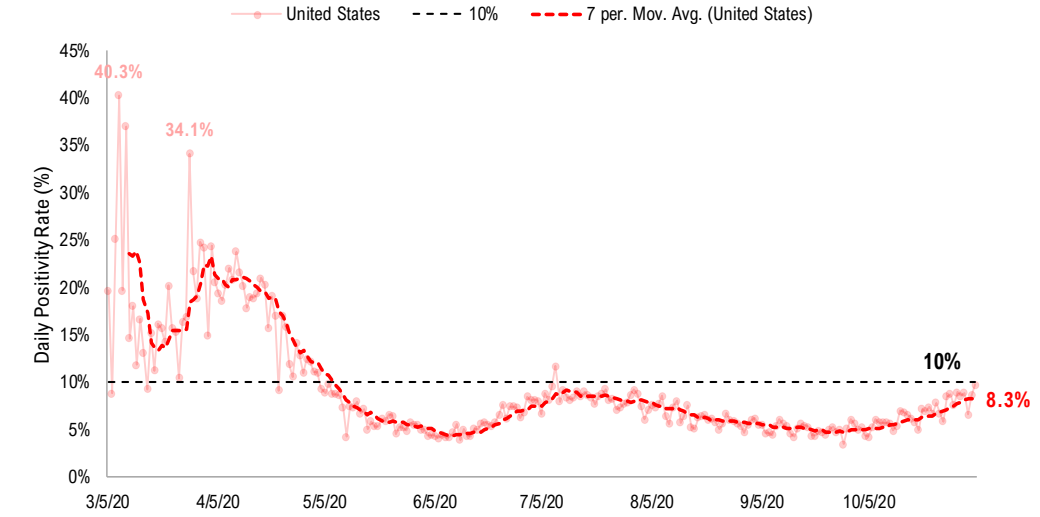
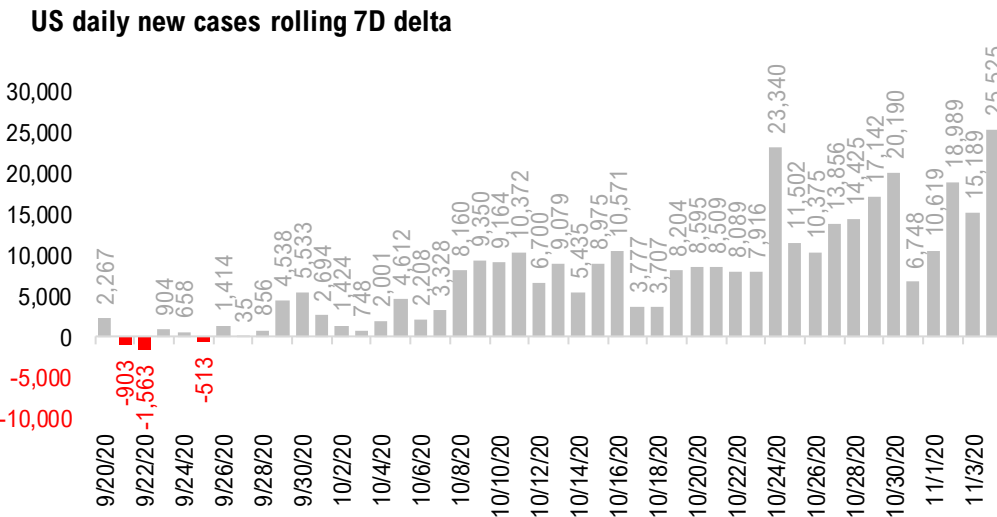
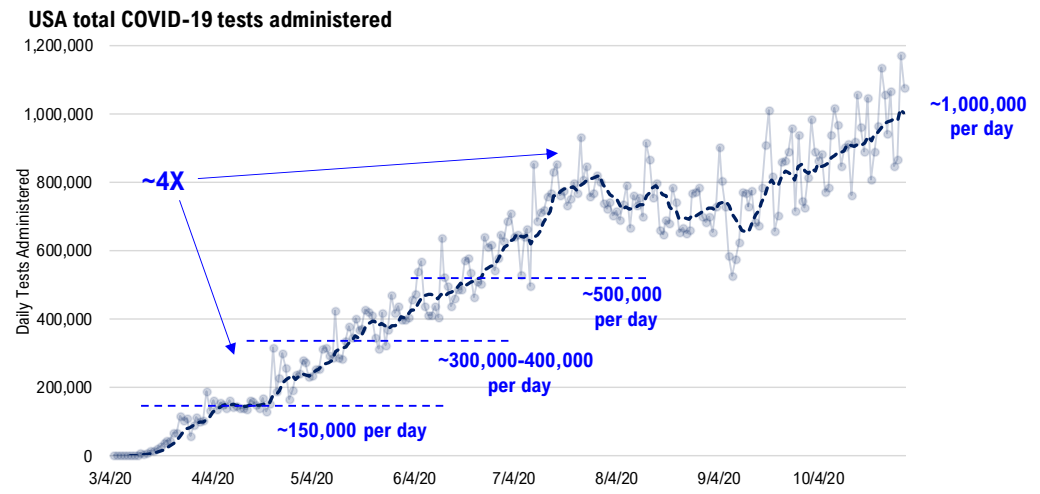
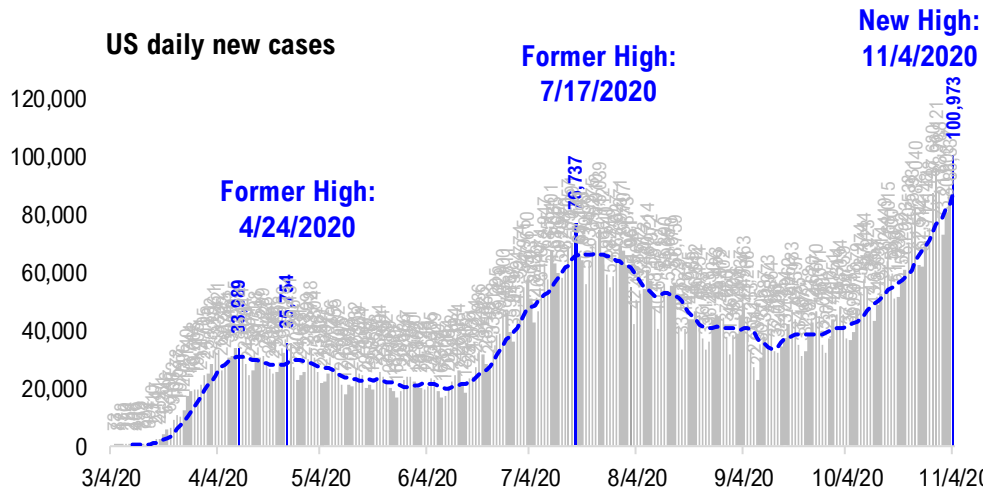


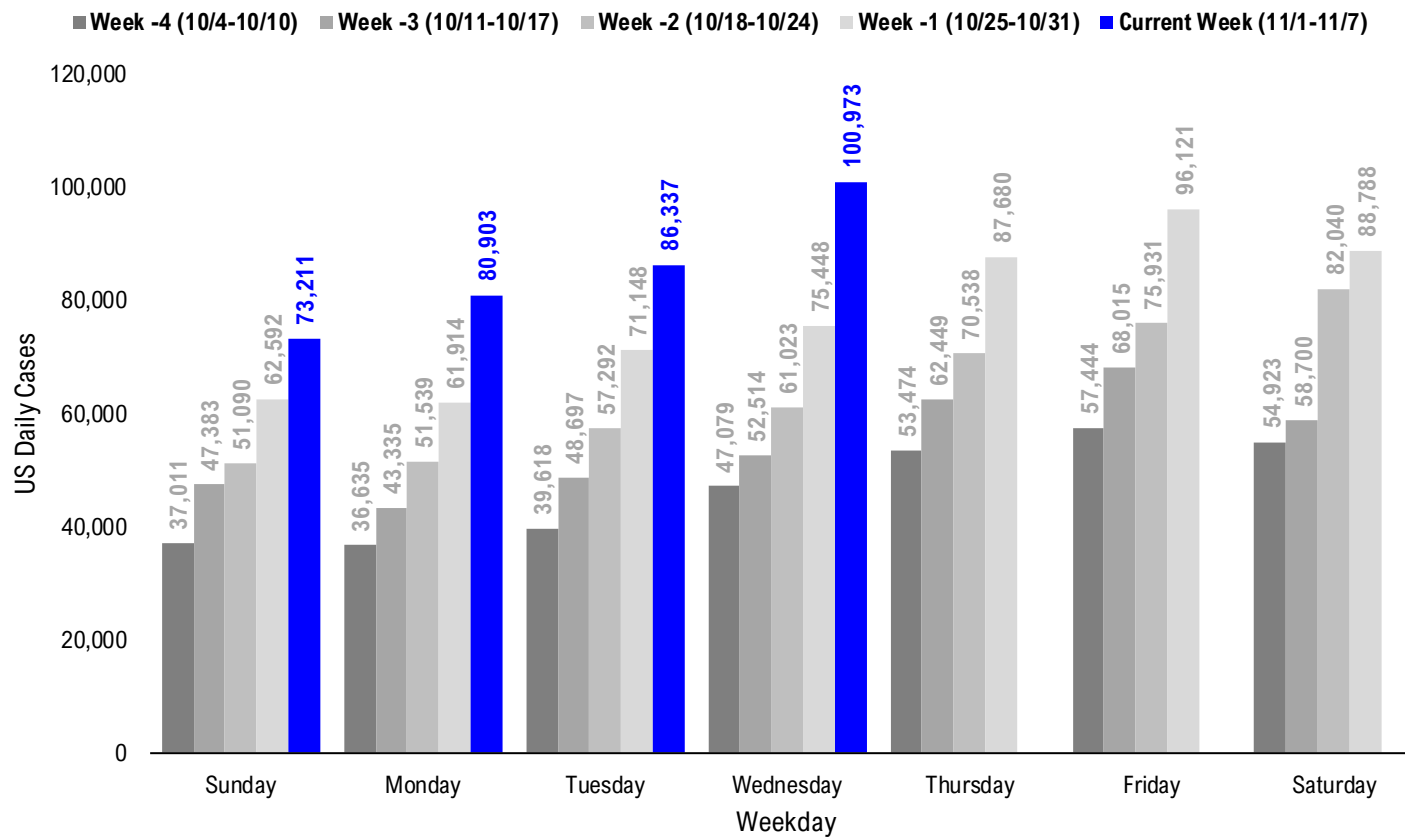
FSInsight Daily COVID-19 Chartbook



#1: USA COVID-19 Situation at a Glance...



#2: USA COVID-19 Daily Cases Weekday Seasonality (Past 4 Weeks) ...



#3: USA State COVID-19 Situation at a Glance...

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	11/4	7D Delta	11/4	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	100.973	+25.525	272	+61	4	-2%	6.926

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	11/4	7D Delta	11/4	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	100.973	+25.525	272	+61	4	-2%	6.926

States:

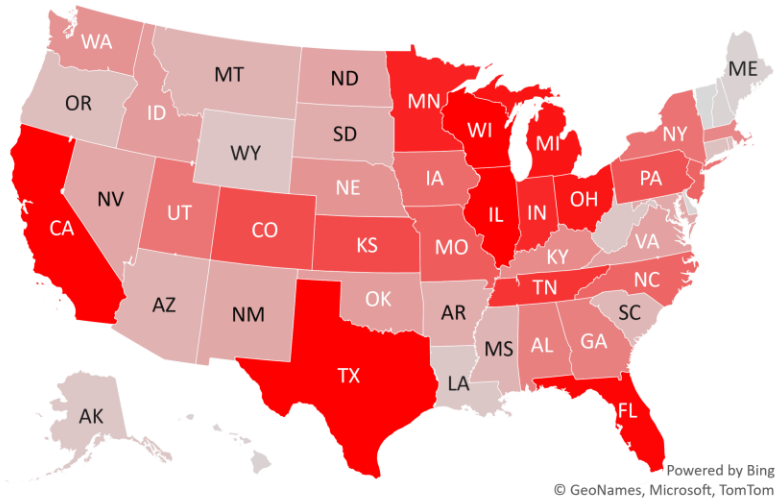
1 Texas	8.7%	8.8%	9,049	+3,874	233	+41	110	-44%	222	0.5%
2 Illinois	3.8%	4.2%	7,538	+1,428	533	+143	3	-13%	900	1.8%
3 Wisconsin	1.8%	1.6%	5,935	+2,120	867	+182	4	-1%	308	0.9%
4 California	11.9%	14.6%	5,338	+823	114	+24	103	-61%	412	1.3%
5 Florida	6.5%	5.0%	4,423	+308	213	+30	114	-64%	149	0.5%
6 Michigan	3.0%	2.6%	4,101	+830	464	+147	0	0%	883	3.6%
7 Ohio	3.5%	3.3%	4,071	+1,464	320	+113	0	0%	446	1.8%
8 Minnesota	1.7%	1.8%	3,827	+1,919	606	+272	0	0%	228	1.1%
9 Indiana	2.0%	1.8%	3,698	+1,150	478	+156	4	-6%	218	1.0%
10 Tennessee	2.1%	1.8%	3,445	+999	409	+85	10	-13%	332	2.1%
11 Kansas	0.9%	0.8%	2,988	+1,119	805	+345	0	0%	135	1.3%
12 Colorado	1.7%	1.8%	2,928	+1,453	447	+151	3	-2%	277	1.6%
13 Pennsylvania	3.9%	3.8%	2,795	+567	201	+35	0	0%	344	2.0%
14 Missouri	1.8%	1.5%	2,599	+684	407	+128	4	-12%	186	1.0%
15 New Jersey	2.7%	3.0%	2,432	+766	211	+41	213	-53%	203	1.7%
16 North Carolina	3.2%	2.7%	2,425	+172	194	+2	4	-28%	-7	(0.0%)
17 Iowa	1.0%	0.9%	2,276	+495	504	+147	3	-32%	181	1.3%
18 New York	5.9%	8.1%	2,126	+95	104	+15	208	-81%	168	1.1%
19 Utah	1.0%	0.9%	2,110	+535	517	+110	3	-15%	85	0.7%
20 Georgia	3.2%	2.9%	1,863	+210	140	+12	102	-65%	3	0.0%
21 Alabama	1.5%	1.1%	1,848	+579	258	+30	102	-40%	4	0.0%
22 Massachusetts	2.1%	2.8%	1,714	+533	174	-3	193	-65%	-80	(0.9%)
23 Kentucky	1.3%	1.0%	1,630	-227	326	-14	4	-24%	139	1.2%
24 Washington	2.3%	2.7%	1,469	+753	139	+58	0	0%	0	0.0%
25 Nebraska	0.6%	0.6%	1,440	+563	573	+201	4	-22%	237	2.7%
26 Idaho	0.5%	0.4%	1,290	+428	602	+146	0	0%	-117	(1.8%)
27 Oklahoma	1.2%	1.0%	1,246	+503	308	+105	11	-24%	141	1.6%
28 Virginia	2.6%	2.6%	1,157	-188	134	+2	4	-22%	-27	(0.3%)

States:

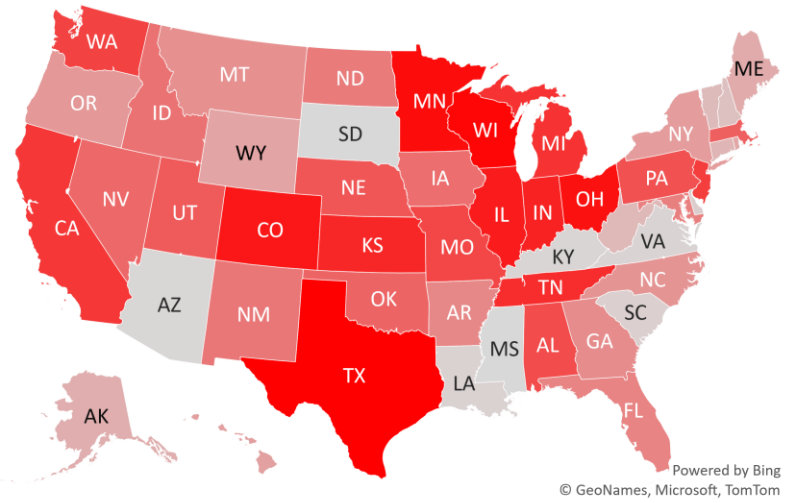
29 North Dakota	0.2%	0.3%	1,114	+337	1425	+468	4	-19%	68	0.8%
30 Nevada	0.9%	0.8%	1,068	+497	283	+91	109	-35%	131	2.0%
31 New Mexico	0.6%	0.5%	1,011	+354	480	+168	0	0%	80	1.2%
32 Maryland	1.8%	2.0%	1,000	+316	145	+26	167	-30%	94	1.5%
33 South Dakota	0.3%	0.3%	937	-333	930	-124	3	-43%	71	0.9%
34 Arkansas	0.9%	0.6%	914	+224	210	+3	12	-35%	-17	(0.3%)
35 Arizona	2.2%	1.7%	815	-228	145	+7	125	-75%	194	2.0%
36 Montana	0.3%	0.2%	796	+176	767	+117	4	-13%	33	0.6%
37 Mississippi	0.9%	0.6%	766	-234	199	-59	97	-62%	23	0.5%
38 South Carolina	1.6%	1.1%	715	-65	161	-11	95	-70%	-27	(0.4%)
39 Oregon	1.3%	1.2%	589	+169	128	+39	4	-4%	31	0.8%
40 Rhode Island	0.3%	0.3%	579	+80	388	+46	3	-22%	33	1.0%
41 Connecticut	1.1%	1.3%	530	+40	389	+102	196	-8%	65	1.0%
42 Wyoming	0.2%	0.2%	425	+85	761	+124	0	0%	34	1.2%
43 Alaska	0.2%	0.3%	404	+49	520	+26	8	-9%	15	0.6%
44 West Virginia	0.5%	0.4%	394	+36	205	-10	3	-22%	43	1.5%
45 Louisiana	1.4%	1.3%	371	-132	128	+13	106	-78%	10	0.3%
46 Hawaii	0.4%	0.5%	155	+93	75	+37	67	-64%	-4	(0.6%)
47 Maine	0.4%	0.3%	151	+75	90	+44	0	0%	20	2.9%
48 New Hampshire	0.4%	0.4%	115	+5	86	+9	3	-22%	13	1.4%
49 Delaware	0.3%	0.4%	108	-35	140	-8	190	-59%	22	1.9%
50 Guam	0.0%	0.0%	91	+43	428	-74	69	-34%	8	1.8%
51 District of Columbia	0.2%	0.7%	77	+10	110	+12	185	-67%	-9	(1.4%)
52 Puerto Rico	1.0%	0.5%	57	-9	132	+50	10	-35%	25	0.8%
53 Vermont	0.2%	0.2%	27	+16	38	+11	213	-59%	0	0.0%
54 U.S. Virgin Islands	0.0%	0.0%	3	+1	37	+16	75	-91%	0	0.0%
55 Northern Mariana	0.0%	0.0%	0	+0	0	-23	17	-100%	0	0.0%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	0.0%

#4: USA COVID-19 Heat Map...

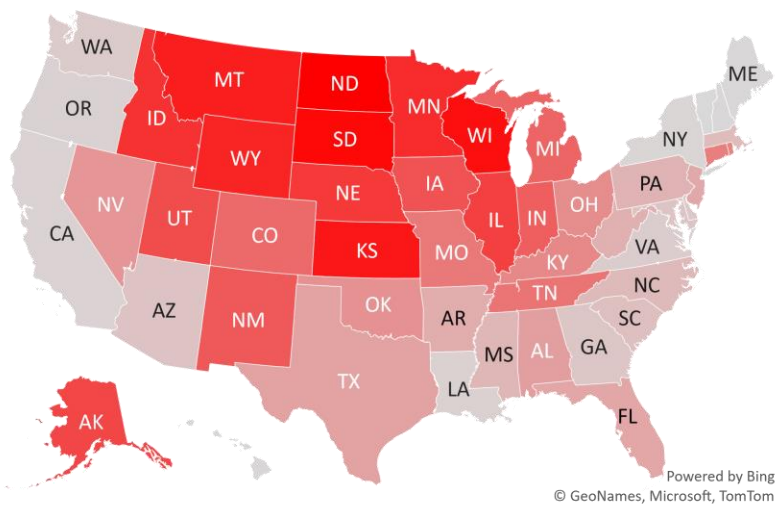
Daily Case Increases



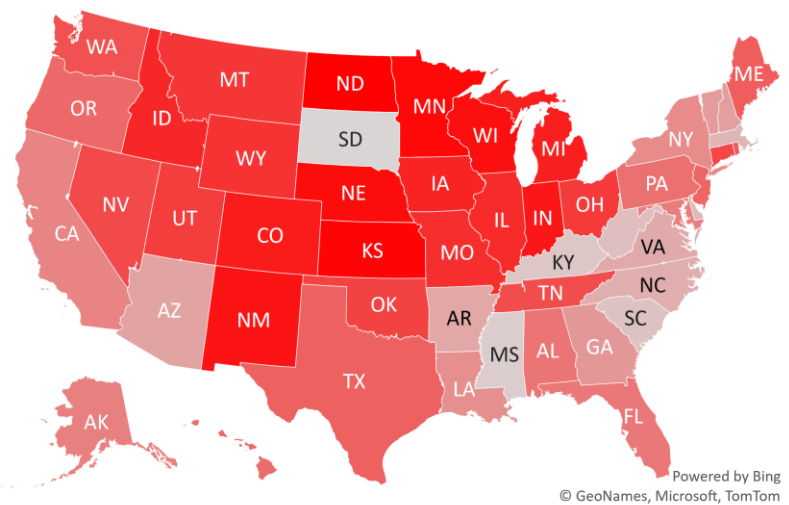
7D Delta in Daily New Cases



Daily Case Increases per 1mm Resident (3D Avg)



7D Delta in Daily New Cases per 1mm (3D Avg)

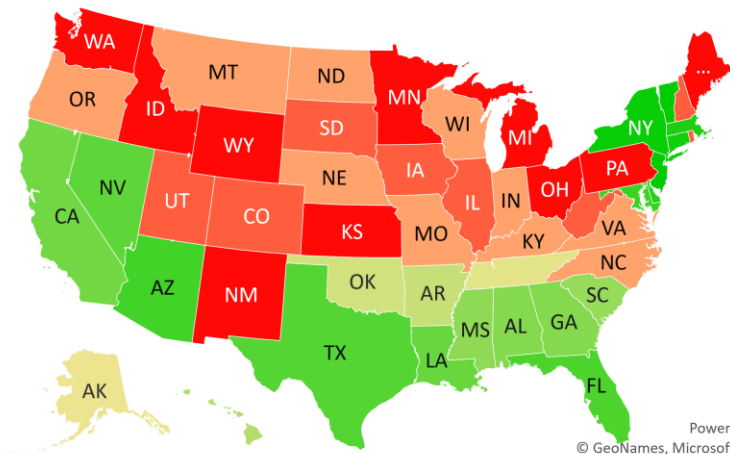


#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 11/4)

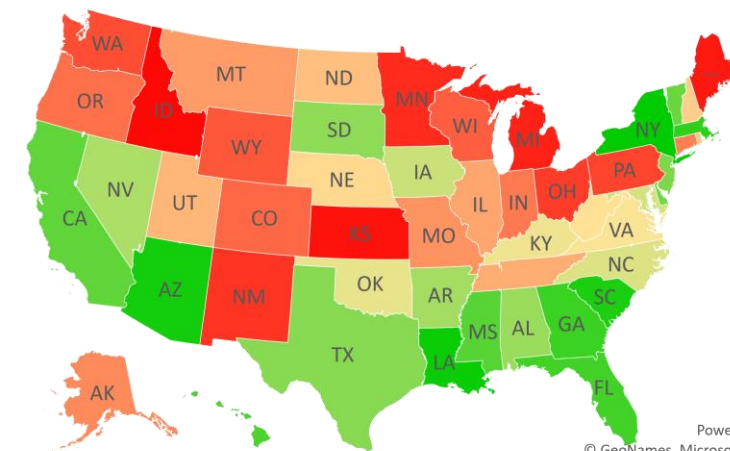
	Sorted					Sorted			
	Peak Date	11/4/20	% off the Peak	% US Pop		Peak Date	11/4/20	% off the Peak	% US Pop
United States	10/31/20	4	-2%	100%	United States	10/31/20	4	-2%	100%
States:					States:				
Vermont	4/5/20	213	-59%	0.2%	Virginia	10/31/20	4	-22%	2.6%
New Jersey	4/5/20	213	-53%	2.7%	Oregon	10/31/20	4	-4%	1.3%
New York	4/10/20	208	-81%	5.9%	Nebraska	10/31/20	4	-22%	0.6%
Connecticut	4/22/20	196	-8%	1.1%	North Dakota	10/31/20	4	-19%	0.2%
Massachusetts	4/25/20	193	-65%	2.1%	North Carolina	10/31/20	4	-28%	3.2%
Delaware	4/28/20	190	-59%	0.3%	Montana	10/31/20	4	-13%	0.3%
District of Columbia	5/3/20	185	-67%	0.2%	Missouri	10/31/20	4	-12%	1.8%
Maryland	5/21/20	167	-30%	1.8%	Kentucky	10/31/20	4	-24%	1.3%
Arizona	7/2/20	125	-75%	2.2%	Indiana	10/31/20	4	-6%	2.0%
Florida	7/13/20	114	-64%	6.5%	West Virginia	11/1/20	3	-22%	0.5%
Texas	7/17/20	110	-44%	8.7%	Utah	11/1/20	3	-15%	1.0%
Nevada	7/18/20	109	-35%	0.9%	South Dakota	11/1/20	3	-43%	0.3%
Louisiana	7/21/20	106	-78%	1.4%	Rhode Island	11/1/20	3	-22%	0.3%
California	7/24/20	103	-61%	11.9%	New Hampshire	11/1/20	3	-22%	0.4%
Georgia	7/25/20	102	-65%	3.2%	Illinois	11/1/20	3	-13%	3.8%
Alabama	7/25/20	102	-40%	1.5%	Iowa	11/1/20	3	-32%	1.0%
Mississippi	7/30/20	97	-62%	0.9%	Colorado	11/1/20	3	-2%	1.7%
South Carolina	8/1/20	95	-70%	1.6%	Wyoming	11/4/20	0	0%	0.2%
U.S. Virgin Islands	8/21/20	75	-91%	0.0%	Washington	11/4/20	0	0%	2.3%
Guam	8/27/20	69	-34%	0.0%	Pennsylvania	11/4/20	0	0%	3.9%
Hawaii	8/29/20	67	-64%	0.4%	Ohio	11/4/20	0	0%	3.5%
Northern Mariana Island	10/18/20	17	-100%	0.0%	New Mexico	11/4/20	0	0%	0.6%
Arkansas	10/23/20	12	-35%	0.9%	Minnesota	11/4/20	0	0%	1.7%
Oklahoma	10/24/20	11	-24%	1.2%	Michigan	11/4/20	0	0%	3.0%
Tennessee	10/25/20	10	-13%	2.1%	Maine	11/4/20	0	0%	0.4%
Puerto Rico	10/25/20	10	-35%	1.0%	Kansas	11/4/20	0	0%	0.9%
Alaska	10/27/20	8	-9%	0.2%	Idaho	11/4/20	0	0%	0.5%
Wisconsin	10/31/20	4	-1%	1.8%					

Days since Daily Case Peak: Longer = Good



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Daily Cases % off the Peak: Larger Decline = Good



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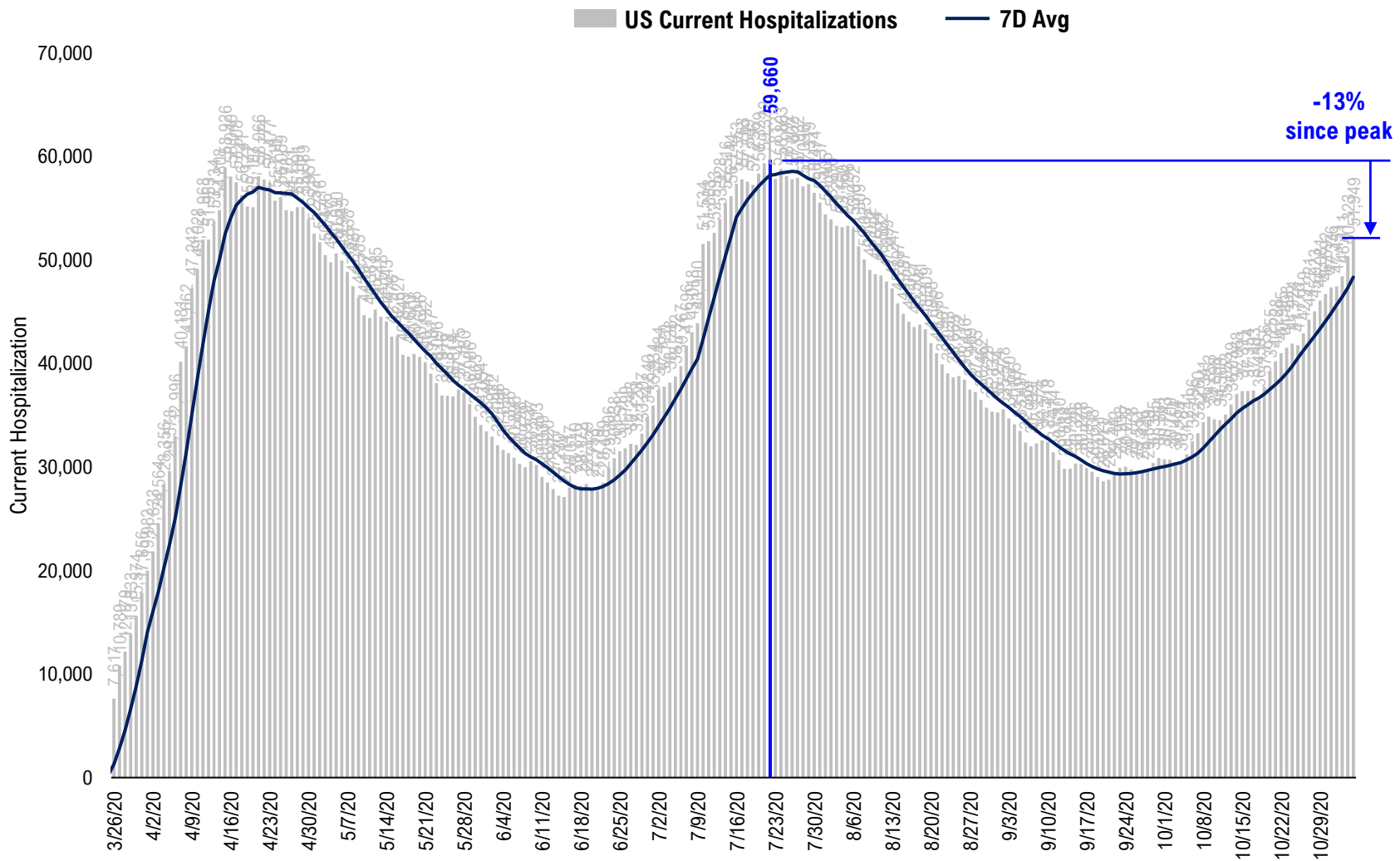
#6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	10/28/20	11/2/20	11/3/20	11/4/20	vs 7D ago
United States	75.448	80.903	86.337	100,973	+25,525
States:					
Texas	5,175	3,982	7,215	9,049	<--higher
Illinois	6,110	6,222	6,516	7,538	<--higher
Wisconsin	3,815	3,433	5,771	5,935	<--higher
California	4,515	4,094	4,044	5,338	
Florida	4,115	4,651	4,637	4,423	
Michigan	3,271	6,709	3,106	4,101	<--higher
Ohio	2,607	2,909	4,229	4,071	<--higher
Minnesota	1,908	2,948	3,476	3,827	<--higher
Indiana	2,548	3,077	2,881	3,698	<--higher
Tennessee	2,446	3,161	1,770	3,445	<--higher
Kansas	1,869	4,046	0	2,988	<--higher
Colorado	1,475	2,237	2,562	2,928	<--higher
Pennsylvania	2,228	2,060	2,875	2,795	<--higher
Missouri	1,915	2,651	2,238	2,599	<--higher
New Jersey	1,666	1,368	1,828	2,432	<--higher
North Carolina	2,253	1,336	2,349	2,425	
Iowa	1,781	1,405	1,092	2,276	<--higher
New York	2,031	1,633	2,321	2,126	
Utah	1,575	1,196	1,669	2,110	<--higher
Georgia	1,653	939	1,668	1,863	
Alabama	1,269	907	1,037	1,848	<--higher
Massachusetts	1,181	842	1,036	1,714	<--higher
Kentucky	1,857	1,028	1,709	1,630	
Washington	716	1,039	657	1,469	<--higher
Nebraska	877	934	954	1,440	<--higher
Idaho	862	757	1,179	1,290	<--higher
Oklahoma	743	1,084	1,331	1,246	<--higher
Virginia	1,345	1,026	1,261	1,157	

	Sorted				
	7D Ago	Last 3-day Trend			
	10/28/20	11/2/20	11/3/20	11/4/20	vs 7D ago
United States	75,448	80,903	86,337	100,973	+25,525
States:					
North Dakota	777	972	1,172	1,114	<--higher
Nevada	571	635	911	1,068	<--higher
New Mexico	657	872	1,136	1,011	<--higher
Maryland	684	850	771	1,000	<--higher
South Dakota	1,270	526	1,004	937	
Arkansas	690	464	520	914	<--higher
Arizona	1,043	666	1,679	815	
Montana	620	757	907	796	<--higher
Mississippi	1,000	365	644	766	
South Carolina	780	861	908	715	
Oregon	420	549	482	589	<--higher
Rhode Island	499	232	423	579	
Connecticut	490	2,651	985	530	
Wyoming	340	444	452	425	<--higher
Alaska	355	350	388	404	
West Virginia	358	352	358	394	
Louisiana	503	270	1,150	371	
Hawaii	62	78	87	155	<--higher
Maine	76	84	127	151	<--higher
New Hampshire	110	106	128	115	
Delaware	143	185	115	108	
Guam	48	3	119	91	<--higher
District of Columbia	67	69	86	77	
Puerto Rico	66	864	345	57	
Vermont	11	22	22	27	<--higher
U.S. Virgin Islands	2	2	7	3	<--higher
Northern Mariana Islands	0	0	0	0	
American Samoa	0	0	0	0	

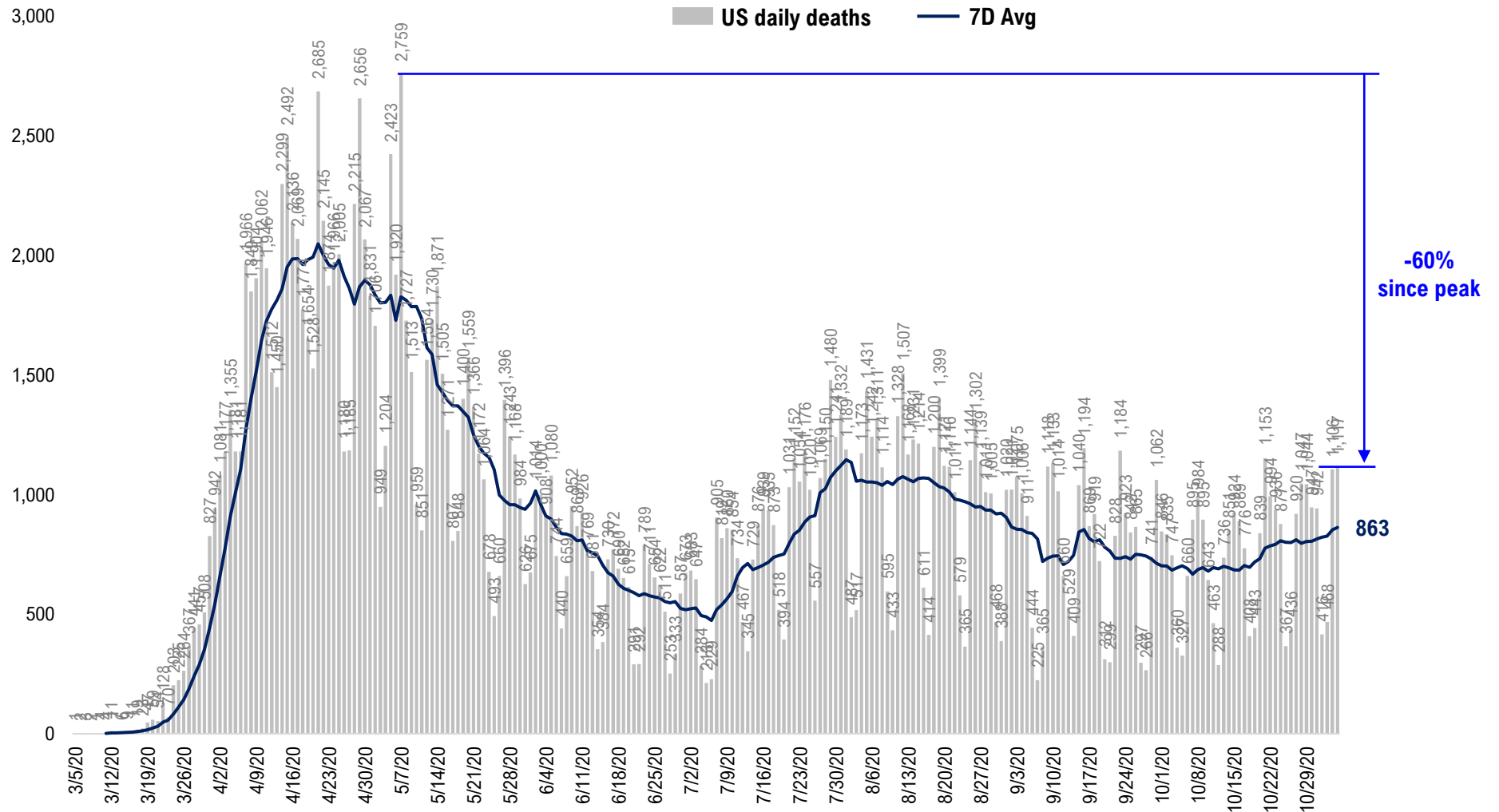
#7: US Daily Hospitalizations...

US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)



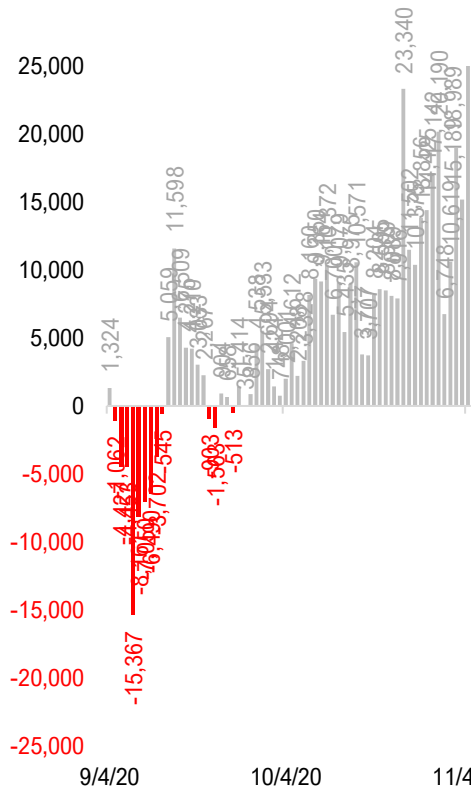
#8: US Daily New Fatalities...

US daily COVID-19 Fatalities

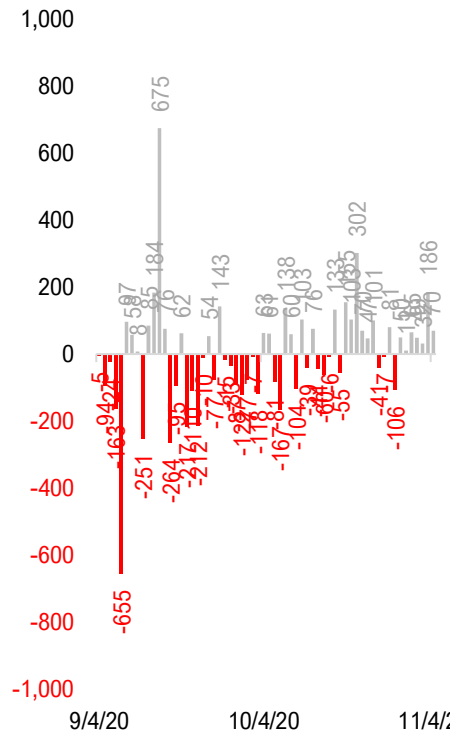


#9: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

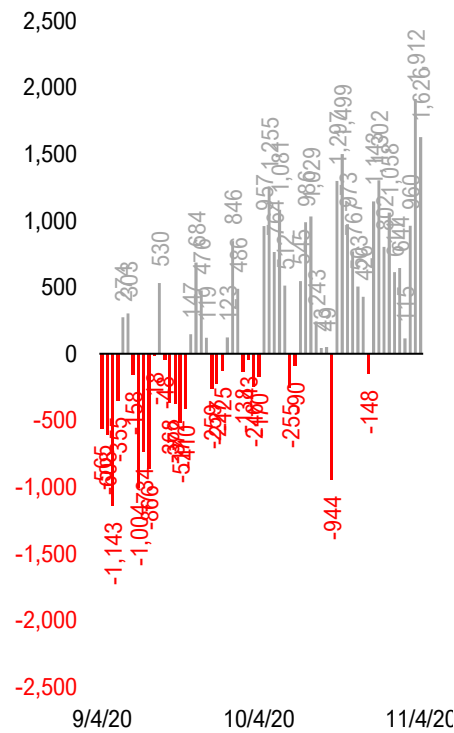
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



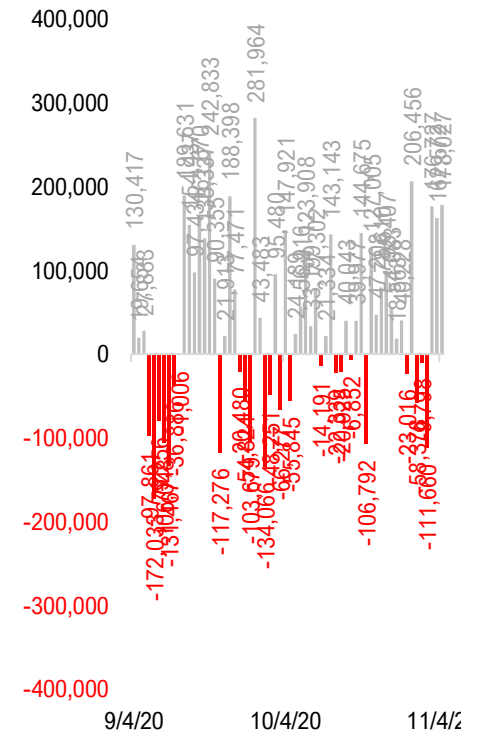
Daily Deaths



Daily Net Hospitalization
(Red = more discharge than admission)

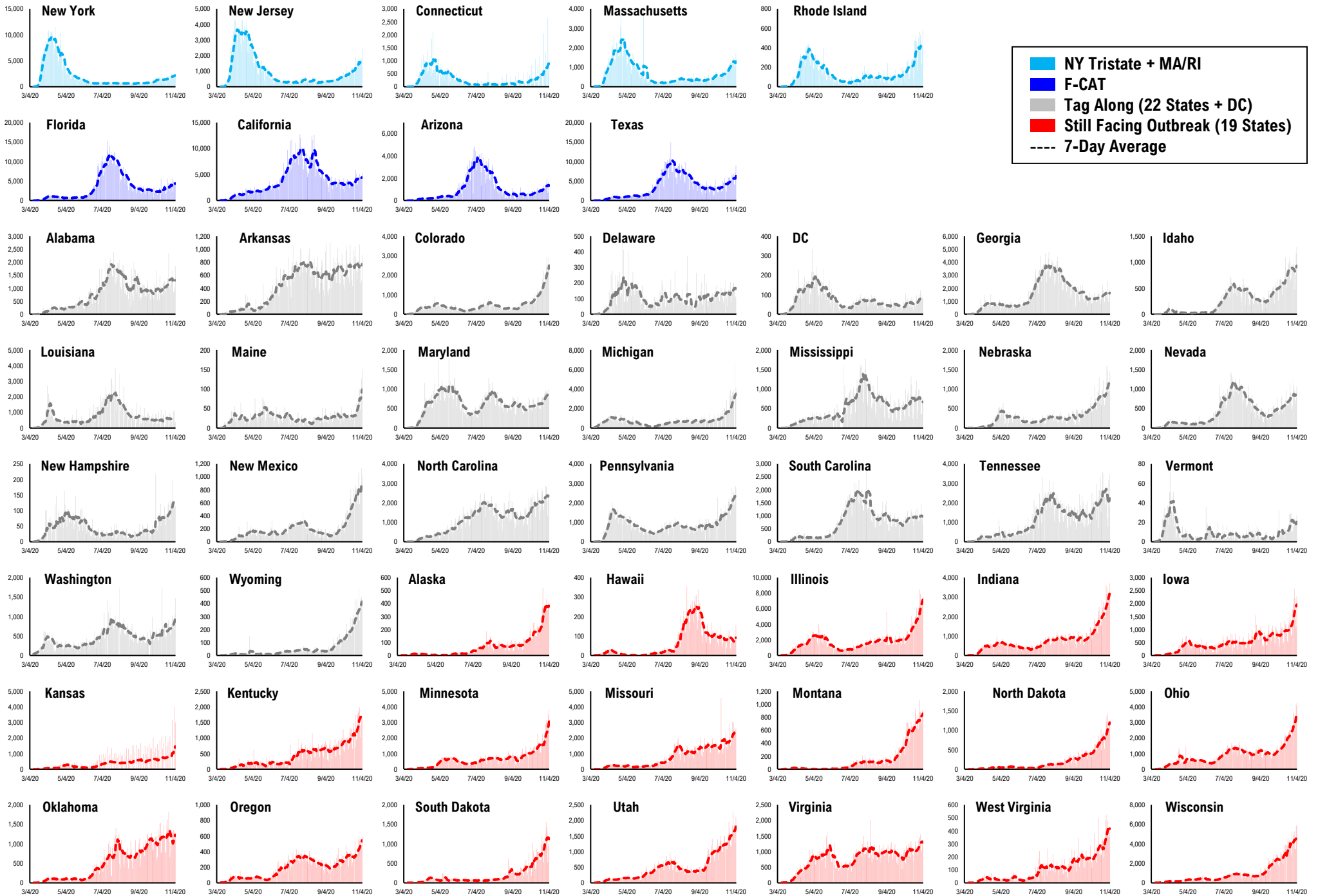


Daily Tests

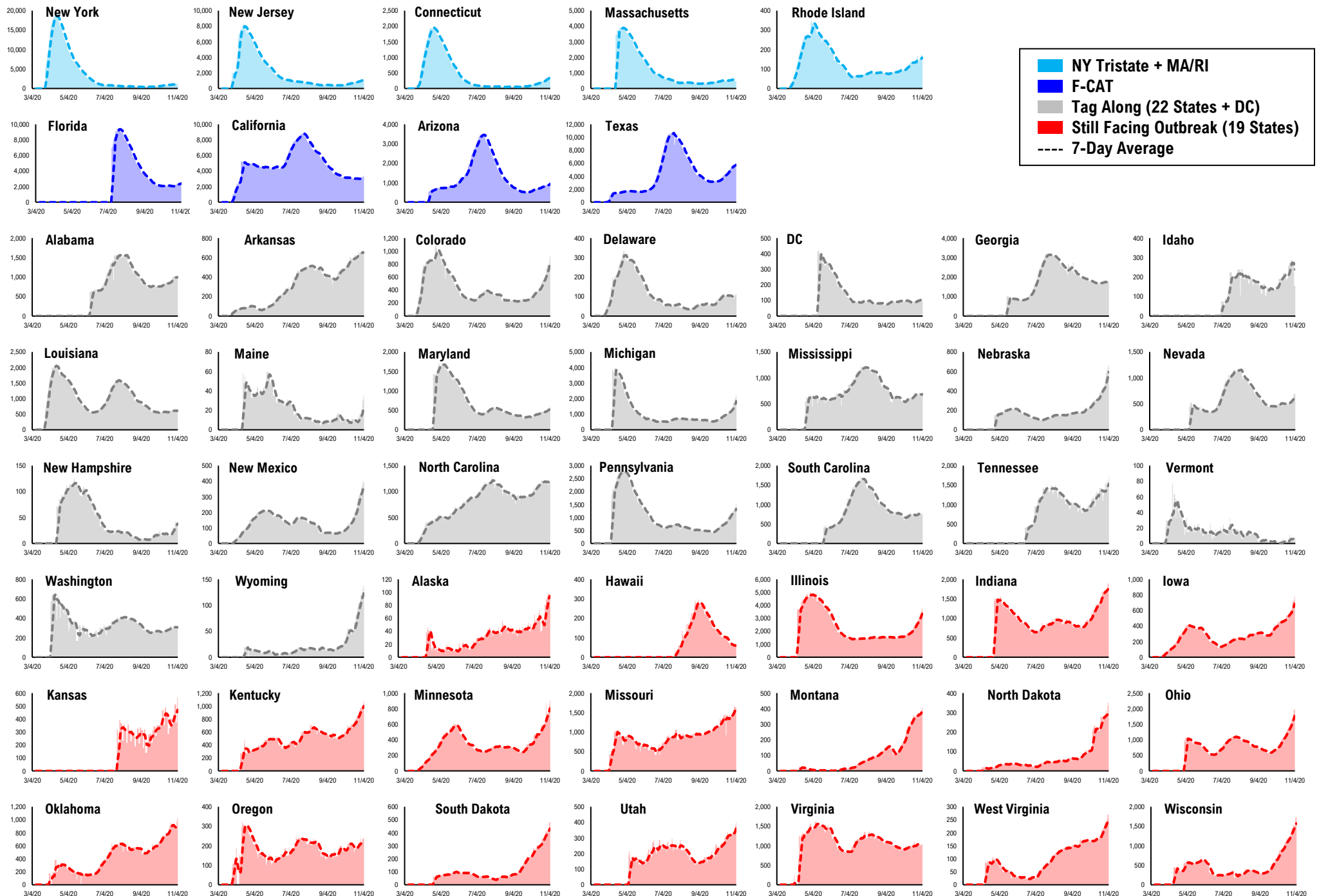


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

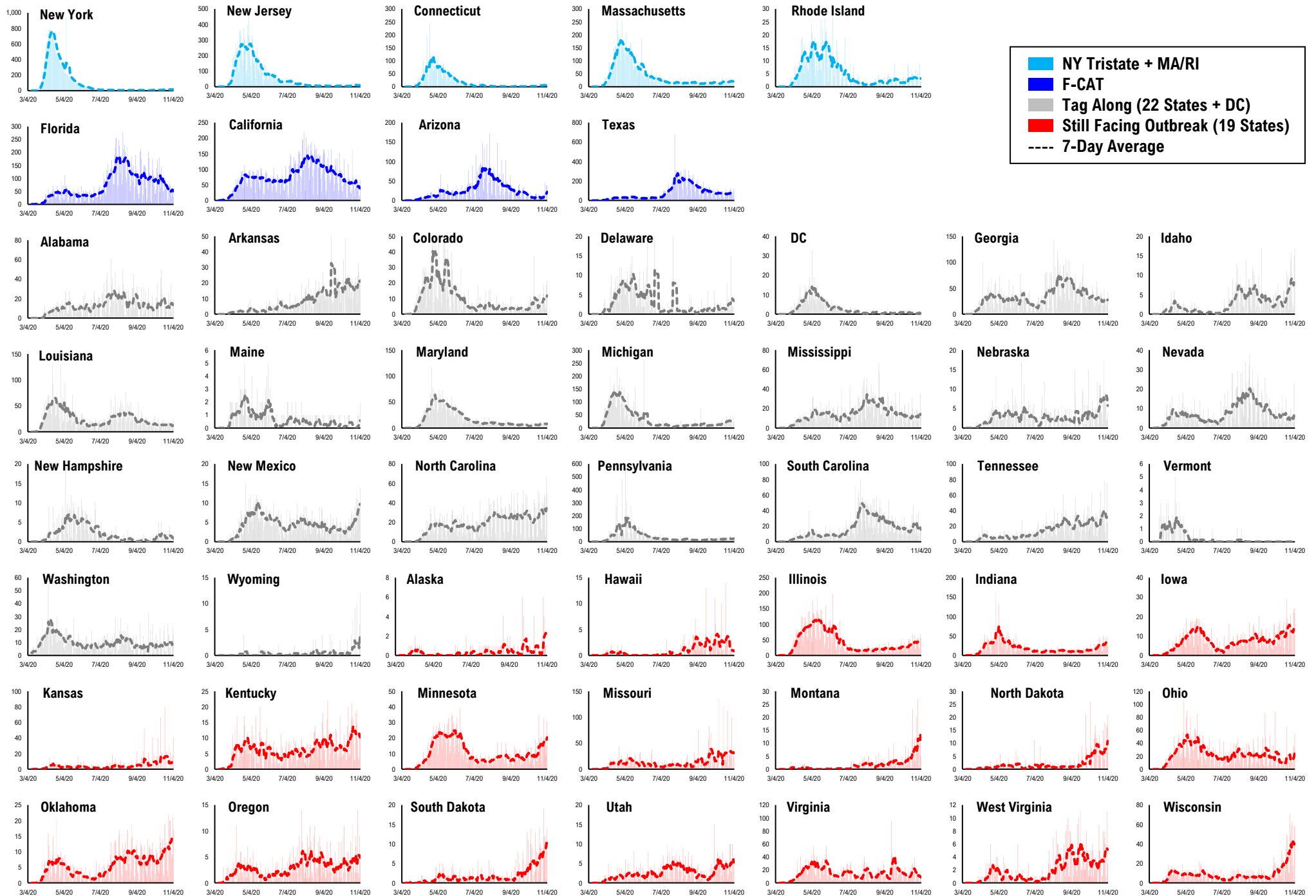
#10: Daily New Cases by States...



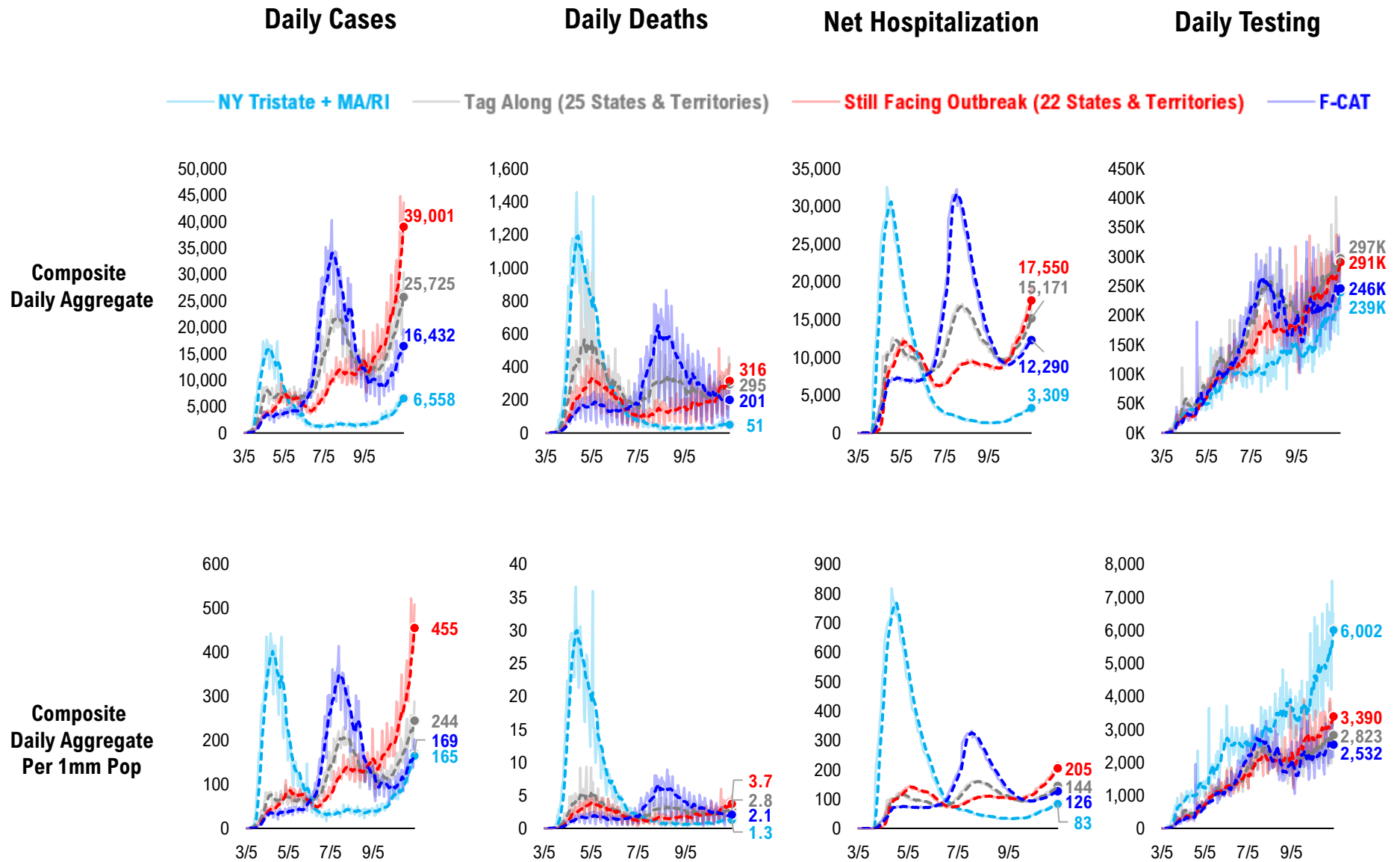
#11: Current Hospitalizations by States...



#12: Daily New Deaths by States...

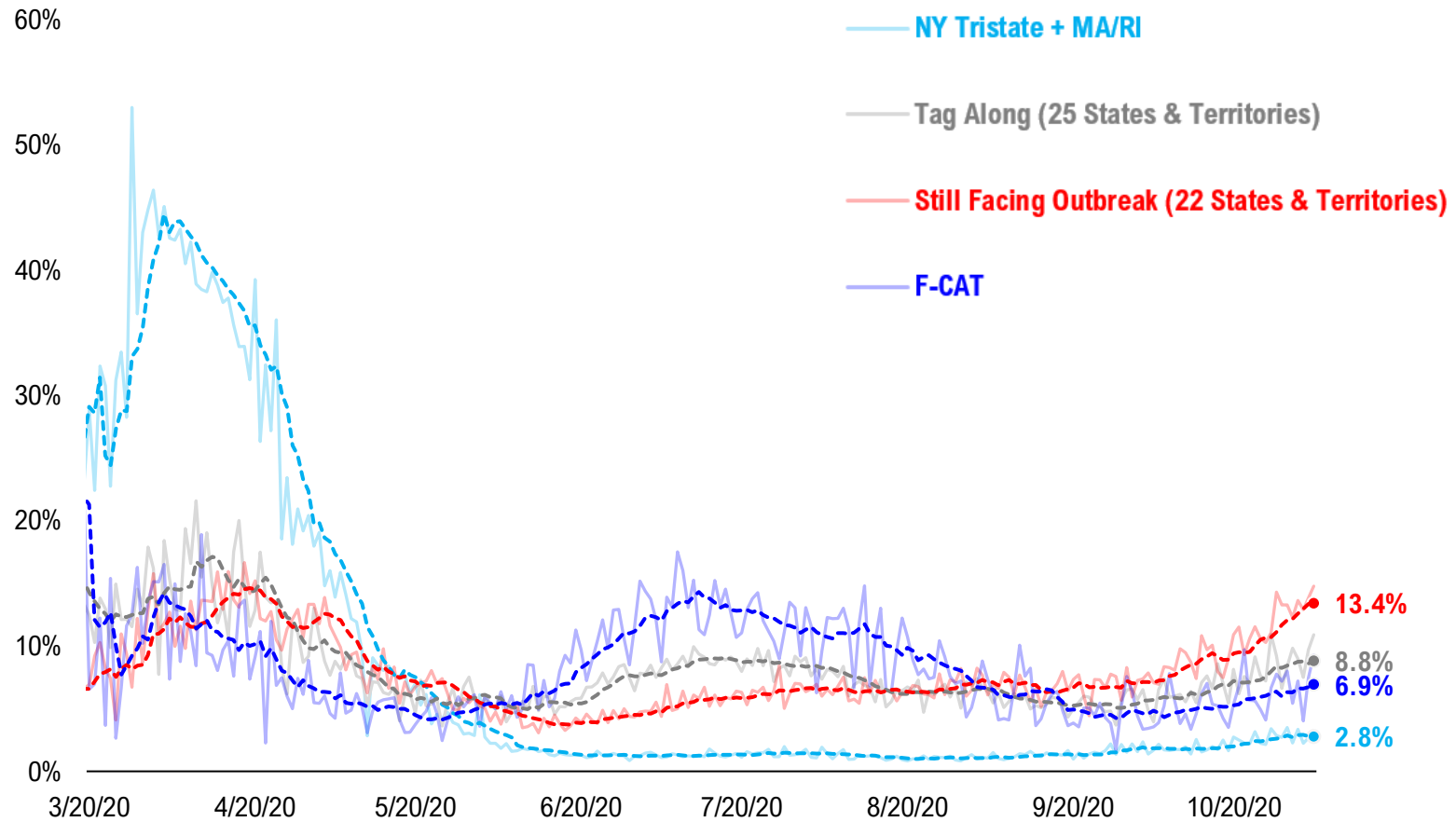


#13: State COVID-19 situation by Tier...

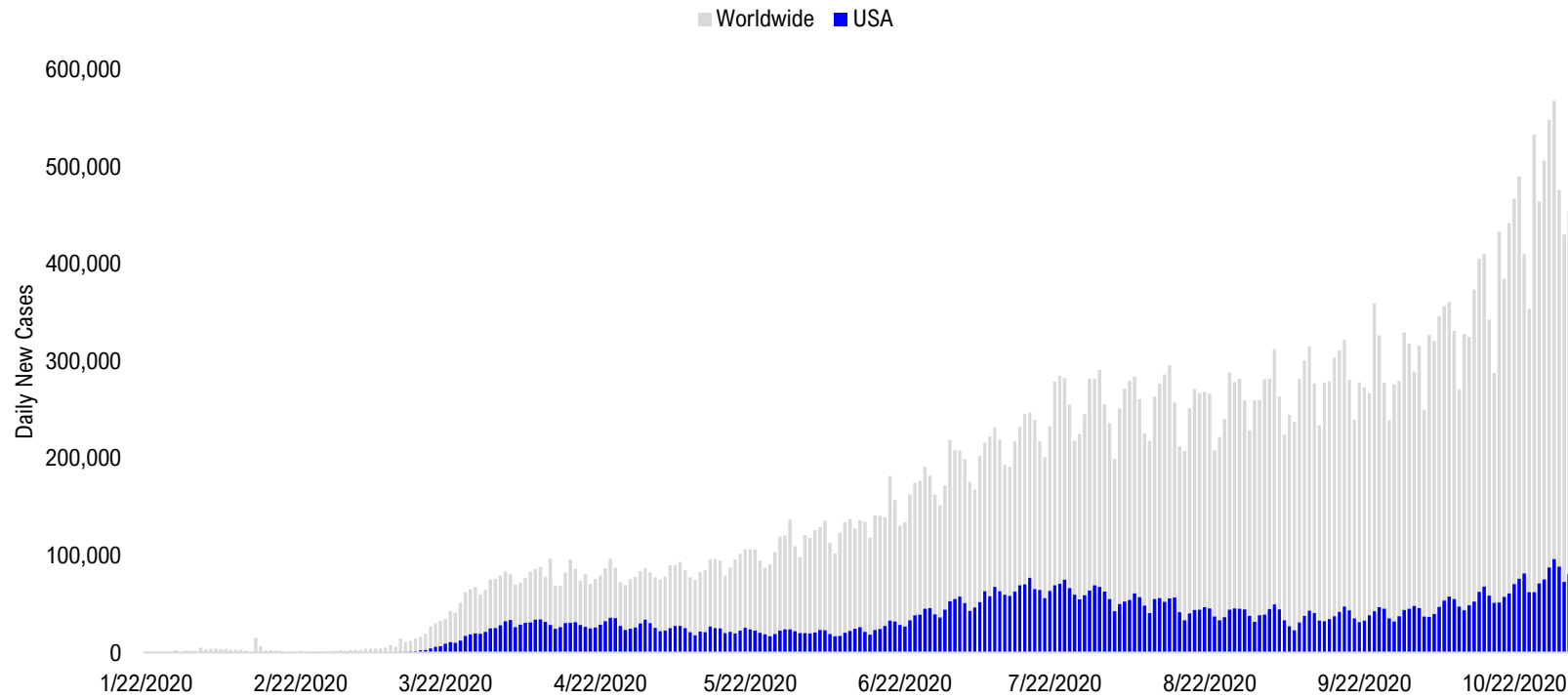


#14: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



#15: Global COVID-19 Situation at a Glance...



Jun 19	Jul 3	Jul 17	Jul 31	Aug 14	Aug 28	Sep 11	Sep 25	Oct 9	Oct 23	Nov 3
Latin America 58,570	Latin America 72,231	Latin America 72,602	Latin America 97,308	Latin America 100,636	Latin America 88,255	Pakistan + India + Bangladesh 98,888	Pakistan + India + Bangladesh 88,225	Europe 112,040	Europe 223,901	Europe 228,614
US + Canada 28,473	US + Canada 55,408	US + Canada 72,365	US + Canada 67,272	Pakistan + India + Bangladesh 68,924	Pakistan + India + Bangladesh 82,644	Latin America 80,841	Latin America 76,712	Pakistan + India + Bangladesh 76,149	US + Canada 71,797	US + Canada 83,443
Pakistan + India + Bangladesh 22,981	Pakistan + India + Bangladesh 27,389	Pakistan + India + Bangladesh 39,450	Pakistan + India + Bangladesh 58,625	US + Canada 54,914	US + Canada 45,255	Europe 47,433	Europe 67,915	Latin America 69,822	Latin America 69,390	Pakistan + India + Bangladesh 46,120
Europe 18,534	Europe 15,950	Africa 19,290	Europe 20,929	Europe 28,225	Europe 35,965	US + Canada 37,795	US + Canada 43,790	US + Canada 54,960	Pakistan + India + Bangladesh 56,907	Latin America 39,071
Africa 8,930	Africa 14,218	Europe 17,320	Africa 17,999	Africa 10,680	Asia ex- India+Pakistan 9,999	Asia ex- India+Pakistan 10,612	Asia ex- India+Pakistan 10,726	Asia ex- India+Pakistan 13,687	Asia ex- India+Pakistan 15,049	Asia ex- India+Pakistan 12,360
Asia ex- India+Pakistan 3,314	Asia ex- India+Pakistan 12,006	Asia ex- India+Pakistan 7,321	Asia ex- India+Pakistan 10,630	Asia ex- India+Pakistan 10,512	Africa 8,468	Africa 8,309	Africa 8,247	Africa 9,966	Africa 10,615	Africa 9,596

Disclosures

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