

Federal Institutions and Strategic Policy Responses to COVID-19

Pandemic:

Supplementary Information

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S1. Categories included in PPI

Category	Var_name	Values	Max. value in category	Weight in index, %
1. International and domestic air borders closure	air_bord	All air borders are closed (3)	3	7.5
		All international air borders are closed (2)		
		Air borders with select countries are closed (1)		
		All air borders are open (0)		
2. International and domestic land borders closure	land_bord	All land borders are closed (3)	3	7.5
		All international land borders are closed (2)		
		Land borders with select countries are closed (1)		
		All land borders are open (0)		
3. International and domestic sea borders closure	sea_bord	All sea borders are closed (3)	3	7.5
		All international sea borders are closed (2)		
		Sea borders with select countries are closed (1)		
		All sea borders are open (0)		
4. Limits on size of social gatherings	soc_gath	All social gatherings are prohibited (4)	4	10
		Social gatherings of 10 and more people are prohibited (3)		
		Social gatherings of 50 and more people are prohibited (2)		
		Social gatherings of 100 and more people are prohibited (1)		
		Social gatherings are not restricted (0)		
5. Closing of schools	schools	Full closure of K12 schools (4)	4	10
		Partial closure of K12 schools (2)		
		K12 schools are not required to close (0)		
	emerg	State of emergency (3)	3	7.5

6. State of emergency		No state of emergency (0)		
7. Closure of entertainment venues /stadiums	venues	Closure of entertainment venues /stadiums (1)	1	2.5
		Entertainment venues /stadiums are not required to close (0)		
8. Closure of restaurants	restrts	Restaurants are closed except for take-out and delivery (2)	2	5
		The operation of restaurants is not restricted (0)		
9. Closure of non-essential businesses	ne_busn	Non-essential businesses are required to close (2)	2	5
		The operation of non-essential businesses is not restricted (0)		
10. Closure of government offices	gov_offs	Government offices are closed for public (2)	2	5
		Government offices are open (0)		
11. Working from home requirement for businesses/org anizations	wfh	Working from home requirement (1)	1	2.5
		No working from home requirement (0)		
12. Personal mobility restrictions	ind_mob	Residents require a pass to leave home (5)	5	12.5
		Residents are to stay at home except for essential needs (4)		
		Curfew (1)		
		No restrictions on leaving home (0)		
13. Self-isolation and/or quarantine requirements	med_stay	Mandatory quarantine for specific categories of residents (3)	2	5
		Quarantine is advised for specific categories of residents (1)		
		No policies require quarantine (0)		
14. Public transportation closures	publ_tr	Public transportation is closed (2)	2	5
		The operation of public transportation is not restricted (0)		

15. Mandatory wearing of PPE/ masks	masks	Wearing of masks and other PPE is required (2)	3	7.5
		Wearing of masks and other PPE is not required (0)		
Total			40	100

S2. List of countries

#	Country	Federal
1	Algeria	
2	Argentina	Y
3	Australia	Y
4	Austria	Y
5	Bangladesh	
6	Belgium	Y
7	Bhutan	
8	Bolivia	
9	Brazil	Y
10	Canada	Y
11	Chile	
12	Colombia	
13	Costa Rica	
14	Croatia	
15	Czech Republic	
16	Denmark	
17	Ecuador	
18	Egypt	
19	El Salvador	
20	Finland	
21	France	
22	Germany	Y
23	Guatemala	
24	Honduras	
25	Hungary	
26	India	Y
27	Indonesia	Y
28	Ireland	
29	Israel	
30	Italy	
31	Japan	
32	Jordan	

33	Kenya	
34	Kuwait	
35	Lebanon	
36	Malaysia	Y
37	Mexico	Y
38	Montenegro	
39	Myanmar	
40	Nepal	Y
41	Netherlands	
42	New Zealand	
43	Nicaragua	
44	Nigeria	Y
45	Norway	
46	Oman	
47	Pakistan	Y
48	Panama	
49	Paraguay	
50	Peru	
51	Philippines	
52	Poland	
53	Portugal	
54	Qatar	
55	Romania	
56	Russia	Y
57	Saudi Arabia	Y
58	South Africa	
59	South Korea	
60	Spain	
61	Sri Lanka	
62	Sweden	
63	Switzerland	Y
64	Taiwan	
65	Thailand	
66	Turkey	
67	United Arab Emirates	
68	United Kingdom	
69	United States	Y
70	Uruguay	
71	Venezuela	Y
72	Vietnam	
73	Yemen	

S3. List of included regions by federations

Canada

CA-AB Alberta

CA-BC British Columbia

CA-MB Manitoba

CA-NB New Brunswick

CA-NL Newfoundland and Labrador

CA-NS Nova Scotia

CA-ON Ontario

CA-PE Prince Edward Island

CA-QC Quebec

CA-SK Saskatchewan

Germany

DE-BB Brandenburg

DE-BE Berlin

DE-BW Baden-Wurttemberg

DE-BY Bayern

DE-HB Bremen

DE-HE Hessen

DE-HH Hamburg

DE-MV Mecklenburg-Vorpommern

DE-NI Niedersachsen

DE-NW Nordrhein-Westfalen

DE-RP Rheinland-Pfalz

DE-SH Schleswig-Holstein

DE-SL Saarland

DE-SN Sachsen

DE-ST Sachsen-Anhalt

DE-TH Thuringen

Argentina

AR-A Salta

AR-B Buenos Aires

AR-C Ciudad Autonoma de Buenos Aires

AR-D San Luis

AR-E Entre Rios

AR-F La Rioja

AR-G Santiago del Estero

AR-H Chaco

AR-J San Juan

AR-K Catamarca

AR-L La Pampa

AR-M Mendoza

AR-N Misiones

AR-P Formosa

AR-Q Neuquen

AR-R Rio Negro

AR-S Santa Fe

AR-T Tucuman

AR-U Chubut

AR-V Tierra del Fuego

AR-W Corrientes

AR-X Cordoba

AR-Y Jujuy

AR-Z Santa Cruz

India

IN-AN Andaman and Nicobar Islands

IN-AP Andhra Pradesh

IN-AR Arunachal Pradesh

IN-AS Assam

IN-BR Bihar

IN-CH Chandigarh

IN-CT Chhattisgarh

IN-DH Daman and Diu and Dadra and Nagar Haveli

IN-DL Delhi

IN-GA Goa

IN-GJ Gujarat

IN-HP Himachal Pradesh

IN-HR Haryana

IN-JH Jharkhand

IN-JK Jammu and Kashmir

IN-KA Karnataka

IN-KL Kerala

IN-LA Ladakh

IN-LD Lakshadweep

IN-MH Maharashtra

IN-ML Meghalaya

IN-MN Manipur

IN-MP Madhya Pradesh

IN-MZ Mizoram

IN-NL Nagaland

IN-OR Odisha

IN-PB Punjab

IN-PY Puducherry

IN-RJ Rajasthan

IN-SK Sikkim

IN-TG Telangana

IN-TN Tamil Nadu

IN-TR Tripura

IN-UP Uttar Pradesh

IN-UT Uttarakhand

IN-WB West Bengal

Australia

AU-ACT Australian Capital Territory

AU-NSW New South Wales

AU-NT Northern Territory

AU-QLD Queensland

AU-SA South Australia

AU-TAS Tasmania

AU-VIC Victoria

AU-WA Western Australia

Indonesia

ID-AC Aceh

ID-BA Bali

ID-BB Kepulauan Bangka Belitung

ID-BE Bengkulu

ID-BT Banten

ID-GO Gorontalo

ID-JA Jambi

ID-JB Jawa Barat

ID-JI Jawa Timur

ID-JK Jakarta Raya

ID-JT Jawa Tengah

ID-KB Kalimantan Barat

ID-KI Kalimantan Timur

ID-KR Kepulauan Riau

ID-KS Kalimantan Selatan
ID-KT Kalimantan Tengah
ID-KU Kalimantan Utara
ID-LA Lampung
ID-MA Maluku
ID-MU Maluku Utara
ID-NB Nusa Tenggara Barat
ID-NT Nusa Tenggara Timur
ID-PA Papua
ID-PB Papua Barat
ID-RI Riau
ID-SA Sulawesi Utara
ID-SB Sumatera Barat
ID-SG Sulawesi Tenggara
ID-SN Sulawesi Selatan
ID-SR Sulawesi Barat
ID-SS Sumatera Selatan
ID-ST Sulawesi Tengah
ID-SU Sumatera Utara
ID-YO Yogyakarta

Austria

AT-1 Burgenland
AT-2 Karnten

AT-3 Niederosterreich

AT-4 Oberosterreich

AT-5 Salzburg

AT-6 Steiermark

AT-7 Tirol

AT-8 Vorarlberg

AT-9 Wien

Malaysia

MY-01 Johor

MY-02 Kedah

MY-03 Kelantan

MY-04 Melaka

MY-05 Negeri Sembilan

MY-06 Pahang

MY-07 Pulau Pinang

MY-08 Perak

MY-09 Perlis

MY-10 Selangor

MY-11 Terengganu

MY-12 Sabah

MY-13 Sarawak

MY-14 Wilayah Persekutuan Kuala Lumpur

MY-15 Wilayah Persekutuan Labuan

MY-16 Wilayah Persekutuan Putrajaya

Mexico

MX-AGU Aguascalientes

MX-BCN Baja California

MX-BCS Baja California Sur

MX-CAM Campeche

MX-CHH Chihuahua

MX-CHP Chiapas

MX-CMX Ciudad de Mexico

MX-COA Coahuila de Zaragoza

MX-COL Colima

MX-DUR Durango

MX-GRO Guerrero

MX-GUA Guanajuato

MX-HID Hidalgo

MX-JAL Jalisco

MX-MEX Mexico

MX-MIC Michoacan de Ocampo

MX-MOR Morelos

MX-NAY Nayarit

MX-NLE Nuevo Leon

MX-OAX Oaxaca

MX-PUE Puebla

MX-QUE Queretaro

MX-ROO Quintana Roo

MX-SIN Sinaloa

MX-SLP San Luis Potosi

MX-SON Sonora

MX-TAB Tabasco

MX-TAM Tamaulipas

MX-TLA Tlaxcala

MX-VER Veracruz de Ignacio de la Llave

MX-YUC Yucatan

MX-ZAC Zacatecas

Nepal

NP-P1 Province 1

NP-P2 Province 2

NP-P3 Province 3

NP-P4 Gandaki

NP-P5 Province 5

NP-P6 Karnali

NP-P7 Province 7

Belgium

BE-BRU Bruxelles-Capitale, Region de

BE-VLG Vlaams Gewest

BE-WAL Wallonne, Region

Nigeria

NG-AB Abia

NG-AD Adamawa

NG-AK Akwa Ibom

NG-AN Anambra

NG-BA Bauchi

NG-BE Benue

NG-BO Borno

NG-BY Bayelsa

NG-CR Cross River

NG-DE Delta

NG-EB Ebonyi

NG-ED Edo

NG-EK Ekiti

NG-EN Enugu

NG-FC Abuja Federal Capital Territory

NG-GO Gombe

NG-IM Imo

NG-JI Jigawa

NG-KD Kaduna

NG-KE Kebbi

NG-KN Kano

NG-KO Kogi

NG-KT Katsina

NG-KW Kwara

NG-LA Lagos

NG-NA Nasarawa

NG-NI Niger

NG-OG Ogun

NG-ON Ondo

NG-OS Osun

NG-OY Oyo

NG-PL Plateau

NG-RI Rivers

NG-SO Sokoto

NG-TA Taraba

NG-YO Yobe

NG-ZA Zamfara

Pakistan

PK-BA Balochistan

PK-GB Gilgit-Baltistan

PK-IS Islamabad

PK-JK Azad Jammu and Kashmir

PK-KP Khyber Pakhtunkhwa

PK-PB Punjab

PK-SD Sindh

Russia

RU-AD Adygeya, Respublika

RU-AL Altay, Respublika

RU-ALT Altayskiy kray

RU-AMU Amurskaya oblast'

RU-ARK Arkhangel'skaya oblast'

RU-AST Astrakhanskaya oblast'

RU-BA Bashkortostan, Respublika

RU-BEL Belgorodskaya oblast'

RU-BRY Bryanskaya oblast'

RU-BU Buryatiya, Respublika

RU-CE Chechenskaya Respublika

RU-CHE Chelyabinskaya oblast'

RU-CHU Chukotskiy avtonomnyy okrug

RU-CU Chuvashskaya Respublika

RU-DA Dagestan, Respublika

RU-IN Ingushetiya, Respublika

RU-IRK Irkutskaya oblast'

RU-IVA Ivanovskaya oblast'

RU-KAM Kamchatskiy kray

RU-KB Kabardino-Balkarskaya Respublika

RU-KC Karachayevo-Cherkesskaya Respublika

RU-KDA Krasnodarskiy kray

RU-KEM Kemerovskaya oblast'
RU-KGD Kaliningradskaya oblast'
RU-KGN Kurganskaya oblast'
RU-KHA Khabarovskiy kray
RU-KHM Khanty-Mansiyskiy avtonomnyy okrug
RU-KIR Kirovskaya oblast'
RU-KK Khakasiya, Respublika
RU-KL Kalmykiya, Respublika
RU-KLU Kaluzhskaya oblast'
RU-KO Komi, Respublika
RU-KOS Kostromskaya oblast'
RU-KR Kareliya, Respublika
RU-KRS Kurskaya oblast'
RU-KRY Krym, Respublika
RU-KYA Krasnoyarskiy kray
RU-LEN Leningradskaya oblast'
RU-LIP Lipetskaya oblast'
RU-MAG Magadanskaya oblast'
RU-ME Mariy El, Respublika
RU-MO Mordoviya, Respublika
RU-MOS Moskovskaya oblast'
RU-MOW Moscow
RU-MUR Murmanskaya oblast'

RU-NEN Nenetskiy avtonomnyy okrug

RU-NGR Novgorodskaya oblast'

RU-NIZ Nizhegorodskaya oblast'

RU-NVS Novosibirskaya oblast'

RU-OMS Omskaya oblast'

RU-ORE Orenburgskaya oblast'

RU-ORL Orlovskaya oblast'

RU-PER Permskiy kray

RU-PNZ Penzenskaya oblast'

RU-PRI Primorskiy kray

RU-PSK Pskovskaya oblast'

RU-ROS Rostovskaya oblast'

RU-RYA Ryazanskaya oblast'

RU-SA Saha, Respublika

RU-SAK Sakhalinskaya oblast'

RU-SAM Samarskaya oblast'

RU-SAR Saratovskaya oblast'

RU-SE Severnaya Osetiya, Respublika

RU-SEV Sevastopol

RU-SMO Smolenskaya oblast'

RU-SPE Sankt-Peterburg

RU-STA Stavropol'skiy kray

RU-SVE Sverdlovskaya oblast'

RU-TA Tatarstan, Respublika

RU-TAM Tambovskaya oblast'

RU-TOM Tomskaya oblast'

RU-TUL Tul'skaya oblast'

RU-TVE Tverskaya oblast'

RU-TY Tyva, Respublika

RU-TYU Tyumenskaya oblast'

RU-UD Udmurtskaya Respublika

RU-ULY Ul'yanovskaya oblast'

RU-VGG Volgogradskaya oblast'

RU-VLA Vladimirskaya oblast'

RU-VLG Vologodskaya oblast'

RU-VOR Voronezhskaya oblast'

RU-YAN Yamalo-Nenetskiy avtonomnyy okrug

RU-YAR Yaroslavskaya oblast'

RU-YEV Yevreyskaya avtonomnaya oblast'

RU-ZAB Zabaykal'skiy kray

South Africa

ZA-EC Eastern Cape

ZA-FS Free State

ZA-GP Gauteng

ZA-KZN Kwazulu-Natal

ZA-LP Limpopo

ZA-MP Mpumalanga

ZA-NC Northern Cape

ZA-NW North-West

ZA-WC Western Cape

Switzerland

CH-AG Aargau

CH-AI Appenzell Innerrhoden

CH-AR Appenzell Ausserrhoden

CH-BE Bern

CH-BL Basel-Landschaft

CH-BS Basel-Stadt

CH-FR Freiburg

CH-GE Geneve

CH-GL Glarus

CH-GR Grisons

CH-JU Jura

CH-LU Luzern

CH-NE Neuchatel

CH-NW Nidwalden

CH-OW Obwalden

CH-SG Sankt Gallen

CH-SH Schaffhausen

CH-SO Solothurn

CH-SZ Schwyz

CH-TG Thurgau

CH-TI Ticino

CH-UR Uri

CH-VD Vaud

CH-VS Wallis

CH-ZG Zug

CH-ZH Zurich

Brazil

BR-AC Acre

BR-AL Alagoas

BR-AM Amazonas

BR-AP Amapa

BR-BA Bahia

BR-CE Ceara

BR-DF Distrito Federal

BR-ES Espirito Santo

BR-GO Goias

BR-MA Maranhao

BR-MG Minas Gerais

BR-MS Mato Grosso do Sul

BR-MT Mato Grosso

BR-PA Para

BR-PB Paraiba

BR-PE Pernambuco

BR-PI Piaui

BR-PR Parana

BR-RJ Rio de Janeiro

BR-RN Rio Grande do Norte

BR-RO Rondonia

BR-RR Roraima

BR-RS Rio Grande do Sul

BR-SC Santa Catarina

BR-SE Sergipe

BR-SP Sao Paulo

BR-TO Tocantins

United States

US-AK Alaska

US-AL Alabama

US-AR Arkansas

US-AZ Arizona

US-CA California

US-CO Colorado

US-CT Connecticut

US-DE Delaware

US-FL Florida

US-GA Georgia
US-HI Hawaii
US-IA Iowa
US-ID Idaho
US-IL Illinois
US-IN Indiana
US-KS Kansas
US-KY Kentucky
US-LA Louisiana
US-MA Massachusetts
US-MD Maryland
US-ME Maine
US-MI Michigan
US-MN Minnesota
US-MO Missouri
US-MS Mississippi
US-MT Montana
US-NC North Carolina
US-ND North Dakota
US-NE Nebraska
US-NH New Hampshire
US-NJ New Jersey
US-NM New Mexico

US-NV Nevada

US-NY New York

US-OH Ohio

US-OK Oklahoma

US-OR Oregon

US-PA Pennsylvania

US-RI Rhode Island

US-SC South Carolina

US-SD South Dakota

US-TN Tennessee

US-TX Texas

US-UT Utah

US-VA Virginia

US-VT Vermont

US-WA Washington

US-WI Wisconsin

US-WV West Virginia

US-WY Wyoming

Venezuela

VE-A Distrito Capital

VE-B Anzoategui

VE-C Apure

VE-D Aragua

VE-E Barinas
VE-F Bolivar
VE-G Carabobo
VE-H Cojedes
VE-I Falcon
VE-J Guarico
VE-K Lara
VE-L Merida
VE-M Miranda
VE-N Monagas
VE-O Nueva Esparta
VE-P Portuguesa
VE-R Sucre
VE-S Tachira
VE-T Trujillo
VE-U Yaracuy
VE-V Zulia
VE-W Dependencias Federales
VE-X Vargas
VE-Y Delta Amacuro
VE-Z Amazonas

S4. Electoral timing, diffusion of accountability, and partisanship variables

Institutions affecting short-term electoral risks to the federal executive

Federation	Months to next scheduled election of the federal executive*	Type of government (1 for presidential)	Number of parties in the federal executive	Effective number of legislative parties
United States	7	1	1	2.0
Germany	18	0	2	5.6
Nepal	20	0	1	1.5
Australia	29	0	3	3.2
Brazil	30	1	1	10.4
Nigeria	34	1	1	2.1
Malaysia	41	0	4	6.9
Argentina	42	1	1	2.3
Canada	42	0	1	2.8
Pakistan	42	0	6	3.6
Switzerland	42	0	4	5.8
Austria	44	0	2	3.9
South Africa	44	0	1	2.6
Venezuela	44	1	1	1.8
Russia	47	1	1	1.7
India	48	0	5	3
Indonesia	48	1	1	7.5
Belgium	49	0	3	9.7
Mexico	51	1	1	4.7

Note: *presidential if available, otherwise parliamentary

S5. Exploring the role of partisanship of the federal executive

Table S5.1 Parties of Prime Minister or President on March 15 2020 on the Left-Right

Economic Dimension

		Party name	Economic scale from 1 (Left) to 6 (Right)
1	Argentina	Frente Justicialista-Justicialist [Peronist] Party	2
2	Australia	Liberal Party of Australia	4
3	Austria	Austrian People's Party	4
4	Belgium	Reformist Movement	4
5	Brazil	Social Liberal Party	5
6	Canada	Liberal Party of Canada	2
7	Germany	Christian Democratic Union	4
8	India	Indian People's Party	5
9	Indonesia	Indonesian Democratic Party of Struggle	2
10	Malaysia	Malaysian United Indigenous Party	2
11	Mexico	National Regeneration Movement	1
12	Nepal	Communist Party of Nepal (Unified Marxist–Leninist)	3
13	Nigeria	All Progressives Congress	2
14	Pakistan	Pakistan Movement for Justice	4
15	Russia	United Russia	3
16	South Africa	African National Congress	2
17	Venezuela	United Socialist Party of Venezuela	1
18	USA	Republican Party	5

Note: Switzerland is not included because of its institution of multi-party presidency

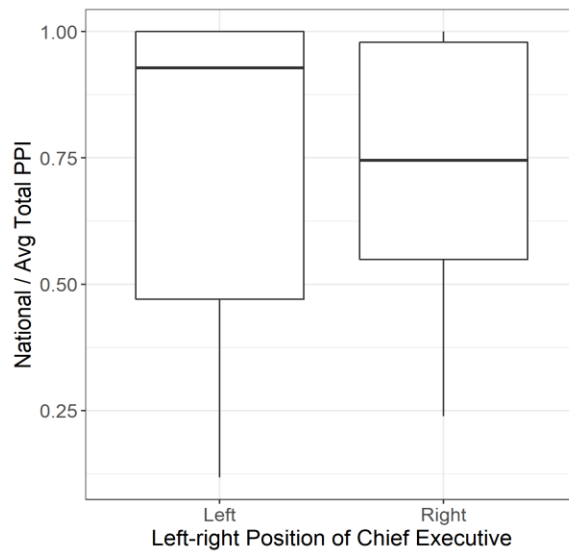
Source: Computed for 2020 by the authors based on Lührmann et al. 2020; varname:
[v2pariglef]

Partisanship of the national incumbent might influence her accountability for health versus disruption because of the preferences of her partisan core constituencies. Figure A3.1 roughly explores this potential influence on the national role in total COVID-19 mitigation policy stringency. It reports distributions of National to Total Average PPIs given the bloc-partisanship of the head of the executive (a president or a prime-minister). Here we use the head of the executive's individual party affiliation as a measure of the policy-maker's partisanship. There are other actors in government of course. Our approach reflects the preponderance of policy measures of executive origin in COVID onset period. While some of the policies were attributable to the legislative and judicial branches and to professional bureaucracy, those were much fewer and/or specific to only a few countries (see Adeel et al. 2020). Limited sample size forces us to focus on what was likely the most pertinent partisanship influence.

We use the block partisanship approach (parties grouped in binary blocks as defined by Bartolini and Mair 2007), for the same reason of the sample size being so limited. We identify the block partisanship of the head of the executive from the party position on the left-right economic cleavage, as coded by us for April 1 2020 using the methodology in Lührmann et al. (2020). For the binary block partisanship measure, we code parties scoring from 1 to 3 on the six-point economic scale as Left, and from 4 to 6 – as Right.¹ The sample splits almost evenly, with 10 national incumbents in Left block, and 8 in the Right. Switzerland is not included in Figure A3.1, because of its institution of multiparty national presidency.

¹ This economic policy coding roughly corresponds to the main for Bartolini and Mair (2007 p. 46), class cleavage conceptualization of party blocks for Europe.

Figure S5.1 Block Partisanship of the Head of the Executive and the Box-plot of the Ratio of Federal to Average Total PPI



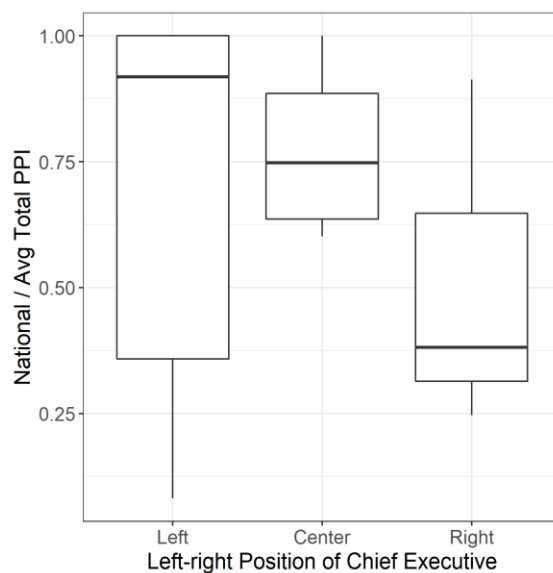
Note: Excludes Switzerland

While Figure A4.1 is by no means a definitive answer, the evidence suggests that Left incumbents involved national governments in the painful COVID-19 mitigation policy making to a much larger degree than did their Right counterparts. Figure A3.1 further explores this query, by splitting heads on national executives into three groups: Left (1-2), Center (3-4) and Right (5-6). The indications of increasing federal involvement when moving left on the political spectrum only strengthens further, offering promising possibilities for future research on a larger sample.

Partisanship matters for the health accountability, too, but only when people do know who to blame. Malhotra and Kuo (2008) find that, even though “partisan cues cause individuals to blame officials of the opposite party, but citizens make more principled judgments when provided with information about officials’ responsibilities.” Our operationalization of duty to safeguard public health across levels of government, as described in the following section could be combined, in future research, with more refined partisanship data, to explore the impact of

party congruence between the levels on the incumbents ability to coordinate in who leads on policy-making, as well as the role of the opposition and cross-bloc coalitions in increasing crisis response effectiveness.

Figure S5.2 Tri-Block Partisanship of the Head of the Executive and the Box-plot of the ratio of Federal to Average Total PPI



S6. Operationalizing the balance of accountability for health on the basis of the decision space methodology

Where decision space methodology produces complex multidimensional characterizations of the institutions of health, we are looking for a linear typology, so to collapse decision space framework onto the dimensions of the duty of care and the magnitude of involvement. We operationalize our first variable, which in a broader sample is labeled the duty-of care, is based on two input variables, each in turn a compound indicator mapped from the decision-space matrix. The first is *primary care government level* (does not vary in our current

sample and thus omitted in the discussion). The second is *Federal Government's Accountability for Health*. Both are coded from the decision-space indicators listed in Table S6.1.

Dominant level /decisive role for public primary care provision from among governments: dominant_level of provision is the process variable capturing where most of the observed government participation in actual health delivery takes place -- the level of government most visibly responsible for the government primary health care provision. This indicator does not vary in our federal sample – federal level is not dominant in any of our included cases. We nonetheless report this variable here because the variation is present in the full global sample and the indicator thus needs to be included in subsequent research.

Federal constitution takes responsibility for health: coded as Y (for “yes”), if the constitution mentions health as a right and/or explicitly gives the federal government any responsibility for health. Note that the Australian constitution does explicitly give the responsibility for health, but to state governments.

Federal role in all government only financing of health: This variable is coded as H (for high) if federal level bears over 50 percent of all government health care expenses. Again, social schemes and compulsory insurance schemes are not included, even though they are customarily recorded in the “public” financing category in the data sources. This is driven by the theoretical conceptualization: sickness funds’ performance is not blamed on the political incumbents short to medium term agency other than via legislative and regulatory oversight.

Government role in health care: Unlike the customary “public” sector indicators, we are identifying ONLY government funding based on government-received fiscal revenue (i.e., excludes Medicare tax in the US). Social schemes and compulsory insurance schemes are not included, even where they are funded via direct payroll deductions. This distinction is theory-

driven, since our focus is on incumbents' incentives to abstain or engage in public health policy-making due to their direct individual accountability. Elected politicians do not have immediate agency in the operation of social schemes and compulsory insurance. While they are indirectly connected to those via legislative and regulatory oversight, this connection is distant.

Government share indicator takes the value of H when total (from all levels of government share of spending on health exceeds 45 percent, L when it is below 45 percent.

Table S6.1. Decision space indicators with implications for incumbents' long term accountability for the outcome of the pandemic

	Federal constitution takes responsibility for health	Share of federal government in all government financing of health	Dominant level/decisive role for public primary care <u>provision</u>	<u>Government role</u> / share of funding of health care
Argentina**	Y	Low	Provinces	High
Australia**	No***	High	States/ local	High
Austria**	Y	Low	Lander	Low
Belgium**	Y	Low	Local	Low
Brazil*	Y	Low	Municipal	High
Canada*	No	Low	Provinces	High
Germany*	No	High	Lander	Low
India**	Y	Low	States	Low
Indonesia**	Y	Low	Provincial and municipal	Low
Malaysia**	Y	High	States	High
Mexico*	Y	High	States	High
Nepal**	Y	High	State and municipal	Low
Nigeria*	Y	High	Subnational	Low
Pakistan*	No	Low	Provinces	Low
Russia**	Y	Low	Regions	High
South Africa*	Y	High	Provinces	High
Switzerland*	N	Low	Cantons or below	Low
Venezuela***	Y	Low	subnational	Low
USA**	No	High	States	Low

Note: Government role coding of funding of health care in the US includes Medicaid but excludes Medicare.

*Sources: from Marchildon, G.P. and Bossert, T.J. eds., 2018. *Federalism and decentralization in health care: a decision space approach*. University of Toronto Press.

**Sources: Coded by us according to Marchildon, G.P. and Bossert, T.J. eds., 2018. *Federalism and decentralization in health care: a decision space approach*. University of Toronto Press and Bossert, T.J., 2014. Empirical studies of an approach to decentralization: "decision space" in decentralized health systems. *Public Adm Dev*, 26(4), pp.303-315. For countries: Argentina: "Government . . ." 2018; "Argentina . . ." 2019; Palacios et al (2020);

Austria: Bachner et al. (2018); Belgium: Gerkens and Merkur (2010), Schokkaert et al (2011); India: Balarajan (2011); Gupta 2020, Seshadri et al. (2016), Singh (2008); Indonesia: Miharti et al. (2016) Rakmawati et al (2019), Sparrow et al. (2017), Suryanto et al. (2016); Malaysia: Chee (2008), Chua and Cheah (2012), Robinson et al. (2020); Nigeria: Anifalaje (2009); Venezuela: Daryanani (2017); Russia: Danishevski et al. 2006, Marten et al. 2014, Popovich et al. 2011.

*** Federal Constitution in Australia not only does not assign the National government the responsibility for health, but it specifically assigns that responsibility to States.

Figure S6.1 shows the construction of the *Federal Government's Accountability for Health* variable used in the main analysis and breaks down our sample accordingly.

Constitutional assignment to federal together with *financial role of federal* determines the placement of a federation in one of the four categories on this dimension capturing the duty of care of the federal level of government.

Figure S6.1. *Federal Government's Accountability for Health*

		<i>Constitutional assignment (to federal)</i>	
		Yes	No
<i>Federal role in government health financing</i>	high	Malaysia Mexico Nepal Nigeria South Africa	Australia Germany United States
	low	Argentina Austria Belgium Brazil India Indonesia Russia Venezuela	Canada Pakistan Switzerland

Values for *Federal Government's Accountability for Health* are further recorded according to the following scheme:

The top-left quadrant (in green) is high likelihood of *Federal Government's Accountability for Health*; the bottom-left quadrant (in blue) is medium-high; the top-right quadrant (in yellow), is medium-low, reflecting our premise that constitutional mandate is of

greater consequence for the voters' perception of the duty of the federal government in health than the fiscal transfers from it to subnational governments; the bottom right quadrant (in gray) is where the likelihood of *Federal Government's Accountability for Health* is Low. These values of likelihood of *Federal Government's Accountability for Health* are subsequently reflected in Figure 9 in the essay as column headings.