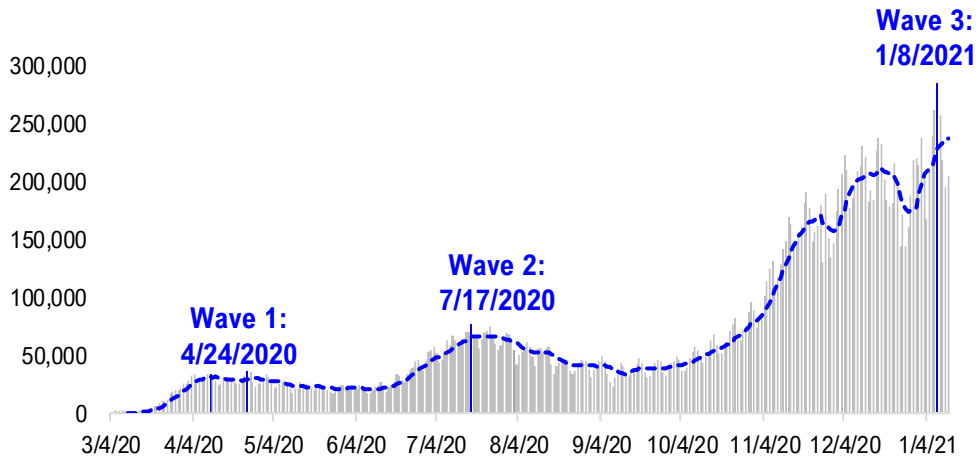


FSInsight Daily COVID-19 Chartbook

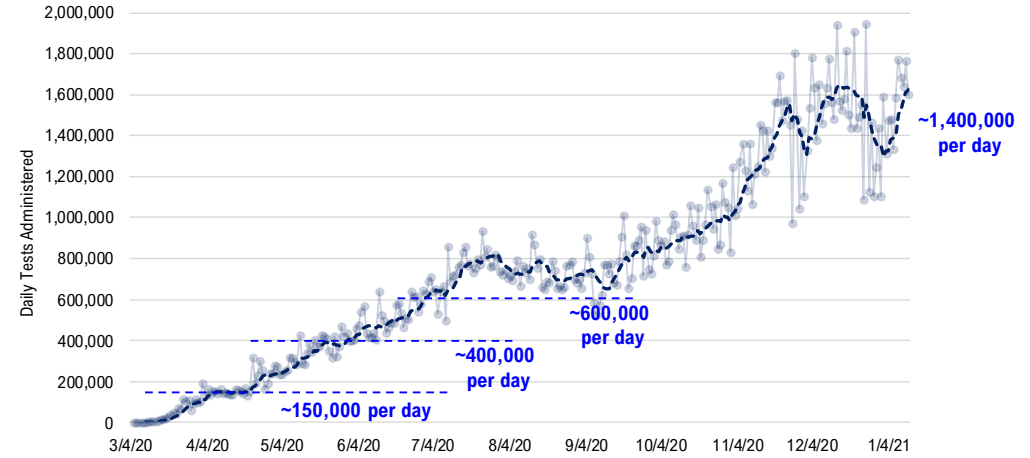


#1: USA COVID-19 Situation at a Glance...

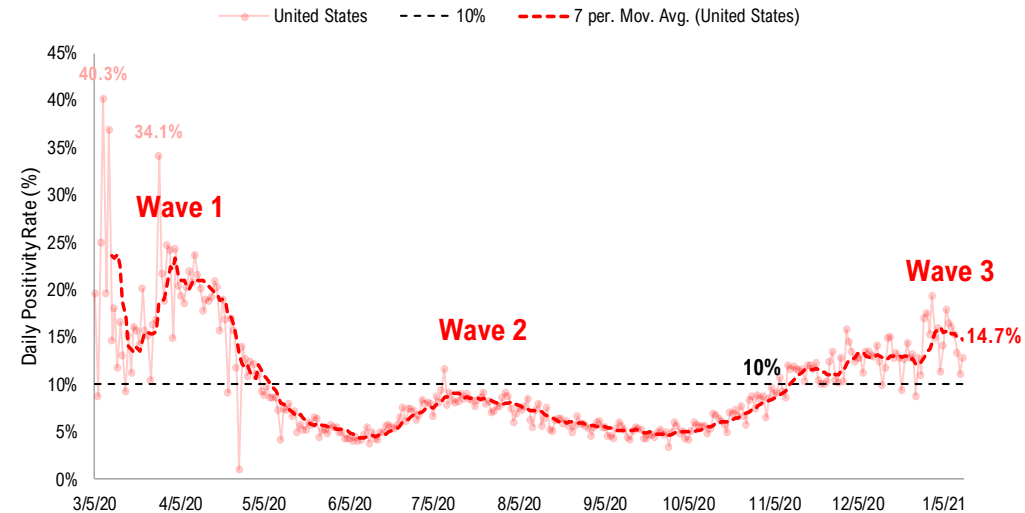
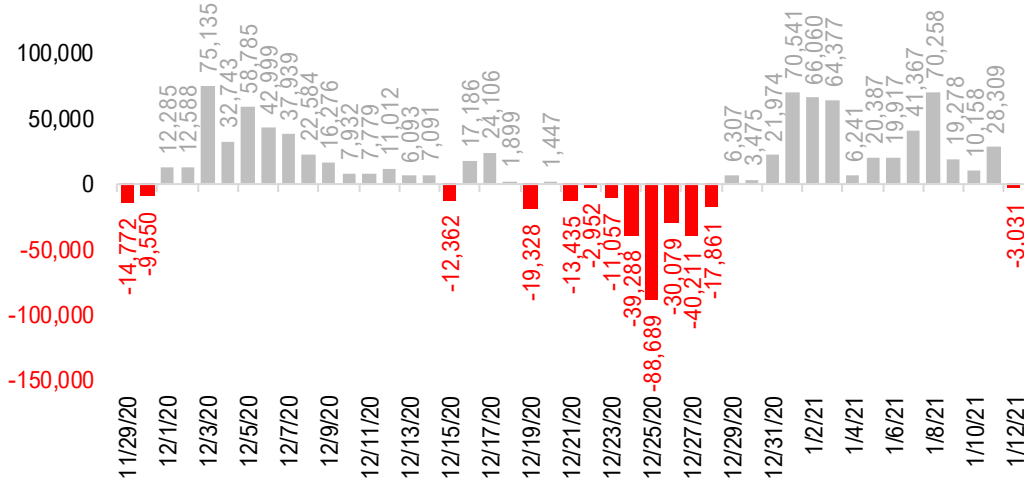
US daily new cases



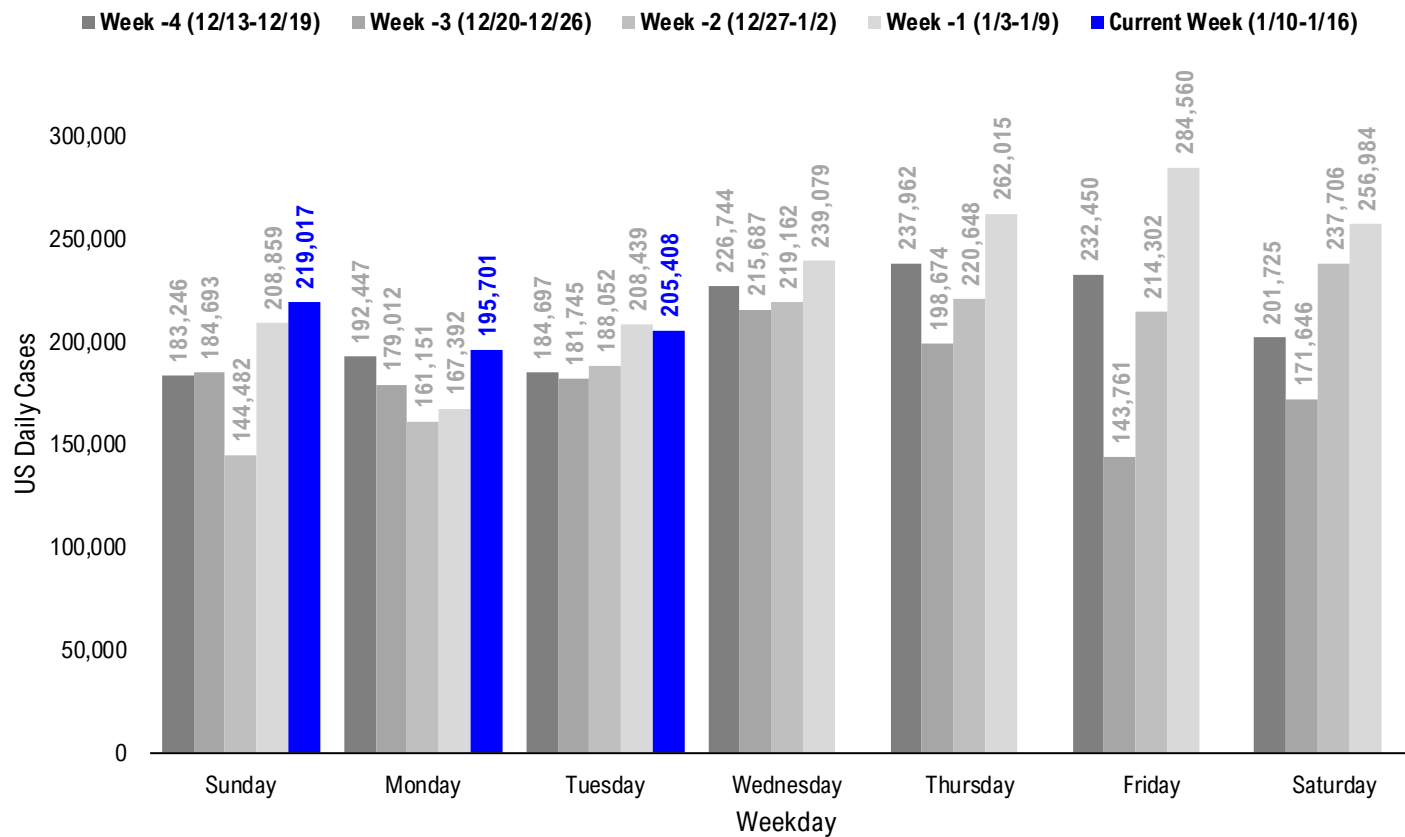
USA total COVID-19 tests administered



US daily new cases rolling 7D delta



#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	1/12	7D Delta	1/12	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	205,408	-3,031	630	+36	3	-23%	61

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	1/12	7D Delta	1/12	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	205,408	-3,031	630	+36	3	-23%	61

States:

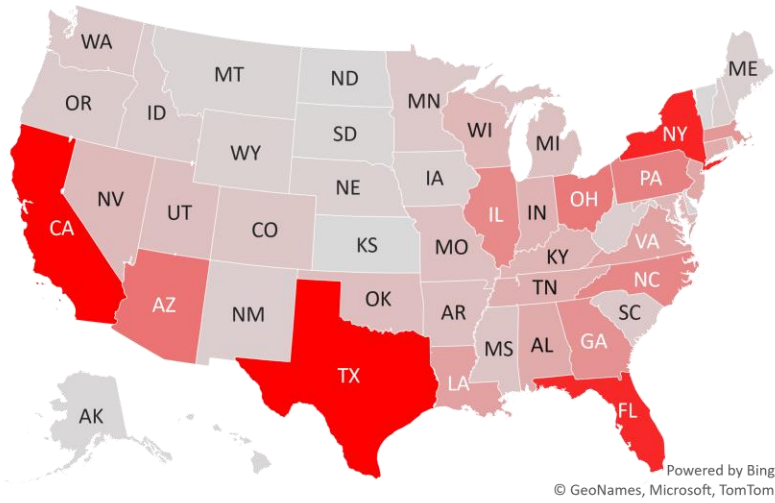
1 California	11.9%	14.6%	36,487	+5,047	1063	+165	2	-17%	180	0.1%
2 Texas	8.7%	8.8%	22,110	-4,433	556	-100	5	-26%	910	0.7%
3 New York	5.9%	8.1%	15,214	+2,548	759	+155	3	-17%	336	0.3%
4 Florida	6.5%	5.0%	14,896	-535	602	+23	4	-32%	375	0.3%
5 Arizona	2.2%	1.7%	8,559	+2,627	1317	+20	9	-21%	293	0.4%
6 Ohio	3.5%	3.3%	7,981	+401	626	+47	33	-36%	-436	(0.8%)
7 Pennsylvania	3.9%	3.8%	7,275	-1,543	524	+91	38	-44%	-480	(0.8%)
8 North Carolina	3.2%	2.7%	6,851	+1,566	687	+148	3	-32%	159	0.3%
9 Illinois	3.8%	4.2%	6,642	-197	424	-6	60	-60%	-352	(0.7%)
10 Georgia	3.2%	2.9%	5,982	-120	612	+134	2	-26%	455	0.9%
11 Massachusetts	2.1%	2.8%	5,487	+853	744	+115	3	-33%	-209	(0.5%)
12 Louisiana	1.4%	1.3%	4,673	+219	824	+5	5	-28%	61	0.2%
13 Virginia	2.6%	2.6%	4,561	+184	556	+42	3	-13%	267	0.7%
14 New Jersey	2.7%	3.0%	4,156	-1,163	528	+106	3	-23%	1	0.0%
15 Alabama	1.5%	1.1%	3,848	-1,650	591	-98	5	-43%	-4	(0.0%)
16 Connecticut	1.1%	1.3%	3,689	+1,357	1033	+393	34	-14%	5	0.0%
17 Tennessee	2.1%	1.8%	3,478	-1,921	704	+44	25	-53%	-235	(0.5%)
18 Indiana	2.0%	1.8%	3,139	-256	590	+95	38	-50%	-392	(1.0%)
19 Kentucky	1.3%	1.0%	3,022	+1,329	622	+109	4	-46%	-27	(0.1%)
20 Wisconsin	1.8%	1.6%	2,790	-613	348	-67	60	-73%	-106	(0.5%)
21 Maryland	1.8%	2.0%	2,665	+709	496	+132	2	-17%	181	0.8%
22 Nevada	0.9%	0.8%	2,593	+170	707	-6	3	-27%	-40	(0.2%)
23 Oklahoma	1.2%	1.0%	2,210	+713	1060	+31	2	-21%	-7	(0.0%)
24 Utah	1.0%	0.9%	2,146	-1,172	614	-145	4	-51%	27	0.1%
25 Missouri	1.8%	1.5%	2,131	-501	355	+22	59	-56%	-52	(0.2%)
26 Arkansas	0.9%	0.6%	2,095	-180	661	+134	2	-17%	31	0.2%
27 Michigan	3.0%	2.6%	1,994	-297	218	-25	55	-75%	-315	(1.5%)
28 Mississippi	0.9%	0.6%	1,648	-119	570	-9	3	-41%	-52	(0.3%)

States:

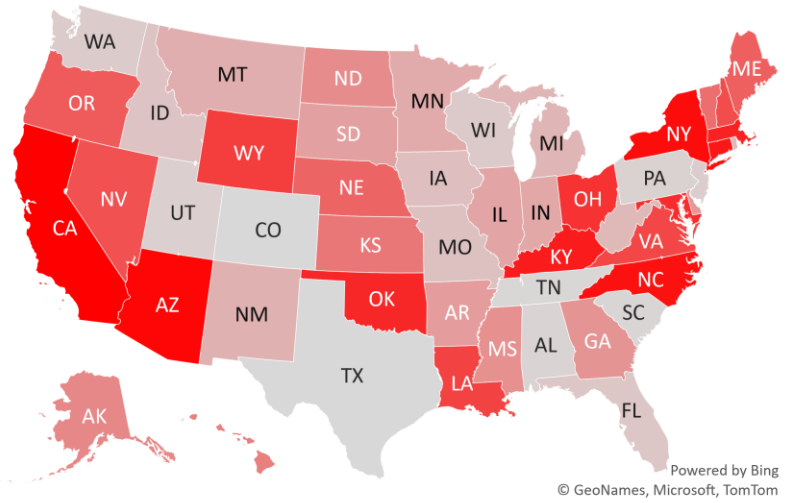
29 Colorado	1.7%	1.8%	1,511	-1,947	312	-135	52	-70%	-58	(0.3%)
30 Washington	2.3%	2.7%	1,389	-815	278	-222	48	-50%	-43	(0.2%)
31 South Carolina	1.6%	1.1%	1,383	-1,717	514	-215	3	-47%	109	0.4%
32 Minnesota	1.7%	1.8%	1,315	-258	263	-176	43	-81%	-150	(1.1%)
33 Oregon	1.3%	1.2%	1,173	+138	261	+13	37	-36%	-137	(1.7%)
34 Idaho	0.5%	0.4%	1,034	-504	380	-113	33	-67%	29	0.5%
35 West Virginia	0.5%	0.4%	921	-355	637	-76	9	-40%	-51	(0.5%)
36 Puerto Rico	1.0%	0.5%	888	+387	160	+25	24	-55%	-33	(0.8%)
37 New Mexico	0.6%	0.5%	887	-297	480	-16	53	-68%	-25	(0.3%)
38 New Hampshire	0.4%	0.4%	841	+177	558	-130	8	-31%	-18	(0.3%)
39 Rhode Island	0.3%	0.3%	786	-358	753	-86	38	-52%	-7	(0.1%)
40 Maine	0.4%	0.3%	715	+118	324	-3	19	-33%	12	0.3%
41 Wyoming	0.2%	0.2%	677	+355	779	+206	54	-55%	-8	(0.3%)
42 Nebraska	0.6%	0.6%	644	+59	354	+32	54	-76%	-43	(0.6%)
43 Iowa	1.0%	0.9%	637	-384	217	-56	60	-83%	-30	(0.4%)
44 Delaware	0.3%	0.4%	619	-148	675	-88	3	-28%	42	0.8%
45 District of Columbia	0.2%	0.7%	430	+168	456	+146	2	-7%	23	1.0%
46 Montana	0.3%	0.2%	424	-290	304	-143	58	-76%	-25	(0.7%)
47 South Dakota	0.3%	0.3%	244	-189	317	-153	59	-85%	-30	(1.1%)
48 Vermont	0.2%	0.2%	169	+4	244	+58	3	-28%	12	1.0%
49 North Dakota	0.2%	0.3%	138	-116	179	-84	59	-93%	-23	(1.5%)
50 Alaska	0.2%	0.3%	121	-73	248	-91	38	-78%	-14	(0.7%)
51 Hawaii	0.4%	0.5%	114	-9	114	+29	136	-45%	28	1.9%
52 U.S. Virgin Islands	0.0%	0.0%	23	+10	72	+12	144	-83%	0	0.0%
53 Northern Mariana	0.0%	0.0%	3	+3	18	+18	77	-75%	0	0.0%
54 Kansas	0.9%	0.8%	0	+0	593	+184	48	-61%	-72	(0.4%)
55 Guam	0.0%	0.0%	0	-13	38	-24	63	-96%	-1	(1.5%)
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	0.0%

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

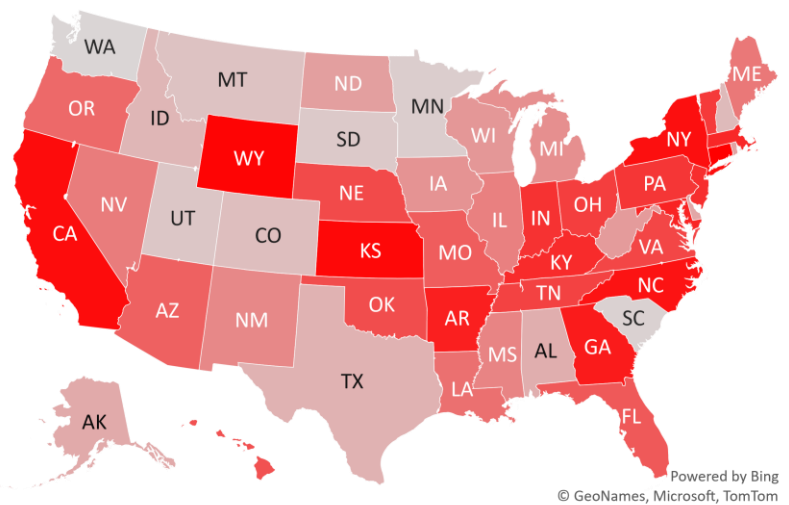
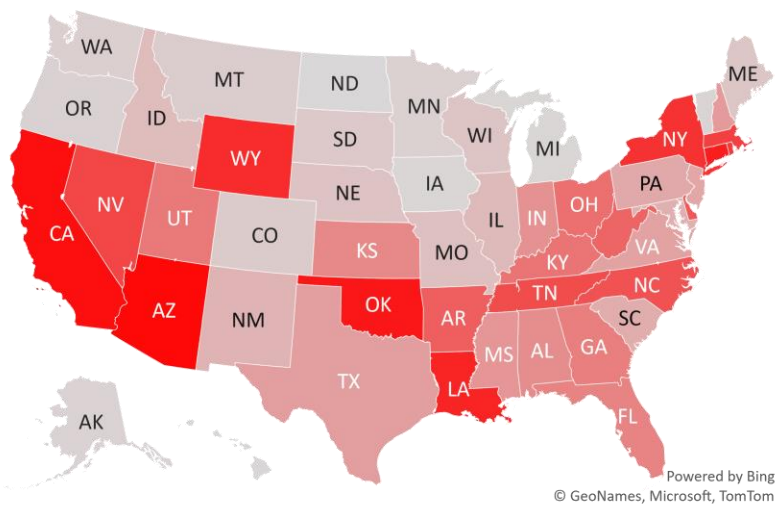
Daily Case Increases



7D Delta in Daily New Cases



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



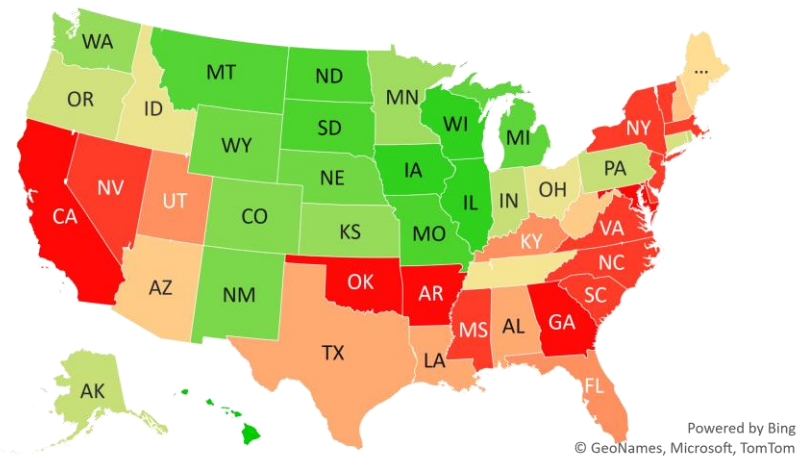
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 1/12)

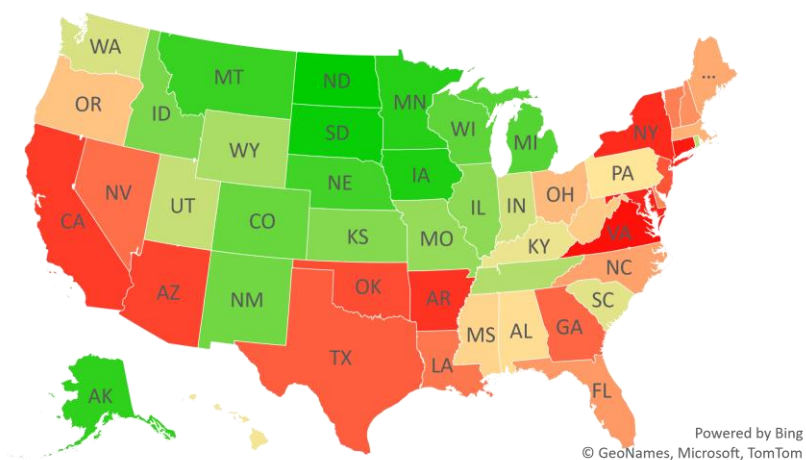
	Sorted			
	Peak Date	1/12/21	% off the Peak	% US Pop
United States	1/9/21	3	-23%	100%
States:				
U.S. Virgin Islands	8/21/20	144	-83%	0.0%
Hawaii	8/29/20	136	-45%	0.4%
Northern Mariana Island	10/27/20	77	-75%	0.0%
Guam	11/10/20	63	-96%	0.0%
Wisconsin	11/13/20	60	-73%	1.8%
Illinois	11/13/20	60	-60%	3.8%
Iowa	11/13/20	60	-83%	1.0%
South Dakota	11/14/20	59	-85%	0.3%
North Dakota	11/14/20	59	-93%	0.2%
Missouri	11/14/20	59	-56%	1.8%
Montana	11/15/20	58	-76%	0.3%
Michigan	11/18/20	55	-75%	3.0%
Wyoming	11/19/20	54	-55%	0.2%
Nebraska	11/19/20	54	-76%	0.6%
New Mexico	11/20/20	53	-68%	0.6%
Colorado	11/21/20	52	-70%	1.7%
Washington	11/25/20	48	-50%	2.3%
Kansas	11/25/20	48	-61%	0.9%
Minnesota	11/30/20	43	-81%	1.7%
Rhode Island	12/5/20	38	-52%	0.3%
Pennsylvania	12/5/20	38	-44%	3.9%
Indiana	12/5/20	38	-50%	2.0%
Alaska	12/5/20	38	-78%	0.2%
Oregon	12/6/20	37	-36%	1.3%
Connecticut	12/9/20	34	-14%	1.1%
Ohio	12/10/20	33	-36%	3.5%
Idaho	12/10/20	33	-67%	0.5%
Tennessee	12/18/20	25	-53%	2.1%

	Sorted			
	Peak Date	1/12/21	% off the Peak	% US Pop
United States	1/9/21	3	-23%	100%
States:				
Puerto Rico	12/19/20	24	-55%	1.0%
Maine	12/24/20	19	-33%	0.4%
West Virginia	1/3/21	9	-40%	0.5%
Arizona	1/3/21	9	-21%	2.2%
New Hampshire	1/4/21	8	-31%	0.4%
Texas	1/7/21	5	-26%	8.7%
Louisiana	1/7/21	5	-28%	1.4%
Alabama	1/7/21	5	-43%	1.5%
Utah	1/8/21	4	-51%	1.0%
Kentucky	1/8/21	4	-46%	1.3%
Florida	1/8/21	4	-32%	6.5%
Vermont	1/9/21	3	-28%	0.2%
Virginia	1/9/21	3	-13%	2.6%
South Carolina	1/9/21	3	-47%	1.6%
New York	1/9/21	3	-17%	5.9%
Nevada	1/9/21	3	-27%	0.9%
New Jersey	1/9/21	3	-23%	2.7%
North Carolina	1/9/21	3	-32%	3.2%
Mississippi	1/9/21	3	-41%	0.9%
Massachusetts	1/9/21	3	-33%	2.1%
Delaware	1/9/21	3	-28%	0.3%
Oklahoma	1/10/21	2	-21%	1.2%
Maryland	1/10/21	2	-17%	1.8%
Georgia	1/10/21	2	-26%	3.2%
District of Columbia	1/10/21	2	-7%	0.2%
California	1/10/21	2	-17%	11.9%
Arkansas	1/10/21	2	-17%	0.9%

Days since Daily Case Peak: **Longer = Good**



Daily Cases % off the Peak: **Larger Decline = Good**



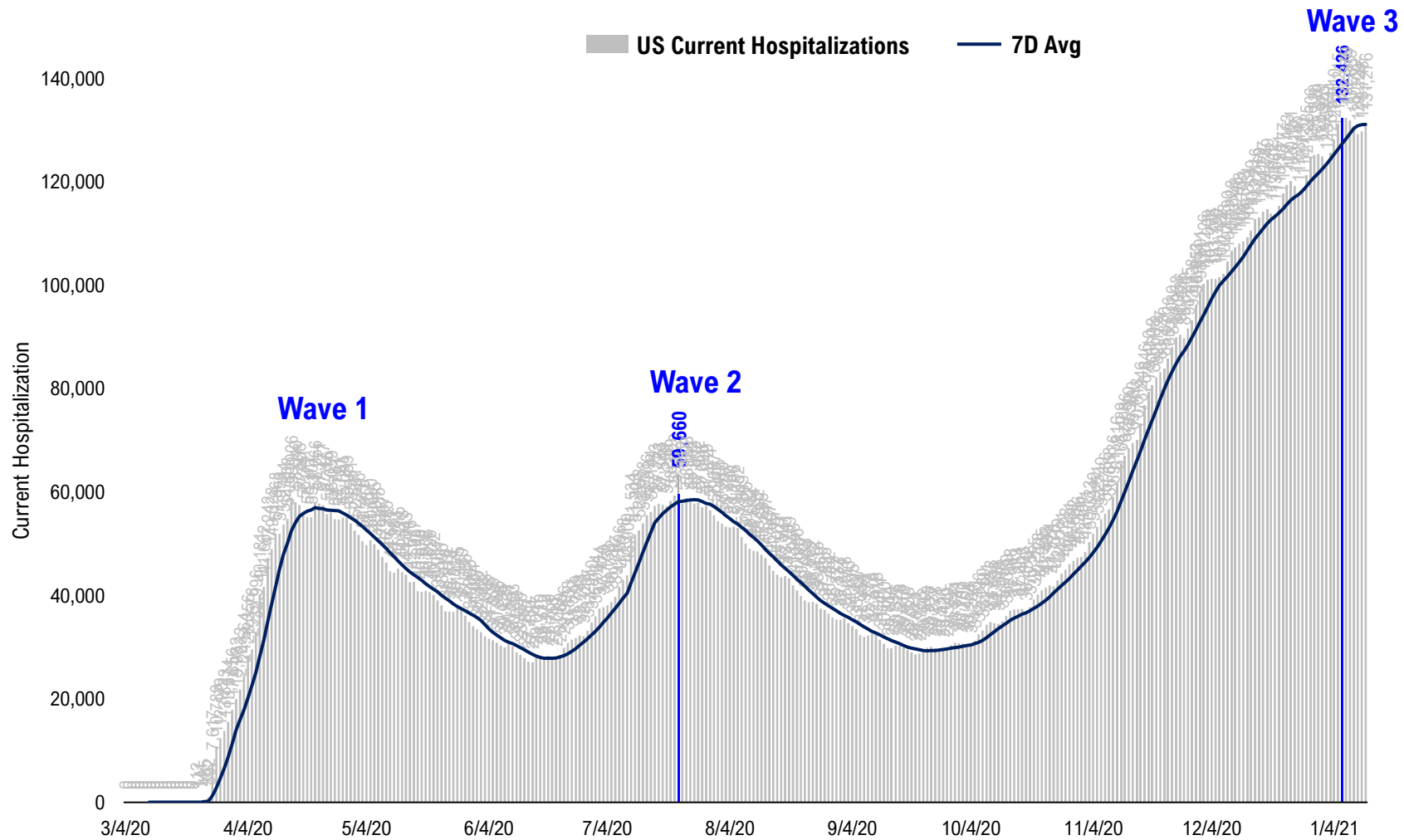
#6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	1/5/21	1/10/21	1/11/21	1/12/21	vs 7D ago
United States	208,439	219,017	195,701	205,408	-3,031
States:					
California	31,440	49,685	39,839	36,487	
Texas	26,543	12,954	13,308	22,110	
New York	12,666	15,355	13,714	15,214	<--higher
Florida	15,431	12,313	11,576	14,896	
Arizona	5,932	11,201	8,995	8,559	<--higher
Ohio	7,580	6,088	7,892	7,981	
Pennsylvania	8,818	7,506	5,338	7,275	
North Carolina	5,285	8,833	5,936	6,851	<--higher
Illinois	6,839	4,711	4,776	6,642	
Georgia	6,102	7,169	6,339	5,982	
Massachusetts	4,634	5,656	4,251	5,487	
Louisiana	4,454	5,413	1,402	4,673	
Virginia	4,377	5,141	4,530	4,561	
New Jersey	5,319	5,019	4,905	4,156	
Alabama	5,498	2,750	2,100	3,848	
Connecticut	2,332	0	7,364	3,689	<--higher
Tennessee	5,399	7,419	3,527	3,478	
Indiana	3,395	5,093	3,685	3,139	
Kentucky	1,693	3,227	2,082	3,022	<--higher
Wisconsin	3,403	1,832	1,456	2,790	
Maryland	1,956	3,310	3,012	2,665	<--higher
Nevada	2,423	2,259	1,681	2,593	
Oklahoma	1,497	6,487	3,885	2,210	<--higher
Utah	3,318	2,276	1,484	2,146	
Missouri	2,632	2,744	1,659	2,131	
Arkansas	2,275	2,856	1,029	2,095	
Michigan	2,291	0	4,536	1,994	
Mississippi	1,767	2,214	1,227	1,648	

	Sorted				
	7D Ago	Last 3-day Trend			
	1/5/21	1/10/21	1/11/21	1/12/21	vs 7D ago
United States	208,439	219,017	195,701	205,408	-3,031
States:					
Colorado	3,458	2,201	1,677	1,511	
Washington	2,204	0	4,952	1,389	
South Carolina	3,100	3,853	2,711	1,383	
Minnesota	1,573	2,159	980	1,315	
Oregon	1,035	1,207	924	1,173	
Idaho	1,538	432	572	1,034	
West Virginia	1,276	1,434	1,070	921	
Puerto Rico	501	350	297	888	<--higher
New Mexico	1,184	1,203	930	887	
New Hampshire	664	729	707	841	<--higher
Rhode Island	1,144	1,038	568	786	
Maine	597	279	313	715	
Wyoming	322	113	563	677	<--higher
Nebraska	585	1,006	406	644	
Iowa	1,021	940	476	637	
Delaware	767	798	554	619	
District of Columbia	262	334	202	430	<--higher
Montana	714	222	329	424	
South Dakota	433	417	181	244	
Vermont	165	177	111	169	
North Dakota	254	158	114	138	
Alaska	194	250	173	121	
Hawaii	123	198	172	114	
U.S. Virgin Islands	13	0	0	23	<--higher
Northern Mariana Islands	0	0	0	3	
Kansas	0	0	5,180	0	
Guam	13	8	11	0	
American Samoa	0	0	0	0	

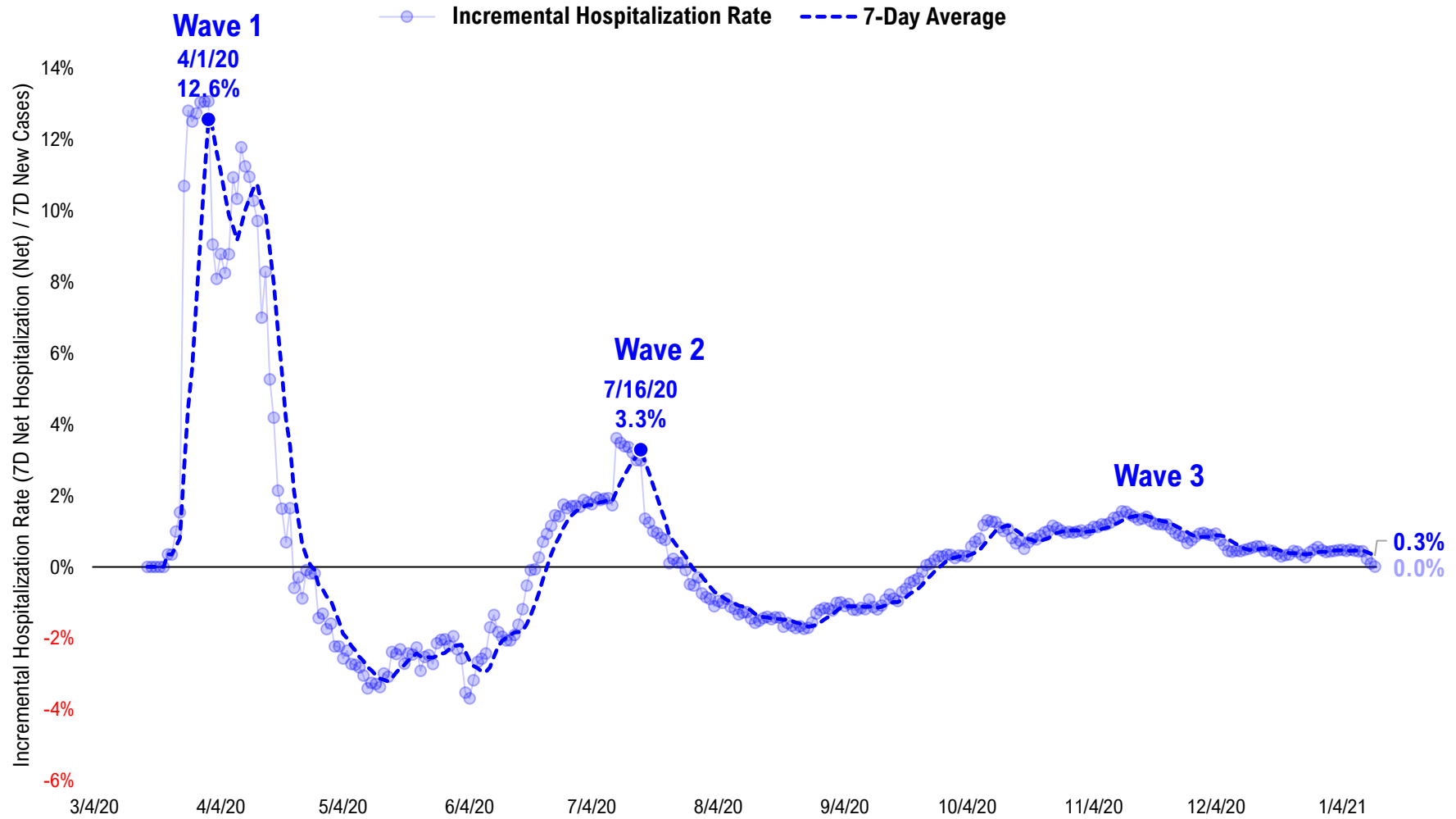
#7: US Daily Hospitalizations...

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



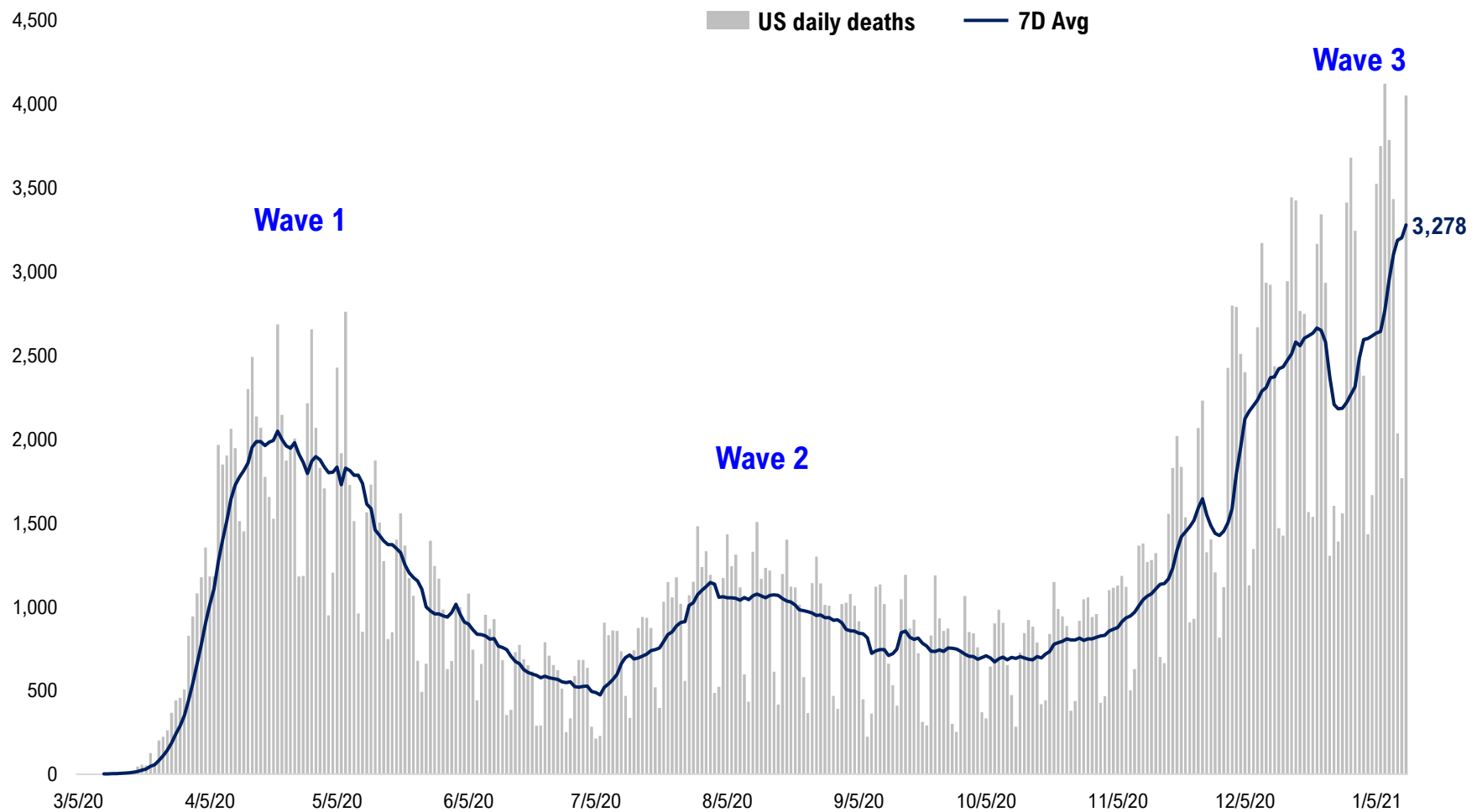
#8: Incremental Hospitalization Rate...

Incremental Hospitalization Rate: 7D Net Hospitalizations / 7D Total New Cases
(aggregate of 50 states + Washington, D.C.)

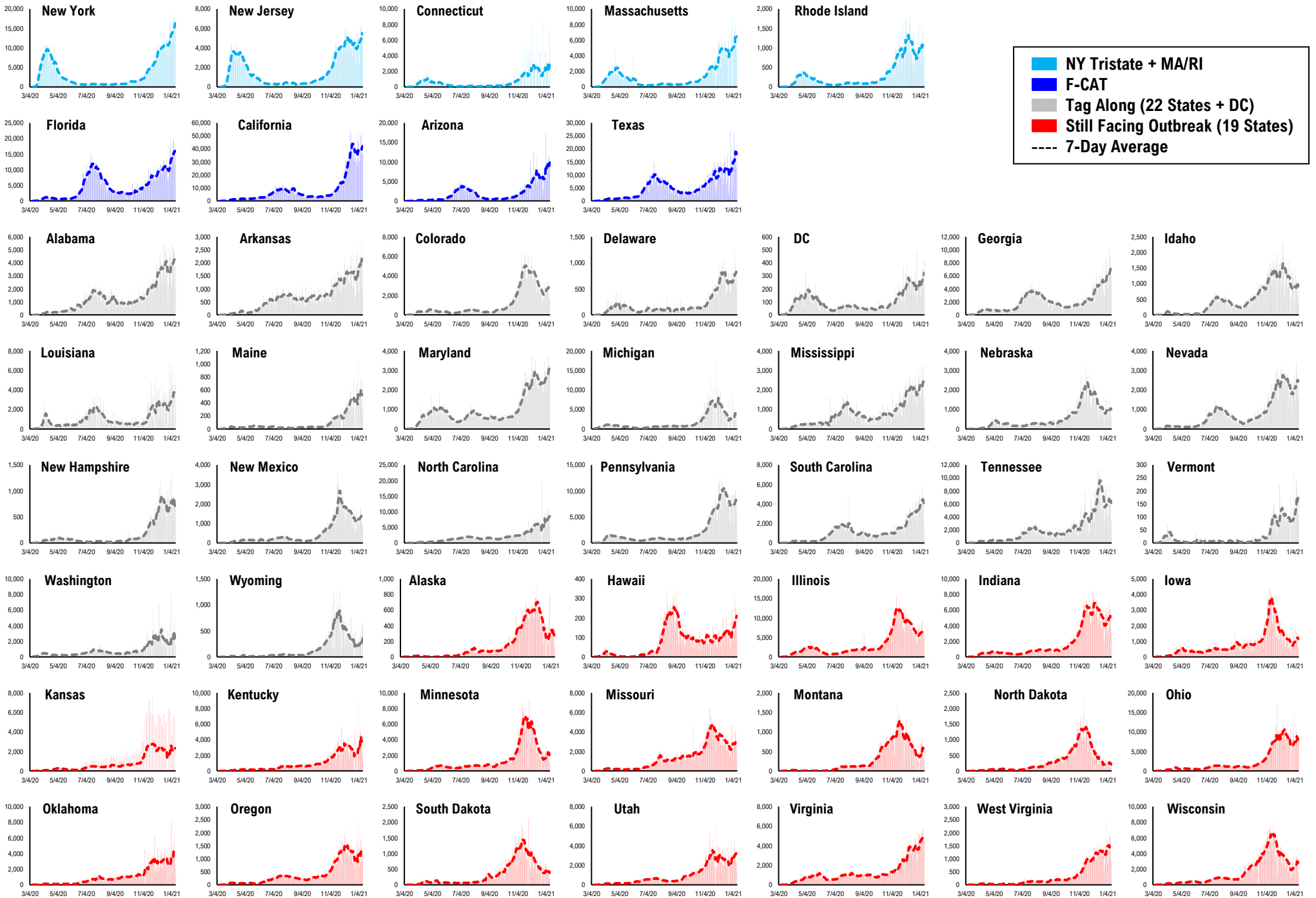


#9: US Daily New Fatalities...

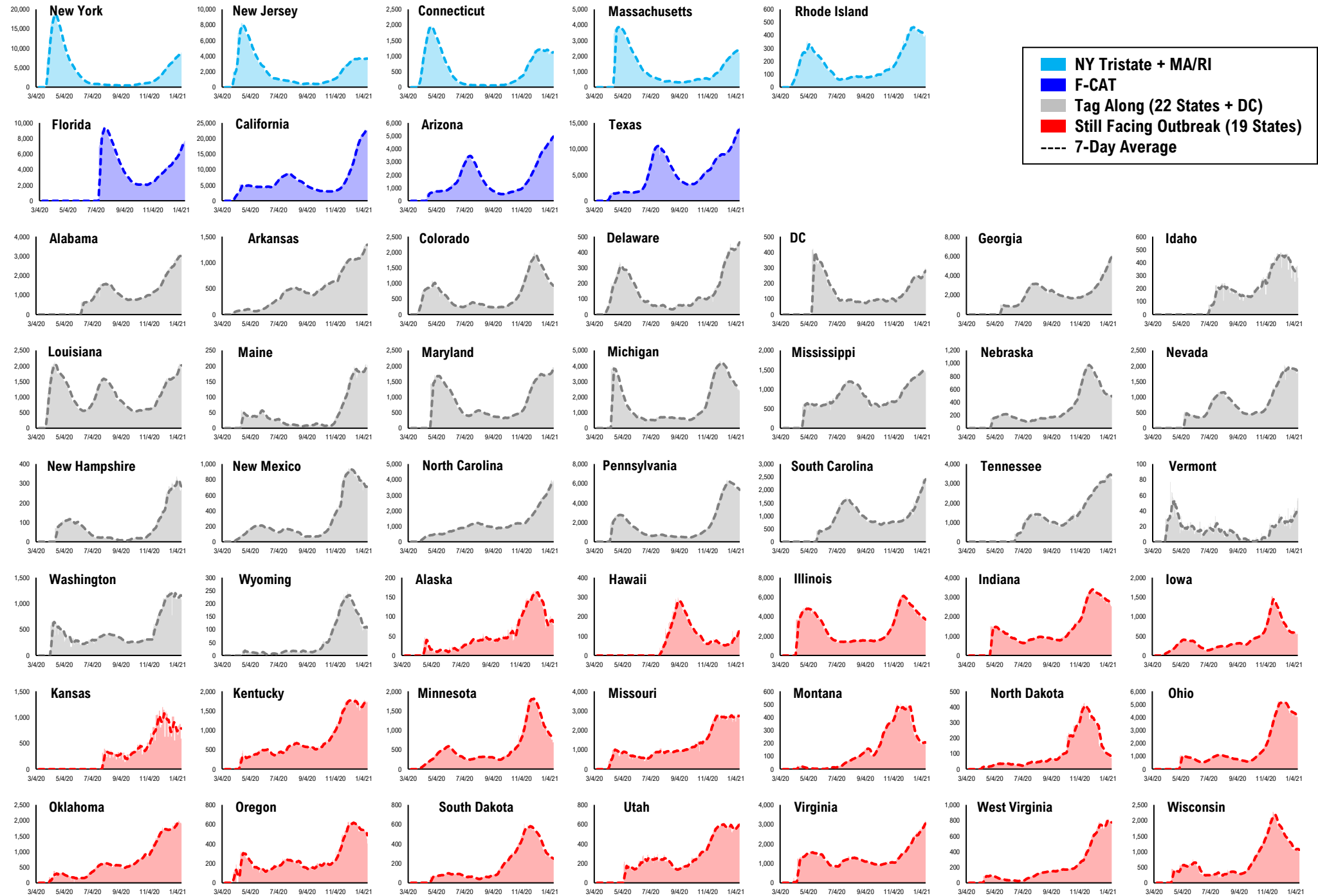
US daily COVID-19 Fatalities



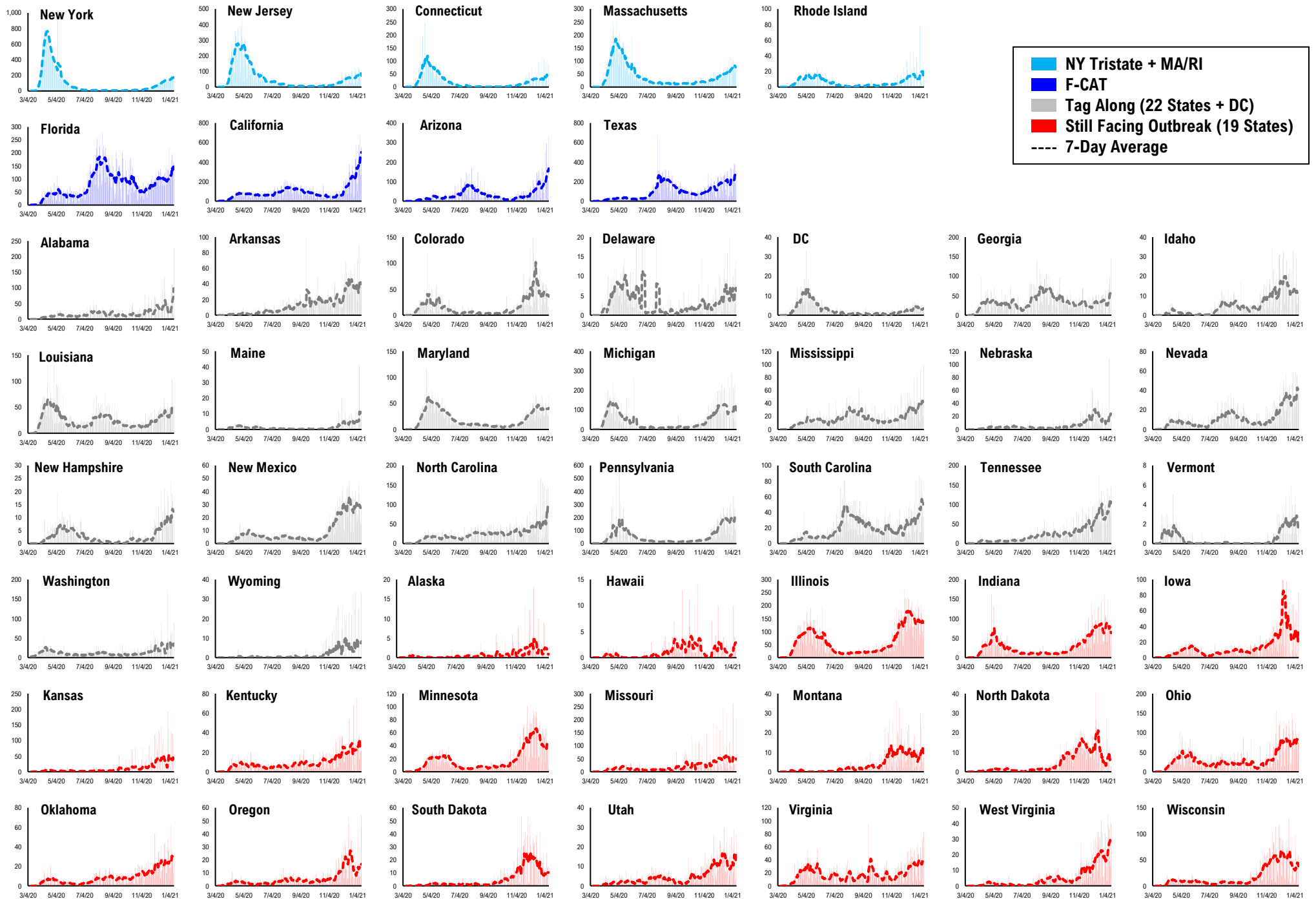
#11: Daily New Cases by States...



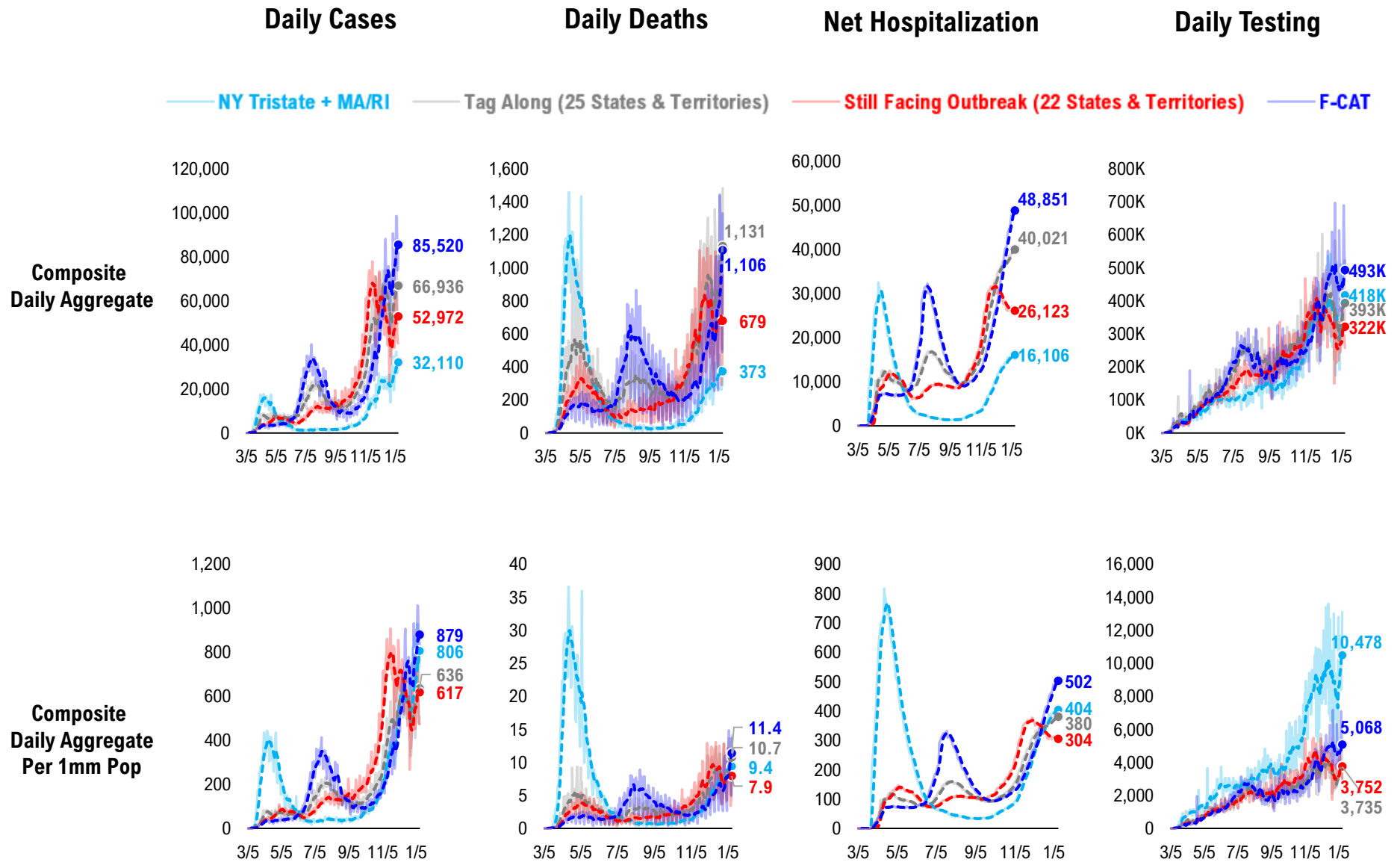
#12: Current Hospitalizations by States...



#13: Daily New Deaths by States...

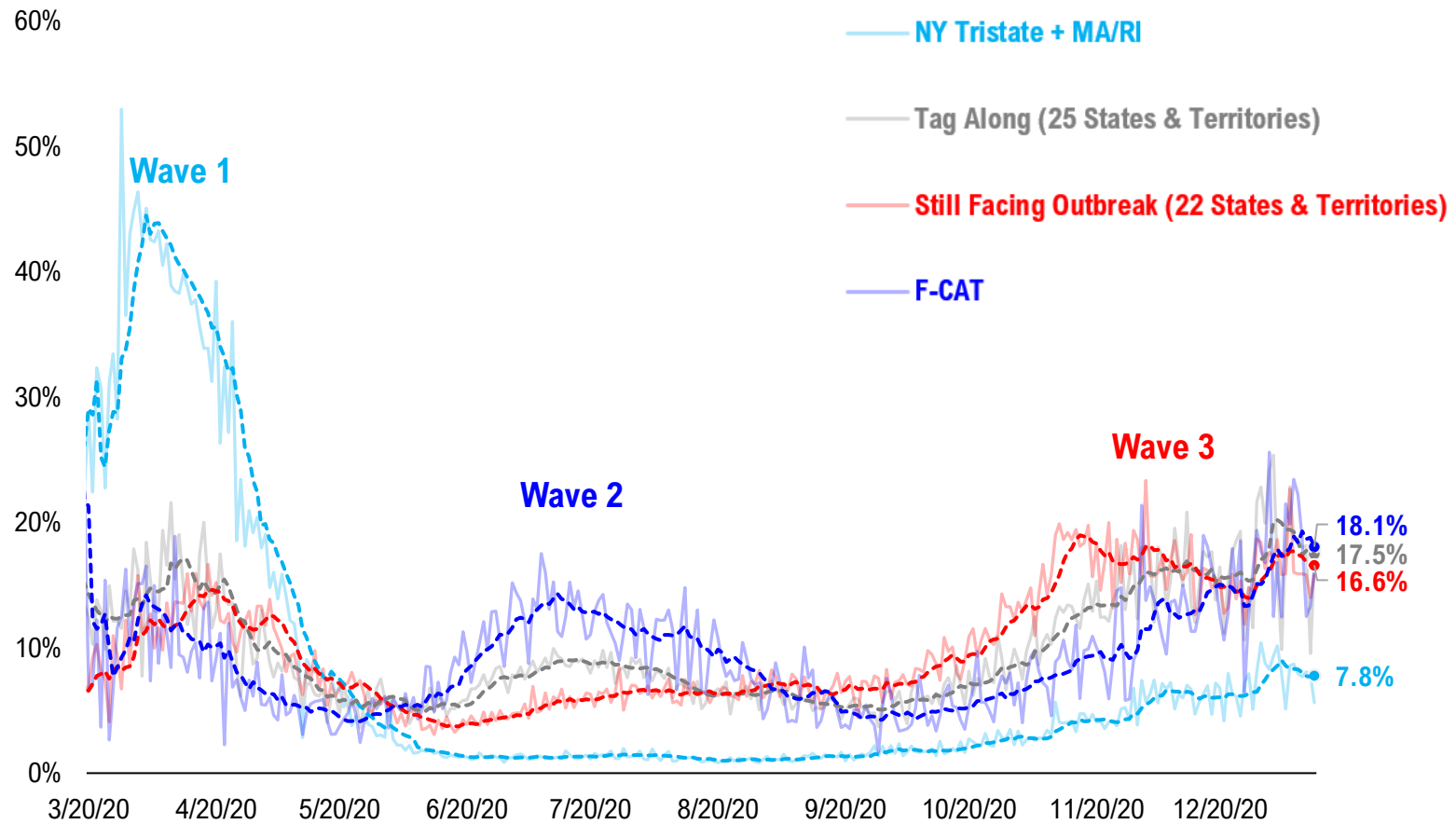


#14: State COVID-19 situation by Tier...

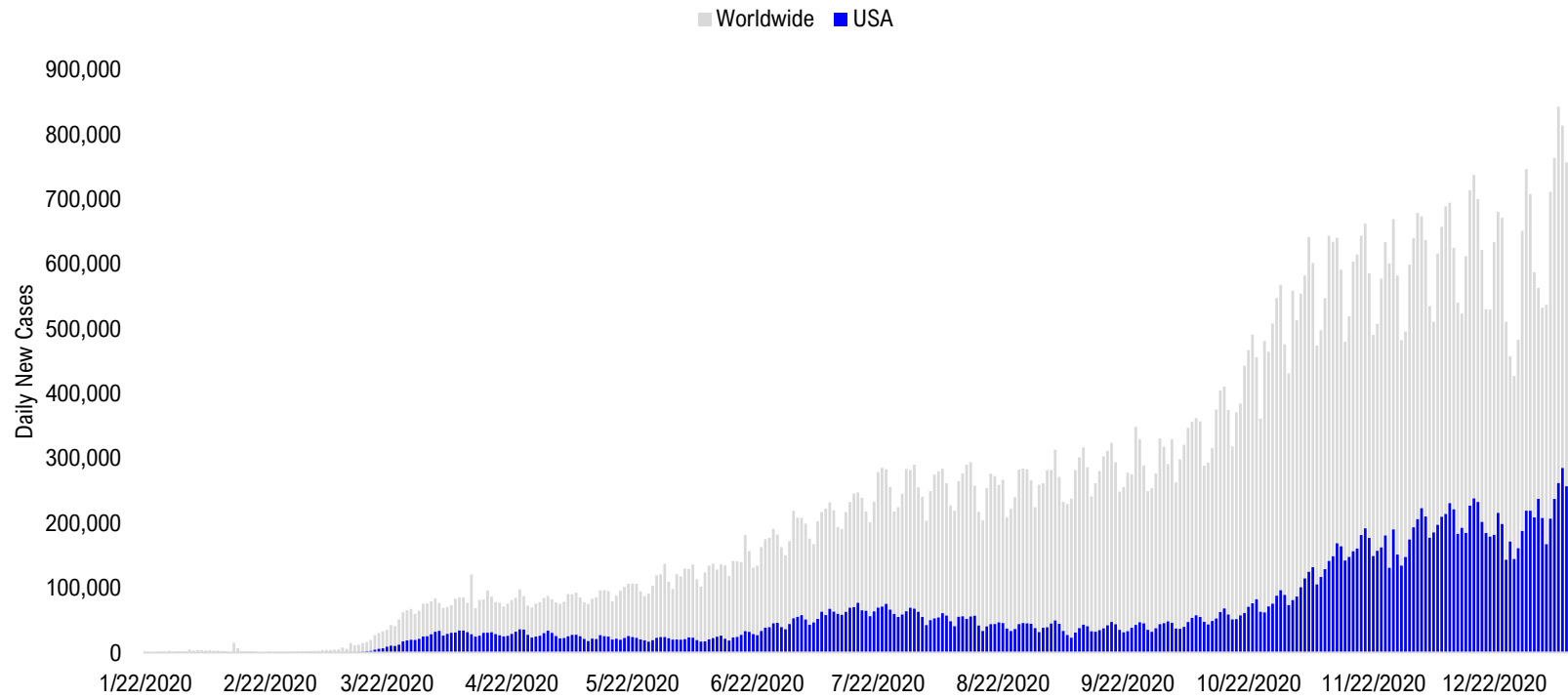


#15: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Aug 28	Sep 11	Sep 25	Oct 9	Oct 23	Nov 6	Nov 20	Dec 4	Dec 18	Jan 1	Jan 11
Latin America 88,255	Pakistan + India + Bangladesh 98,888	Pakistan + India + Bangladesh 88,225	Europe 112,289	Europe 223,797	Europe 312,557	Europe 279,289	Europe 258,860	Europe 282,804	Europe 275,210	US + Canada 231,391
Pakistan + India + Bangladesh 82,644	Latin America 80,841	Latin America 76,712	Pakistan + India + Bangladesh 76,149	US + Canada 71,893	US + Canada 116,877	US + Canada 182,603	US + Canada 213,691	US + Canada 239,069	US + Canada 221,011	Europe 219,406
US + Canada 45,273	Europe 47,339	Europe 67,906	Latin America 69,822	Latin America 69,390	Latin America 59,345	Latin America 68,233	Latin America 88,693	Latin America 108,000	Latin America 96,926	Latin America 94,269
Europe 35,993	US + Canada 37,795	US + Canada 43,790	US + Canada 54,955	Pakistan + India + Bangladesh 56,907	Pakistan + India + Bangladesh 52,404	Pakistan + India + Bangladesh 50,856	Pakistan + India + Bangladesh 41,815	Pakistan + India + Bangladesh 28,277	Africa 29,062	Africa 30,841
Asia ex- India+Pakistan 10,223	Asia ex- India+Pakistan 10,997	Asia ex- India+Pakistan 11,003	Asia ex- India+Pakistan 13,934	Asia ex- India+Pakistan 15,237	Africa 13,656	Asia ex- India+Pakistan 15,310	Asia ex- India+Pakistan 17,499	Africa 20,166	Asia ex- India+Pakistan 19,749	Pakistan + India + Bangladesh 25,186
Africa 8,468	Africa 8,309	Africa 8,247	Africa 9,966	Africa 10,615	Asia ex- India+Pakistan 13,638	Africa 14,917	Africa 16,543	Asia ex- India+Pakistan 17,898	Pakistan + India + Bangladesh 17,406	Asia ex- India+Pakistan 23,672

Disclosures

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Positive (+): The analyst expects the performance of his industry/sector coverage universe over the next 6-18 months to be attractive vs. the relevant broad market benchmark, being the S&P 500 for North America.

Neutral (N): The analyst expects the performance of his or her industry/sector coverage universe over the next 6-18 months to be in line with the relevant broad market benchmark, being the S&P 500 for North America.

Negative (-): The analyst expects his or her industry coverage universe over the next 6-18 months to underperform vs. the relevant broad market benchmark, being the S&P 500 for North America.

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