first confirmed COVID-19 case. Robust standard errors in parentheses, clustered by country. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Cox proportional hazards models of time to school closure (A+–D+ and G–I).

	(A+)	(B+)	(C+)	(D+)	(G)	(H)	(I)
Democracy (V-Dem)	0.433***	0.388***			0.186***	0.177***	0.180**
	(0.111)	(0.120)			(0.063)	(0.068)	(0.078)
Government Effectiveness (WGI)	-0.018	-0.219			-0.327***	-0.426***	-0.366***
	(0.153)	(0.173)			(0.085)	(0.116)	(0.105)
Dem. (V-Dem) × Gov't Effectiveness	-0.053**	-0.044*					
	(0.021)	(0.023)					
Democracy (FH/Polity)			0.673***	0.536***			
			(0.122)	(0.129)			
Quality of Government (ICRG)			0.289	0.121			
			(0.213)	(0.193)			
Dem. (FH/Polity) × Quality of Gov't			-0.079***	-0.060***			
			(0.023)	(0.020)			
East Asia & Pacific (ref.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(.)	(.)	(.)	(.)	(.)	(.)	(.)
Europe	-0.262	-0.243	-0.195	-0.216	-0.447	-0.451	0.115
	(0.470)	(0.559)	(0.466)	(0.681)	(0.423)	(0.488)	(0.554)
The Americas	0.049	0.409	0.634	1.257**	-0.216	0.376	-0.189
	(0.382)	(0.471)	(0.387)	(0.571)	(0.383)	(0.515)	(0.421)
Middle East & North Africa	1.175**	1.243**	2.364***	2.612***	1.122**	1.246**	1.117**
	(0.463)	(0.560)	(0.722)	(0.867)	(0.454)	(0.542)	(0.513)
South Asia	-0.219	-0.538	-0.118	-1.091	-0.224	-0.431	0.054
	(0.681)	(0.688)	(0.753)	(0.976)	(0.632)	(0.649)	(0.635)
Sub-Saharan Africa	0.513	0.636	1.249**	1.051	0.327	0.559	-0.085
	(0.452)	(0.600)	(0.497)	(0.747)	(0.420)	(0.620)	(0.505)
Caucasus & Central Asia	1.516***	1.372**	2.558***	1.926*	1.457**	1.060	1.915***
	(0.579)	(0.642)	(0.922)	(1.039)	(0.592)	(0.666)	(0.649)
Weekend	-2.779**	-2.648***	-38.805	-36.811***	-2.710***	-2.772***	-2.751***
	(1.183)	(0.818)	(.)	(1.118)	(0.865)	(0.683)	(0.906)
COVID-19 Cases (log)	0.443***	0.585***	0.463***	0.707***			0.367***
	(0.099)	(0.131)	(0.120)	(0.162)			(0.103)
Regional Spread of COVID-19 (%)	0.034***	0.034***	0.052***	0.052***	0.032***	0.033***	0.019
	(0.011)	(0.013)	(0.013)	(0.016)	(0.010)	(0.013)	(0.012)
GDP Per Capita (log)		0.024		-0.244		-0.093	
		(0.222)		(0.252)		(0.212)	
Hospital Beds (Per 1,000 People)		-0.066		0.049		-0.021	
		(0.085)		(0.122)		(0.083)	
Population, 0-14 (%)		-0.055**		-0.038		-0.054**	
		(0.027)		(0.030)		(0.025)	
Urbanization (%)		-0.017		-0.017		-0.013	
		(0.011)		(0.014)		(0.011)	
Nuclear/Stem Family System		-0.975***		-1.311***		-1.127***	
		(0.332)		(0.412)		(0.360)	
Adjusted COVID-19 Cases (log)					0.341***	0.485***	
					(0.083)	(0.103)	
Taxes (% of GDP)							-0.009
							(0.017)
Political Terror Scale							-0.116
							(0.150)
Countries	167	158	134	132	167	158	146
Observations	7944	7568	6309	6254	7929	7553	6973
AIC	286.901	272.996	190.738	188.834	287.125	272.065	252.950
BIC	370.663	390.835	264.985	303.430	363.886	382.940	341.998

Coefficient estimates and 95% confidence intervals from pooled Cox models of school closures between January 28 and April 7, 2020. Observations are stratified on date of first confirmed COVID-19 case. Models A+–D+ extend models A–D in Table 2 by adding the interaction between democracy and administrative state capacity. Models G and H replicate models A and B but assumes a that for the countries in the bottom decile with respect to democracy and/or government effectiveness, COVID-19 cases are reported with a delay of three days and are 50 percent larger than reported. Model I adds indicators on fiscal and coercive state capacity from ICTD/UNU-WIDER (2019) and Gibney et al. (2019). Robust standard errors in parentheses, clustered by country.* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Data on key variables for 169 countries.

Country	**First case**	**Closure**	**Cases at closure**	**Democracy**	**Government effectiveness**
Afghanistan	Feb 24	Mar 03	1	3.5	2.5
Albania	Mar 09	Mar 09	2	4.8	5.2
Algeria	Feb 25	Mar 12	24	3.0	4.0
Angola	Mar 20	Mar 24	3	3.9	2.9
Argentina	Mar 03	Mar 16	56	8.1	5.5
Armenia	Mar 01	Mar 02	1	8.1	4.8
Australia	Jan 26	Mar 24	2044	8.4	8.6
Austria	Feb 25	Mar 16	1018	8.1	8.5
Azerbaijan	Mar 01	Mar 03	3	2.1	4.8
Bahrain	Feb 24	Feb 26	33	1.2	5.9
Bangladesh	Mar 08	Mar 16	8	2.8	3.7
Barbados	Mar 17	Mar 19	5	8.2	7.5
Belarus	Feb 28		861	2.6	4.1
Belgium	Feb 04	Mar 13	559	8.8	8.1
Benin	Mar 16	Mar 30	6	6.0	3.9
Bhutan	Mar 06	Mar 06	1	5.6	6.3
Bolivia	Mar 11	Mar 12	2	5.4	3.9
Bosnia and Herzegovina	Mar 05	Mar 11	7	5.3	4.3
Botswana	Mar 30	Mar 20	0	6.7	6.3
Brazil	Feb 26	Mar 12	52	6.7	4.8
Bulgaria	Mar 08	Mar 09	4	5.9	5.8
Burkina Faso	Mar 10	Mar 16	15	3.6	3.9
Burma	Mar 27	Mar 16	0	4.1	3.0
Burundi	Mar 31		3	1.6	2.0
Cabo Verde	Mar 20		7	8.0	5.4
Cambodia	Jan 27	Mar 08	2	2.4	3.6
Cameroon	Mar 06	Mar 18	10	2.9	3.5
Canada	Jan 26	Mar 16	415	8.7	9.1
Central African Republic	Mar 15	Mar 30	3	3.8	1.3
Chad	Mar 19	Mar 19	1	2.7	1.8
Chile	Mar 03	Mar 16	155	7.7	7.4
China	Dec 31	Jan 27	81783	0.8	5.9
Colombia	Mar 06	Mar 16	54	6.7	5.2
Congo (Brazzaville)	Mar 15	Mar 21	3	2.5	2.8
Congo (Kinshasa)	Mar 11	Mar 19	14	3.3	1.8
Costa Rica	Mar 06	Mar 16	35	8.9	5.9
Cote d'Ivoire	Mar 11	Mar 17	5	5.8	3.7
Croatia	Feb 25	Mar 13	32	6.9	6.2
Cuba	Mar 12	Mar 24	48	2.0	4.9
Cyprus	Mar 09	Mar 13	14	8.4	7.3
Czechia	Mar 01	Mar 11	91	8.0	7.4
Denmark	Feb 27	Mar 13	804	9.0	9.3
Djibouti	Mar 18	Mar 20	1	2.6	3.0
Dominican Republic	Mar 01	Mar 19	34	6.0	4.6
Ecuador	Mar 01	Mar 13	17	6.7	4.2
Egypt	Feb 14	Mar 15	110	1.9	3.7
El Salvador	Mar 19	Mar 12	0	6.3	4.5
Equatorial Guinea	Mar 15	Mar 16	1	1.8	2.1
Eritrea	Mar 21	Mar 27	6	0.7	1.4
Estonia	Feb 27	Mar 16	205	8.9	7.6
Eswatini	Mar 14	Mar 18	1	1.5	3.9

Table 4: Data on key variables for 169 countries.

Country	**First case**	**Closure**	**Cases at closure**	**Democracy**	**Government effectiveness**
Ethiopia	Mar 13	Mar 16	5	3.3	3.8
Fiji	Mar 19	Mar 20	1	4.7	4.6
Finland	Jan 29	Mar 18	336	8.7	9.2
France	Jan 24	Mar 03	204	8.8	8.2
Gabon	Mar 14	Mar 16	1	3.7	3.4
Gambia	Mar 17	Mar 18	1	5.7	3.3
Georgia	Feb 26	Mar 02	3	6.4	6.3
Germany	Jan 27	Mar 03	196	8.3	9.0
Ghana	Mar 14	Mar 16	6	7.2	4.8
Greece	Feb 26	Mar 05	31	8.6	5.7
Guatemala	Mar 14	Mar 16	2	5.9	3.8
Guinea	Mar 13	Mar 25	4	4.4	3.0
Guinea-Bissau	Mar 25	Mar 17	0	5.1	1.6
Guyana	Mar 12	Mar 16	4	6.7	4.5
Haiti	Mar 20	Mar 20	2	4.5	0.6
Honduras	Mar 11	Mar 12	2	3.6	3.6
Hong Kong	Jan 23	Feb 16	57	3.2	9.3
Hungary	Mar 04	Mar 11	13	4.8	6.2
Iceland	Feb 28	Mar 16	180	8.5	8.2
India	Jan 30	Mar 06	31	5.1	5.3
Indonesia	Mar 02	Mar 16	134	6.4	5.2
Iran	Feb 19	Feb 26	139	2.2	4.7
Iraq	Feb 24	Feb 27	7	4.0	2.4
Ireland	Feb 29	Mar 12	43	8.6	8.1
Israel	Feb 21	Mar 13	126	6.7	8.1
Italy	Jan 31	Feb 24	229	8.6	6.3
Jamaica	Mar 11	Mar 13	8	8.1	6.1
Japan	Jan 22	Mar 02	274	8.2	9.2
Jordan	Mar 03	Mar 15	8	2.8	5.5
Kazakhstan	Mar 13	Mar 16	10	2.3	5.0
Kenya	Mar 13	Mar 16	3	4.3	4.4
Korea, South	Jan 20	Mar 02	4335	8.4	7.5
Kosovo	Mar 26	Mar 12	0	6.2	4.2
Kuwait	Feb 24	Mar 01	45	3.2	4.8
Kyrgyzstan	Mar 18	Mar 16	0	3.9	3.2
Laos	Mar 24	Mar 18	0	1.2	4.3
Latvia	Mar 02	Mar 13	17	8.1	7.4
Lebanon	Feb 21	Feb 29	4	4.7	4.0
Liberia	Mar 16	Mar 16	1	6.2	2.4
Libya	Mar 24	Mar 15	0	2.5	1.0
Lithuania	Feb 28	Mar 13	6	8.0	7.5
Luxembourg	Feb 29	Mar 16	77	8.8	8.9
Madagascar	Mar 20	Mar 21	3	5.0	2.6
Malawi	Apr 02	Mar 23	0	5.0	3.6
Malaysia	Jan 25	Mar 18	790	4.7	7.1
Maldives	Mar 08	Mar 11	8	4.9	4.5
Mali	Mar 25	Mar 19	0	4.7	3.0
Malta	Mar 07	Mar 13	12	7.6	7.3
Mauritania	Mar 14	Mar 16	1	3.7	3.5
Mauritius	Mar 18	Mar 19	3	8.2	7.3
Mexico	Feb 28	Mar 23	316	7.1	5.5

Table 4: Data on key variables for 169 countries.

Country	**First case**	**Closure**	**Cases at closure**	**Democracy**	**Government effectiveness**
Moldova	Mar 08	Mar 11	3	5.9	3.8
Mongolia	Mar 10	Jan 27	15	6.8	4.9
Montenegro	Mar 17	Mar 16	0	4.5	5.4
Morocco	Mar 02	Mar 16	29	2.9	4.9
Mozambique	Mar 22	Mar 23	1	4.1	3.3
Namibia	Mar 14	Mar 16	2	7.0	5.5
Nepal	Jan 25	Mar 19	1	6.0	3.3
Netherlands	Feb 27	Mar 16	1416	8.3	9.2
New Zealand	Feb 28	Mar 24	155	8.7	9.2
Nicaragua	Mar 19		6	2.5	3.7
Niger	Mar 20	Mar 20	1	4.6	3.8
Nigeria	Feb 28	Mar 23	40	5.0	2.8
North Macedonia	Feb 26	Mar 11	7	6.3	5.4
Norway	Feb 26	Mar 12	702	8.7	9.3
Oman	Feb 24	Mar 15	22	1.9	5.6
Pakistan	Feb 26	Feb 27	2	3.5	3.7
Panama	Mar 10	Mar 12	11	7.8	5.6
Papua New Guinea	Mar 20	Mar 23	1	4.8	3.5
Paraguay	Mar 08	Mar 11	5	6.0	3.4
Peru	Mar 06	Mar 16	86	7.8	4.8
Philippines	Jan 30	Mar 10	33	4.8	5.1
Poland	Mar 04	Mar 16	177	6.9	6.7
Portugal	Mar 02	Mar 16	331	8.7	7.8
Qatar	Feb 29	Mar 10	24	0.9	6.8
Romania	Feb 26	Mar 11	45	6.8	4.8
Russia	Jan 31	Mar 16	90	2.5	4.7
Rwanda	Mar 14	Mar 16	5	2.6	5.4
Sao Tome and Principe	Apr 06	Mar 20	0	7.0	3.7
Saudi Arabia	Mar 02	Mar 09	15	0.2	5.7
Senegal	Mar 02	Mar 16	24	7.1	4.2
Serbia	Mar 06	Mar 16	55	3.6	5.3
Seychelles	Mar 14	Mar 16	3	5.6	6.0
Sierra Leone	Mar 31	Mar 31	1	6.2	2.6
Singapore	Jan 23		1481	4.0	10.0
Slovakia	Mar 06	Mar 10	7	8.1	7.1
Slovenia	Mar 05	Mar 16	253	8.0	7.6
Somalia	Mar 16	Mar 18	1	1.6	0.4
South Africa	Mar 05	Mar 18	116	6.8	5.8
South Sudan	Apr 05	Mar 20	0	1.8	0.0
Spain	Feb 01	Mar 11	2277	8.8	7.6
Sri Lanka	Jan 27	Mar 13	6	6.1	5.1
Sudan	Mar 13	Mar 15	1	2.1	1.8
Suriname	Mar 14	Mar 16	1	7.4	4.4
Sweden	Jan 31	Mar 18	1279	8.7	9.1
Switzerland	Feb 25	Mar 16	2200	8.7	9.6
Syria	Mar 22	Mar 15	0	1.4	1.2
Taiwan	Jan 22	Feb 02	10	8.1	8.1
Tanzania	Mar 16	Mar 18	3	4.3	4.0
Thailand	Jan 13	Mar 18	212	1.7	5.9
Timor-Leste	Mar 22	Mar 23	1	7.5	2.9
Togo	Mar 06	Mar 20	9	3.6	2.8

Table 4: Data on key variables for 169 countries.

Country	**First case**	**Closure**	**Cases at closure**	**Democracy**	**Government effectiveness**
Trinidad and Tobago	Mar 14	Mar 14	2	7.4	5.7
Tunisia	Mar 04	Mar 12	7	7.2	4.7
Turkey	Mar 11	Mar 16	18	2.9	5.3
Uganda	Mar 21	Mar 20	0	3.1	3.9
Ukraine	Mar 03	Mar 06	1	4.7	3.9
United Arab Emirates	Jan 29	Mar 08	45	1.0	8.3
United Kingdom	Jan 31	Mar 23	6726	8.6	8.7
United States	Jan 20	Mar 03	118	8.0	8.4
Uruguay	Mar 14	Mar 15	4	8.6	6.4
Uzbekistan	Mar 15	Mar 16	6	2.1	3.9
Venezuela	Mar 14	Mar 16	17	2.3	2.3
Vietnam	Jan 23	Feb 03	8	2.2	5.2
West Bank and Gaza	Mar 05	Mar 05	4	2.8	3.5
Yemen	Jan 22	Mar 15	0	1.2	1.2
Zambia	Mar 18	Mar 20	2	3.7	3.7
Zimbabwe	Mar 20	Mar 24	3	2.9	2.6

Sources:
First case: Dong et al. (2020), except for China, Japan, South Korea, Thailand and United States, for which the date is retrieved from newspaper reports.
Closure: Based primarily on UNESCO (2020) and Hale and Webster (2020). In cases where the two sources disagree, an independent opinion has been formed based on the original sources and various newspaper reports.
Cases at closure: Dong et al. (2020).
Democracy (2019): Coppedge et al. (2020).
Government effectiveness (2018): Kaufmann et al. (2011).