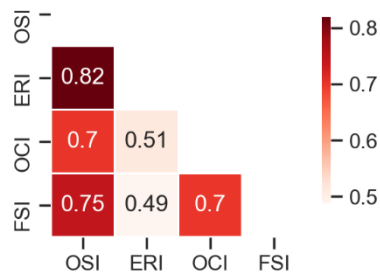


Supplementary files

SF1. Descriptive statistics for four impact indexes at the state level

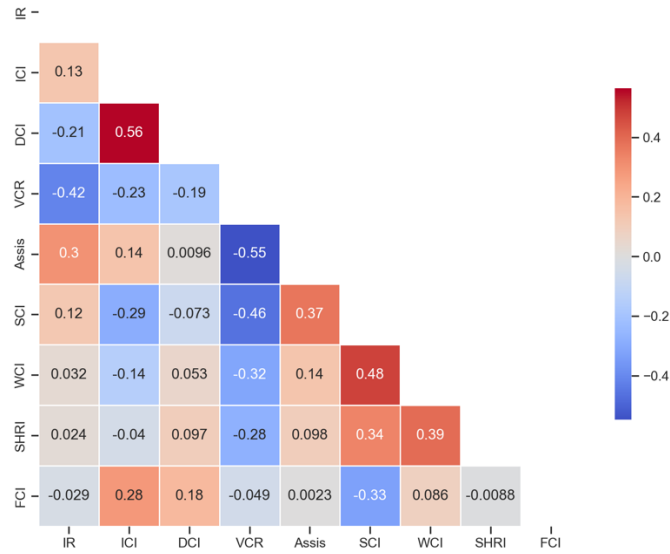
	OSI	ERI	OCI	FSI
mean	-0.48	-0.53	-0.17	-0.31
std	0.09	0.07	0.08	0.03
min	-0.77	-0.7	-0.54	-0.44
25%	-0.53	-0.58	-0.2	-0.32
50%	-0.47	-0.54	-0.15	-0.31
75%	-0.41	-0.49	-0.12	-0.29
max	-0.19	-0.21	-0.02	-0.23
Obs.	1920	1920	1920	1296

SF2. Pairwise Pearson's correlation coefficients among four Indexes



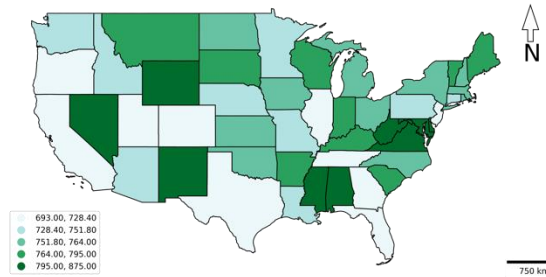
Note: All of the coefficients are statistically significant at the 1% level.

SF3. Pairwise Pearson's Correlation Coefficients among Longitudinal Independent Variables

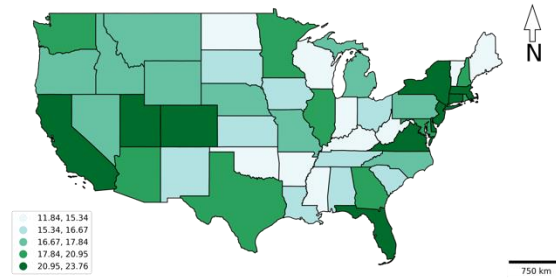


Note: All the above Pearson's correlation coefficients are statistically significant at the 5% level, except for those between: IR and WCI, IR and SHRI, IR and FCI, ICI and SHRI, DCI and Assis, Assis and FCI, and SHRI and FCI.

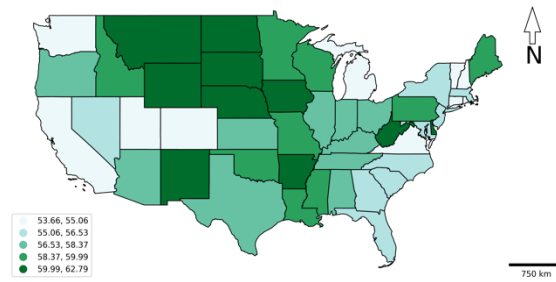
SF4. Herfindahl–Hirschman Index (HHI) across the States



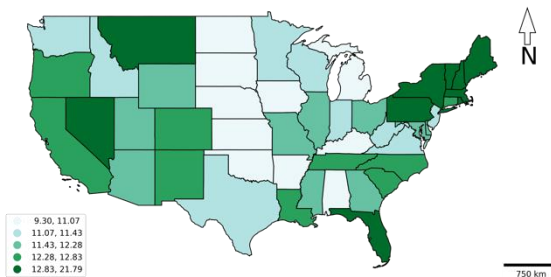
SF5. Percentage of “High-Status” Industries (HSI) across the States



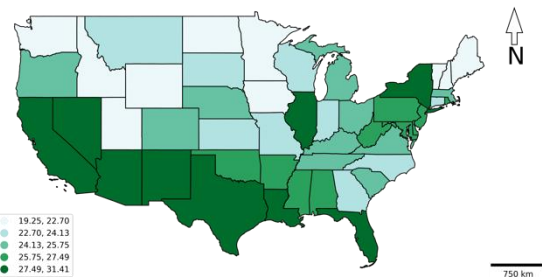
SF6. Percentage of Workers in Essential Industries across the States



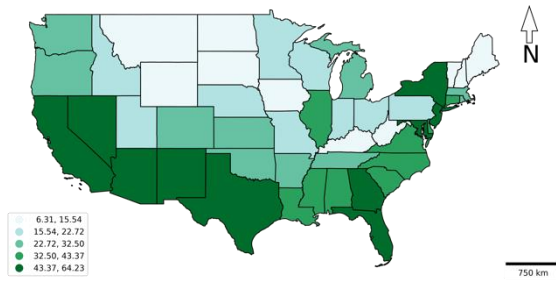
SF7. The Socioeconomic Vulnerability Indexes across the States



VI

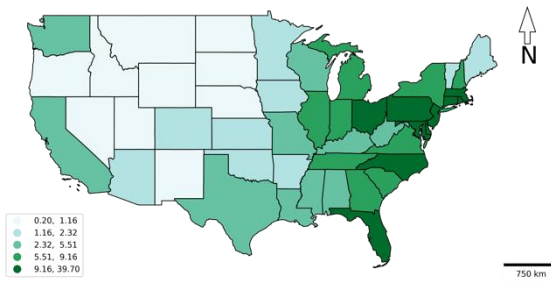


CRE3

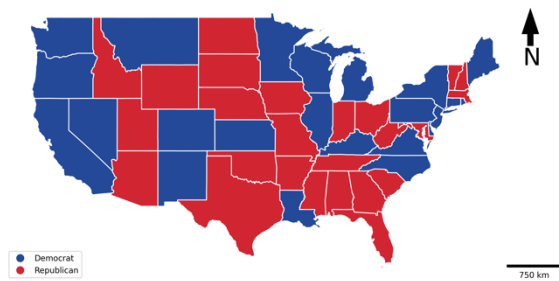


EssMinority

SF8. Percentage of Urban Areas and Political Partisanship across the States

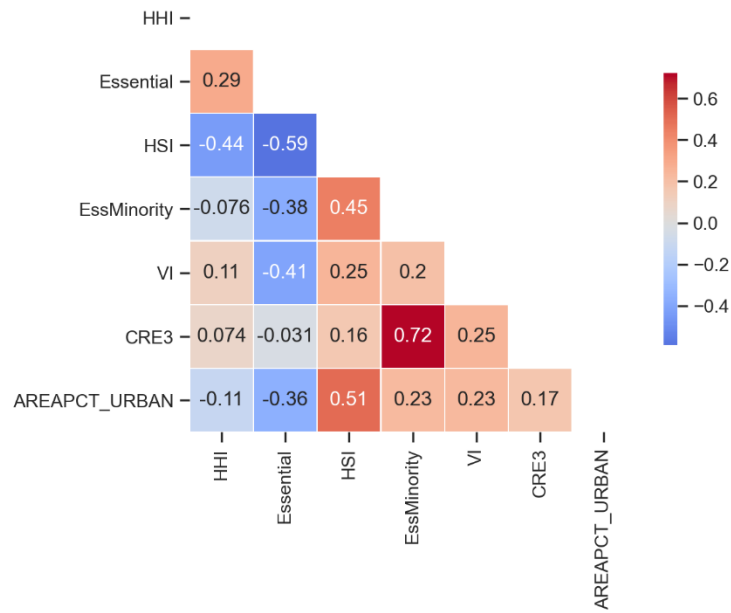


Percentage of urban areas
(AREAPCT_URBAN)



Party

SF9. Pairwise Pearson's Correlation Coefficients among Cross-sectional Independent Variables



Note: The Pearson's correlation coefficients between the following variables are statistically significant at the 5% level: HHI and Essential, HHI and HSI, Essential and HSI, Essential and EssMinority, Essential and VI, Essential and AREAPCT_URBAN, HSI and AREAPCT, HSI and AREAPCT_URBAN, and EssMinority and CRE3.

SF10 (a) Modeling the trajectories with quadratic function (48 contiguous U.S. States) – Phases 1-3

	Parameter		Overall Sentiment Index (OSI)	Expected Recovery Index (ERI)	Operational Challenges Index (OCI)	Financial Stress Index (FSI)
Initial status, π_{0i}	Intercept	β_{00}	-0.6623 (0.0091) ***	-0.6102 (0.0075) ***	-0.3634 (0.0074) ***	-0.3625 (0.0039) ***
	HHI	β_{01}	0.0375 (1.2589)	-0.2343 (0.9816)	0.6285 (0.7524)	0.0817 (0.4663)
	Essential	β_{02}	0.4168 (0.2510)	0.2093 (0.1958)	0.1507 (0.1505)	0.2171 (0.0931) *
	EssMinority	β_{03}	0.0000 (0.0546)	-0.0106 (0.0426)	0.0273 (0.0326)	0.0076 (0.0202)
	HSI	β_{04}	-0.0916 (0.2255)	-0.2208 (0.1758)	0.2054 (0.1349)	0.1633 (0.0836)
	VI	β_{05}	0.0165 (0.2691)	-0.3031 (0.2098)	0.1498 (0.1608)	0.1947 (0.0997)
	CRE3	β_{06}	-0.0064 (0.0026) *	-0.0027 (0.0020)	-0.0006 (0.0015)	-0.0023 (0.0010) *
	AREAPCT_URBAN	β_{08}	-0.1119 (0.0505) *	-0.0930 (0.0395) *	-0.0315 (0.0306)	-0.0679 (0.0188) ***
Party (Republican)	β_{09}	0.0246 (0.0094) **	0.0283 (0.0073) ***	0.0079 (0.0057)	0.0029 (0.0035)	
Rate of change,	Week	β_{w10}	1.5280 (0.0623) ***	0.6462 (0.0543) ***	1.7307 (0.0622) ***	0.5671 (0.0304) ***
	$Week^2$	β_{w20}	-2.7566 (0.1470) ***	-1.2689 (0.1283) ***	-3.8884 (0.1472) ***	-1.1673 (0.0719) ***
Time-varying variable	IR	β_{20}	0.0015 (0.0099)	-0.0019 (0.0086)	-0.0179 (0.0099)	-0.0103 (0.0048) *
	ICI	β_{30}	-0.2775 (0.0768) ***	-0.3742 (0.0670) ***	-0.5836 (0.0770) ***	-0.0831 (0.0376) *
	DCI	β_{40}	-0.0076 (0.0041)	0.0024 (0.0036)	-0.0082 (0.0041) *	-0.0043 (0.0020) *
	VCR	β_{50}				
	SCI	β_{60}	-0.0068 (0.0090)	-0.0377 (0.0079) ***	0.0518 (0.0090) ***	0.0145 (0.0044) **
	WCI	β_{70}	-0.0025 (0.0071)	0.0148 (0.0061) *	-0.0361 (0.0069) ***	-0.0020 (0.0034)
	SHRI	β_{80}	-0.0081 (0.0085)	0.0094 (0.0073)	-0.0547 (0.0081) ***	-0.0154 (0.0041) ***

	FCI	β_{90}	-0.0093 (0.0078)	0.0028 (0.0068)	-0.0425 (0.0076) ***	-0.0100 (0.0038) **
Goodness-of-fit (stochastic parts)						
	AIC		-4906.7151	-5268.3991	-4935.8502	-6780.8346
	BIC		-4798.2073	-5159.8913	-4827.3424	-6672.3268
	Log Likelihood		2474.3575	2655.1995	2488.9251	3411.4173
	Num. obs.		1296	1296	1296	1296
	Num. groups: State		48	48	48	48

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; inside the parentheses are standard errors

SF 10 (b) Modeling the trajectories with quadratic function (48 contiguous U.S. states) – Phases 4-5

	Parameter		Overall Sentiment Index (OSI)	Expected Recovery Index (ERI)	Operational Challenges Index (OCI)	Financial Stress Index (FSI)
Initial status, π_{0i}	Intercept	β_{00}	-0.5292 (0.0104) ***	-0.6194 (0.0095) ***	-0.1611 (0.0064) ***	
	HHI	β_{01}	0.2126 (1.0493)	-0.2626 (0.9733)	0.1759 (0.3788)	
	Essential	β_{02}	0.2975 (0.2053)	0.4386 (0.1906) *	0.0286 (0.0708)	
	EssMinority	β_{03}	-0.0564 (0.0452)	-0.0235 (0.0420)	-0.0101 (0.0160)	
	HSI	β_{04}	0.0975 (0.1863)	0.0555 (0.1729)	0.2087 (0.0658) **	
	VI	β_{05}	0.0615 (0.2229)	0.1305 (0.2068)	0.1869 (0.0783) *	
	CRE3	β_{06}	-0.0074 (0.0021) ***	-0.0050 (0.0020) **	-0.0010 (0.0007)	
	AREAPCT_URBAN	β_{08}	-0.0830 (0.0418) *	-0.0991 (0.0387) *	-0.0023 (0.0150)	
	Party (Republican)	β_{09}	0.0193 (0.0080) *	0.0219 (0.0074) **	0.0005 (0.0029)	
Rate of change,	Week	β_{w10}	1.0956 (0.1811) ***	1.4140 (0.1645) ***	1.4660 (0.1302) ***	
	$Week^2$	β_{w20}	-4.1155 (0.8272) ***	-4.8847 (0.7510) ***	-7.7259 (0.6187) ***	

Time-varying variable	IR	β_{20}	0.0207 (0.0200)	-0.0071 (0.0182)	0.0152 (0.0147)	
	ICI	β_{30}	-0.1967 (0.1194)	-0.1629 (0.1084)	-0.3894 (0.0895) ***	
	DCI	β_{40}	0.0060 (0.0042)	0.0072 (0.0038)	0.0064 (0.0032) *	
	VCR	β_{50}	0.0432 (0.0419)	0.0562 (0.0380)	0.0482 (0.0297)	
	SCI	β_{60}	-0.0037 (0.0180)	-0.0127 (0.0164)	0.0081 (0.0117)	
	WCI	β_{70}	0.0326 (0.0126) **	0.0131 (0.0115)	-0.0002 (0.0075)	
	SHRI	β_{80}	-0.0086 (0.0121)	-0.0039 (0.0110)	-0.0052 (0.0071)	
	FCI	β_{90}	-0.0275 (0.0135) *	-0.0224 (0.0123)	-0.0115 (0.0088)	
Goodness-of-fit (stochastic parts)						
	AIC		-2391.6072	-2510.3176	-2769.2341	
	BIC		-2294.1534	-2412.8638	-2671.7802	
	Log Likelihood		1217.8036	1277.1588	1406.6170	
	Num. obs.		620	620	620	
	Num. groups: State		48	48	48	

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; inside the parentheses are standard errors