Online Appendix: Civil Liberties in Times of Crisis

by

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A Appendix Tables

Appendix Table A.1: Summary statistics
(longitudinal survey)

Panel A

	All N=534,657		Australia N=41,551		Canada N=41,499		France N=41,868		Germany N=41,725		India N=41,714		Italy N=41,869	
	Mean (1)	SD (2)	Mean (3)	SD (4)	Mean (5)	SD (6)	Mean (7)	SD (8)	Mean (9)	SD (10)	Mean (11)	SD (12)	Mean (13)	SD (14)
Male	0.502	0.500	0.503	0.500	0.502	0.500	0.500	0.500	0.501	0.500	0.509	0.500	0.500	0.500
Age	45.816	16.639	46.192	16.774	47.300	16.614	47.292	16.770	49.366	16.310	38.243	14.575	40.715	15.296
Employed	0.624	0.484	0.601	0.490	0.584	0.493	0.561	0.496	0.582	0.493	0.835	0.371	0.612	0.487
Unemployed	0.074	0.262	0.086	0.280	0.066	0.248	0.071	0.257	0.044	0.205	0.031	0.175	0.097	0.296
Out of Labor Force/Other	0.302	0.459	0.313	0.464	0.350	0.477	0.368	0.482	0.374	0.484	0.133	0.340	0.292	0.455
College Diploma	0.439	0.496	0.561	0.496	0.421	0.494	0.345	0.475	0.263	0.440	0.705	0.456	0.369	0.483
Income: Bottom 25th Percentile	0.406	0.491	0.319	0.466	0.360	0.480	0.610	0.488	0.492	0.500	0.282	0.450	0.639	0.480
Income: 25th to 50th Percentile	0.186	0.389	0.217	0.413	0.216	0.412	0.000	0.000	0.207	0.405	0.314	0.464	0.000	0.000
Income: 50th to 75th Percentile	0.226	0.418	0.336	0.472	0.176	0.381	0.216	0.411	0.138	0.345	0.206	0.405	0.188	0.391
Income: Top 25th Percentile	0.182	0.386	0.127	0.333	0.248	0.432	0.175	0.380	0.164	0.370	0.197	0.398	0.173	0.378

Panel B

	Japan N=41,714		Netherlands N=41,675		Singapore N=41,742		Spain N=41,898		Sweden N=34,487		U.K. N=42,265		U.S. N=40,650	
Male	0.501	0.500	0.500	0.500	0.501	0.500	0.500	0.500	0.501	0.500	0.502	0.500	0.506	0.500
Age	50.744	16.813	47.804	16.644	39.941	14.373	46.816	15.940	47.387	17.608	47.223	16.722	46.884	16.569
Employed	0.590	0.492	0.578	0.494	0.809	0.393	0.611	0.487	0.536	0.499	0.610	0.488	0.584	0.493
Unemployed	0.139	0.346	0.059	0.235	0.045	0.207	0.090	0.286	0.085	0.279	0.068	0.251	0.088	0.284
Out of Labor Force/Other	0.271	0.444	0.363	0.481	0.146	0.353	0.299	0.458	0.379	0.485	0.323	0.468	0.328	0.469
College Diploma	0.525	0.499	0.174	0.379	0.550	0.498	0.520	0.500	0.371	0.483	0.401	0.490	0.503	0.500
Income: Bottom 25th Percentile	0.332	0.471	0.526	0.499	0.268	0.443	0.252	0.434	0.387	0.487	0.436	0.496	0.379	0.485
Income: 25th to 50th Percentile	0.248	0.432	0.000	0.000	0.284	0.451	0.405	0.491	0.160	0.366	0.159	0.366	0.177	0.381
Income: 50th to 75th Percentile	0.224	0.417	0.243	0.429	0.299	0.458	0.189	0.391	0.214	0.410	0.202	0.402	0.313	0.464
Income: Top 25th Percentile	0.196	0.397	0.231	0.422	0.149	0.356	0.154	0.361	0.239	0.426	0.202	0.401	0.131	0.337

Notes: Tables reports summary statistics of the sample from the longitudinal survey, including all weeks from the week of March 30, 2020 to the week of January 18, 2021 (or from the week of May 18 to the week of January 18, 2021 for Sweden). All variables except age are binary variables.

Appendix Table A.2: Comparison of population and sample characteristics (longitudinal survey)

Panel A												
	Australia		Canada		France		Germany		India		Italy	
	Sample (N=41,551)	Population	Sample (N=41,499)	Population	Sample (N=41,868)	Population	Sample (N=41,725)	Population	Sample (N=41,714)	Population	Sample (N=41,869)	Population
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Male	0.50	0.49	0.50	0.49	0.50	0.48	0.50	0.49	0.51	0.52	0.50	0.48
18-25 years old	0.14	0.13	0.12	0.12	0.13	0.12	0.10	0.11	0.24	0.21	0.20	0.09
26-30 years old	0.08	0.09	0.08	0.09	0.08	0.07	0.07	0.08	0.12	0.12	0.13	0.06
31-35 years old	0.10	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.14	0.12	0.12	0.07
36-45 years old	0.19	0.17	0.17	0.16	0.17	0.16	0.16	0.14	0.23	0.20	0.21	0.17
46-55 years old	0.16	0.16	0.19	0.16	0.17	0.17	0.20	0.19	0.11	0.15	0.16	0.19
56-65 years old	0.16	0.15	0.17	0.17	0.17	0.16	0.17	0.16	0.10	0.11	0.11	0.16
66+ years old	0.17	0.19	0.18	0.20	0.19	0.24	0.22	0.24	0.05	0.08	0.08	0.26
Income bracket 1	0.07	0.13	0.06	0.17	0.22	0.35	0.20	0.53	0.10	0.62	0.25	0.42
Income bracket 2	0.12	0.24	0.08	0.26	0.39	0.33	0.29	0.28	0.18	0.30	0.39	0.27
Income bracket 3	0.25	0.22	0.22	0.21	0.22	0.17	0.21	0.11	0.21	0.04	0.19	0.15
Income bracket 4	0.25	0.14	0.39	0.21	0.17	0.15	0.30	0.08	0.51	0.04	0.17	0.16
Income bracket 5	0.31	0.27	0.25	0.15								
Employed	0.60	0.63	0.58	0.62	0.56	0.50	0.58	0.59	0.84	0.47	0.61	0.45
Region 1	0.31	0.32	0.11	0.25	0.28	0.29	0.25	0.29	0.37	0.34	0.45	0.46
Region 2	0.28	0.26	0.04	0.07	0.23	0.22	0.35	0.35	0.24	0.22	0.19	0.20
Region 3	0.19	0.20	0.27	0.39	0.28	0.29	0.12	0.16	0.15	0.24	0.36	0.34
Region 4	0.10	0.10	0.52	0.23	0.21	0.20	0.28	0.20	0.24	0.20		
Region 5	0.12	0.12	0.07	0.06								

Notes: Table reports summary statistics of the sample from the longitudinal survey (in odd columns) alongside nationally representative statistics (in even columns) of each country. Sources for each variable and country are listed in Online Appendix F.III. Income brackets (annual gross household income) are defined for: (1) Australia (in AUD) as: less than 15,000; 15,000 to 29,999; 30,000 to 59,999; 60,000 to 99,999; 100,000 or above.; (2) Canada (in CAD) as: less than 15,000; 15,000 to 24,999; 25,000 to 49,999; 50,000 to 99,999; 100,000 or above.; (3) France, Italy, Germany, Spain, and Netherlands (in EUR) as: less than 20,000; 20,000–39,999; 40,000–59,999; more than 60,000.; (4) India (in INR) as: less than 100,000; 100,000 to 499,999; 500,000 to 999,999; 10,000,000 or above.; (5) Japan (in JPY) as: less than 1,000,000; 1,000,000 to 1,999,999; 2,000,000 to 2,999,999; 3,000,000 to 4,999,999; 5,000,000 or above.; (6) Singapore (in SGD) as: less than 45,000; 45,000 to 74,999; 75,000 to 99,999; 100,000 to 149,999; 150,000 or above.; (7) Sweden (in SEK) as: less than 199,000; 200,000 to 399,999; 400,000 to 599,999; 600,000 to 799,999; 800,000 or above.; (8) U.K. (in GBP) as: less than 20,000; 20,000–29,999; 30,000–49,999; 50,999-99,999; more than 100,000.; (9) U.S. (in USD) as: less than 24,999; 25,000–49,999; 50,000–74,999; 75,999–99,999; 100,000 or above. Regional brackets are listed in Online Appendix G.

Appendix Table A.2: Comparison of population and sample characteristics (cont'd) (longitudinal survey)

Panel B	Japan		Netherlands		Singapore		Spain		Sweden		U.K.		U.S.	
	Sample (N=41,714)	Population	Sample (N=41,675)	Population	Sample (N=41,742)	Population	Sample (N=41,898)	Population	Sample (N=34,487)	Population	Sample (N=42,265)	Population	Sample (N=40,650)	Population
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Male	0.50	0.48	0.50	0.49	0.50	0.53	0.50	0.49	0.50	0.50	0.50	0.49	0.51	0.48
18-25 years old	0.09	0.09	0.12	0.12	0.19	0.13	0.11	0.09	0.14	0.12	0.13	0.13	0.12	0.14
26-30 years old	0.06	0.06	0.07	0.08	0.13	0.09	0.08	0.06	0.08	0.09	0.08	0.09	0.08	0.09
31-35 years old	0.08	0.07	0.09	0.08	0.13	0.09	0.10	0.07	0.08	0.08	0.10	0.08	0.11	0.09
36-45 years old	0.16	0.16	0.18	0.15	0.20	0.19	0.21	0.20	0.16	0.16	0.17	0.16	0.17	0.16
46-55 years old	0.16	0.17	0.19	0.18	0.17	0.19	0.17	0.19	0.16	0.17	0.18	0.18	0.18	0.17
56-65 years old	0.17	0.14	0.17	0.17	0.12	0.18	0.15	0.16	0.16	0.14	0.16	0.15	0.17	0.16
66+ years old	0.28	0.32	0.19	0.23	0.05	0.13	0.18	0.23	0.21	0.24	0.19	0.21	0.17	0.19
Income bracket 1	0.03	0.14	0.18	0.23	0.27	0.30	0.25	0.57	0.22	0.19	0.24	0.17	0.19	0.30
Income bracket 2	0.02	0.31	0.35	0.34	0.21	0.14	0.41	0.28	0.33	0.33	0.20	0.28	0.19	0.19
Income bracket 3	0.17	0.18	0.24	0.16	0.17	0.09	0.19	0.09	0.21	0.21	0.28	0.26	0.18	0.18
Income bracket 4	0.11	0.19	0.23	0.27	0.20	0.17	0.15	0.06	0.13	0.13	0.23	0.24	0.15	0.12
Income bracket 5	0.67	0.18			0.15	0.30			0.11	0.14	0.05	0.05	0.30	0.20
Employed	0.59	0.61	0.58	0.62	0.81	0.68	0.61	0.50	0.54	0.60	0.61	0.61	0.58	0.60
Region 1	0.40	0.35	0.11	0.10	0.21	0.24	0.29	0.30	0.10	0.09	0.86	0.84	0.24	0.16
Region 2	0.19	0.18	0.20	0.21	0.34	0.24	0.24	0.19	0.19	0.20	0.02	0.05	0.20	0.23
Region 3	0.10	0.11	0.48	0.48	0.19	0.21	0.24	0.28	0.04	0.05	0.08	0.08	0.17	0.22
Region 4	0.16	0.17	0.21	0.21	0.13	0.12	0.10	0.11	0.43	0.43	0.04	0.03	0.39	0.39
Region 5	0.14	0.20			0.13	0.18	0.14	0.13	0.24	0.23				

Notes: Table reports summary statistics of the sample from the longitudinal survey (in odd columns) alongside nationally representative statistics (in even columns) of each country. Sources for each variable and country are listed in Online Appendix F.III. Income brackets (annual gross household income) are defined for: (1) Australia (in AUD) as: less than 15,000; 15,000 to 29,999; 30,000 to 59,999; 60,000 to 99,999; 100,000 or above.; (2) Canada (in CAD) as: less than 15,000; 15,000 to 24,999; 25,000 to 49,999; 50,000 to 99,999; 100,000 or above.; (3) France, Italy, Germany, Spain, and Netherlands (in EUR) as: less than 20,000; 20,000–39,999; 40,000–59,999; more than 60,000.; (4) India (in INR) as: less than 100,000; 100,000 to 499,999; 500,000 to 999,999; 10,000,000 or above.; (5) Japan (in JPY) as: less than 1,000,000; 1,000,000 to 1,999,999; 2,000,000 to 2,999,999; 3,000,000 to 4,999,999; 5,000,000 or above.; (6) Singapore (in SGD) as: less than 45,000; 45,000 to 74,999; 75,000 to 99,999; 100,000 to 149,999; 150,000 or above.; (7) Sweden (in SEK) as: less than 199,000; 200,000 to 399,999; 400,000 to 599,999; 600,000 to 799,999; 800,000 or above.; (8) U.K. (in GBP) as: less than 20,000; 20,000–29,999; 30,000–49,999; 50,999-99,999; more than 100,000.; (9) U.S. (in USD) as: less than 24,999; 25,000–49,999; 50,000–74,999; 75,999–99,999; 100,000 or above. Regional brackets are listed in Online Appendix G.

Appendix Table A.3: OLS and 2SLS results using COVID-19 mortality fluctuations (longitudinal survey, nationally representative weights)

	Sacrifice Own Rights	Sacrifice Free Press	Relax Privacy Protections	Suspend Democratic Procedures
	(1)	(2)	(3)	(4)
PANEL A: OLS estimates				
Health Insecurity	0.084***	0.057***	0.069***	0.059***
	(0.003)	(0.004)	(0.003)	(0.003)
PANEL B: Reduced form				
COVID-19 Incidence	0.011***	0.010	0.010**	0.025***
	(0.003)	(0.007)	(0.004)	(0.005)
PANEL C: 2SLS estimates				
Health Insecurity	0.153***	0.127	0.152*	0.316***
	(0.041)	(0.083)	(0.078)	(0.071)
Kleibergen-Paap F-statistic	69.381	49.072	15.344	37.138
Mean of Outcome	0.748	0.614	0.573	0.574
Number of Clusters	197	195	194	195
Observations	364735	72929	72892	72901
Controls:				
Demographics	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes
Policy Response	Yes	Yes	Yes	Yes
Lagged COVID-19 Prevalence	Yes	Yes	Yes	Yes
Week Fixed Effects	Yes	Yes	Yes	Yes
Admin Level 1 Fixed Effects	Yes	Yes	Yes	Yes

Notes: Table reports estimates of the 2SLS model given by Equation 1 and Equation 2, as well as corresponding OLS estimates with nationally representative sampling weights. Outcome variables are listed in the column headings and described in Section I.C. Health insecurity is an average of three concerns: personal health, the health of the elderly, and the health care system being unable to cope. The health insecurity and COVID-19 incidence are standardized to mean 0 and SD 1. All regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, administrative division level 1 fixed effects, and government effectiveness (i.e., belief that the government is taking proper steps to protect its population). Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.4: Comparison of population and sample characteristics (in-depth survey)

	U.S.		U.K.		France		Italy		Germany		South Korea		China	
	Sample (N=3,717)	Population	Sample (N=1,161)	Population	Sample (N=1,339)	Population	Sample (N=1,136)	Population	Sample (N=919)	Population	Sample (N=1,166)	Population	Sample (N=3,914)	Population
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Male	0.46	0.48	0.50	0.49	0.51	0.48	0.55	0.48	0.53	0.49	0.51	0.50	0.47	0.51
18-25 years old	0.14	0.14	0.14	0.13	0.11	0.12	0.10	0.09	0.13	0.11	0.18	0.13	0.32	0.18
26-30 years old	0.09	0.09	0.08	0.09	0.09	0.07	0.07	0.06	0.08	0.08	0.11	0.08	0.18	0.10
31-35 years old	0.09	0.09	0.10	0.08	0.09	0.08	0.09	0.07	0.10	0.08	0.10	0.08	0.18	0.10
36-45 years old	0.15	0.16	0.18	0.16	0.19	0.16	0.19	0.17	0.20	0.14	0.22	0.18	0.18	0.23
46-55 years old	0.15	0.17	0.16	0.18	0.22	0.17	0.18	0.19	0.19	0.19	0.19	0.20	0.08	0.17
56-65 years old	0.17	0.16	0.16	0.15	0.17	0.16	0.12	0.16	0.17	0.16	0.11	0.17	0.04	0.12
66+ years old	0.21	0.19	0.18	0.21	0.13	0.24	0.25	0.26	0.12	0.24	0.09	0.16	0.02	0.10
Income bracket 1	0.21	0.30	0.22	0.17	0.22	0.35	0.23	0.42	0.18	0.53	0.27	0.34	0.15	0.20
Income bracket 2	0.20	0.19	0.22	0.28	0.35	0.33	0.35	0.27	0.29	0.28	0.25	0.21	0.16	0.20
Income bracket 3	0.17	0.18	0.28	0.26	0.20	0.17	0.23	0.15	0.20	0.11	0.19	0.16	0.11	0.20
Income bracket 4	0.14	0.12	0.27	0.24	0.22	0.15	0.20	0.16	0.34	0.08	0.17	0.14	0.59	0.40
Income bracket 5	0.27	0.20	0.00	0.05							0.12	0.15		
Employed	0.55	0.60	0.63	0.61	0.65	0.50	0.57	0.45	0.66	0.59	0.71	0.61	0.73	0.65
Region 1	0.20	0.16	0.41	0.43	0.25	0.29	0.55	0.46	0.41	0.29	0.45	0.50	0.55	0.37
Region 2	0.24	0.23	0.42	0.41	0.23	0.22	0.20	0.20	0.28	0.35	0.11	0.14	0.23	0.28
Region 3	0.20	0.22	0.09	0.05	0.25	0.29	0.25	0.34	0.14	0.16	0.08	0.11	0.17	0.27
Region 4	0.36	0.39	0.09	0.08	0.27	0.20			0.17	0.20	0.36	0.25	0.06	0.09
Region 5			0.00	0.03										

Notes: Table reports summary statistics of the sample from the in-depth survey (in odd columns) alongside nationally representative statistics (in even columns) of each country. Detailed sources for each variable and country are listed in Online Appendix F.III. Income brackets (annual gross household income) are defined for: (1) U.S. (in USD) as: less than 24,999; 25,000–49,999; 50,000–74,999; 75,999–99,999; 100,000 or above.; (2) U.K. (in GBP) as: less than 20,000; 20,000–29,999; 30,000–49,999; 50,999-99,999; 100,000 or above.; (3) France, Italy, and Germany (in EUR) as: less than 20,000; 20,000–39,999; 40,000–59,999; 60,000 or above.; (4) South Korea (in KRW) as: less than 29,999,999; 30,000,000-49,999,999; 50,000,000-69,999,999; 70,000,000-99,999,999; 100,000,000 or above.; (5) China (in CNY) as: less than 15,000; 15,000-34,999; 35,000-54,999; 55,000 or above. Detailed regional brackets are listed in Online Appendix G.

Appendix Table A.5: 2SLS estimates of the effects of health insecurity on civil liberties (in-depth survey, nationally representative weights)

Outcome Variables	Health Insecurity (OLS)		Health Insecurity (2SLS)		Mean of Outcome	Gap btwn. China and U.S.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Overall rights and freedom						
Willing to sacrifice own rights	0.064***	(0.006)	0.151*	(0.088)	0.724	0.224
Willing to sacrifice others' rights	0.065***	(0.006)	0.106	(0.088)	0.705	0.203
z-score: willing to sacrifice rights	0.154***	(0.012)	0.309	(0.194)	0.000	0.512
Panel B: Protection of privacy						
Willing to relax privacy protections	0.024***	(0.006)	0.196**	(0.096)	0.577	0.393
Unwilling to accept: track sick people	-2.100***	(0.461)	-11.073*	(6.603)	48.855	-5.843
Unwilling to accept: track everyone	-0.859*	(0.459)	-12.879*	(6.748)	54.572	-8.957
Contact tracing app	0.046***	(0.006)	0.238**	(0.094)	0.475	0.268
z-score: willing to sacrifice privacy	0.101***	(0.012)	0.649***	(0.200)	0.000	0.778
Panel C: Democratic rights and institutions						
Prefer strong leader	-0.087***	(0.013)	0.669***	(0.221)	2.672	0.614
Prefer delegating to experts	0.100***	(0.014)	0.815***	(0.190)	2.909	-0.058
Willing to sacrifice free press	-0.003	(0.006)	0.205**	(0.098)	0.600	0.422
Preference for democratic system	0.128***	(0.010)	-0.063	(0.135)	3.267	n.a.
Willing to suspend democr. procedures	-0.006	(0.006)	0.132	(0.087)	0.446	n.a.
z-score: willing to curtail democracy	-0.007	(0.012)	0.784***	(0.204)	-0.001	n.a.
Panel D: Rights to movement						
Unwilling to accept: close national border	-1.981***	(0.459)	8.575	(6.763)	42.655	6.624
Unwilling to accept: recommend stay home	-3.547***	(0.460)	4.951	(6.613)	43.025	7.722
Unwilling to accept: arrest if outside home	-2.456***	(0.466)	-0.173	(6.626)	51.547	-6.984
z-score: willing to give up mobility	0.083***	(0.013)	-0.129	(0.182)	0.000	-0.032

Notes: Table reports OLS and 2SLS results using experimental variation from the in-depth survey with nationally representative sampling weights. Health Insecurity refers to an average of (1) COVID-19 is a threat to the health and lives of people in the country; and (2) the country does not have sufficient hospital capacity and medical equipment for a pandemic surge, topics discussed in the public health treatment. Columns (2) to (3) present the OLS estimates and standard errors, and columns (4) to (5) present the 2SLS results from equation 3. Column (6) reports the unconditional mean of the outcome variable of respondents in the control group. Column (7) reports the difference in the unconditional control group mean of each outcome variable between China and U.S. respondents. Outcomes of "unwilling to accept" measure the stated minimum lives that need to be saved in order for the respondent to support the given policy on a scale of 0 to 100. Outcomes of "willing to [do]" and contact tracing app are binary. Outcomes of "preference" are on a scale of 1 to 4. The z-score for each family shown at the bottom row of each panel is an inverse-covariance-weighted index as described in Anderson (2008). The health insecurity is standardized to mean 0 and SD 1. All regressions include the following controls: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); concerns about surveillance (i.e., worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned)); strata fixed effects (country and hotspot); and survey week fixed effects. The observation count is 13,337 for every regression except the last two in Panel B and last three in Panel C; it is 13,328 for the last two in Panel B and 9,425 for the last three regressions in Panel C. The first stage F-statistics range from 39.74 to 40.68. Robust standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.6: Balance checks
(longitudinal and in-depth survey)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PANEL A: Longitudinal Survey						
	Male	Age Group	HH Income	College	Employed	Black (U.S.)	Democrat (U.S.)
COVID-19 Incidence	-0.001	-0.010	-0.011	0.009***	0.000	-0.002	-0.002
	(0.003)	(0.008)	(0.009)	(0.003)	(0.001)	(0.002)	(0.006)
Mean of Outcome	0.518	3.758	2.184	0.432	0.903	0.094	0.504
Observations	364735	364735	364735	364735	254104	34186	19697
	PANEL B: In-depth Survey						
	Male	Age Group	HH Income	College	Employed	Black (U.S.)	Pol.Aff.: Left
Public Health Treatment	0.001	0.005	0.014	-0.003	-0.003	-0.006	-0.001
	(0.010)	(0.034)	(0.024)	(0.010)	(0.010)	(0.011)	(0.010)
Mean of Outcome	0.495	3.653	2.134	0.501	0.610	0.143	0.353
Observations	9438	9438	9438	9425	9434	3717	9438

Notes: Table reports estimates from an OLS regression of the outcome variable COVID-19 incidence or assignment to public health treatment. COVID-19 incidence is the log of the number of COVID-19 deaths in the respondent's region j and the week t from the longitudinal survey. Public health treatment is from the in-depth survey. Respondents from China are not included in Panel B since they were not randomized to treatment, however, results including China are similar. The outcome variables, from left to right, are sex (indicator for male), age groups, household income quartile (relative to own country), education (indicator for having a college degree), employment (1 if employed, or 0 if unemployed), race for U.S. respondents (indicator for "Black"), and political affiliation (indicator for Democrat for the U.S. respondents only in Panel A, and indicator for leftists in Panel B). COVID-19 incidence in Panel A is standardized to mean 0 and SD 1. Regressions in Panel A control for proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, and government effectiveness (i.e., belief that the government is taking proper steps to protect its population). Regressions in Panel B control for strata fixed effects (country and hotspot). Standard errors clustered at the administrative division level 1 (Panel A) or robust standard errors (Panel B) are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.7: Testing for differential attrition
(in-depth survey)

Variable	(1) Control Mean/SE	(2) Public Health Treatment Mean/SE	T-test P-value (1)-(2)
Completed survey	0.930	0.927	0.471
	(0.004)	(0.004)	
N	5095	5090	

Notes: Table tests differential attrition between the control and public health treatment group from the sample of the in-depth survey. Respondents from China are not included since they were not randomized to treatment, however, results including China are similar. The sample includes participants who reached the randomization stage and passed the quality check. Low quality responses are defined as those in the fastest 1% of the control group in the demographic and health module or of the experimental group in the treatment module. Stratifying variables (i.e., hotspot dummy and country fixed effects) are also controlled for. Column (3) presents p-values of tests of differences in means between the control and public health treatment group. Robust standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.8: 2SLS results using COVID-19 mortality fluctuations: alternative pathways (longitudinal survey)

	Sacrifice Own Rights	Sacrifice Free Press	Relax Privacy Protections	Suspend Democratic Procedures
	(1)	(2)	(3)	(4)
Panel A: 2SLS, Instrumenting for Financial Insecurity				
Financial Insecurity	-0.062	-0.506*	-0.189	-0.571***
	(0.083)	(0.265)	(0.122)	(0.195)
Kleibergen-Paap F-statistic	36.934	7.311	21.160	15.746
Panel-Specific Controls:				
Health Insecurity	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes
Panel B: 2SLS, Instrumenting for Financial Insecurity (National Economy)				
Financial Insecurity (National Economy)	-1.042	5.514	1.949	12.122
	(4.832)	(27.887)	(5.746)	(72.651)
Kleibergen-Paap F-statistic	0.060	0.039	0.121	0.028
Panel-Specific Controls:				
Health Insecurity	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes
Panel C: 2SLS, Instrumenting for Government Effectiveness				
Government Effectiveness	0.068	-0.169	-0.068	-0.250*
	(0.069)	(0.155)	(0.136)	(0.133)
Kleibergen-Paap F-statistic	14.538	11.419	6.230	16.786
Panel-Specific Controls:				
Health Insecurity	Yes	Yes	Yes	Yes
Financial Insecurity	Yes	Yes	Yes	Yes
Panel D: 2SLS, Instrumenting For Health Insecurity				
Health Insecurity	0.107***	0.198***	0.136***	0.247***
	(0.026)	(0.058)	(0.044)	(0.050)
Kleibergen-Paap F-statistic	148.700	69.355	86.449	129.361
Panel-Specific Controls:				
Financial Insecurity	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes
Mean of Outcome	0.750	0.615	0.575	0.575
Number of Clusters	197	195	194	195
Observations	359380	71846	71801	71809
Controls:				
Demographics	Yes	Yes	Yes	Yes
Policy Response	Yes	Yes	Yes	Yes
Lagged COVID-19 Prevalence	Yes	Yes	Yes	Yes
Week Fixed Effects	Yes	Yes	Yes	Yes
Admin Level 1 Fixed Effects	Yes	Yes	Yes	Yes

Notes: Table reports 2SLS results using naturally occurring variation in COVID-19 mortality. Outcome variables are listed in the column headings and described in Section I.C. Financial insecurity in Panel B refers to an concern about your household financial position on a scale of 1 to 5. Financial insecurity (national economy) in Panel C refers to an concern about the national economy on a scale of 1 to 5. Government effectiveness refers to attitude towards the the government's COVID-19 response (i.e., belief that the government is taking proper steps to protect its population) on a scale of 1 to 5. The health insecurity, financial insecurity, financial insecurity (national economy), and government effectiveness are standardized to mean 0 and SD 1. In addition to the panel-specific controls, all regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, and administrative division level 1 fixed effects. Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.9: Potential exclusion-restriction violations due to cross-learning (in-depth survey)

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Insecurity Related to Health						
	Health Insecurity	Threat to People's Health	Healthcare Capacity	Health Insecurity	Threat to People's Health	Healthcare Capacity
Public Health Treatment	0.140***	0.082***	0.147***	0.114***	0.058***	0.128***
	(0.017)	(0.019)	(0.016)	(0.015)	(0.016)	(0.016)
Kleibergen-Paap F-statistic	65.697	19.031	79.650	57.734	13.348	65.043
Mean of Outcome	-0.203	-0.106	-0.225	-0.203	-0.106	-0.225
Observations	13337	13337	13337	13337	13337	13337
Panel-Specific Controls:						
Financial Insecurity	No	No	No	Yes	Yes	Yes
Concerns about Surveillance	No	No	No	Yes	Yes	Yes
Panel B: Other Insecurities						
	Rights Insecurity	Financial Insecurity (Nat. Economy)	Concerns about Surveillance	Rights Insecurity	Financial Insecurity (Nat. Economy)	Concerns about Surveillance
Public Health Treatment	0.067***	0.036**	0.065***	0.001	-0.019	0.021
	(0.018)	(0.018)	(0.020)	(0.016)	(0.015)	(0.019)
Kleibergen-Paap F-statistic	13.752	4.180	11.123	0.004	1.590	1.149
Mean of Outcome	-0.142	-0.142	-0.073	-0.142	-0.142	-0.073
Observations	13337	13337	13337	13337	13337	13337
Panel-Specific Controls:						
Threat to People's Health	No	No	No	Yes	Yes	Yes
Healthcare Capacity	No	No	No	Yes	Yes	Yes

Notes: Table reports first-stage results using the experimental variation both on the health insecurity-related measures and on the rights insecurity-related measures. Health insecurity refers to an average of "threat to people's health" and "healthcare capacity"; threat to people's health measures a level of agreement on a statement that COVID-19 is a threat to the health and lives of people in the country on a scale of 1 (not a serious threat) to 4 (A very serious threat); healthcare capacity measures a level of agreement on that the R's country does not have sufficient hospital capacity and medical equipment to deal with the COVID-19 outbreak on a scale of 1 (strongly disagree) to 5 (strongly agree). Rights insecurity refers to an average of "financial insecurity" and "concerns about surveillance"; financial insecurity measures a level of agreement on a statement that COVID-19 is a threat to the economy in the country on a scale of 1 (not a serious threat) to 4 (A very serious threat); concerns about surveillance measures a level of worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned). The outcome variables are standardized to mean 0 and SD 1. All regressions include the following controls in addition to the panel-specific controls indicated at the bottom of the table: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); strata fixed effects (country and hotspot); and survey week fixed effects. Kleibergen-Paap F-statistics presented are obtained from the estimate on the outcome of willingness to sacrifice own rights. Robust standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.10: 2SLS results using experimental variation: alternative pathways (in-depth survey)

Outcome Variables	Health Insecurity (2SLS)		Mean of Outcome	Gap btwn. China and U.S.
(1)	(2)	(3)	(4)	(5)
Panel A: Overall rights and freedom				
Willing to sacrifice own rights	0.158*	(0.082)	0.724	0.224
Willing to sacrifice others' rights	0.125	(0.082)	0.705	0.203
z-score: willing to sacrifice rights	0.339*	(0.180)	0.000	0.512
Panel B: Protection of privacy				
Willing to relax privacy protections	0.209**	(0.087)	0.577	0.393
Unwilling to accept: track sick people	-12.368**	(6.060)	48.855	-5.843
Unwilling to accept: track everyone	-15.211**	(6.249)	54.572	-8.957
Contact tracing app	0.237***	(0.088)	0.475	0.268
z-score: willing to sacrifice privacy	0.691***	(0.184)	0.000	0.778
Panel C: Democratic rights and institutions				
Prefer strong leader	0.716***	(0.198)	2.672	0.614
Prefer delegating to experts	0.830***	(0.171)	2.909	-0.058
Willing to sacrifice free press	0.214**	(0.087)	0.600	0.422
Preference for democratic system	0.043	(0.123)	3.267	n.a.
Willing to suspend democr. procedures	0.130*	(0.075)	0.446	n.a.
z-score: willing to curtail democracy	0.705***	(0.173)	-0.001	n.a.
Panel D: Rights to movement				
Unwilling to accept: close national border	4.657	(6.047)	42.655	6.624
Unwilling to accept: recommend stay home	3.079	(5.994)	43.025	7.722
Unwilling to accept: arrest if outside home	-4.376	(6.122)	51.547	-6.984
z-score: willing to give up mobility	-0.013	(0.165)	0.000	-0.032
Additional Controls:				
Financial Insecurity	Yes	Yes		
Concerns about Surveillance	Yes	Yes		

Notes: Table reports 2SLS results using experimental variation from the in-depth survey. Health Insecurity refers to an average of (1) COVID-19 is a threat to the health and lives of people in the country; and (2) the country does not have sufficient hospital capacity and medical equipment for a pandemic surge, topics discussed in the public health treatment. Pandemic-related financial insecurity (i.e., agreement with a statement that COVID-19 is a threat to the economy on a scale of 1 (not a serious threat) to 4 (A very serious threat)). Government effectiveness refers to the respondent's level of satisfaction with the the federal government's COVID-19 response on a scale of 1 (very dissatisfied) to 5 (very satisfied). Columns (2) to (3) present the 2SLS results and standard errors from Equation 3, including an additional control for financial insecurity. Columns (4) to (5) present the 2SLS results and standard errors from Equation 3 but replace health insecurity with the financial insecurity, while controlling for health insecurity. Columns (6) to (7) present the 2SLS results and standard errors from Equation 3 but replace health insecurity with perceived government effectiveness, controlling for health and financial insecurity. Column (8) reports the unconditional mean of the outcome variable of respondents in the control group. Column (9) reports the difference in the unconditional control group mean of each outcome variable between China and U.S. respondents. Outcomes of "willing to [do]" are original, continuous outcomes on a scale of 0 to 10. Outcomes of "unwilling to accept" measure the stated minimum lives that need to be saved in order for the respondent to support the given policy on a scale of 0 to 100. Contact tracing app is binary. Outcomes of "preference" are on a scale of 1 to 4. The z-score for each family shown at the bottom row of each panel is an inverse-covariance-weighted index as described in Anderson (2008). Health insecurity, financial insecurity, and government effectiveness are standardized to mean 0 and SD 1. All regressions include the following controls: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); concerns about surveillance (i.e., worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned)); strata fixed effects (country and hotspot); and survey week fixed effects. The observation count is 13,337 for every regression except the last two in Panel B and last three in Panel C; it is 13,328 for the last two in Panel B and 9,425 for the last three regressions in Panel C. The first stage F-statistics range from 60.30 to 61.94 for columns (2)-(3); 4.28 to 6.61 for columns (4)-(5); and 2.84 to 3.53 for columns (6)-(7). Robust standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.11: OLS and 2SLS estimates of the effects of health insecurity on civil liberties using COVID-19 mortality fluctuations
(longitudinal survey, original, continuous outcomes)

	Sacrifice Own Rights	Sacrifice Free Press	Relax Privacy Protections	Suspend Democratic Procedures
	(1)	(2)	(3)	(4)
PANEL A: OLS estimates				
Health Insecurity	0.645***	0.444***	0.499***	0.428***
	(0.021)	(0.022)	(0.022)	(0.019)
PANEL B: Reduced form				
COVID-19 Incidence	0.056***	0.077***	0.074***	0.122***
	(0.013)	(0.018)	(0.020)	(0.020)
PANEL C: 2SLS estimates				
Health Insecurity	0.768***	1.057***	0.981***	1.494***
	(0.153)	(0.278)	(0.263)	(0.260)
Kleibergen-Paap F-statistic	117.451	53.116	67.071	110.548
Mean of Outcome	7.076	6.102	5.813	5.823
Number of Clusters	197	195	194	195
Observations	364735	72929	72892	72901
Controls:				
Demographics	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes
Policy Response	Yes	Yes	Yes	Yes
Lagged COVID-19 Prevalence	Yes	Yes	Yes	Yes
Week Fixed Effects	Yes	Yes	Yes	Yes
Admin Level 1 Fixed Effects	Yes	Yes	Yes	Yes

Notes: Table reports estimates of the 2SLS model given by Equation 1 and Equation 2 as well as corresponding OLS estimates using original, continuous outcomes on a scale of 0 to 10. Outcome variables are listed in the column headings. Health insecurity is an average of three concerns: personal health, the health of the elderly in the community, and the health care system being unable to cope. The health insecurity and COVID-19 incidence are standardized to mean 0 and SD 1. All regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, administrative division level 1 fixed effects, and government effectiveness (i.e., belief that the government is taking proper steps to protect its population). Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.12: OLS and 2SLS results using experimental variation
(in-depth survey, original, continuous outcomes)

Outcome Variables	Health Insecurity (OLS)		Health Insecurity (2SLS)		Mean of Outcome	Gap btwn. China and U.S.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Overall rights and freedom						
Willing to sacrifice own rights	0.507***	(0.028)	0.705	(0.431)	7.055	1.665
Willing to sacrifice others' rights	0.492***	(0.028)	0.667	(0.419)	6.935	1.479
z-score: willing to sacrifice rights	0.208***	(0.011)	0.285*	(0.167)	0.000	0.653
Panel B: Protection of privacy						
Willing to relax privacy protections	0.180***	(0.031)	1.385***	(0.513)	6.018	2.997
Unwilling to accept: track sick people	-1.861***	(0.363)	-11.259**	(5.506)	48.855	-5.843
Unwilling to accept: track everyone	-0.673*	(0.364)	-13.662**	(5.716)	54.572	-8.957
Contact tracing app	0.042***	(0.005)	0.222***	(0.080)	0.475	0.268
z-score: willing to sacrifice privacy	0.096***	(0.010)	0.653***	(0.172)	0.000	0.832
Panel C: Democratic rights and institutions						
Prefer strong leader	-0.081***	(0.011)	0.663***	(0.189)	2.672	0.614
Prefer delegating to experts	0.084***	(0.011)	0.747***	(0.156)	2.909	-0.058
Willing to sacrifice free press	-0.103***	(0.032)	0.868	(0.540)	6.123	3.261
Preference for democratic system	0.135***	(0.009)	0.062	(0.111)	3.267	n.a.
Willing to suspend democr. procedures	-0.141***	(0.037)	0.944**	(0.480)	4.934	n.a.
z-score: willing to curtail democracy	-0.028**	(0.011)	0.605***	(0.161)	-0.001	n.a.
Panel D: Rights to movement						
Unwilling to accept: close national border	-1.612***	(0.365)	4.039	(5.504)	42.655	6.624
Unwilling to accept: recommend stay home	-3.370***	(0.362)	2.916	(5.456)	43.025	7.722
Unwilling to accept: arrest if outside home	-2.052***	(0.370)	-3.747	(5.559)	51.547	-6.984
z-score: willing to give up mobility	0.072***	(0.010)	-0.013	(0.150)	0.000	-0.032

Notes: Table reports OLS and 2SLS results using experimental variation from the in-depth survey. Health Insecurity refers to an average of (1) COVID-19 is a threat to the health and lives of people in the country; and (2) the country does not have sufficient hospital capacity and medical equipment for a pandemic surge, topics discussed in the public health treatment. Columns (2) to (3) present the OLS estimates and standard errors, and columns (4) to (5) present the 2SLS results and standard errors from Equation 3. Column (6) reports the unconditional mean of the outcome variable of respondents in the control group. Column (7) reports the difference in the unconditional control group mean of each outcome variable between China and U.S. respondents. Outcomes of "willing to [do]" are original, continuous outcomes on a scale of 0 to 10. Outcomes of "unwilling to accept" measure the stated minimum lives that need to be saved in order for the respondent to support the given policy on a scale of 0 to 100. Contact tracing app is binary. Outcomes of "preference" are on a scale of 1 to 4. The z-score for each family shown at the bottom row of each panel is an inverse-covariance-weighted index as described in Anderson (2008). The health insecurity is standardized to mean 0 and SD 1. All regressions include the following controls: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); concerns about surveillance (i.e., worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned)); strata fixed effects (country and hotspot); and survey week fixed effects. The observation count is 13,337 for every regression except the last two in Panel B and last three in Panel C; it is 13,328 for the last two in Panel B and 9,425 for the last three regressions in Panel C. The first stage F-statistics range from 56.12 to 58.44. Robust standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.13: Correlation between proportional and absolute lives saved question (validation survey)

	Correlation
Panel A: Protection of privacy	
Unwilling to accept: track sick people	0.802
Unwilling to accept: track everyone	0.700
Panel B: Rights to movement	
Unwilling to accept: close national border	0.662
Unwilling to accept: recommend stay home	0.728
Unwilling to accept: arrest if outside home	0.666
Panel C: Business and school operation	
Unwilling to accept: close schools	0.776
Unwilling to accept: close restaurants etc.	0.790
Unwilling to accept: close all businesses	0.824
Panel D: Economic well-being	
Unwilling to accept: measures cut income	0.730
Unwilling to accept: measures 2x unemp. rate	0.788
Unwilling to accept: measures 3x unemp. rate	0.779
Panel E: Other restrictive policies	
Unwilling to accept: ration goods	0.740
Unwilling to accept: mandate vaccinations against COVID-19	0.855
Overall average	0.757

Notes: Table reports the correlation between the proportional (as used in the in-depth survey) and absolute versions of the lives-saved questions as described in Section I.C from the sample of validation survey. The proportional version refers to the questions that do not fix participants' beliefs about the total number of people that would have died because of COVID-19 in the absence of the given policy. Sample wording of the question is: "*Out of every 100 people who would have otherwise died in the* [...] *because of the COVID-19 pandemic, some will be saved if one of the following policies is implemented. What's the minimum number of people that each of the following policies would need to save in order for you to support it?*" The absolute version refers to the questions that fix the beliefs. Sample wording of the question is: "*Around 530,000 people already died in the U.S. due to COVID-19. Suppose that, if going forward, no policy to curtail the spread of the virus will be in place, an additional 100,000 people will die. What's the minimum number of people, out of those 100,000 people, that each of the following policies would need to save in order for you to support it?*" The bottom row presents the overall average correlation.

Appendix Table A.14: Relationship between attitudes and behaviors (validation survey)

Attitudes (1)	Behaviors (2)	Correlation Coefficient (3)
Panel A: Attitudes and petitioning behaviors		
Unwilling to accept: mandatory vaccine	Disseminating anti-mandatory vaccine petition	0.629
Unwilling to accept: recommend stay home	Disseminating anti-lockdown petition	0.523
Unwilling to accept: recommend stay home	Disseminating anti-curfew petition	0.328
z-score: attitudes corresponding to petitioning behaviors	*z-score: petitions*	0.525
Panel B: Attitudes and donating behaviors		
Unwilling to relax privacy protections	Donating to a privacy organization	0.336
Unwilling to sacrifice free press	Donating to a free media organization	0.058
Unwilling to suspend democratic procedures	Donating to a pro-democracy organization	0.100
z-score: attitudes corresponding to donating behaviors	*z-score: donation*	0.215
Panel C: Attitudes and self-reported behaviors		
Unwilling to accept: mandatory vaccine	(r) Vaccination behavior	0.493
Unwilling to suspend civic duties	Voting behavior	0.309
Unwilling to suspend civic duties	Voting behavior - 2020 U.S. Presidential Election	0.319
Unwilling to accept: recommend stay home	(r) Mask-wearing behavior	0.291
Unwilling to accept: recommend stay home	Failure of social distancing	0.170
z-score: attitudes corresponding to self-reported behaviors	*z-score: self-reported behaviors*	0.363

Notes: Table reports results from an OLS estimation of practicing or willingness to practice a given behavior on attitudes. The results are based on the sample from the COVID-19 and Validation Survey. The "z-score" at the bottom of each panel is an inverse-covariance-weighted index as described in Anderson (2008), which combines all variables in the panel. "(r)" indicates that the scale of the variable is reversed. The number of observations is 220 for all variables; 213 for the last variable in Panel A. Standard errors are in parentheses.

Appendix Table A.15: OLS estimates of the Black-white gap in response to privacy infringements and movement restrictions
(in-depth survey, U.S. sample only)

Outcome Variables	U.S. only: Respondent is Black		Mean among White	Gap btwn. Black and White
(1)	(2)	(3)	(4)	(5)
Panel A: Privacy and Surveillance				
Willing to relax privacy protections	-0.068**	(0.033)	0.350	-0.056
Unwilling to accept: track sick people	5.576**	(2.275)	50.759	8.932
Unwilling to accept: track everyone	2.308	(2.253)	59.470	4.205
Contact tracing app	-0.015	(0.034)	0.345	-0.036
Panel B: Lockdown and Closures				
Unwilling to accept: close national border	14.285***	(2.359)	33.547	18.140
Unwilling to accept: recommend stay home	12.353***	(2.409)	34.167	15.773
Unwilling to accept: arrest if outside home	1.363	(2.341)	56.019	2.921

Notes: Table is based on the in-depth survey sample. The sample only includes the U.S. respondents who self-identified as either Black or white and assigned to the control group. Columns (2) to (3) present the coefficients and robust standard errors from OLS estimates of an indicator for a Black respondent (i.e., 1 if the respondent is Black and 0 if white) on the outcome variables in Column (1). Column (4) reports the unconditional mean of the outcome variable among white respondents. Column (5) reports the difference in the unconditional control group mean of each outcome variable between Black and white respondents. Outcomes of "unwilling to accept" measure the stated minimum lives that need to be saved in order for the respondent to support the given policy on a scale of 0 to 100. Outcomes of "willing to [do]" are binary. All regressions include the following controls: demographics (sex, and age group indicators), survey week fixed effects, hotspot fixed effects, and the measure of health insecurity (i.e., to an average of (1) COVID-19 is a threat to the health and lives of people in the country; and (2) the country does not have sufficient hospital capacity and medical equipment for a pandemic surge, topics discussed in the public health treatment). * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.16: Heterogeneity: 2SLS estimates of health insecurity on civil liberties (longitudinal survey)

	Outcome: Willingness to Sacrifice Own Rights				
	Male	Low Income	Age 65+	No College Diploma	U.S. Only: Republican vs. Democrat
	(1)	(2)	(3)	(4)	(5)
X_i * Health Insecurity	-0.139**	0.054*	-0.106*	0.091***	0.120
	(0.056)	(0.028)	(0.056)	(0.026)	(0.150)
Health Insecurity	0.159***	0.076**	0.129***	0.067***	-0.004
	(0.033)	(0.030)	(0.027)	(0.022)	(0.147)
X_i	-0.007	-0.041***	0.048***	-0.045***	-0.175**
	(0.007)	(0.003)	(0.006)	(0.004)	(0.067)
Kleibergen-Paap F-statistic	59.640	55.828	59.936	59.838	2.284
Mean of Outcome	0.748	0.748	0.748	0.748	0.760
Observations	364735	364735	372125	364735	19697

Notes: Table reports 2SLS results using naturally occurring variation in COVID-19 mortality, interacting the endogenous variable and instrument with each demographic characteristic described in the column headings. Outcome variable is willingness to sacrifice own rights as listed in Section I.C. Health insecurity is an average of three concerns: personal health, the health of the elderly, and the health care system being unable to cope. The demographic variables, from left to right, are sex (indicator for male), low income (indicator for income below median relative to own country), age 65+ (indicator for age 65 or above), education (indicator for holding no college degree), political affiliation (1 if Republican or 0 if Democrat for the U.S. respondents). The health insecurity is standardized to mean 0 and SD 1. All regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, government effectiveness (i.e., belief that the government is taking proper steps to protect its population), administrative division level 1 fixed effects, and the indicated demographic characteristic. Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.17: First stage results using experimental variation: by demographics or country
(in-depth survey)

Outcome	Public Health Treatment		F-stat.	Mean of Outcome	N
(1)	(2)	(3)	(4)	(5)	(6)
Panel A: By demographics					
Health insecurity if R belongs to:					
high income	0.123***	(0.027)	20.973	-0.201	5769
low income	0.135***	(0.022)	36.955	-0.203	7568
female	0.127***	(0.023)	29.579	-0.219	6832
male	0.129***	(0.025)	26.627	-0.186	6505
college diploma	0.147***	(0.024)	37.355	-0.207	7074
no college diploma	0.107***	(0.024)	19.126	-0.195	6263
political match	0.127***	(0.022)	32.222	-0.071	6496
political mismatch	0.184***	(0.035)	28.188	-0.097	2897
Panel B: By country					
Health insecurity if R lives in:					
Germany	0.170***	(0.065)	6.867	-0.087	919
France	0.109**	(0.052)	4.289	-0.059	1338
U.K.	0.200***	(0.057)	12.194	-0.101	1158
Italy	0.206***	(0.058)	12.454	-0.097	1134
South Korea	0.267***	(0.055)	23.589	-0.148	1165
U.S.	0.094***	(0.032)	8.949	-0.059	3711

Notes: Table reports first-stage results by demographic groups and country using experimental variation. The outcome variable is health insecurity which refers to an average of "threat to people's health" and "healthcare capacity"; threat to people's health measures a level of agreement on a statement that COVID-19 is a threat to the health and lives of people in the country on a scale of 1 (not a serious threat) to 4 (A very serious threat); healthcare capacity measures a level of agreement on that the R's country does not have sufficient hospital capacity and medical equipment to deal with the COVID-19 outbreak on a scale of 1 (strongly disagree) to 5 (strongly agree). The outcome variable is standardized to mean 0 and SD 1. Panel A shows the first-stage results by different demographic groups: income, sex, a college diploma, and political match (i.e., respondents have the same party affiliation as the party in power (left- *or* right-leaning)). Panel B shows the first-stage results by country. All regressions include the following controls: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); concerns about surveillance (i.e., worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned)); strata fixed effects (country (only for Panel A) and hotspot); and survey week fixed effects. Kleibergen Paap F-statistics presented in column (4) are obtained from the sample estimated on the outcome of willingness to sacrifice own rights. Unconditional mean of the outcome variable of respondents in the control group is presented in column (5). Robust standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.18: OLS and 2SLS estimates of the effects of health insecurity on civil liberties using COVID-19 mortality fluctuations (country and individual fixed effects) (longitudinal survey)

	Sacrifice Own Rights		Sacrifice	Relax	Suspend
	Individual FEs	*Country FEs*	Free Press	Privacy Protections	Democratic Procedures
	(1)	(2)	(3)	(4)	(5)
Panel A: OLS Estimates					
Health Insecurity	0.023***	0.083***	0.061***	0.066***	0.061***
	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Panel B: Reduced Form					
COVID-19 Incidence	0.007***	0.006***	0.012***	0.008**	0.021***
	(0.002)	(0.002)	(0.003)	(0.003)	(0.004)
Panel C: 2SLS Estimates					
Health Insecurity	0.100***	0.093***	0.174***	0.121***	0.281***
	(0.025)	(0.027)	(0.055)	(0.043)	(0.053)
Kleibergen-Paap F-statistic	99.548	73.597	38.310	50.550	71.755
Mean of Outcome	0.744	0.748	0.614	0.573	0.574
Number of Unique FEs	66525	197	196	197	197
Observations	234512	364735	72930	72895	72903
Controls:					
Demographics	No	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes	Yes
Policy Response	Yes	Yes	Yes	Yes	Yes
Lagged COVID-19 Prevalence	Yes	Yes	Yes	Yes	Yes
Week Fixed Effects	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	No	Yes	Yes	Yes	Yes
Individual-Level Fixed Effects	Yes	No	No	No	No

Notes: Table reports OLS and 2SLS results using naturally occurring variation in COVID-19 mortality. Outcome variables are listed in the column headings and described in Section I.C. Health insecurity is an average of three concerns: personal health, the health of the elderly, and the health care system being unable to cope. Column (1) includes individual-level fixed effects instead of administrative division level 1 fixed effects, while columns (2) to (6) include country-level fixed effects. The health insecurity and COVID-19 incidence are standardized to mean 0 and SD 1. All regressions include proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, and government effectiveness (i.e., belief that the government is taking proper steps to protect its population). Columns (2) to (6) also include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country). Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.19: OLS and 2SLS results using COVID-19 mortality fluctuations with a reduced set of controls
(longitudinal survey)

	Sacrifice Own Rights	Sacrifice Free Press	Relax Privacy Protections	Suspend Democratic Procedures
	(1)	(2)	(3)	(4)
PANEL A: OLS estimates				
Health Insecurity	0.084***	0.063***	0.068***	0.063***
	(0.003)	(0.004)	(0.003)	(0.004)
PANEL B: Reduced form				
COVID-19 Incidence	0.006***	0.006*	0.008**	0.009**
	(0.002)	(0.003)	(0.003)	(0.004)
PANEL C: 2SLS estimates				
Health Insecurity	0.076***	0.078*	0.099**	0.104**
	(0.023)	(0.044)	(0.043)	(0.041)
Kleibergen-Paap F-statistic	122.690	58.112	77.842	111.281
Mean of Outcome	0.748	0.614	0.573	0.574
Number of Clusters	197	195	194	195
Observations	364735	72929	72892	72901
Controls:				
Demographics	Yes	Yes	Yes	Yes
Government Effectiveness	No	No	No	No
Policy Response	No	No	No	No
Lagged COVID-19 Prevalence	Yes	Yes	Yes	Yes
Week Fixed Effects	Yes	Yes	Yes	Yes
Admin Level 1 Fixed Effects	Yes	Yes	Yes	Yes

Notes: Table reports estimates of the 2SLS model given by Equation 1 and Equation 2, as well as corresponding OLS estimates. Outcome variables are listed in the column headings and described in Section I.C. Health insecurity is an average of three concerns: personal health, the health of the elderly, and the health care system being unable to cope. The health insecurity and COVID-19 incidence are standardized to mean 0 and SD 1. All regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), survey weeks, and administrative division level 1 fixed effects. Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.20: OLS and 2SLS estimates of the effects of health insecurity on civil liberties using COVID-19 mortality fluctuations
(longitudinal survey, ventiles of COVID-19 incidence)

	Sacrifice Own Rights	Sacrifice Free Press	Relax Privacy Protections	Suspend Democratic Procedures
	(1)	(2)	(3)	(4)
PANEL A: OLS estimates				
Health Insecurity	0.081***	0.061***	0.068***	0.063***
	(0.003)	(0.003)	(0.003)	(0.003)
PANEL B: Reduced form				
COVID-19 Incidence	0.009***	0.013***	0.010***	0.019***
	(0.002)	(0.003)	(0.003)	(0.003)
PANEL C: 2SLS estimates				
Health Insecurity	0.124***	0.173***	0.136***	0.223***
	(0.021)	(0.049)	(0.039)	(0.040)
Kleibergen-Paap F-statistic	103.143	49.985	88.145	100.058
Mean of Outcome	0.748	0.618	0.573	0.573
Observations	415316	83139	82916	83023
Controls:				
Demographics	Yes	Yes	Yes	Yes
Government Effectiveness	Yes	Yes	Yes	Yes
Policy Response	Yes	Yes	Yes	Yes
Lagged COVID-19 Prevalence	Yes	Yes	Yes	Yes
Week Fixed Effects	Yes	Yes	Yes	Yes
Admin Level 1 Fixed Effects	Yes	Yes	Yes	Yes

Notes: Table reports OLS and 2SLS results using naturally occurring variation in COVID-19 mortality. The instrument used for the estimates is COVID-19 mortality ventiles. Outcome variables are listed in the column headings and described in Section I.C. Health insecurity is an average of three concerns: personal health, the health of the elderly, and the health care system being unable to cope. The health insecurity and COVID-19 incidence are standardized to mean 0 and SD 1. All regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the ventiles of cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, administrative division level 1 fixed effects, and government effectiveness (i.e., belief that the government is taking proper steps to protect its population). Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.21: Reduced form of the effects of public health treatment on civil liberties (in-depth survey)

Outcome Variables	Public Health Treatment		Mean of Outcome	Gap btwn. China and U.S.
(1)	(2)	(3)	(4)	(5)
Panel A: Overall rights and freedom				
Willing to sacrifice own rights	0.020**	(0.010)	0.724	0.224
Willing to sacrifice others' rights	0.017*	(0.010)	0.705	0.203
z-score: willing to sacrifice rights	0.045**	(0.021)	0.000	0.512
Panel B: Protection of privacy				
Willing to relax privacy protections	0.026***	(0.010)	0.577	0.393
Unwilling to accept: track sick people	-1.441**	(0.690)	48.855	-5.843
Unwilling to accept: track everyone	-1.748**	(0.699)	54.572	-8.957
Contact tracing app	0.028***	(0.010)	0.475	0.268
z-score: willing to sacrifice privacy	0.083***	(0.020)	0.000	0.778
Panel C: Democratic rights and institutions				
Prefer strong leader	0.085***	(0.020)	2.672	0.614
Prefer delegating to experts	0.096***	(0.017)	2.909	-0.058
Willing to sacrifice free press	0.027***	(0.010)	0.600	0.422
Preference for democratic system	0.009	(0.016)	3.267	n.a.
Willing to suspend democr. procedures	0.020**	(0.010)	0.446	n.a.
z-score: willing to curtail democracy	0.093***	(0.020)	-0.001	n.a.
Panel D: Rights to movement				
Unwilling to accept: close national border	0.517	(0.697)	42.655	6.624
Unwilling to accept: recommend stay home	0.373	(0.691)	43.025	7.722
Unwilling to accept: arrest if outside home	-0.480	(0.713)	51.547	-6.984
z-score: willing to give up mobility	-0.002	(0.019)	0.000	-0.032

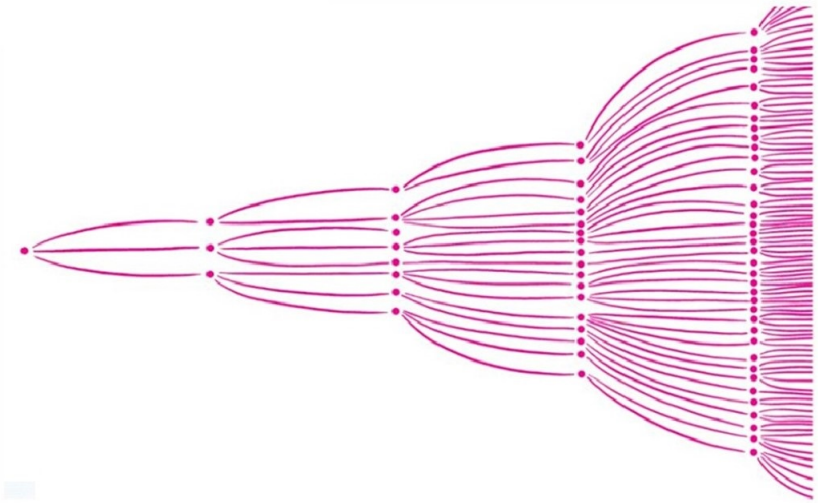
Notes: Table reports reduced form results using experimental variation from the in-depth survey. Columns (2) to (3) present the regression results of the effects of public health treatment on outcomes. Column (4) reports the unconditional mean of the outcome variable of respondents in the control group. Column (5) reports the difference in the unconditional control group mean of each outcome variable between China and U.S. respondents. Outcomes of "unwilling to accept" measure stated minimum lives that need to be saved in order for the respondent to support the given policy on a scale of 0 to 100. Outcomes of "willing to [do]" and contact tracing app are binary. Outcomes of "preference" are on a scale of 1 to 4. The z-score for each family shown at the bottom row of each panel is an inverse-covariance-weighted index as described in Anderson (2008). All regressions include the following controls: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); concerns about surveillance (i.e., worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned)); strata fixed effects (country and hotspot); and survey week fixed effects. The observation count is 13,337 for every regression except the last two in Panel B and last three in Panel C; it is 13,328 for the last two in Panel B and 9,425 for the last three regressions in Panel C. Robust standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix Table A.22: OLS and 2SLS estimates of the effects of health insecurity on civil liberties (in-depth survey, additional outcomes)

Outcome Variables	Health Insecurity (OLS)		Health Insecurity (2SLS)		Mean of Outcome	Gap btwn. China and U.S.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Business and school operation						
Unwilling to accept: close schools	-3.252***	(0.373)	-0.668	(5.556)	42.853	8.686
Unwilling to accept: close restaurants etc.	-3.271***	(0.362)	0.413	(5.358)	42.612	5.969
Unwilling to accept: close all businesses	-3.367***	(0.357)	-1.695	(5.260)	44.021	5.060
z-score: willing to limit operations	0.097***	(0.010)	0.020	(0.150)	0.000	-0.196
Panel B: Economic well-being						
Unwilling to accept: measures cut income	0.048	(0.352)	-12.517**	(5.619)	59.612	-6.195
Unwilling to accept: measures 2x unemp. rate	-2.071***	(0.341)	-4.261	(5.106)	52.047	3.729
Unwilling to accept: measures 3x unemp. rate	-1.835***	(0.351)	-2.223	(5.289)	56.316	3.308
Willing to endure economic losses	0.058***	(0.005)	0.133*	(0.079)	0.588	0.125
z-score: willing to harm economy	0.105***	(0.010)	0.364**	(0.160)	0.000	0.181
Panel C: Other restrictive policies						
Unwilling to accept: ration goods	-1.349***	(0.351)	-9.683*	(5.354)	51.632	-0.096
Unwilling to accept: mandate vaccinations against COVID-19	-2.795***	(0.375)	-4.940	(5.660)	46.576	4.247
z-score: willing to accept restrictive policies	0.065***	(0.010)	0.239	(0.152)	0.000	-0.063

Notes: Table reports OLS and 2SLS results using experimental variation, based on the in-depth survey. Health Insecurity refers to an average of (1) COVID-19 is a threat to the health and lives of people in the country; and (2) the country does not have sufficient hospital capacity and medical equipment for a pandemic surge, topics discussed in the public health treatment. It is standardized to mean 0 SD 1. Columns (2) to (3) present the OLS estimates and standard errors, and columns (4) to (5) present the 2SLS results from equation 3. Column (6) reports the unconditional mean of the outcome variable of respondents in the control group. Column (7) reports the difference in the unconditional control group mean of each outcome variable between China and U.S. respondents. Outcomes of "unwilling to accept" measure the stated minimum lives that need to be saved in order for the respondent to support the given policy on a scale of 0 to 100. Outcomes of "willing to [do]" are binary. Question wording of economy-related outcomes are described in Appendix Table C.1. The remaining four outcomes listed in the above table take the standard minimum lives that need to be saved question format and are worded as follows: close schools—"During the epidemic, the government closes all schools.", close restaurants etc.—"During the epidemic, the government closes restaurants, bars, and entertainment businesses.", ration goods—"During the epidemic, the government rations certain items designated by the government (e.g. masks, food, etc.) so one cannot buy them from the market.", mandate vaccination—"During the epidemic, the government requires everyone to become vaccinated against the coronavirus as soon as an effective vaccine becomes available.". The z-score for each family shown at the bottom row of each panel is an inverse-covariance-weighted index as described in Anderson (2008). All regressions include the following controls: demographics (sex, age group indicators, education (indicator for having a college degree), income quartiles (relative to own country), and an indicator for any medical conditions); concerns about surveillance (i.e., worries about information collected by the government to fight COVID-19 could be stored and used for other reasons later on a scale of 1 (strongly unconcerned) to 5 (strongly concerned)); strata fixed effects (country and hotspot); and survey week fixed effects. The observation count is 13,337 for every regression. The first stage F-statistic is 56.12. Robust standard errors are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

B Appendix Figures



Notes: Figure shows exponential-disease-spread exhibit presented in the public health treatment. Participants in the experiment were shown a dynamic version of the figure above: from the root node of the tree, the disease sequentially spread to each set of downstream nodes.

Appendix Figure B.1: Information treatment: exponential disease spread

Notes: Figure shows health-care-strain exhibit presented in the public health treatment.

Appendix Figure B.2: Information treatment: health care strain

There are a **few key public health measures governments** can do **to slow down the epidemic**:

(1) **Testing** widely for COVID-19; and **tracking the location** and social contacts of anyone who tests positive for COVID-19.

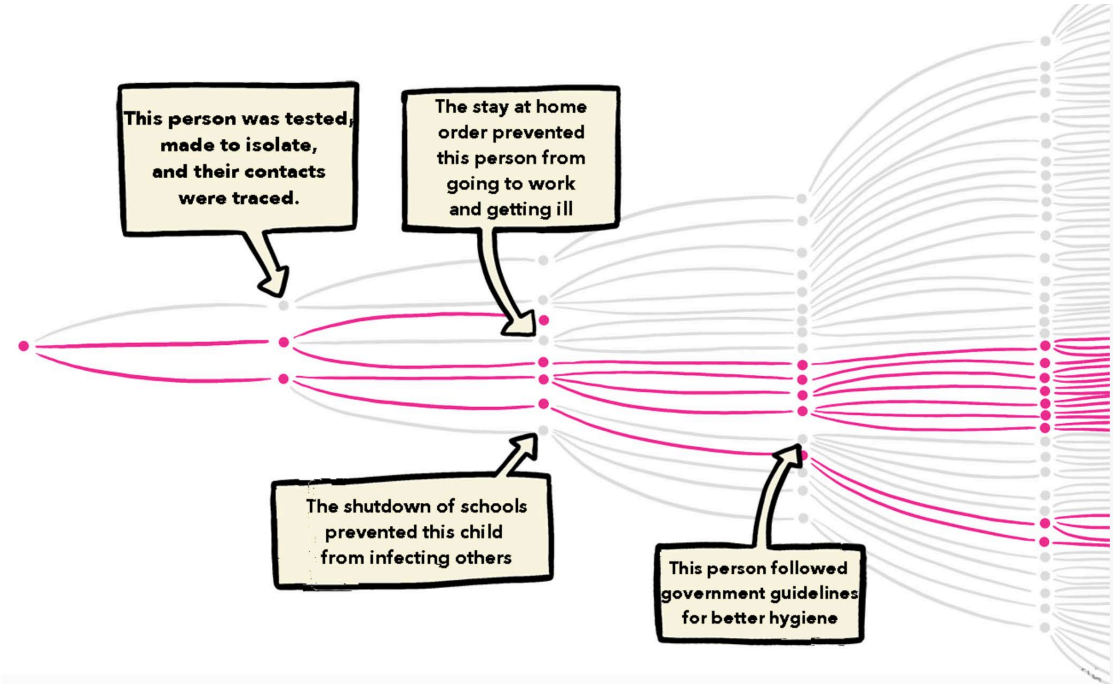
(2) **Isolating individuals** who are positive for COVID-19 for a long period of time and ensuring they do not spread the disease to others.

(3) Requiring individuals to **stay at home** and **not go to work** to **reduce community spread** of the virus.

(4) Promoting **good hygiene** at home, at work and in public spaces.

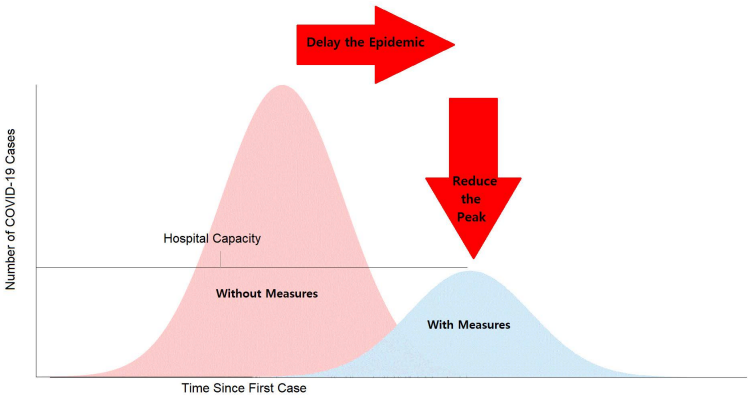
Notes: Figure shows key-health-measures exhibit presented in the public health treatment.

Appendix Figure B.3: Information treatment: key health measures



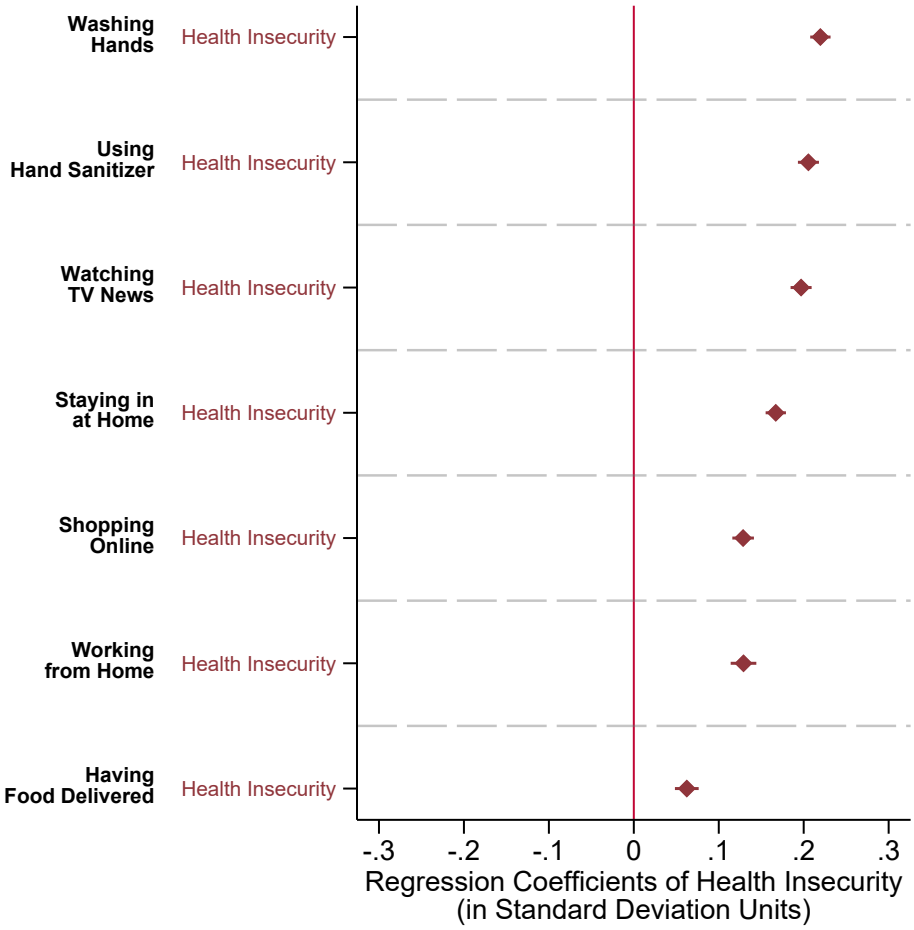
Notes: Figure shows importance-of-containment-measures exhibit presented in the public health treatment.

Appendix Figure B.4: Information treatment: importance of containment measures



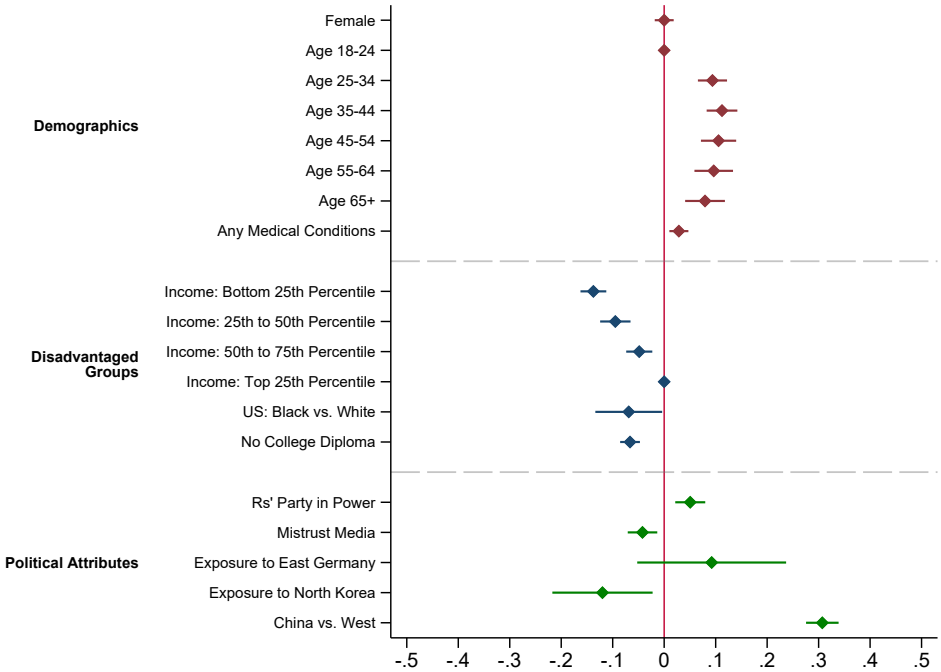
Notes: Figure shows flattening-the-curve exhibit presented in the public health treatment.

Appendix Figure B.5: Information treatment: flattening the curve



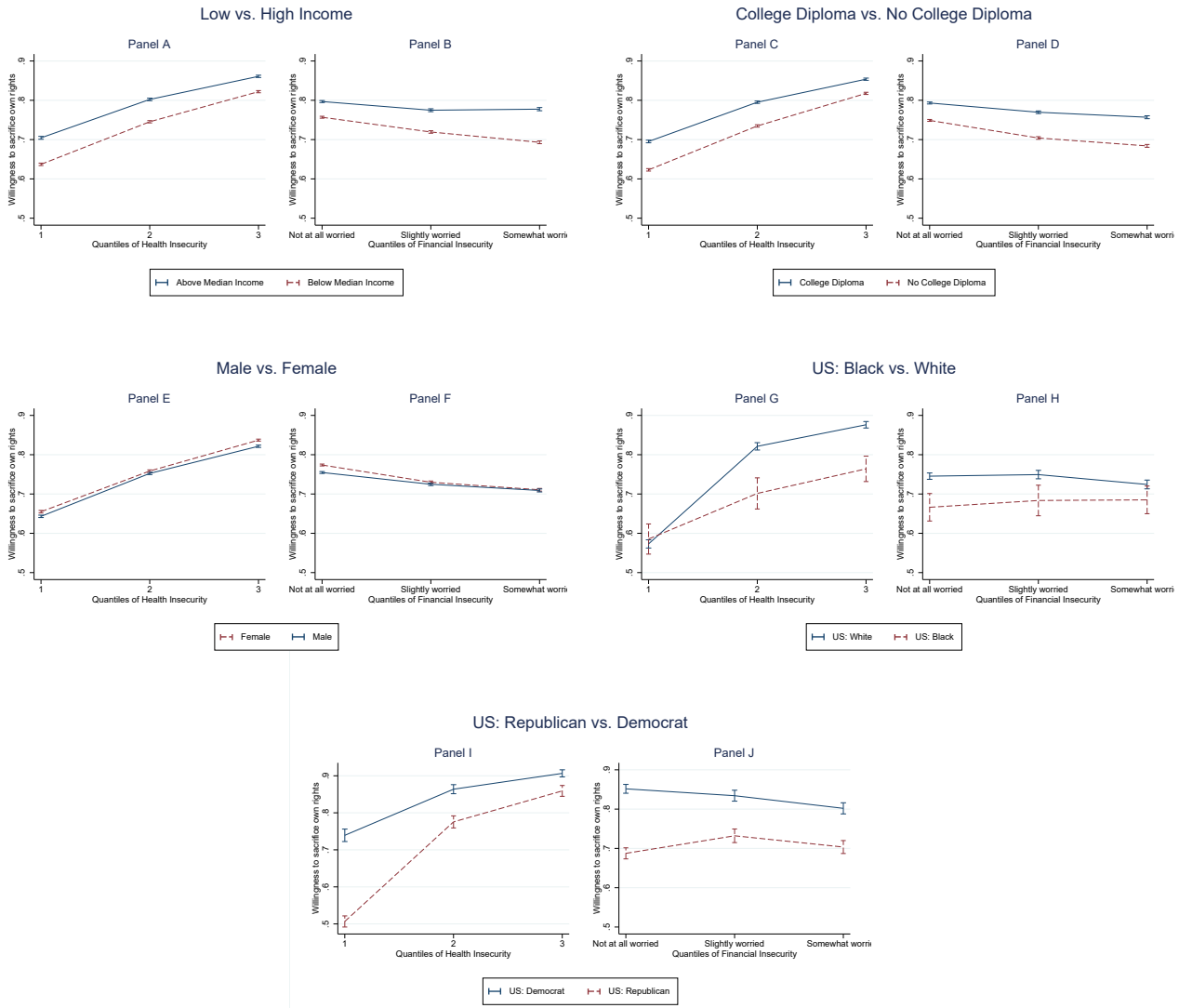
Notes: Figure is based on the longitudinal survey sample, including weeks from the week of March 30 to the week of April 13, 2020. Sweden period slightly delayed due to later entry into survey. Diamonds reflect coefficient estimates of health insecurity on the relevant outcome (y-axis). Health insecurity is the average over concerns about personal health, health of the elderly, and healthcare systems being able to cope. All outcomes and indexes are standardized to have mean 0 and SD 1. Regressions include but do not report country-week fixed effects, financial insecurity (i.e. concerns about one's household financial position), and demographic controls (age and sex). 95% confidence intervals based on robust standard errors are also shown.

Appendix Figure B.6: Relationship between health insecurity and self-reported behaviors (longitudinal survey)



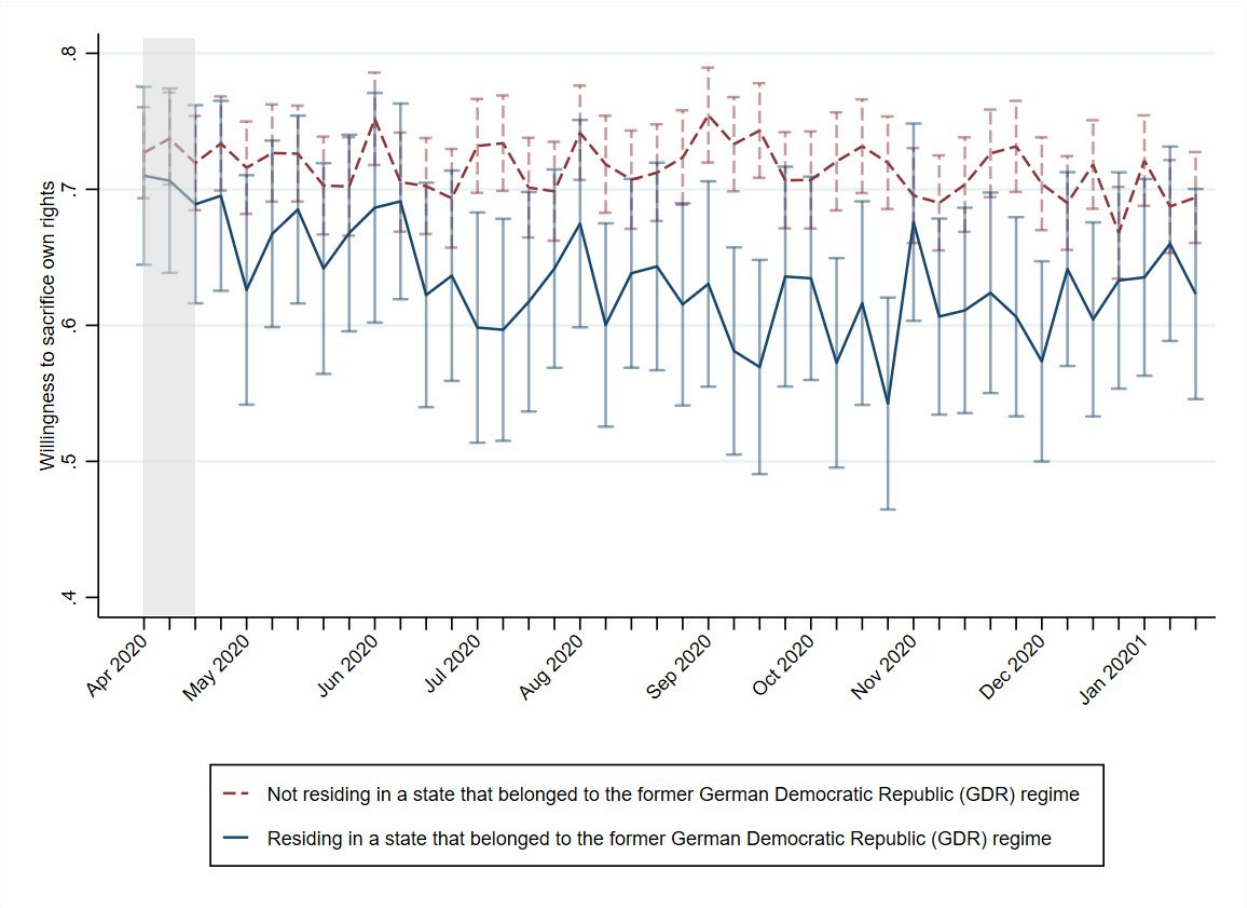
Notes: Figure based on in-depth survey sample, restricted to the control group. Diamonds denote coefficient estimates obtained from separate OLS regressions of willingness to sacrifice rights (as described in Section I.C) on the given characteristics (y-axis), controlling for perceived health insecurity, a hotspot indicator, survey week and country fixed effects. "China vs. West" denotes the an indicator equal to 1 for respondents from China (and zero for France, U.S., Italy, Germany, and the U.K.). 95% confidence intervals based on robust standard errors are shown.

Appendix Figure B.7: How willingness to sacrifice rights varies with individual characteristics, controlling for perceived health insecurity (in-depth survey)



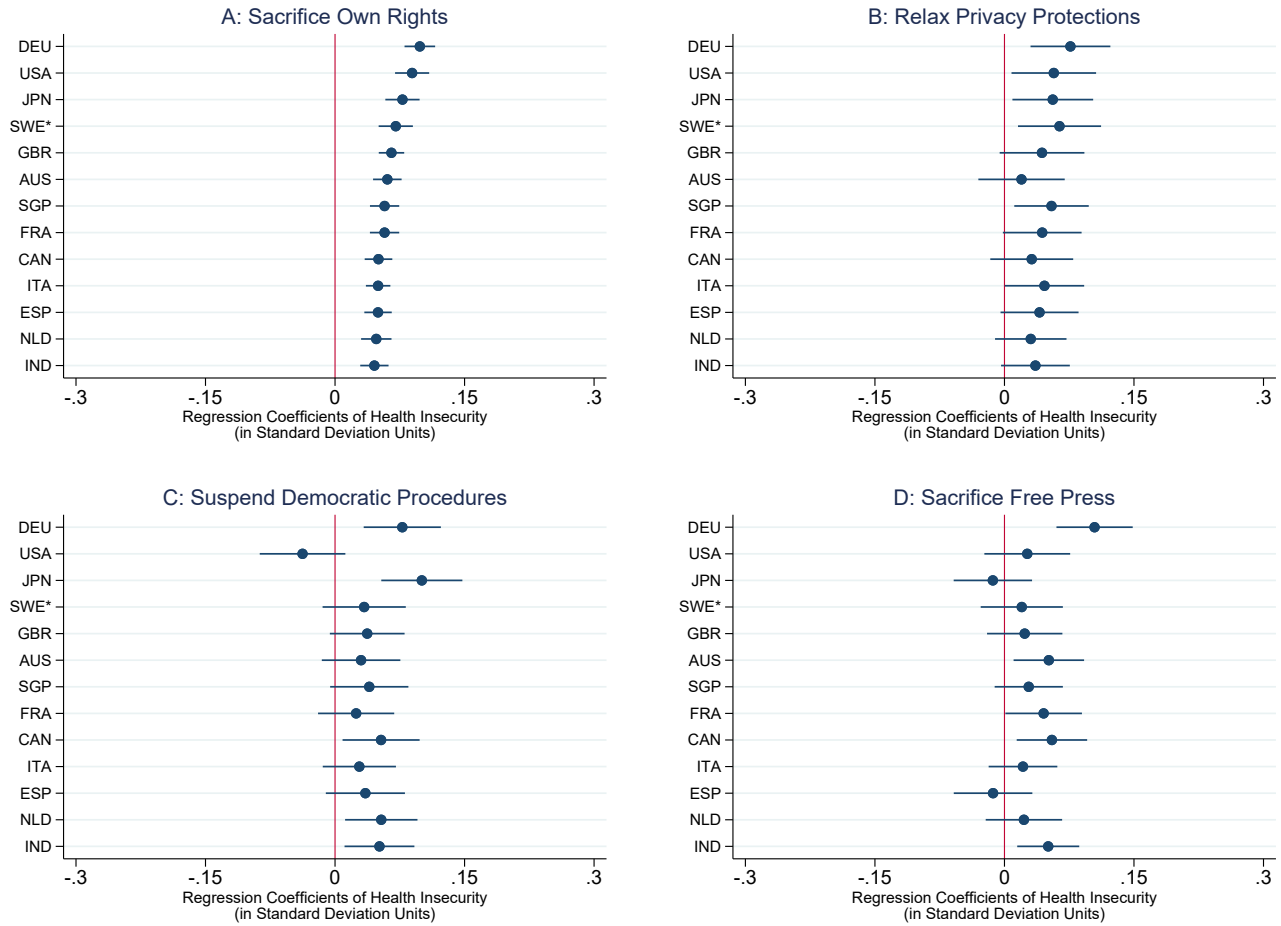
Notes: Figure is based on the longitudinal survey, plotting marginal predicted values of willingness to sacrifice rights (described in Section I.C) on the terciles of health (Panels A, C, E, G, and I) and financial insecurity (Panels B, D, F, H, and J) by demographic characteristics. The estimates are conditional on country and week fixed effects, indicators for age group and sex, and (for the comparisons in the U.S.) party affiliation and race. The plot by political affiliation does not control for political affiliation; the plot by race does not control for race.

Appendix Figure B.8: Relationship between health insecurity, financial insecurity and sacrificing rights across demographic groups (longitudinal survey)



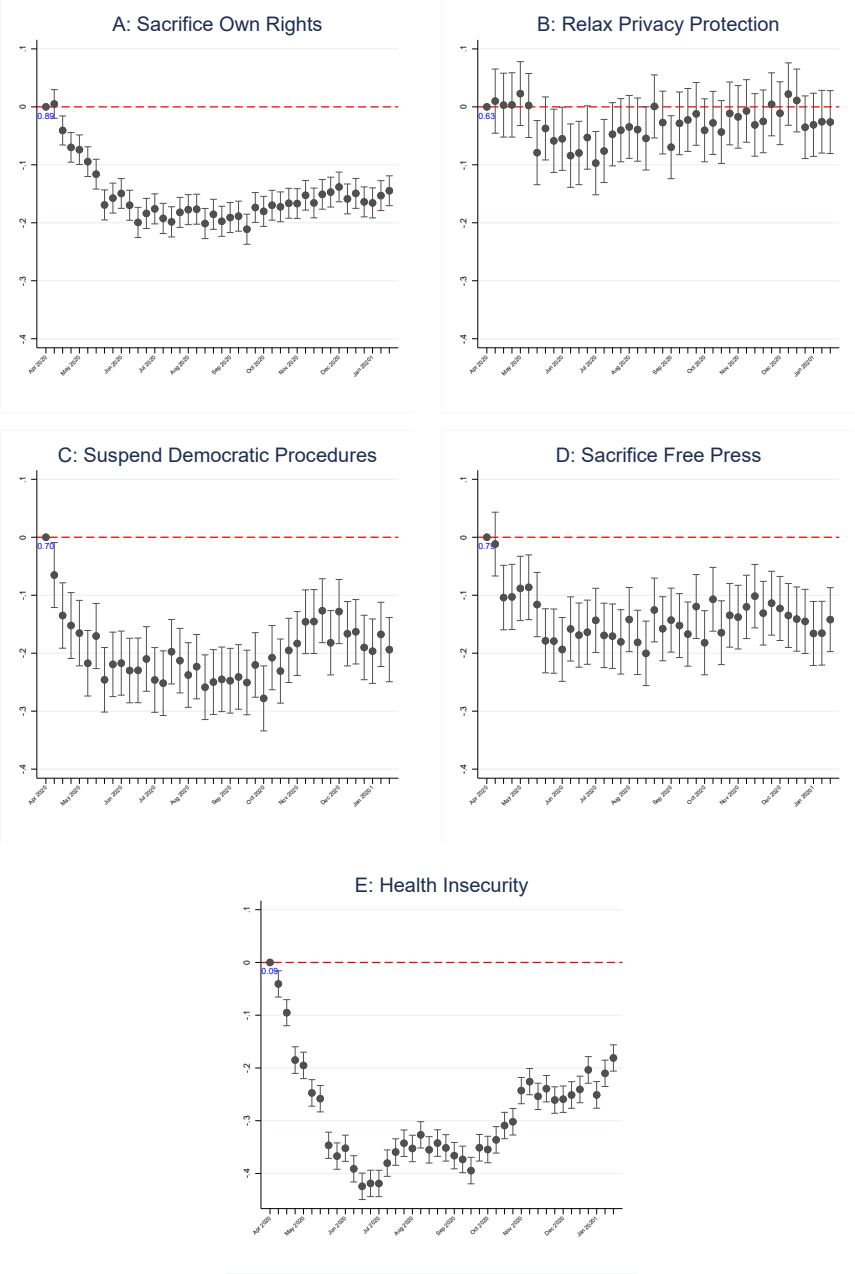
Notes: Figure is based on the longitudinal survey sample and plots marginal predicted values of willingness to sacrifice rights on residing in a state that belonged to the former German Democratic Republic (GDR) regime conditional on week fixed effects. Willingness to sacrifice rights is binary with 1 indicating more willingness and 0 indicating less willingness. The shaded gray area indicates the first three weeks of data collection early in the pandemic. The regression also controls for perceived health insecurity. 95% confidence intervals based on standard errors are shown.

Appendix Figure B.9: Willingness to sacrifice rights among former German Democratic Republic (GDR) citizens
(longitudinal survey)



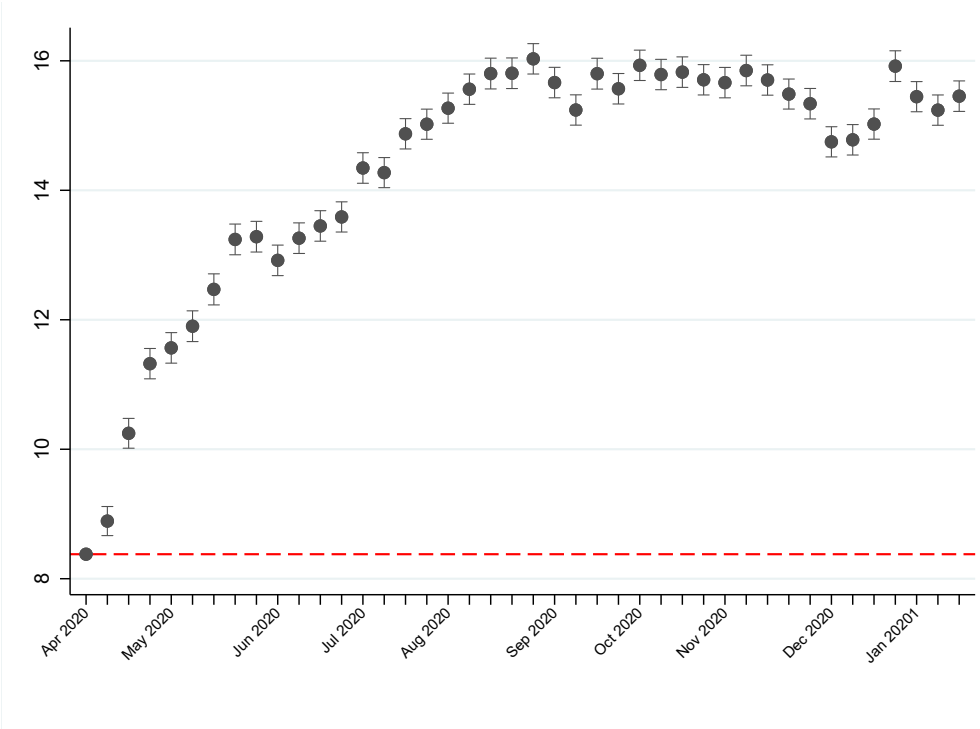
Notes: Figure is based on the longitudinal survey sample, including weeks from the week of March 30 to the week of April 13, 2020 except for Sweden; data from the week of May 18 to the week of June 1, 2020 are used for Sweden since data collection did not begin until May 18, 2020. The sample includes the following countries: Australia (AUS), Canada (CAN), France (FRA), Germany (DEU), India (IND), Italy (ITA), Japan (JPN), Singapore (SGP), Spain (ESP), the Netherlands (NLD), the United Kingdom (GBR), Sweden (SWE), and the United States (USA). Dots denote coefficient estimates from separate OLS regressions of our four main outcome variables on health insecurity by country. Outcome variables are binary with 1 indicating more willingness and 0 indicating less willingness. Health insecurity is the average over concerns about personal health, health of the elderly, and healthcare systems being able to cope. It is standardized so as to have mean 0 and SD 1 in the given country sample. Regressions include but do not report demographic controls (age and sex), financial insecurity (i.e. concerns about one's household financial position), and week fixed effects. 95% confidence intervals based on robust standard errors are also shown.

Appendix Figure B.10: Relationship between willingness to forego civil liberties and health insecurity by country (longitudinal survey)



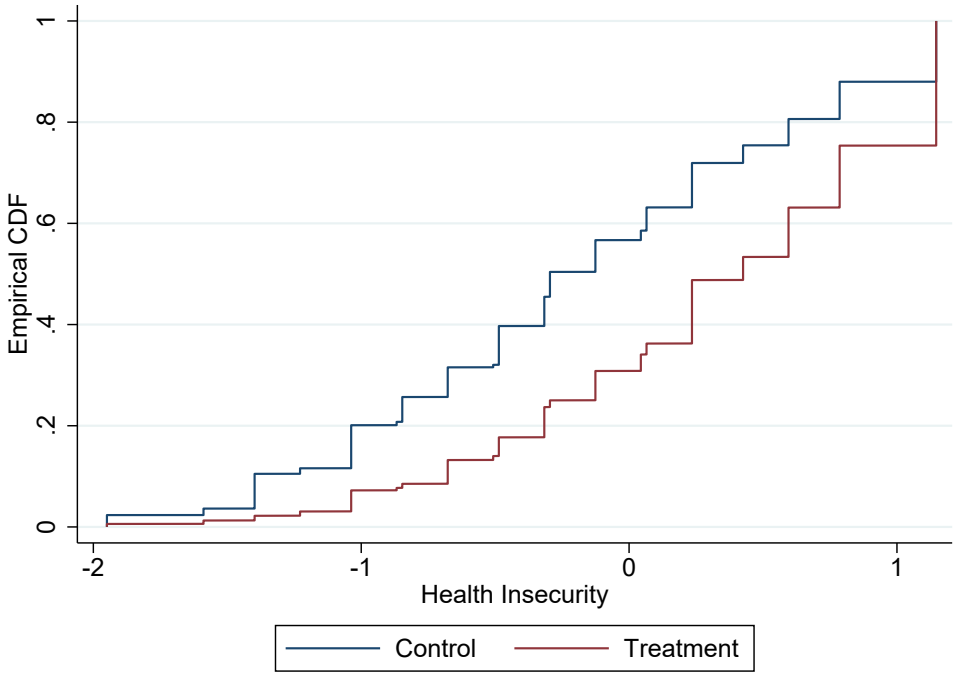
Notes: Figure is based on the longitudinal survey, including all weeks from the week of March 30, 2020 to the week of January 18, 2021 and including the following countries: Australia, Canada, France, Germany, India, Italy, Japan, Singapore, Spain, Sweden, the Netherlands, the United Kingdom, the United States; Sweden is added in the week of May 18, 2020. Dots represent coefficient estimates obtained from OLS regression of each outcome of interest on week fixed effects. Outcome variables except Panel E are binary with 1 indicating more willingness and 0 indicating less willingness; health insecurity in Panel E is the average over concerns about personal health, health of the elderly in the community, and healthcare systems being able to cope. All outcomes are standardized based on mean and SD as of the week of March 30, 2020 except Swedish data; outcomes of Swedish data are standardized based on the week of March 30, 2020 data from European countries (i.e. France, Germany, Italy, Spain, the Netherlands, and the United Kingdom) due to the absence of weekly data from the week of March 30 to the week of May 11, 2020. Numbers in blue under the first dot in each subfigure indicate the constant term obtained from the same regression specification but with unstandardized outcome: 0.89 for Panel A; 0.63 for Panel B; 0.70 for Panel C; 0.79 for Panel D; 0.09 for Panel E. Country fixed effects are included in the regressions but not reported. 95% confidence intervals based on robust standard errors are also shown.

Appendix Figure B.11: Willingness to forego civil liberties and health insecurity over time (longitudinal survey)



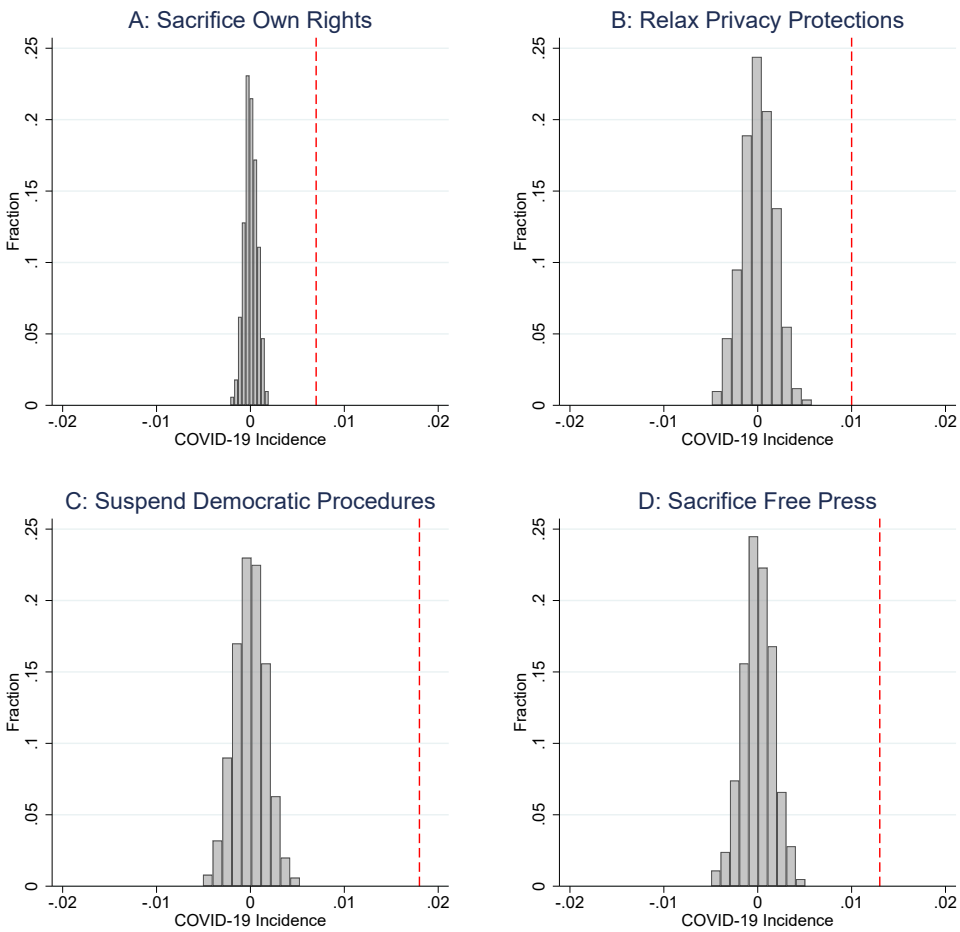
Notes: Figure is based on the longitudinal survey, including all weeks from the week of March 30, 2020 to the week of January 18, 2021 and including the following countries: Australia, Canada, France, Germany, India, Italy, Japan, Singapore, Spain, Sweden, the Netherlands, the United Kingdom, the United States; Sweden is added in the week of May 18, 2020. Dots represent coefficient estimates obtained from OLS regression of outcome of interest on week fixed effects and country fixed effects. Outcome of interest is the respondent's belief about months to end of pandemic; y-axis denotes the number of months. The week of March 30, 2020 is the omitted category; mean of the week of March 30, 2020 is added to coefficients. 95% confidence intervals based on robust standard errors are shown.

Appendix Figure B.12: Beliefs about pandemic duration over time (longitudinal survey)



Notes: Figure is based on the in-depth survey. It compares the distribution of health insecurity for respondents who are assigned to the public health treatment group and for respondents who are assigned to the control group, following Abadie (2002). Health insecurity refers to an average of "threat to people's health" and "healthcare capacity"; threat to people's health measures a level of agreement on a statement that COVID-19 is a threat to the health and lives of people in the country on a scale of 1 (not a serious threat) to 4 (A very serious threat); healthcare capacity measures a level of agreement on that the R's country does not have sufficient hospital capacity and medical equipment to deal with the COVID-19 outbreak on a scale of 1 (strongly disagree) to 5 (strongly agree). A Kolmogorov-Smirnov test rejects the null hypothesis that the Control CDF first-order stochastically dominates or is equal to the Treatment CDF at the 0.01 significance level.

Appendix Figure B.13: Empirical cumulative distribution functions (CDF) of health insecurity: treatment vs. control group
(in-depth survey)



Notes: The figure shows the results of a permutation test based on the sample of the longitudinal survey. Specifically, each histogram shows the distribution of estimates of coefficient γ_1 from $Y_{ik} = \alpha_{j(ik)} + \alpha_{t(ik)} + \gamma_1 \cdot \text{COVID-19 incidence}_{j(ik)t(ik)} + X'_{ikj(ik)t(ik)}\Omega_1 + \kappa_{ik}$ obtained from 1,000 simulations in which the COVID-19 incidence (i.e. the log of the death rate from COVID-19) is randomly permuted across observations. The COVID-19 incidence is normalized to mean 0 and SD 1. See Section III.A for detailed descriptions of parameters and indices in the equation. The dashed red line shows the coefficient estimate obtained from estimating on the actual data and reported in Panel B of Table IV.

Appendix Figure B.14: Reduced form: permutation test (longitudinal survey)

C Results for Willingness to Endure Economic Harm to Protect Public Health

The primary outcomes studied in this paper relate to preferences over civil liberties vs. public health. However, as a benchmark, and of interest in and of itself, we have also elicited views regarding the willingness to endure economic harm in order to protect public health. We report results related to these economy-related preferences in this appendix section.

Appendix Table C.1 summarizes all outcomes related to the trade-off between economic well-being and public health protection elicited in our surveys. We elicited five outcomes in total. Among those, one measure was elicited both in the in-depth and longitudinal survey, while the other four were elicited in the in-depth survey only. The former is based on the response to a question that asks, on a 11-point Likert scale, to what extent a respondent agrees with the statement: *"I am willing to endure substantial economic losses during a crisis like the current one, in order to maintain the health and well-being of society as a whole."* As with our main civil liberties-related outcomes elicited on this scale, we dichotomize this outcome such that responses of 6 or higher are coded as 1 and 0 otherwise. The other four economy-related outcomes are elicited in the "lives saved" format. They span the number of lives needed to be saved in order to endure a measure that closes all non-essential businesses, that cuts the pay of low-income workers in half, that doubles the unemployment rate, or that triples the unemployment rate.

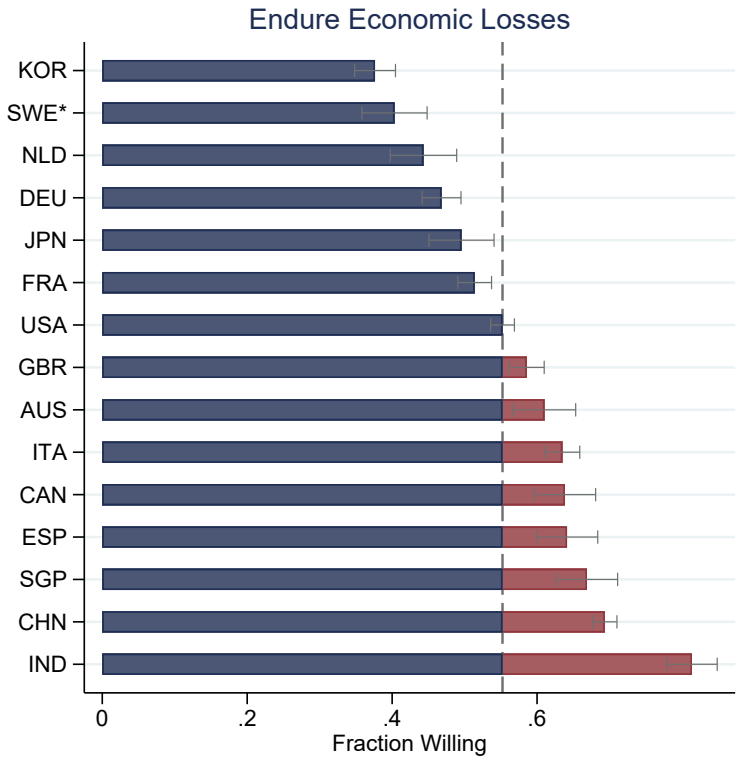
Starting with descriptive patterns across countries (Appendix Figure C.1 below), we find that relative to the willingness to suspend democratic procedures, the free press, or privacy protections (displayed in Figure I) respondents are on average more willing to endure economic losses in order to protect public health. Respondents from India and China show the highest acceptance for pandemic-related restrictions that bring economic losses, while respondents from Korea and Sweden show the lowest acceptance. For the lives saved questions (means are displayed in column 6 of Table A.22), we find levels of willingness broadly similar to those we observe for privacy-related outcomes (such as the government tracking everyone's location; see Table V, Panel B, column 6); we find slightly less willingness to endure these economic restrictions relative to restrictions related to movement (such as closing the national border, or the government arresting individuals found outside of their home; see Table V, Panel D, column 6).

Next, we turn to the results attempting to isolate a causal relationship between health insecurity and the willingness to endure economic harm in order to protect public health. Panel B of Appendix Table A.22 shows results for our four economy-related outcomes elicited in the in-depth survey, when exploiting our randomly assigned information treatment as an instrument for health insecurity. Across all four economy-related outcomes we elicit, our 2SLS estimates show a positive relationship between health insecurity and willingness to endure economic harm. The effect is strongest and most significant for the measure that cuts the pay of low income workers in half: a 1 SD unit increase in health insecurity leads to a reduction of 12.5 in the number of lives needed to be saved in order to accept this measure. In all, the treatment effect on the inverse covariance weighted index of all four outcomes is 0.36 SD units; it is approximately equal in size as the effect estimated on our index of sacrificing rights, overall, and approximately half the size as the ones estimated for privacy-related and democracy-related restrictions. Although outcomes are not directly comparable across domains, it suggests that respondents are relatively less elastic when it comes to restrictions that hurt their own economic position, and/or those who are economically vulnerable, than when it comes to privacy- or democracy-related restrictions.

Appendix Table C.2 below shows the equivalent results using local and temporal fluctuations in COVID-19 mortality as an instrument, based on the longitudinal survey sample. We find very similar 2SLS estimates across the two empirical strategies and samples: a one SD unit increase in health insecurity leads to a 14.8pp [13.3pp] increase in the willingness to endure economic losses in order to protect public health when employing COVID-19 mortality and the longitudinal survey [the information treatment and the in-depth survey].

Appendix Table C.1: Economy-related outcomes from the longitudinal and in-depth surveys

Row (1)	Outcome Family (2)	Outcome Name (3)	Question Wording (4)	Scale (5)	Outcome Reoriented When Constructing Index (6)	Survey (7)
1	Business operation	Unwilling to accept: close all businesses	What's the minimum number of people [out of every 100 people who would have otherwise died in your country because of the COVID-19 pandemic] that each of the following policies would need to save in order for you to support it? "During the epidemic, the government closes all non-essential businesses."	0 to 100	Yes	In-depth survey only
2		Unwilling to accept: measures cut income	What's the minimum number of people [out of every 100 people who would have otherwise died in your country because of the COVID-19 pandemic] that each of the following policies would need to save in order for you to support it? "During the epidemic, the government implements a set of public health measures that cuts the pay of low income workers in half."	0 to 100	Yes	In-depth survey only
3		Unwilling to accept: measures 2x unemp. rate	What's the minimum number of people [out of every 100 people who would have otherwise died in your country because of the COVID-19 pandemic] that each of the following policies would need to save in order for you to support it? "During the epidemic, the government implements a set of public health measures that doubles the unemployment rate."	0 to 100	Yes	In-depth survey only
4	Economic well-being	Unwilling to accept: measures 3x unemp. rate	What's the minimum number of people [out of every 100 people who would have otherwise died in your country because of the COVID-19 pandemic] that each of the following policies would need to save in order for you to support it? "During the epidemic, the government implements a set of public health measures that triples the unemployment rate."	0 to 100	Yes	In-depth survey only
5		Willing to endure economic losses	To what extent do you agree with the following statement: I am willing to endure substantial economic losses during a crisis like the current one, in order to maintain the health and well-being of society as a whole.	0 (completely disagree) to 10 (completely agree)	No	Longitudinal and In-depth surveys



Notes: Figure uses responses from both the longitudinal and in-depth surveys for overlapping weeks (i.e. week of March 30 to week of April 13, 2020). For Sweden, data is used from the week of May 18 to the week of June 1, 2020. Bars represent the country fixed effects plus constant obtained from a regression of the outcome on week, country, and survey (i.e. longitudinal vs. in-depth) fixed effects. Willingness to endure economic losses is defined as answering "6" or above to question "On a scale of 0 (extremely unwilling) to 10 (extremely willing), to what extent do you agree with the following statement: I am willing to endure substantial economic losses during a crisis like the current one, in order to maintain the health and well-being of society as a whole." The dashed lines represent the average of the outcome variable among U.S. respondents. 95% confidence intervals are depicted in gray.

Appendix Figure C.1: Cross-country patterns in willingness to endure economic losses to protect public health
(longitudinal and in-depth survey)

Appendix Table C.2: Impact of health insecurity on willingness to endure economic losses to protect public health
2SLS results using COVID-19 mortality fluctuations
(longitudinal survey)

	Endure Economic Losses (1)
PANEL A: OLS estimates	
Health Insecurity	0.093***
	(0.004)
PANEL B: Reduced form	
COVID-19 Incidence	0.009***
	(0.004)
PANEL C: 2SLS estimates	
Health Insecurity	0.148***
	(0.049)
Kleibergen-Paap F-statistic	41.501
Mean of Outcome	0.570
Number of Clusters	196
Observations	72874
Controls:	
Demographics	Yes
Government Effectiveness	Yes
Policy Response	Yes
Lagged COVID-19 Prevalence	Yes
Week Fixed Effects	Yes
Admin Level 1 Fixed Effects	Yes

Notes: Table reports estimates of the 2SLS model given by Equation 1 and Equation 2, as well as corresponding OLS estimates. Outcome variable is listed in the column heading and defined as answering "6" or above to question "On a scale of 0 (extremely unwilling) to 10 (extremely willing), to what extent do you agree with the following statement: I am willing to endure substantial economic losses during a crisis like the current one, in order to maintain the health and well-being of society as a whole." Health insecurity is an average of three concerns: personal health, the health of the elderly, and the health care system being unable to cope. The health insecurity and COVID-19 incidence are standardized to mean 0 and SD 1. All regressions include controls for demographics (sex, age group indicators, education (indicator for having a college degree), and income quartiles relative to own country), proxies for public health policy response (three-week moving average of a stringency index and the presence of a lockdown in the respondent's region during the week of the survey), the (log) cumulative prevalence of COVID-19 mortality lagged by one week, survey weeks, administrative division level 1 fixed effects, and government effectiveness (i.e., belief that the government is taking proper steps to protect its population). Standard errors clustered at the administrative division level 1 are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

D Public Health Treatment Script

COVID-19 is a respiratory virus without a cure or a vaccine. Respiratory viruses are highly contagious. On average, each individual who has COVID-19 will infect about two to three more people. That might not sound like a big number, but the key is the number is bigger than one, and that can lead to a lot of spread in a short amount of time. The animation on the next screens illustrates this.

[Page break]

Each pink dot represents a person who has the COVID-19 infection. The first infected person quickly infects 3 more people...

[Graph showing a simple graphical explanation of exponential disease spread.]

[Page break]

... then the infection quickly spreads:

[Graph showing a simple graphical explanation of exponential disease spread.]

[Page break]

A big problem with infections occurring so fast is that many people will get very sick at the same time.

[Page break]

This is a huge problem because hospitals will quickly be overwhelmed.
This is shown below in the epidemic curve. The epidemic curve plots the number of COVID-19 cases on the vertical axis and time on the horizontal axis.
At the height of the epidemic curve, the number of patients who need care far exceeds the capacity of hospitals.

[Graph showing epidemic curves]

This strain on our healthcare system affects not only COVID-19 patients but anyone who needs planned or unplanned acute medical care.

[Page break]

This is what overcrowding and strain in hospitals looks like - it leads to shortages and preventable deaths.

Critically ill patients crowded in improvised spaces in Italy.

[Picture showing a hospital with limited hospital capacity]

Patients waiting on the floor in a hospital in Spain.

[Picture showing a hospital with limited hospital capacity]

[Page break]

Many people with other medical problems will not be able to get the care they need.

Many doctors and nurses may get the virus and therefore cannot take care of patients.

Those in the hospital may die without family members around because of fear of contagion.

[Page break]

There are a few key public health measures governments can do to slow down the epidemic:

- (1) Testing widely for COVID-19; and tracking the location and social contacts of anyone who tests positive for COVID-19.
- (2) Isolating individuals who are positive for COVID-19 for a long period of time and ensuring they do not spread the disease to others.
- (3) Requiring individuals to stay at home and not go to work to reduce community spread of the virus.
- (4) Promoting good hygiene at home, at work and in public spaces.

[Page break]

[Graphic showing how public health measures such as social distancing can prevent exponential disease spread.]

[Page break]

These measures can help reduce the number of people who are sick at the same time and they can delay the epidemic.

[Graphic showing how public health measures such as social distancing can flatten the epidemic curve and reduce the burden on the healthcare system.]

[Page break]

Delaying the epidemic is important because it allows time for researchers to develop vaccines and cures and hospitals to get more equipment to treat those who are ill.

[Page break]

E Survey Instrument Details

E.I Longitudinal Survey

The longitudinal survey is part of "Covid 19 Global Consumer Trends Report", a weekly, multi-country survey designed and administered by a consumer-research company, Dynata. It explores the opinions and attitudes of global consumers in 13 countries during the COVID-19 pandemic and is representative on first moments of age, gender, and geographic location of residence.[38] The survey includes the following questions:

Q1) The current pandemic is called Coronavirus by some and Covid 19 by others. What do you normally refer to it as? (*USE THE ANSWER TO Q1 IN ALL QUESTIONS WITH TEXT SUB <CV>*)

1. Coronavirus
2. Covid 19

Q2) When thinking about <CV> how worried, if at all, are you personally about:

- Your household's financial position
- Your personal health

[38]The 13 countries are Australia, Canada, France, Germany, India, Italy, Japan, Spain, Sweden, the Netherlands, the United Kingdom, and the United States

- The health of elderly family members
- The availability of foodstuffs
- Being around strangers
- The economy in your country
- The world economy
- Healthcare systems being able to cope

1. Not at all worried
2. Slightly worried
3. Somewhat worried
4. Very worried
5. Extremely worried

98. Does not apply

Q3) Now thinking about your personal behaviour since the outbreak of <CV>. How would you say each of these has changed, if at all, in the past few weeks?

- Washing your hands
- Touching strangers
- Touching family members
- Touching friends
- Using hand sanitizer
- Going out to restaurants or bars
- Working from home
- Going shopping to physical stores
- Online shopping
- Using public transport
- Watching TV news

- Having food delivered
- Staying at home

Q4) Please indicate to what extent, if at all, you agree or disagree with these statements other people have made in light of the <CV> outbreak.

- Our government is taking the right steps to protect us

1. Disagree strongly
2. Disagree slightly
3. Neither agree nor disagree
4. Agree slightly
5. Agree strongly

Q5) When do you think the <CV> outbreak will be over, and life will return to normal?

1. Within a month
2. Within 2 months
3. Within 3 months
4. Within 6 months
5. Within a year
6. It will take longer than a year
7. Life will never be the same again
8. Don't know

After answering these pandemic-related attitudes and behavior questions, respondents were asked to answer three civil liberties-related questions, which we added to the survey starting the week of March 30, 2020 until the week of January 18, 2021[39]. The three questions, all of which were also included in our in-depth survey, are:

Q5) To what extent do you agree ("0: completely disagree" to "10: completely agree") with the

[39]Sweden is added to the sample in the week of May 18, 2020

following statement: I am willing to sacrifice my own rights and freedoms during a crisis like the current one, in order to maintain the health and well-being of the whole society.

Q6) (*Randomly selected among the following four questions*) To what extent do you agree ("0: completely disagree" to "10: completely agree") with the following statement:

- I am willing to suspend democratic procedures and give the President [or Prime Minister] more power during a crisis like the current one, in order to ensure swift government actions.
- I am willing to relax privacy protections and let the government access my personal data during a crisis like the current one, in order to allow the government to make timely and accurate decisions.
- I am willing to support the government controlling the media during a crisis like the current one, in order to ensure effective and uniform communication between the government and citizens.
- I am willing to endure substantial economic losses during a crisis like the current one, in order to maintain the health and well-being of society as a whole. [*Secondary outcome, since not civil-liberties-related; results reported in Appendix C.*]

Q7) On a scale of 0 (not at all worried) to 10 (extremely worried), how worried are you that the rights, freedoms, and procedures that are forgone during a crisis like the current one won't be recovered after the crisis is over?

In addition to the questions described above, the longitudinal sample includes respondents' demographic information, such as age, gender, geographic location of residence, household annual income level, level of educational attainment, occupation, political ideologies (U.S. and U.K. only), and party affiliation (U.S. only).

E.II In-depth Survey

The in-depth sample is representative on first moments of age, gender, income, and geographic location of residence. The sampling frame is built based on Dynata's weekly consumer trend survey infrastructure.

We pre-specified to collect 20% of data from "hotspot" areas. In most countries, one singular location clearly stood out as the area of major concern. In China, we selected the city of Wuhan as the hotspot; in Germany, the city of Munich; in France, the city of Paris; in the U.K., the city of London; in South Korea, the city of Daegu. At the time of our survey, no single location in Italy and the United States could easily be pinpointed as the hotspot; as a consequence, we selected multiple locations in each country. For Italy, we selected the cities of Milan and Bergamo; for the United States, we selected the cities of New York City, Seattle, New Orleans, and Detroit. Our choices of COVID-19 hotspots in the U.S. also coincide with various reports. For example, Kaiser News reports that "the first surge of cases was concentrated in a handful of 'hot spot' cities such as New York, Detroit, Seattle and New Orleans" (Farmer, Radio and Feibel 2020). These definitions of COVID-19 hotspots were pre-registered before the survey was administrated. We aimed to recruit 1,200 individuals from each country other than the United States and 3,600 individuals from the United States. Since some of the demographic quotas proved hard to fill, the total number of participants recruited was larger than originally planned. We use the unweighted results in our main analysis and provide nationally representative weights in the appendix.

E.III Links for the In-depth Survey

Translation was performed into Italian, French, German, Korean and Mandarin by native speakers. Translation was checked by co-authors of the paper who also speak these languages.

- China: https://harvard.az1.qualtrics.com/jfe/form/SV_9H6ENqZz1n8Uklw
- France: https://harvard.az1.qualtrics.com/jfe/form/SV_9LDNeSHT4hkAAWa
- Germany: https://harvard.az1.qualtrics.com/jfe/form/SV_2n9B6ftcrddzD2S
- Italy: https://harvard.az1.qualtrics.com/jfe/form/SV_aa6Ux0duZVR1bLM
- South Korea: https://harvard.az1.qualtrics.com/jfe/form/SV_6lfAmljZLrfDDMh
- U.K.: https://harvard.az1.qualtrics.com/jfe/form/SV_3WRX8EiwURC15cN
- U.S.: https://harvard.az1.qualtrics.com/jfe/form/SV_1Rgpg6xivuwVeHb

E.IV Validation Survey

For our Validation Survey, we recruited 220 individuals from the United States using survey company Prolific. The survey was run in April 2021. After answering a set of demographic questions and questions about pandemic-related behaviors, participants were asked our core civil liberties questions—the willingness and lives saved questions from Table I. As in the in-depth survey, the order of the statements was randomized within each question block.

Next, we asked incentivized questions about donations and petitions related to civil liberties in the context of the COVID-19 pandemic. We achieved incentive compatibility by informing participants that one respondent to the survey, and one of the incentivized questions, would be selected at random, and that that respondent's decision for the chosen question would be implemented.[40]

In the donations block, we first elicited preferences over whether or not to make donations to three not-for-profit organizations engaged in the protection of civil liberties during the COVID-19 pandemic. The three civil liberties-related not-for-profit organizations were Privacy International, Reporters without Borders and Freedom House. For each organization, we listed a COVID-19-specific cause supported by the organization (protection of privacy, media freedom, and democratic procedures, respectively). In one question per organization, participants decided whether or not to donate $1,000 of the researchers' funds to the organization. Next, participants were asked to rank five not-for-profit organization—three of which were the civil-liberties-related organizations above and two of which were not-for-profit organizations that were not involved in the protection of civil liberties. Participants were informed that— were this question to be randomly selected—the ranking of a randomly selected participant would determine the probability with which $1,000 would be donated to one of the organizations. Specifically, the first organization in the ranking would have a 5/15 chance of receiving the $1,000, the second organization a 4/15 chance, the third organization a 3/15 chance, and so on.

Next, participants were asked incentivized questions about whether or not they wanted the research team to disseminate each of three petitions advocating for civil liberties protections during the COVID-19 pandemic. Participants were informed that, if one of the petition questions was randomly selected, the research team would or would not disseminate the petition to 10 people

[40]For a randomly selected question, the decision of a randomly selected participant was indeed eventually implemented.

via advertisements on social media depending on the decision of the randomly selected participant. All three petitions were active on Change.org at the time in which the respondents took the survey and, conditional on gathering enough signatories, might be sent to government officials.[41] The first petition demanded that the government not mandate vaccinations; the second demanded that the government not impose curfews during the pandemic; and the third demanded that the government not impose lockdowns during the pandemic. Participants were also asked to rank five petitions—three of which were the civil-liberties-related petitions above and two of which were petitions about topics other than civil liberties. In a manner similar to the donation-ranking question, participants were informed that the ranking of a randomly selected participant would determine the probability with which the research team would disseminate each petition to 10 people via advertisements on social media.

Lastly, we included an additional validation block aimed at testing how elastic answers to the "lives saved" questions (listed in Table I) are to a respondent's belief over the severity of the pandemic. Participants were asked a version of the questions in which we fixed participants' beliefs about the total number of people that would die in their country due to COVID-19 in the absence of the policy stated in the question.[42] Specifically, participants were asked to imagine that, in the absence of any policies to curtail the spread of COVID-19, an additional 100,000 people would die in the United States due to the disease. Then they were asked to report the minimum number of people, out of those 100,000, that each policy would need to save in order for them to support it.

E.V Links for the Validation Survey

- https://crctrr190.fra1.qualtrics.com/jfe/form/SV_exGrf4yfNiXaibQ

F Secondary Data Sources

F.I Administrative Records of COVID-19 Mortality

- Australia: "Coronavirus map Australia: tracking new and active cases, Covid stats and live data by state" from the Guardian (Evershed et al. 2021)

[41] The petitions were not created by the research team; they already existed on Change.org.
[42] The version asked in the in-depth survey did not fix those beliefs.

- Canada: "Coronavirus disease (COVID-19): Outbreak update" from Government of Canada 2021
- France: "COVID19 epidemic french national data" from OpenCOVID19 France 2021
- Germany: "COVID-19 case numbers for Germany" from Gehrcke 2021
- India: "DDL COVID India" from (Asher and Novosad 2021)
- Italy: "Italian COVID-19 data" from Dipartimento della Protezione Civile 2021
- Japan: "COVID-19 dataset in Japan" from Takaya 2020-2021
- Netherlands: "Covid-19 aantallen per gemeente per publicatiedatum" from The National Institute for Public Health and the Environment 2021
- Spain: "Evolution of the historical series of cases, deaths, hospitalizations and ICU admissions by Autonomous Community" from DATADISTA 2021
- Sweden: "Coronavirus Statistics" from C19.SE 2021
- U.K.
  - England: "Coronavirus (COVID-19) in the UK" from Public Health England 2021
  - Scotland: "Coronavirus (COVID-19): trends in daily data" from Public Health Scotland 2021
  - Wales: "Public Health Wales Rapid COVID-19 Surveillance" from Public Health Wales Health Protection 2021
  - Northern Ireland: "Daily dashboard updates on COVID-19 - April 2021" from Department of Health 2021
- U.S.: "Coronavirus (Covid-19) Data in the United States" from The New York Times 2021

F.II Data on Lockdown Policies

- Australia

  - Victoria: The Straits Times 2020; Murray-Atfield 2021; ABC News 2020; Garda World 2020.
  - South Australia: The Straits Times 2020; Murray-Atfield 2021; Siebert and Brice 2020; Dillon and Boisvert 2020.
  - New South Wales, Queensland, and Other: The Straits Times 2020; Murray-Atfield 2021.
  - Western Australia: The Straits Times 2020; Murray-Atfield 2021; BBC News 2021*c*; Laschon 2021.
- Canada
  - Quebec: Québec 2020*a*; Québec 2020*b*; le Soleil 2021; Labbé 2021.
  - Ontario: Davidson 2021; Yelich and Hilkene 2021.
  - Newfoundland and Labrador: Department of Health and Community Services - Newfoundland and Labrador 2020; VOCM 2020.
  - Alberta: Bench 2020; Pearson 2021.
  - British Columbia: Kotyk 2021; Migdal 2021.
- France
  - Auvergne-Rhône-Alpes, Bourgogne-Franche-Comté, Bretagne, Centre-Val de Loire, Corse, Grand Est, Hauts-de-France, Île-de-France, Normandie, Nouvelle-Aquitaine, Occitanie, Pays de la Loire, and Provence-Alpes-Côte d'Azur: Marianne 2020; Le Monde 2020; Légifrance 2020; La Tribune 2020.
- Germany
  - Baden-Württemberg, Bayern, Berlin, Brandenburg, Bremen, Hamburg, Hessen, Mecklenburg-Vorpommern, Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, Saarland, Sachsen, Sachsen-Anhalt, Schleswig-Holstein, and Thüringen: Die Bundesregierung 2020*a*; Seythal and Carrel 2020; Die Bundesregierung 2020*b*; DW 2021.
- India
  - Delhi: Gettleman and Schultz 2020; Financial Express Online 2020; Upadhyay 2020.

  - North (outside Delhi), Chennai, South (outside Chennai), Kolkata, East (outside Kolkata), Mumbai, and West (Outside Mumbai): Gettleman and Schultz 2020; Financial Express Online 2020.

- Italy
  - Lombardia: Faina 2020; Ciriaco, Rubino and Ziniti 2020; Guerzoni, Sarzanini and Online 2020; Cottone 2020; Gazzetta Ufficiale 2020; Gazzetta Ufficiale 2021.
  - Piemonte, and Calabria: Faina 2020; Ciriaco, Rubino and Ziniti 2020; Guerzoni, Sarzanini and Online 2020; Cottone 2020; Gazzetta Ufficiale 2020.
  - Sicilia: Faina 2020; Ciriaco, Rubino and Ziniti 2020; Gazzetta Ufficiale 2020; Gazzetta Ufficiale 2021.
  - Abruzzo: Faina 2020; Ciriaco, Rubino and Ziniti 2020; la Repubblica 2020; Gazzetta Ufficiale 2020.
  - Basilicata, Friuli-Venezia Giulia, Lazio, Liguria, Marche, Molise, Puglia, Sardegna, Tentino-Alto Adige, Umbria, and Veneto: Faina 2020; Ciriaco, Rubino and Ziniti 2020; Gazzetta Ufficiale 2020.
  - Campania, and Emilia-Romagna: Faina 2020; Ciriaco, Rubino and Ziniti 2020; Itzkowitz 2020; Stanizzi 2020; Gazzetta Ufficiale 2020.
  - Toscana: Faina 2020; Ciriaco, Rubino and Ziniti 2020; The Florentine editorial staff 2020; Stanizzi 2020; Gazzetta Ufficiale 2020.

- Netherlands:
  - Groningen, Friesland, Drenthe, Overijssel, Flevoland, Gelderland, Utrecht, North Holland, South Holland, Zeeland, North Brabant, and Limburg: Darroch 2020; Government of the Netherlands 2020*a*; Government of the Netherlands 2020*b*.

- Singapore:
  - Central, South East, South West, North East, and North West: Singapore Statutes Online 2020; GOV.SG 2020.

- Spain
  - Andalucia, Aragon, Principado de Asturias, Ceuta, Castilla y Leon, Castilla-La Mancha, Islas Canarias, Extremadura, Islas Baleares, Region de Murcia, Comunidad de Madrid, Melilla, Navarra, Pais Vasco, La Rioja, and Comunidad Valenciana: Hernández 2020; Eldiario.es 2020.
  - Cantabria, Cataluna: Hernández 2020; Noticias 2020.
  - Galicia: Hernández 2020; Cadena Ser 2020.
- U.K.
  - East Midlands, East of England, Inner & Greater London, North East: GOV.UK 2020; The Guardian 2020; Merrick 2020; GOV.UK 2021; BBC News 2021*f*.
  - North West, South East, West Midlands, and Yorkshire and the Humber: GOV.UK 2020; The Guardian 2020; Merrick 2020; BBC News 2020*a*; BBC News 2021*f*.
  - South West: GOV.UK 2020; The Guardian 2020; Merrick 2020; BBC News 2021*d*; BBC News 2021*f*.
  - Northern Ireland: GOV.UK 2020; BBC News 2020*d*; BBC News 2020*c*; BBC News 2021*a*.
  - Scotland: GOV.UK 2020; BBC News 2021*b*; BBC News 2020*e*; BBC News 2020*f*; BBC News 2021*e*.
  - Wales: GOV.UK 2020; BBC News 2020*b*; BBC News 2020*h*; BBC News 2020*g*; Bannon 2021.
- U.S.
  - Alabama: Gore 2020.
  - Alaska: Grove and Hanlon 2020; State of Alaska 2020.
  - Arizona: State of Arizona 2020*a*; State of Arizona 2020*b*.
  - California: Executive Department State of California 2020; Ho 2020.
  - Colorado: State of Colorado 2020*a*; Swidler and Hill 2020.
  - Delaware: State of Delaware 2020*a*; State of Delaware 2020*b*.

- District of Columbia: Government of the District of Columbia 2020.
- Florida: State of Florida 2020*c*.
- Georgia: State of Florida 2020*a*; State of Florida 2020*b*.
- Hawaii: State of Hawaii 2020*b*; State of Hawaii 2020*a*.
- Idaho: State of Colorado 2020*b*; State of Colorado 2020*c*.
- Illinois: State of Illinois 2020*a*; State of Illinois 2020*b*.
- Indiana: State of Indiana 2020*a*; State of Indiana 2020*b*.
- Kansas: State of Kansas 2020*a*; State of Kansas 2020*b*.
- Louisiana: State of Louisiana 2020*b*; State of Louisiana 2020*a*.
- Maine: State of Maine 2020.
- Maryland: Hartner and Moore 2020.
- Michigan: State of Michigan 2020*b*; State of Michigan 2020*a*.
- Minnesota: State of Minnesota 2020*a*; State of Minnesota 2020*b*.
- Mississippi: State of Mississippi 2020*a*; State of Mississippi 2020*b*.
- Missouri: State of Missouri 2020*a*; State of Missouri 2020*b*.
- Montana: State of Montana 2020*b*; State of Montana 2020*a*.
- Nevada: State of Nevada 2020.
- New Hampshire: State of New Hampshire 2020*a*; State of New Hampshire 2020*b*.
- New Jersey: State of New Jersey 2020*a*; State of New Jersey 2020*b*.
- New York: State of New York 2020*b*; State of New York 2020*a*.
- North Carolina: State of North Carolina 2020*a*; State of North Carolina 2020*b*; State of North Carolina 2020*c*; State of North Carolina 2021.
- Ohio: State of Ohio 2020*a*; State of Ohio 2020*b*; State of Ohio 2020*c*; State of Ohio 2021.
- Oregon: State of Oregon 2020*a*; State of Oregon 2020*b*.
- Pennsylvania: Commonwealth of Pennsylvania 2020*a*; Commonwealth of Pennsylvania 2020*b*.

- Rhode Island: State of Rhode Island and Providence Plantations 2020*a*; State of Rhode Island and Providence Plantations 2020*b*.
- South Carolina: State of South Carolina 2020*a*; State of South Carolina 2020*b*.
- Tennessee: State of Tennessee 2020*a*; State of Tennessee 2020*b*.
- Texas: State of Texas 2020*a*; State of Texas 2020*b*.
- Vermont: State of Vermont 2020*b*; State of Vermont 2020*a*.
- Virginia: Commonwealth of Virginia 2020; Beaujon 2020.
- Washington: State of Washington 2020*a*; State of Washington 2020*b*.
- West Virginia: State of West Virginia 2020*b*; State of West Virginia 2020*a*.
- Wisconsin: State of Wisconsin 2020; Singh 2020.

F.III Population Statistics

- Australia: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from "National, state and territory population: Statistics about the population and components of change (births, deaths, migration) for Australia and its states and territories" collected by *Australian Bureau of Statistics* (Australian Bureau of Statistics, 2021).

- Canada: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor*

Organization (International Labour Organization, 2020). Data on region is from "Population estimates, quarterly" collected by *Statistics Canada*.

- China: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database collected by the United Nations Statistics Division. Data on income is from China Family Panel Studies. Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is Statistical Yearbook of the National Bureau of Statistics of China (National Bureau of Statistics of China, 2019).

- France: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database collected by the United Nations Statistics Division. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from Population des régions et taux d'évolution de la population collected by INSEE (Institut national de la statistique et des études économiques, 2018).

- Germany: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database collected by the United Nations Statistics Division. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from the Federal Statistical Office of Germany (Statistisches Bundesamt, 2018).

- India: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor*

Organization (International Labour Organization, 2020). Data on region is from "Ministry of Statistics and Programme Implementation - 2011" collected by *Unique Identification Authority of India* (Unique Identification Authority of India, 2020).

- Italy: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database collected by the United Nations Statistics Division. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from Regioni italiane collected by Tuttitalia (Tuttitalia.it, 2020).

- Japan: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from "JAPAN: Prefectures and Major Cities" collected by *Statistics Bureau Japan* (Statistics Bureau Japan, 2020).

- Netherlands: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from "Regionale kerncijfers Nederland" collected by *Statistics Netherlands*.

- Singapore: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, an-

nually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "Table 8. Resident Households by Monthly Household Income from Work (Including Employer CPF Contributions), 2000 - 2020" collected by *Singapore Department of Statistics*. Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from "2020 Parliamentary General Election Results" collected by *Elections Department Singapore*.

- South Korea: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database collected by the United Nations Statistics Division. Data on income and region is from Korean Statistical Information Service (KOSIS). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020).

- Spain: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from "Población por comunidades y ciudades autónomas y tamaño de los municipios" collected by *Instituto Nacional de Estadística*.

- Sweden: Data on sex is from "Male population by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on age is from "Total population (both sexes combined) by single age, region, subregion and country, annually for 1950-2100 (thousands)" collected by *the United Nations*. Data on income is from "World Inequality Database" (WID.world, 2021). Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from "Population in the country, counties and municipalities on 31 December 2020 and Population Change in

2020" collected by *Statistics Sweden*.

- U.K.: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database of the United Nations Statistics Division. Data on income is from Gross household income, UK, financial year ending 2018 collected by the Office for National Statistics. Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland collected by the Office for National Statistics.

- U.S.: Data on sex and age is from Population by age, sex and urban/rural residence, Demographic Statistics Database collected by the United Nations Statistics Division. Data on income is from U.S. Census Bureau, Current Population Survey. Data on employment is from "Employment-to-population ratio by sex and age – ILO modelled estimates" collected by *International Labor Organization* (International Labour Organization, 2020). Data on region is from Resident Population by Census Division, Annual collected by Federal Reserve Bank of St. Louis (Federal Reserve Bank of St. Louis, 2019).

G Detailed Regional Brackets

- Australia
  - Region 1: New South Wales
  - Region 2: Victoria
  - Region 3: Queensland
  - Region 4: Western Australia
  - Region 5: South Australia and Other
- Canada
  - Region 1: Alberta and British Columbia
  - Region 2: Manitoba and Saskatchewan

  - Region 3: Ontario
  - Region 4: Quebec
  - Region 5: New Brunswick, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island

- China
  - Region 1: Shanghai, Fujian, Beijing, Tianjin, Shandong, Guangdong, Jiangsu, Hebei, and Zhejiang
  - Region 2: Hainan, Shanxi, Jiangxi, Anhui, Henan, Hunan, and Hubei
  - Region 3: Neimenggu [Inner-Mongolia], Gansu, Ningxia, Xinjiang, Xizang [Tibet], Guizhou, Yunnan, Guangxi, Sichuan, Chongqing, Shaanxi, and Qinghai
  - Region 4: Liaoning, Jilin, and Heilongjiang

- France
  - Region 1: Auvergne-Rhône-Alpes, Provence-Alpes-Côte d'Azur, and Occitanie
  - Region 2: Burgundy-Franche-Comté, Grand Est, and Hauts-de-France
  - Region 3: Brittany, Nouvelle-Aquitaine, Normandie, Pays de la Loire, and Centre-Val de Loire
  - Region 4: Île-de-France

- Germany
  - Region 1: Bayern, and Baden-Württemberg
  - Region 2: Nordrhein-Westfalen, Hessen, Rheinland-Pfalz, and Saarland
  - Region 3: Niedersachsen, Schleswig-Holstein, Bremen, Hamburg
  - Region 4: Sachsen-Anhalt, Thüringen, Mecklenburg-Vorpommern, Brandenburg, Sachsen, and Berlin

- India

  - Region 1: Delhi and North (outside Delhi) [Uttar Pradesh, Rajasthan, Punjab, Haryana, Delhi, Jammu & Kashmir, Uttarakhand, Himachal Pradesh, Chandigarh, Ladakh]
  - Region 2: Chennai and South (outside Chennai) [Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, Kerala, Puducherry, Lakshadweep]
  - Region 3: Kolkata and East (outside Kolkata) [Bihar, West Bengal, Odisha, Jharkhand, Andaman and Nicobar Islands]
  - Region 4: Mumbai and West (Outside Mumbai) [Maharashtra, Karnataka, Gujarat, Goa, Dadra & Nagar Haveli and Daman & Diu]
- Italy
  - Region 1: Liguria, Lombardia, Piemonte, Valle d'Aosta, Emilia-Romagna, Friuli-Venezia Giulia, Trentino-Alto Adige, and Veneto
  - Region 2: Lazio, Marche, Toscana, and Umbria
  - Region 3: Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardegna, and Sicilia
- Japan
  - Region 1: Kanto
  - Region 2: Kinki
  - Region 3: Hokkaido, and Tohoku
  - Region 4: Chubu, and Hokuriku
  - Region 5: Chugoku, Kyushu, Okinawa, and Shikoku
- Netherlands
  - Region 1: Drenthe, Friesland, and Groningen
  - Region 2: Flevoland, Gelderland, and Overijssel
  - Region 3: North Holland, South Holland, Utrecht, and Zeeland
  - Region 4: Limburg, and North Brabant
- Singapore

  - Region 1: Central
  - Region 2: North East
  - Region 3: North West
  - Region 4: South East
  - Region 5: South West

- South Korea
  - Region 1: Seoul, Gyeonggi, and Incheon
  - Region 2: North Chungcheong, South Chungcheong, Daejeon, Sejong, and Gangwon
  - Region 3: North Jeolla, South Jeolla, Gwanggju, and Jeju
  - Region 4: South Gyeongsang, North Gyeongsang, Daegu, Busan, and Ulsan

- Spain
  - Region 1: Cataluña, Comunidad Valenciana, and Islas Baleares
  - Region 2: Castilla-La Mancha, and Comunidad de Madrid
  - Region 3: Andalucía, Ceuta (Ciudad Autónoma), Extremadura, Islas Canarias, Melilla (Ciudad Autónoma), and Región de Murcia
  - Region 4: Aragón, Cantabria, La Rioja, Navarra, and País Vasco
  - Region 5: Castilla y León, Galicia, and Principado de Asturias

- Sweden
  - Region 1: Dalarnas län, Gävleborgs län, Jämtlands län, and Västernorrlands län
  - Region 2: Gotlands län, Södermanlands län, Uppsalas län, Värmlands län, Västmanlands län, Örebro län, and Östergötlands län
  - Region 3: Norrbottens län, and Västerbottens län
  - Region 4: Blekinge län, Hallands län, Jönköpings län, Kalmar län, Kronobergs län, Skåne län, and Västra Götalands län
  - Region 5: Stockholms län

- U.K. (for Appendix Table A.2)
  - Region 1: England
  - Region 2: Northern Ireland
  - Region 3: Scotland
  - Region 4: Wales
- U.K. (for Appendix Table A.4)
  - Region 1: Cambridgeshire, Cheshire, Cumbria, Derbyshire, Durham, East Riding of Yorkshire, Greater Manchester, Herefordshire, Lancashire, Leicestershire, Lincolnshire, Merseyside, Norfolk, North Yorkshire, Northamptonshire, Northumberland, Nottinghamshire, Rutland, Shropshire, South Yorkshire, Staffordshire, Suffolk, Tyne and Wear, Warwickshire, West Midlands, West Yorkshire, and Worcestershire
  - Region 2: Bedfordshire, Berkshire, Bristol, Buckinghamshire, Cornwall, Devon, Dorset, East Sussex, Essex, Gloucestershire, Greater London, Hampshire, Hertfordshire, Isle of Wight, Kent, Oxfordshire, Somerset, Surrey, West Sussex, and Wiltshire
  - Region 3: Northern Ireland
  - Region 4: Scotland
  - Region 5: Wales
- U.S.
  - Region 1: Northeast Region
  - Region 2: Midwest Region
  - Region 3: West Region
  - Region 4: South Region

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