

Table S9: Relationship between Temperature, Relative Humidity, and R Value: F Check with a social distancing dummy variable for the U.S. Counties.

U.S. states lifted stay-at-home orders, namely a series of social distancing policies, at different times. This table shows the regression results for the U.S. Counties with an additional dummy explanatory variable recording whether the state where a county is located already lifted a stay-at-home order. The regression is estimated by the Fama-MacBeth approach.

	Overall	Before Lockdown (April 7)	After Lockdown (April 7)
R2	0.1201	0.1403	0.0956
Temperature			
coef	-0.0158	-0.01988	-.01092
95%CI	[-0.0246,-0.0071]	[-0.0300,-0.0097]	[-0.0265,0.0047]
std.err	0.0043	0.0049	0.0074
t-stat	-3.65	-4.07	-1.47
p-value	0.0007	0.0005	0.159
Relative Humidity			
coef	-0.0050	-0.0080	-0.0014
95%CI	[-0.0104,0.0004]	[-0.0151,-0.0010]	[-0.0026,0.0002]
std.err	0.0027	0.0034	0.0006
t-stat	-1.88	-2.37	-2.46
p-value	0.067	0.027	0.024
Population Density			
coef	4.56e-06	7.77e-06	6.89e-07
95%CI	[-1e-5,2e-2]	[-2.53e-5,4.08e-5]	[-1.10e-6,2.48e-6]
std.err	8.34e-06	1.59e-05	8.53e-07
t-stat	0.55	0.49	0.81
p-value	0.587	0.631	0.430
Percentage over 65			
coef	-0.948	-1.1645	-0.6851
95%CI	[-1.3747,-0.5205]	[-1.8362,-0.4927]	[-1.0610,-0.3092]

	Overall	Before Lockdown (April 7)	After Lockdown (April 7)
std.err	0.2115	0.3239	0.1789
t-stat	-4.48	-3.60	-3.83
p-value	6e-5	0.002	0.001
Gini			
coef	-1.8813	-1.9719	-1.7717
95%CI	[-3.5537,-0.2090]	[-4.5293,0.5855]	[-2.5073,-1.0360]
std.err	0.8281	1.2331	0.3502
t-stat	-2.27	-1.60	-5.06
p-value	0.028	0.124	8e-5
Socio-economic factor			
coef	0.0891	0.1321	0.0371
95%CI	[0.0372,0.1411]	[0.0835,0.1807]	[-0.0048,0.0790]
std.err	0.0257	0.02343	0.0200
t-stat	3.47	5.64	1.86
p-value	0.001	1e-05	0.079
No. of ICU beds per capita			
coef	-0.0096	-0.0084	-0.0111
95%CI	[-0.0235,0.0043]	[-0.0301,0.0133]	[-0.0172,-0.0050]
std.err	0.0069	0.0104	0.0029
t-stat	-1.40	-0.80	-3.83
p-value	0.169	0.430	0.001
Fraction of maximum moving distance over normal time			
coef	0.0041	0.0031	0.0054
95%CI	[0.0016,0.0066]	[-0.0004,0.0067]	[0.0043,0.0065]
std.err	0.0012	0.0017	0.0005
t-stat	3.35	1.82	10.25
p-value	0.002	0.082	0
Home-stay minutes			
coef	0.0003	0.0007	-0.0002

	Overall	Before Lockdown (April 7)	After Lockdown (April 7)
95%CI	[-0.0002,0.0007]	[0.0004,0.0010]	[-0.0004,-3e-05]
std.err	0.0002	0.0002	9e-5
t-stat	1.33	4.73	-2.42
p-value	0.191	0.0001	0.026
Latitude			
coef	-0.0182	-0.0348	0.0018
95%CI	[-0.0371,0.0007]	[-0.0510,-0.0185]	[-0.0188,0.0225]
std.err	0.0094	0.0078	0.0098
t-stat	-1.95	-4.43	0.19
p-value	0.058	0.0002	0.854
Longitude			
coef	0.0069	0.0103	0.0029
95%CI	[0.0033,0.0106]	[0.0082,0.0124]	[0.0008,0.0050]
std.err	0.0018	0.0010	0.0010
t-stat	3.82	10.13	2.85
p-value	0.0005	0	0.011
Stay-at-home order			
coef	0.0199	0.0939	-0.0695
95%CI	[-0.0651,0.1049]	[0.0199,0.1678]	[-0.13026,-0.088]
std.err	0.0421	0.0356	0.0289
t-stat	0.47	2.63	-2.40
p-value	0.638	0.015	0.027
const			
coef	1.7395	2.1976	1.1850
95%CI	[1.1800,2.2989]	[1.6645,2.7306]	[1.1695,1.2005]
std.err	0.2770	0.2570	0.0074
t-stat	6.28	8.55	160.27
p-value	0	0	0