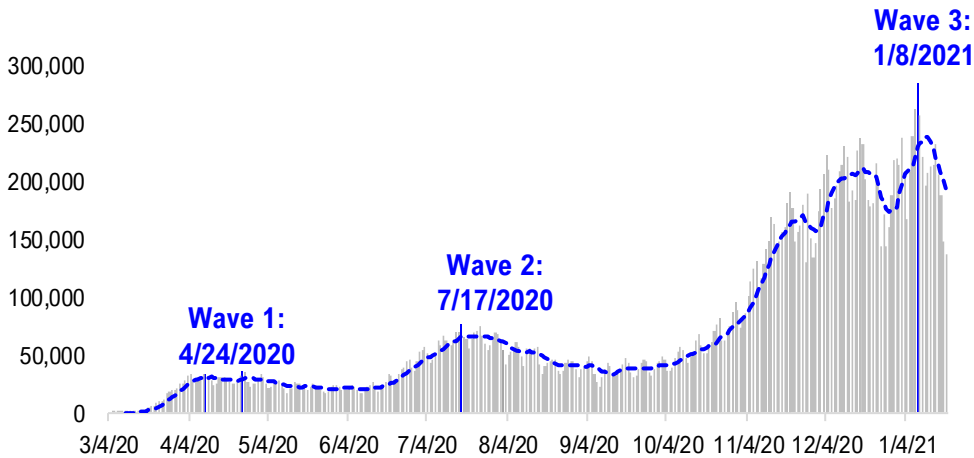


FSInsight Daily COVID-19 Chartbook

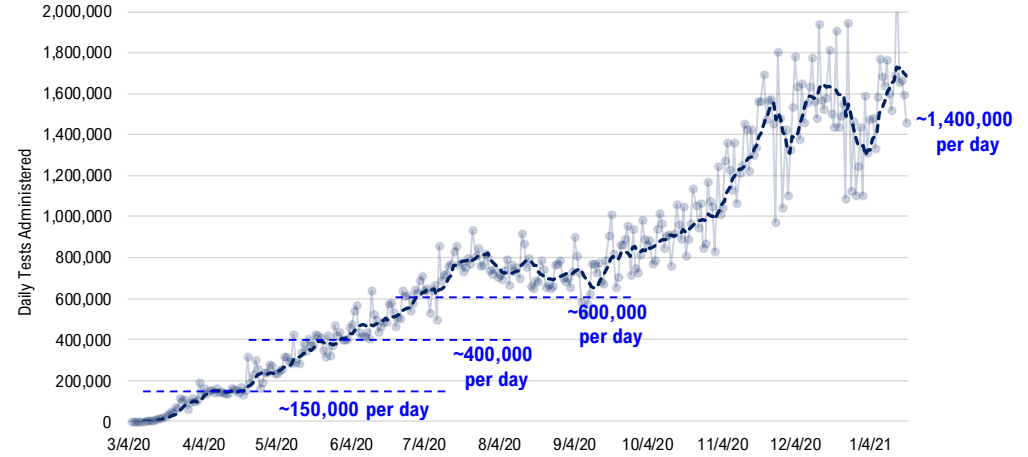


#1: USA COVID-19 Situation at a Glance...

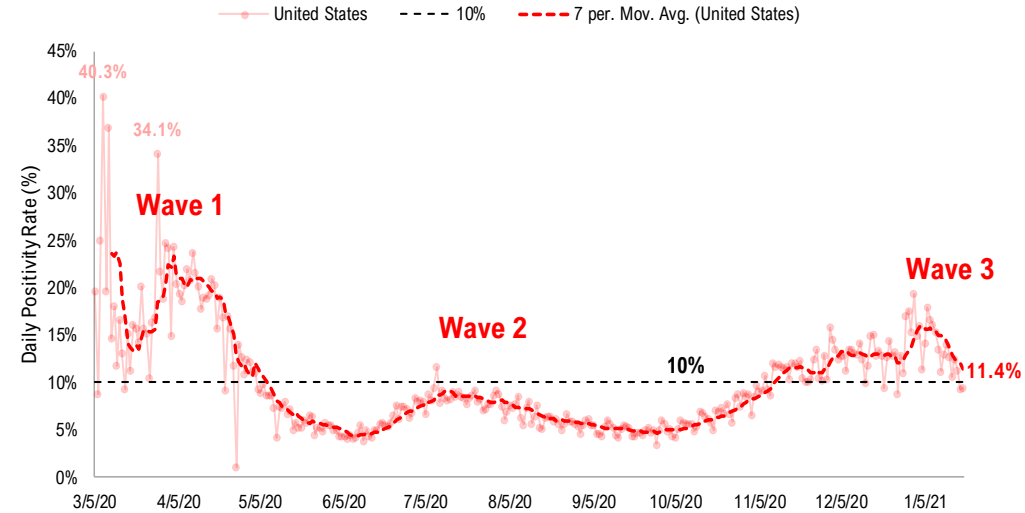
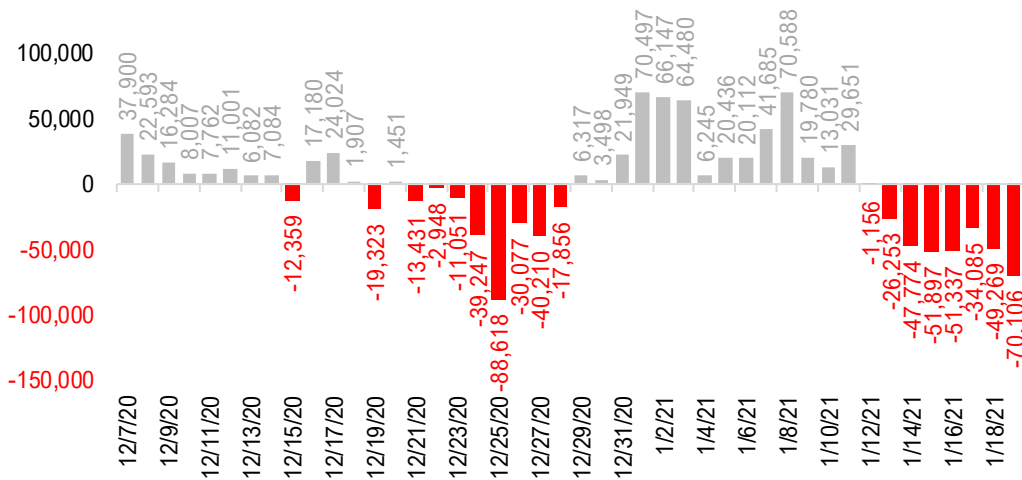
US daily new cases



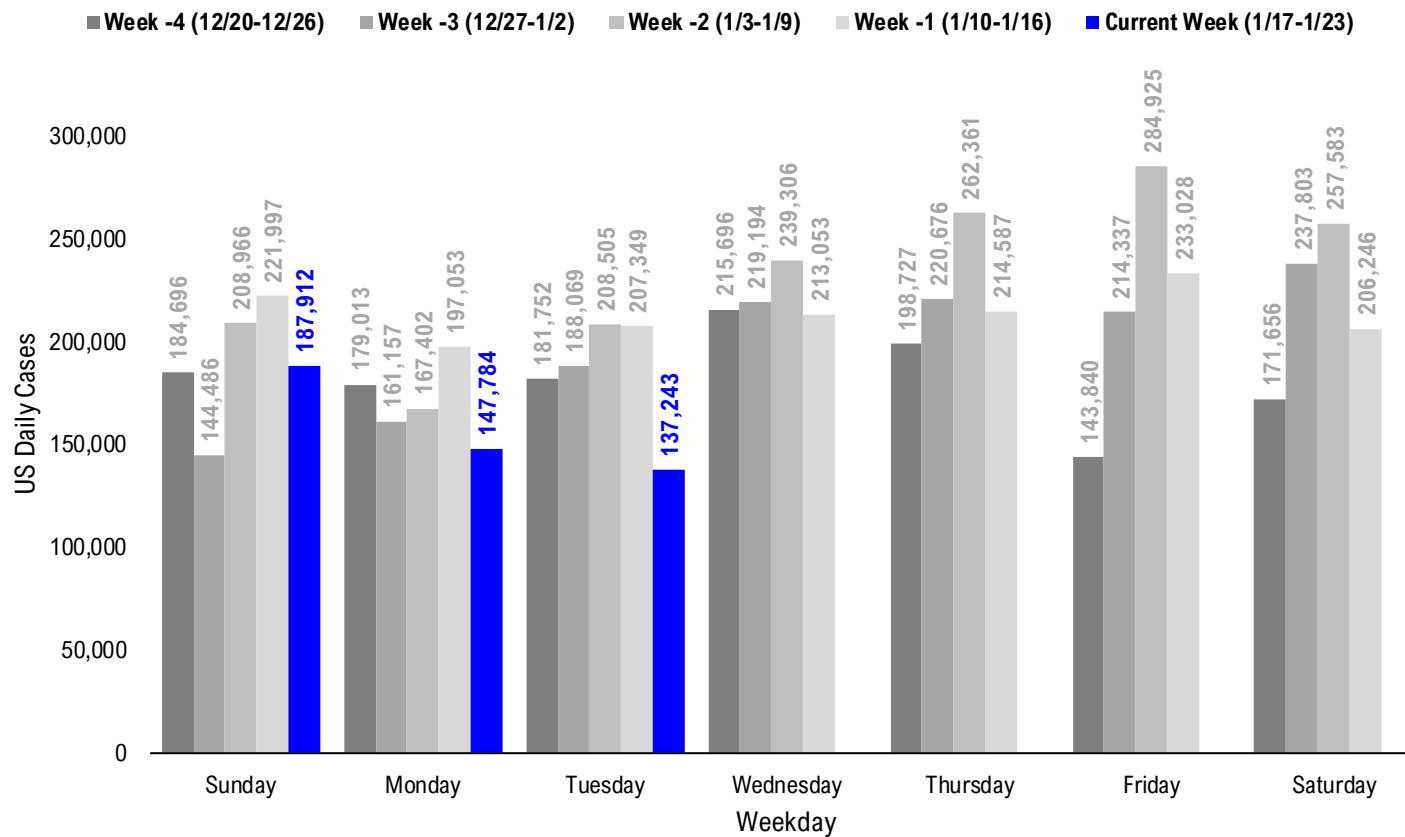
USA total COVID-19 tests administered



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				Hospitalization			
	% US Pop	% US GDP	7D		Since Peak		Hospitalization		7D Net	
			1/19	Delta	1/19	Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	Hospitalization / 7D New Cases
United States	100%	100%	137,243	-70,106	480	-156	10	-41%	-7,456	-0.6%

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Hospitalization			
	% US Pop	% US GDP	7D		Since Peak		Hospitalization		7D Net	
			1/19	Delta	1/19	Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	Hospitalization / 7D New Cases
United States	100%	100%	137,243	-70,106	480	-156	10	-41%	-7,456	-0.6%

States:

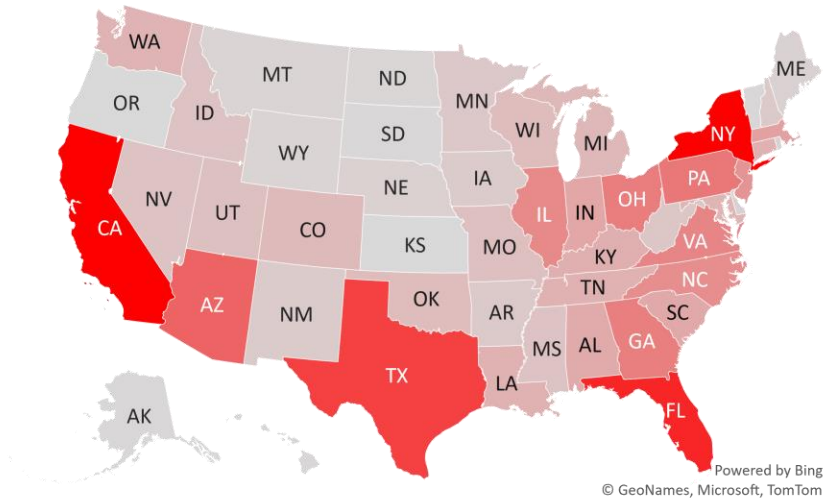
1 California	11.9%	14.6%	23,794	-12,693	816	-247	9	-37%	-1,723	(0.7%)
2 New York	5.9%	8.1%	12,512	-2,702	660	-98	10	-28%	310	0.3%
3 Florida	6.5%	5.0%	9,816	-5,080	449	-153	11	-49%	-353	(0.4%)
4 Texas	8.7%	8.8%	8,312	-13,798	392	-164	12	-48%	-290	(0.2%)
5 Arizona	2.2%	1.7%	6,417	-2,142	861	-456	16	-48%	-302	(0.6%)
6 Pennsylvania	3.9%	3.8%	5,341	-1,934	401	-123	45	-57%	-611	(1.4%)
7 Ohio	3.5%	3.3%	4,989	-2,992	415	-211	40	-58%	-367	(0.9%)
8 Georgia	3.2%	2.9%	4,913	-1,069	461	-151	9	-45%	-192	(0.5%)
9 Virginia	2.6%	2.6%	4,526	-35	847	+291	1	-9%	-12	(0.0%)
10 Illinois	3.8%	4.2%	4,318	-2,324	312	-112	67	-71%	-218	(0.6%)
11 North Carolina	3.2%	2.7%	4,058	-2,793	530	-157	10	-48%	-59	(0.1%)
12 New Jersey	2.7%	3.0%	3,733	-423	446	-82	10	-35%	-197	(0.6%)
13 Massachusetts	2.1%	2.8%	3,085	-2,402	522	-222	10	-53%	-6	(0.0%)
14 Indiana	2.0%	1.8%	2,727	-412	415	-175	45	-65%	-183	(0.7%)
15 South Carolina	1.6%	1.1%	2,593	-731	674	-247	9	-44%	-100	(0.4%)
16 Alabama	1.5%	1.1%	2,515	-1,333	399	-193	12	-61%	-352	(1.9%)
17 Kentucky	1.3%	1.0%	2,239	-783	491	-130	11	-57%	-100	(0.5%)
18 Louisiana	1.4%	1.3%	2,126	-2,547	517	-307	12	-55%	-130	(0.7%)
19 Connecticut	1.1%	1.3%	2,094	-1,595	822	-211	6	-40%	-13	(0.1%)
20 Tennessee	2.1%	1.8%	2,057	-1,421	437	-267	32	-71%	-455	(1.6%)
21 Washington	2.3%	2.7%	2,017	+628	250	-27	55	-55%	-8	(0.1%)
22 Maryland	1.8%	2.0%	1,972	-693	339	-156	9	-43%	-77	(0.4%)
23 Michigan	3.0%	2.6%	1,738	-256	153	-65	62	-82%	-388	(2.7%)
24 Colorado	1.7%	1.8%	1,685	+174	253	-59	59	-76%	-144	(1.1%)
25 Oklahoma	1.2%	1.0%	1,558	-652	565	-495	9	-58%	-126	(0.6%)
26 Wisconsin	1.8%	1.6%	1,525	-1,265	241	-107	67	-81%	-152	(1.1%)
27 Missouri	1.8%	1.5%	1,357	-774	217	-138	66	-73%	-213	(1.6%)
28 Utah	1.0%	0.9%	1,302	-844	413	-201	11	-67%	33	0.2%

States:

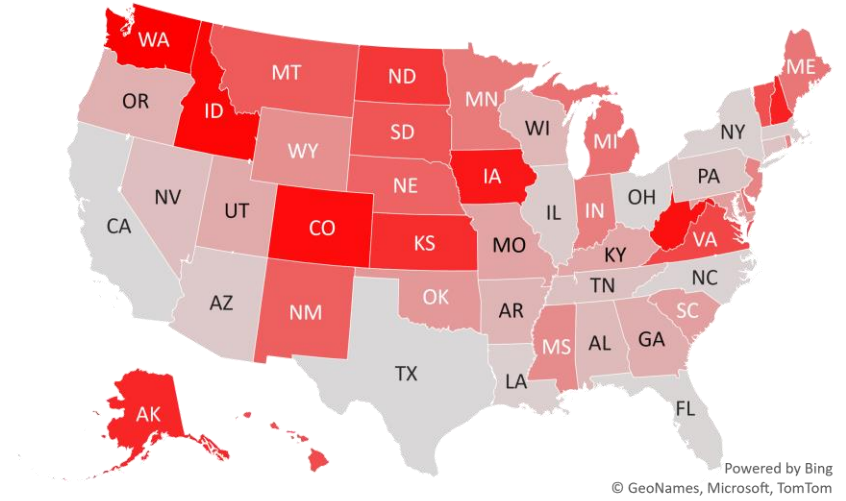
29 Idaho	0.5%	0.4%	1,224	+190	280	-100	40	-76%	62	1.1%
30 Mississippi	0.9%	0.6%	1,193	-455	477	-93	10	-51%	-186	(1.4%)
31 Nevada	0.9%	0.8%	1,178	-1,415	420	-287	10	-56%	-111	(1.0%)
32 West Virginia	0.5%	0.4%	1,011	+90	501	-136	16	-53%	-117	(1.5%)
33 Minnesota	1.7%	1.8%	919	-396	190	-73	50	-86%	-108	(1.1%)
34 New Hampshire	0.4%	0.4%	845	+4	678	+119	15	-16%	-33	(0.6%)
35 Arkansas	0.9%	0.6%	841	-1,254	304	-357	9	-62%	-89	(0.9%)
36 Iowa	1.0%	0.9%	717	+80	184	-33	67	-85%	-62	(1.0%)
37 New Mexico	0.6%	0.5%	691	-196	328	-152	60	-78%	-72	(1.0%)
38 Nebraska	0.6%	0.6%	440	-204	260	-94	61	-82%	-55	(1.0%)
39 Puerto Rico	1.0%	0.5%	404	-484	174	+14	31	-51%	-39	(1.1%)
40 Delaware	0.3%	0.4%	401	-218	664	-11	10	-29%	-19	(0.4%)
41 Maine	0.4%	0.3%	386	-329	259	-65	4	-58%	-12	(0.3%)
42 Rhode Island	0.3%	0.3%	361	-425	502	-251	45	-68%	-36	(0.6%)
43 Montana	0.3%	0.2%	288	-136	252	-52	65	-80%	-24	(0.9%)
44 District of Columbia	0.2%	0.7%	226	-204	341	-115	9	-31%	-10	(0.5%)
45 Wyoming	0.2%	0.2%	214	-463	492	-287	61	-71%	-18	(1.0%)
46 North Dakota	0.2%	0.3%	137	-1	156	-23	66	-94%	18	1.6%
47 South Dakota	0.3%	0.3%	127	-117	191	-126	66	-91%	-40	(2.0%)
48 Alaska	0.2%	0.3%	125	+4	253	+5	45	-77%	-18	(1.1%)
49 Vermont	0.2%	0.2%	101	-68	217	-27	10	-36%	-13	(1.2%)
50 Hawaii	0.4%	0.5%	64	-50	76	-38	143	-63%	-69	(2.3%)
51 Guam	0.0%	0.0%	30	+30	68	+30	70	-94%	-1	(1.1%)
52 Northern Mariana	0.0%	0.0%	1	-2	6	-12	84	-92%	0	0.0%
53 U.S. Virgin Islands	0.0%	0.0%	0	-23	293	+221	151	-31%	0	0.0%
54 Oregon	1.3%	1.2%	0	-1,173	114	-147	44	-72%	15	0.2%
55 Kansas	0.9%	0.8%	0	+0	422	-171	55	-72%	9	0.1%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	

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

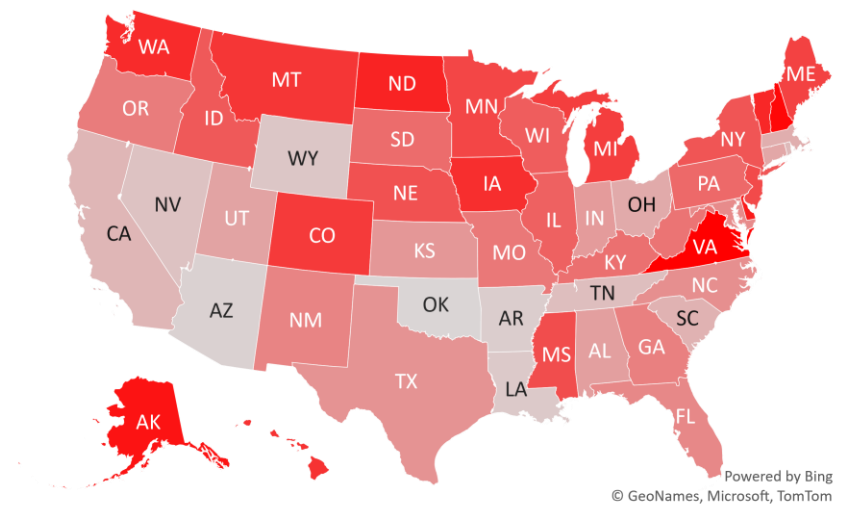
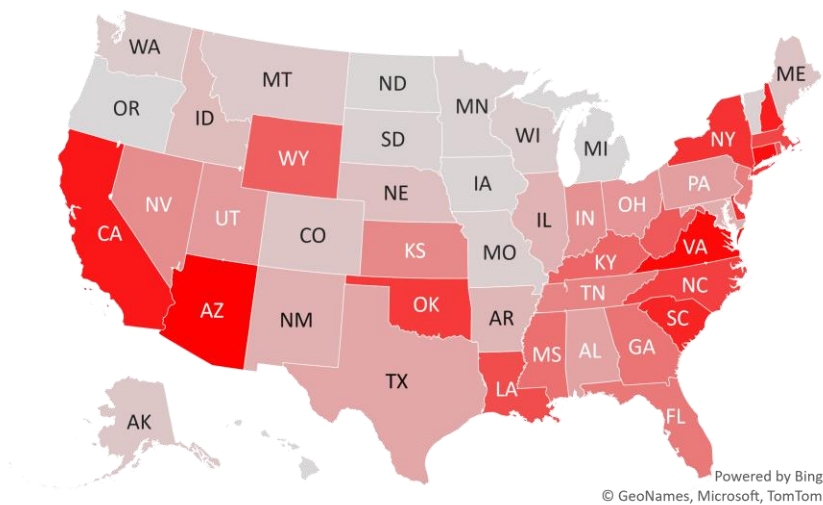
Daily Case Increases



7D Delta in Daily New Cases



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



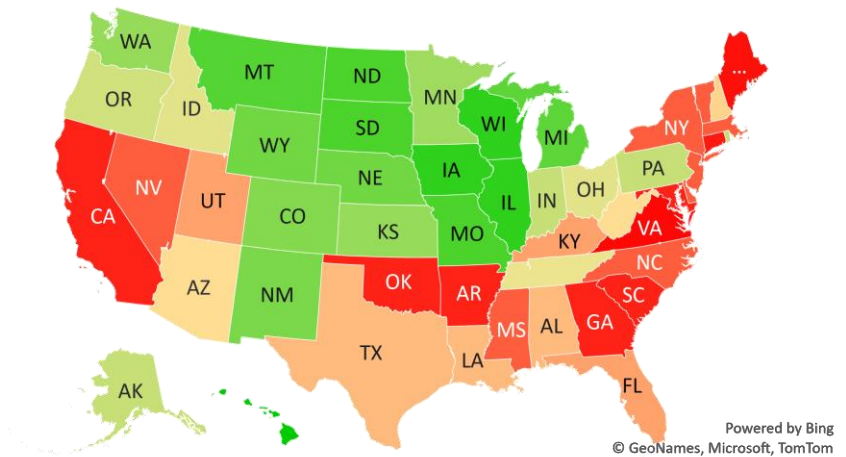
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 1/19)

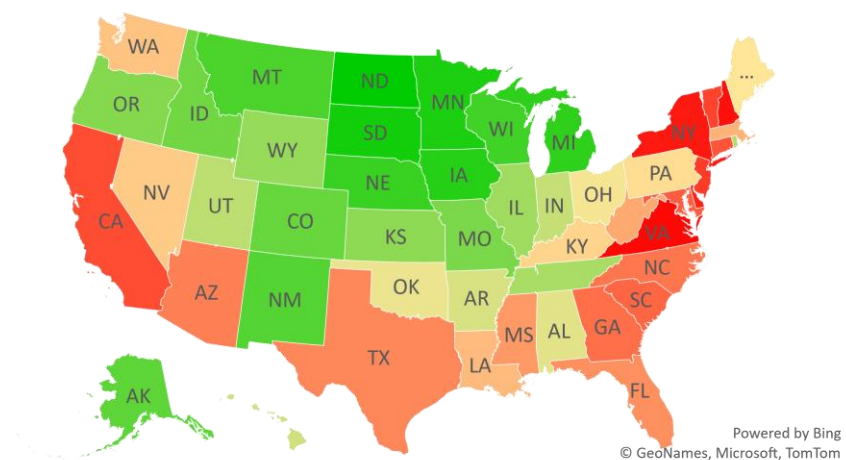
	Sorted			
	Peak Date	1/19/21	% off the Peak	% US Pop
United States	1/9/21	10	-41%	100%
States:				
U.S. Virgin Islands	8/21/20	151	-31%	0.0%
Hawaii	8/29/20	143	-63%	0.4%
Northern Mariana Island	10/27/20	84	-92%	0.0%
Guam	11/10/20	70	-94%	0.0%
Wisconsin	11/13/20	67	-81%	1.8%
Illinois	11/13/20	67	-71%	3.8%
Iowa	11/13/20	67	-85%	1.0%
South Dakota	11/14/20	66	-91%	0.3%
North Dakota	11/14/20	66	-94%	0.2%
Missouri	11/14/20	66	-73%	1.8%
Montana	11/15/20	65	-80%	0.3%
Michigan	11/18/20	62	-82%	3.0%
Wyoming	11/19/20	61	-71%	0.2%
Nebraska	11/19/20	61	-82%	0.6%
New Mexico	11/20/20	60	-78%	0.6%
Colorado	11/21/20	59	-76%	1.7%
Washington	11/25/20	55	-55%	2.3%
Kansas	11/25/20	55	-72%	0.9%
Minnesota	11/30/20	50	-86%	1.7%
Rhode Island	12/5/20	45	-68%	0.3%
Pennsylvania	12/5/20	45	-57%	3.9%
Indiana	12/5/20	45	-65%	2.0%
Alaska	12/5/20	45	-77%	0.2%
Oregon	12/6/20	44	-72%	1.3%
Ohio	12/10/20	40	-58%	3.5%
Idaho	12/10/20	40	-76%	0.5%
Tennessee	12/18/20	32	-71%	2.1%
Puerto Rico	12/19/20	31	-51%	1.0%

	Sorted			
	Peak Date	1/19/21	% off the Peak	% US Pop
United States	1/9/21	10	-41%	100%
States:				
West Virginia	1/3/21	16	-53%	0.5%
Arizona	1/3/21	16	-48%	2.2%
New Hampshire	1/4/21	15	-16%	0.4%
Texas	1/7/21	12	-48%	8.7%
Louisiana	1/7/21	12	-55%	1.4%
Alabama	1/7/21	12	-61%	1.5%
Utah	1/8/21	11	-67%	1.0%
Kentucky	1/8/21	11	-57%	1.3%
Florida	1/8/21	11	-49%	6.5%
Vermont	1/9/21	10	-36%	0.2%
New York	1/9/21	10	-28%	5.9%
Nevada	1/9/21	10	-56%	0.9%
New Jersey	1/9/21	10	-35%	2.7%
North Carolina	1/9/21	10	-48%	3.2%
Mississippi	1/9/21	10	-51%	0.9%
Massachusetts	1/9/21	10	-53%	2.1%
Delaware	1/9/21	10	-29%	0.3%
South Carolina	1/10/21	9	-44%	1.6%
Oklahoma	1/10/21	9	-58%	1.2%
Maryland	1/10/21	9	-43%	1.8%
Georgia	1/10/21	9	-45%	3.2%
District of Columbia	1/10/21	9	-31%	0.2%
California	1/10/21	9	-37%	11.9%
Arkansas	1/10/21	9	-62%	0.9%
Connecticut	1/13/21	6	-40%	1.1%
Maine	1/15/21	4	-58%	0.4%
Virginia	1/18/21	1	-9%	2.6%

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



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



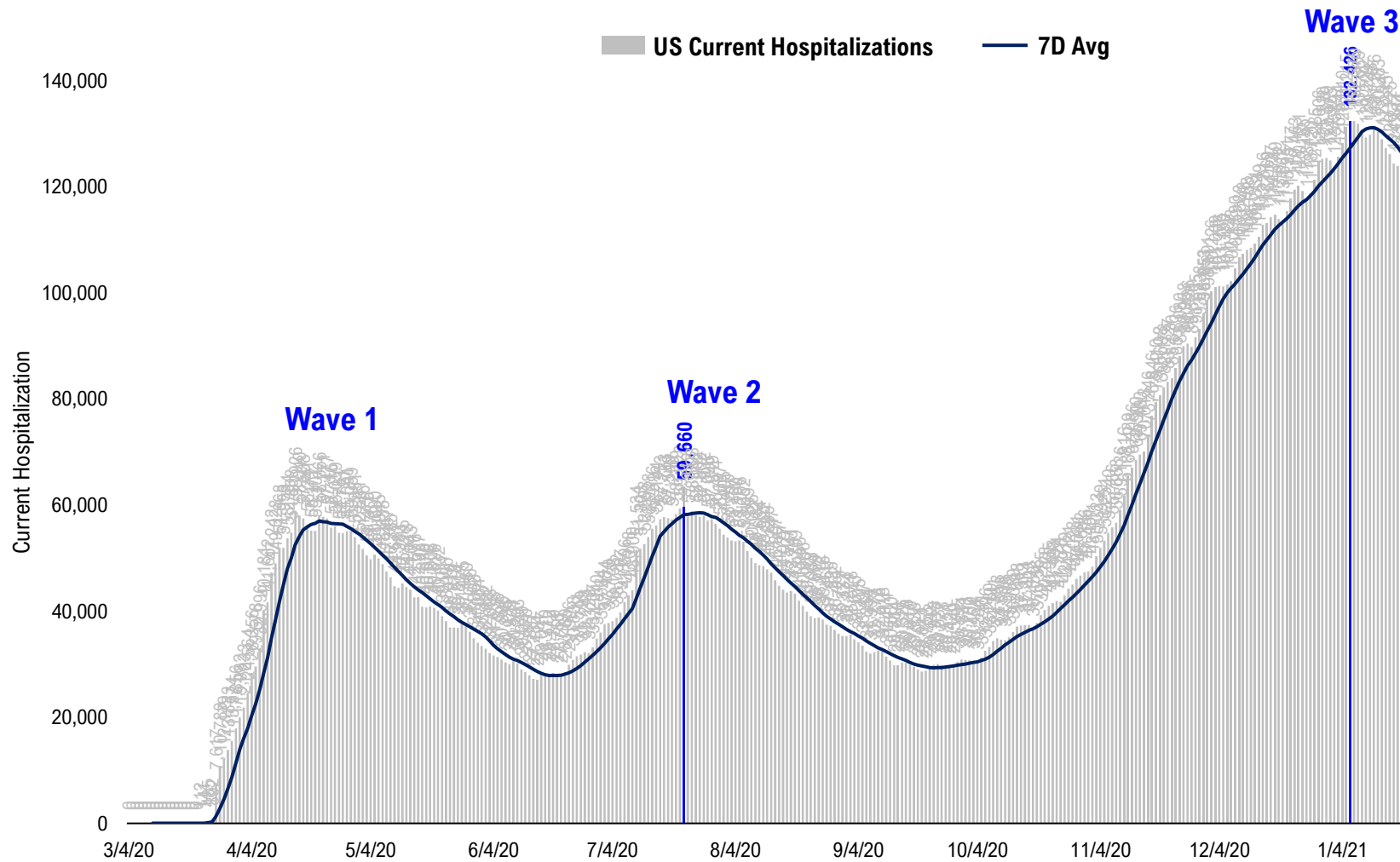
#6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	1/12/21	1/17/21	1/18/21	1/19/21	vs 7D ago
United States	207,349	187,912	147,784	137,243	-70,106
States:					
California	36,487	42,229	30,699	23,794	
New York	15,214	13,842	12,185	12,512	
Florida	14,896	11,093	8,002	9,816	
Texas	22,110	15,667	10,110	8,312	
Arizona	8,559	6,981	5,400	6,417	
Pennsylvania	7,275	6,023	4,045	5,341	
Ohio	7,981	5,247	4,312	4,989	
Georgia	5,982	5,384	4,385	4,913	
Virginia	4,561	9,914	7,245	4,526	
Illinois	6,642	4,162	3,385	4,318	
North Carolina	6,851	6,811	5,802	4,058	
New Jersey	4,156	4,674	3,476	3,733	
Massachusetts	5,487	4,414	3,301	3,085	
Indiana	3,139	3,162	2,498	2,727	
South Carolina	3,324	4,761	3,050	2,593	
Alabama	3,848	1,917	1,430	2,515	
Kentucky	3,022	2,350	1,993	2,239	
Louisiana	4,673	4,122	961	2,126	
Connecticut	3,689	0	6,703	2,094	
Tennessee	3,478	4,474	2,430	2,057	
Washington	1,389	3,701	0	2,017	<--higher
Maryland	2,665	2,414	1,769	1,972	
Michigan	1,994	0	2,843	1,738	
Colorado	1,511	1,498	1,190	1,685	
Oklahoma	2,210	3,314	1,837	1,558	
Wisconsin	2,790	1,606	1,083	1,525	
Missouri	2,131	1,350	1,291	1,357	
Utah	2,146	1,585	1,082	1,302	

	Sorted				
	7D Ago	Last 3-day Trend			
	1/12/21	1/17/21	1/18/21	1/19/21	vs 7D ago
United States	207,349	187,912	147,784	137,243	-70,106
States:					
Idaho	1,034	278	0	1,224	
Mississippi	1,648	1,606	1,457	1,193	
Nevada	2,593	1,483	1,221	1,178	
West Virginia	921	697	988	1,011	
Minnesota	1,315	1,333	969	919	
New Hampshire	841	919	1,000	845	
Arkansas	2,095	920	988	841	
Iowa	637	548	480	717	
New Mexico	887	744	626	691	
Nebraska	644	1,068	0	440	
Puerto Rico	888	804	461	404	
Delaware	619	922	616	401	
Maine	715	340	317	386	
Rhode Island	786	752	481	361	
Montana	424	337	183	288	
District of Columbia	430	314	182	226	
Wyoming	677	295	345	214	
North Dakota	138	150	70	137	
South Dakota	244	266	115	127	
Alaska	121	279	151	125	
Vermont	169	142	163	101	
Hawaii	114	130	129	64	
Guam	0	3	1	30	
Northern Mariana Islands	3	0	0	1	
U.S. Virgin Islands	23	94	0	0	
Oregon	1,173	793	646	0	
Kansas	0	0	3,688	0	
American Samoa	0	0	0	0	

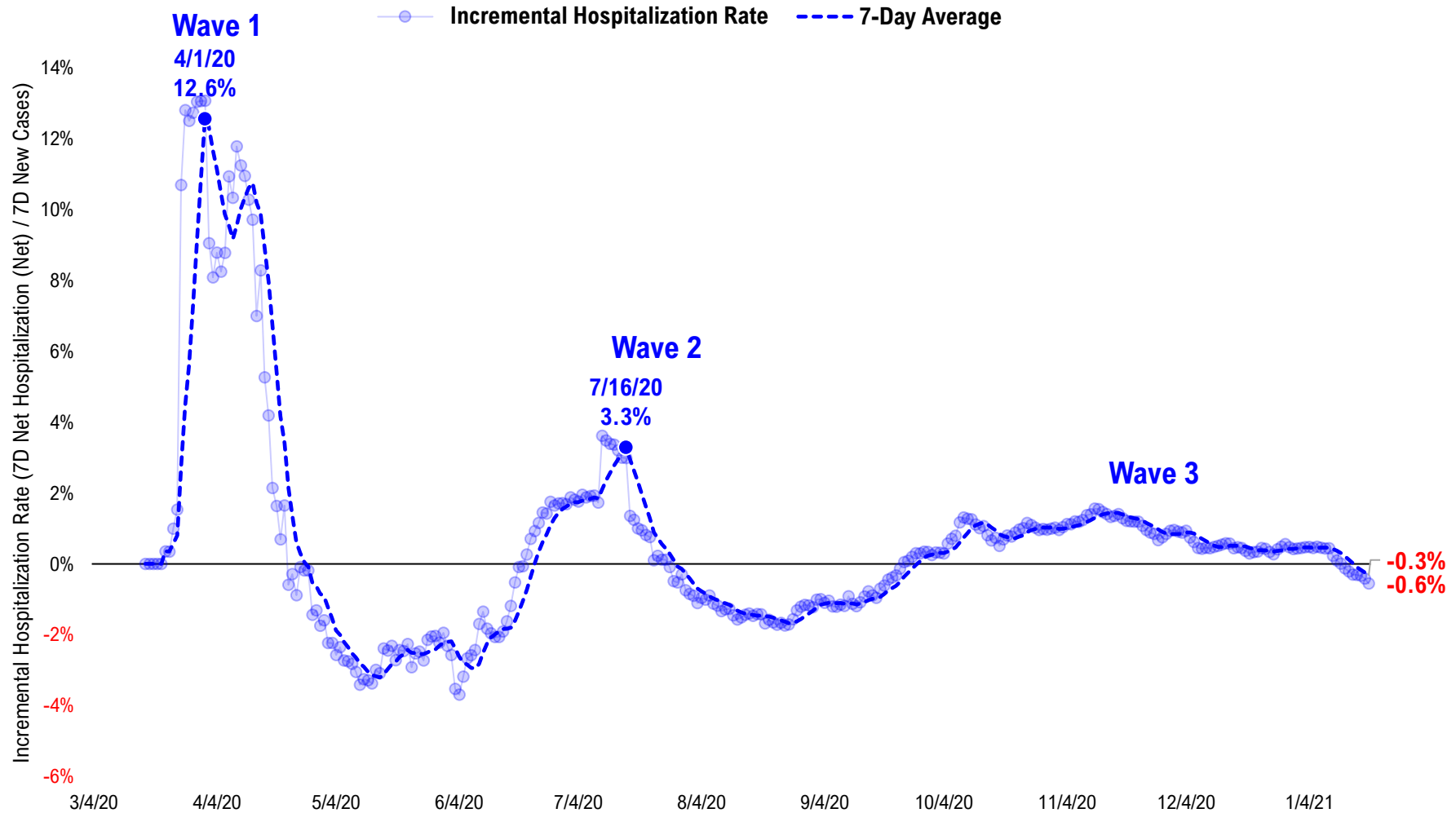
#7: US Daily Hospitalizations...

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



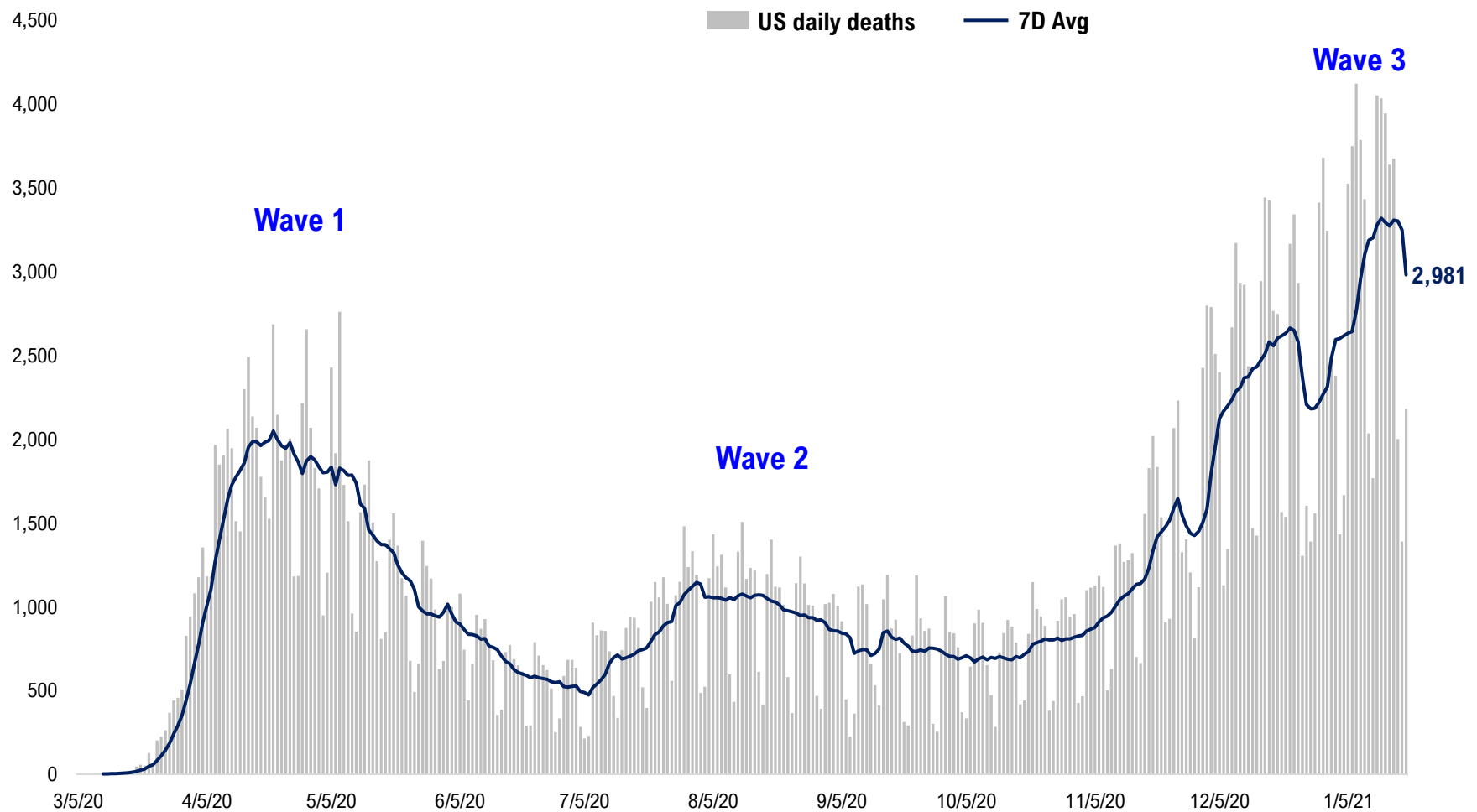
#8: Incremental Hospitalization Rate...

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



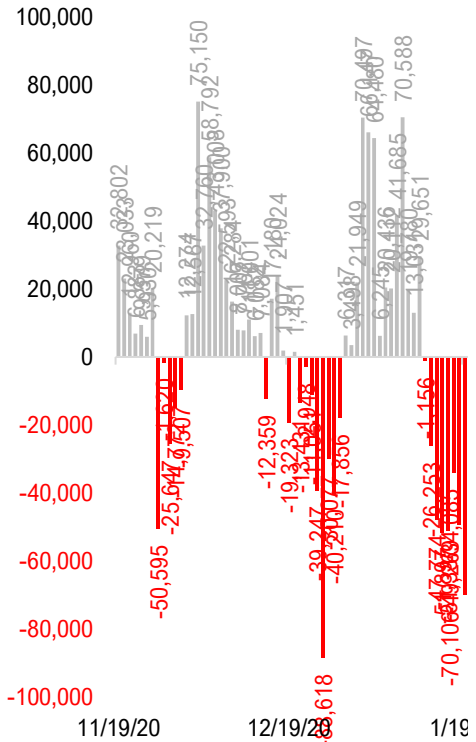
#9: US Daily New Fatalities...

US daily COVID-19 Fatalities

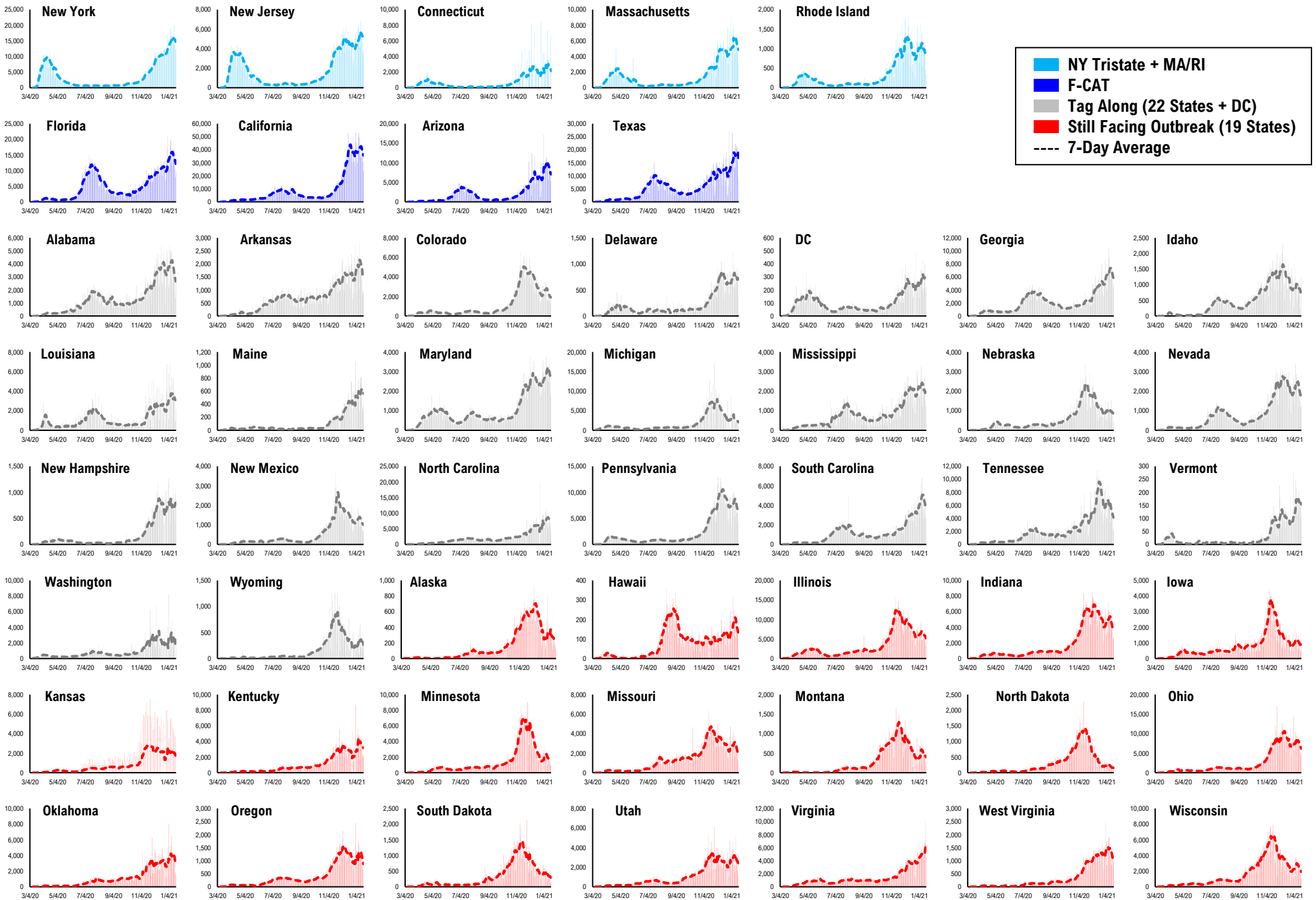


#10: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

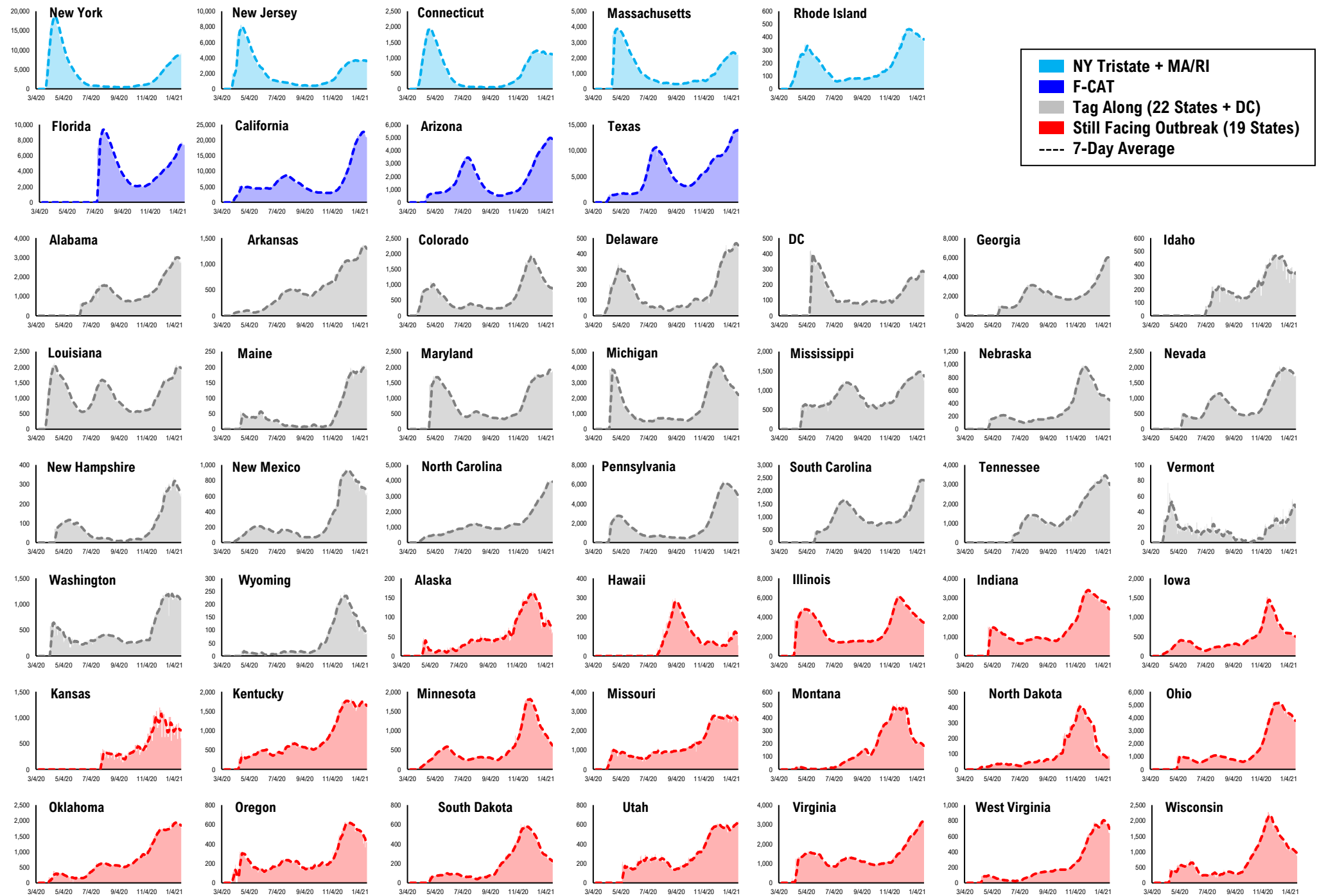
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



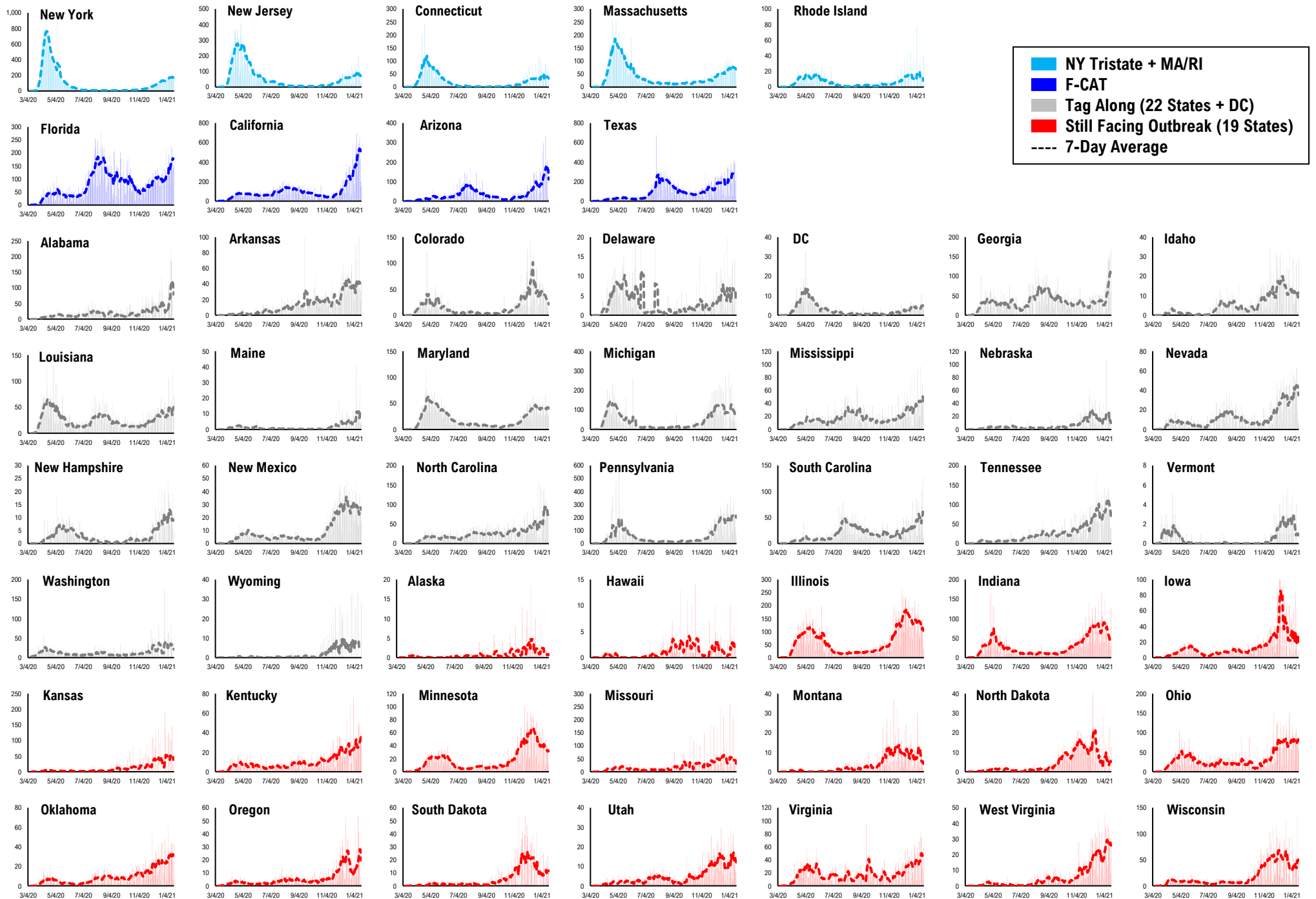
#11: Daily New Cases by States...



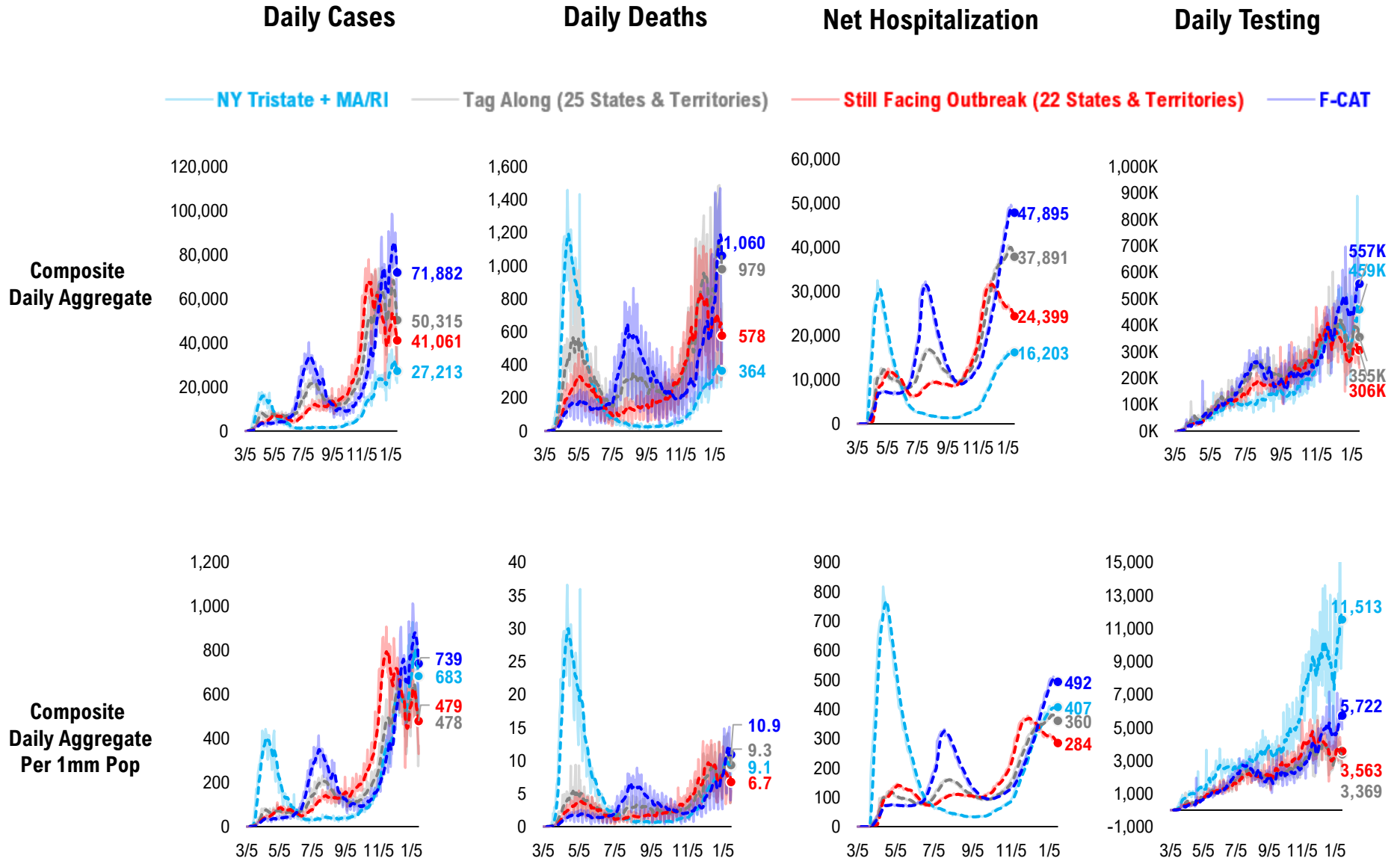
#12: Current Hospitalizations by States...



#13: Daily New Deaths by States...

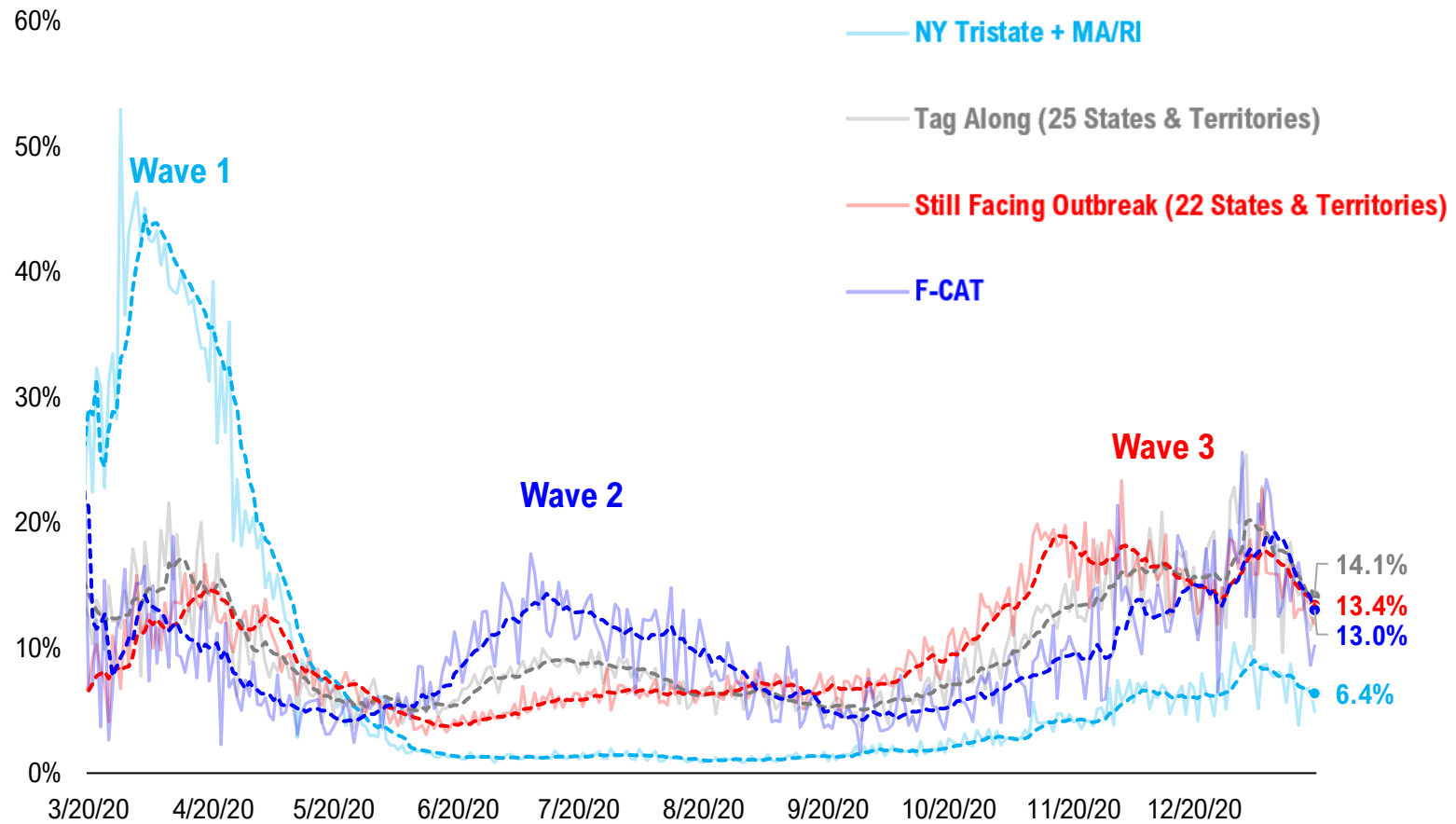


#14: State COVID-19 situation by Tier...

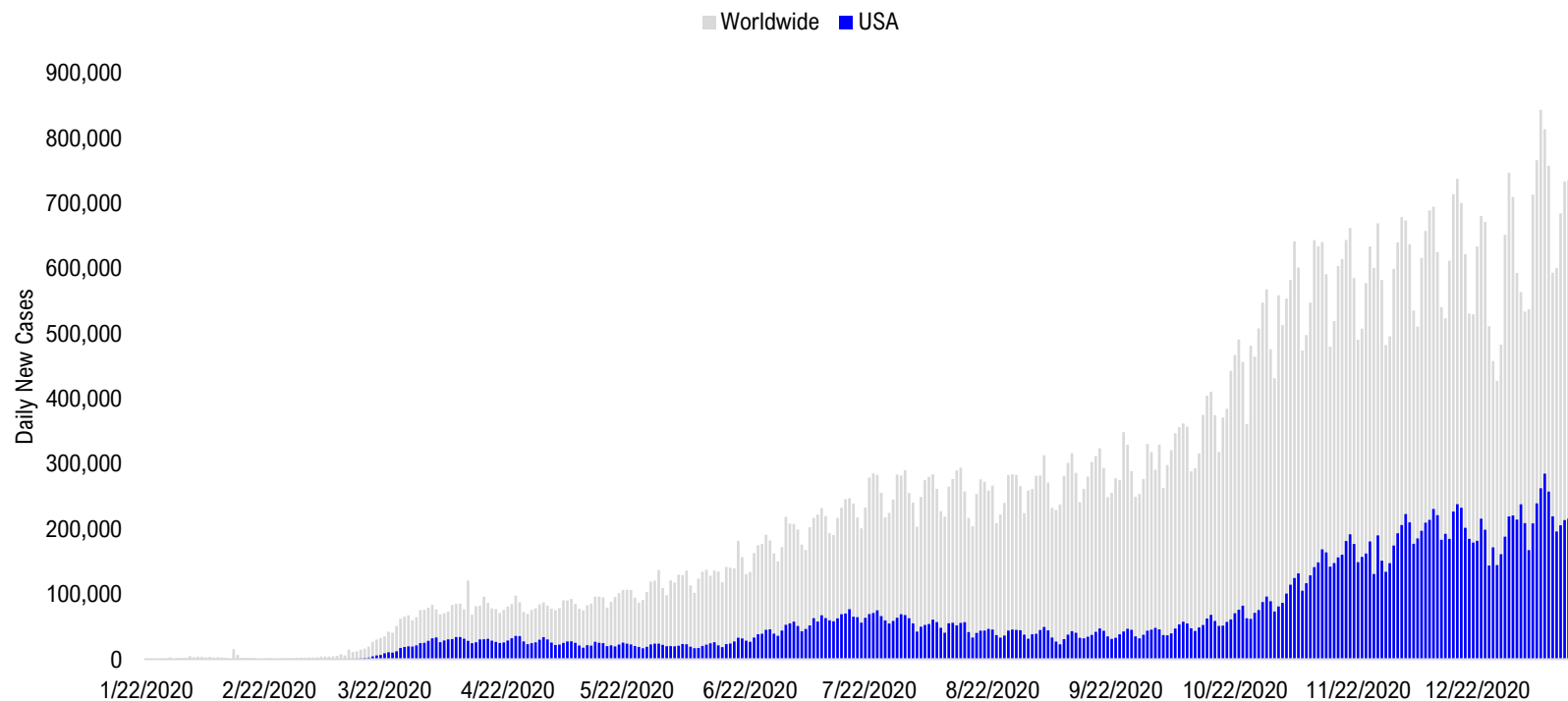


#15: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Sep 4	Sep 18	Oct 2	Oct 16	Oct 30	Nov 13	Nov 27	Dec 11	Dec 25	Jan 8	Jan 18
Latin America 88,295	Pakistan + India + Bangladesh 98,115	Pakistan + India + Bangladesh 84,614	Europe 156,735	Europe 288,231	Europe 301,976	Europe 274,571	Europe 268,913	Europe 249,233	Europe 303,099	Europe 191,163
Pakistan + India + Bangladesh 87,400	Latin America 76,730	Europe 77,882	Latin America 67,985	US + Canada 89,511	US + Canada 157,595	US + Canada 172,701	US + Canada 224,588	US + Canada 191,172	US + Canada 270,630	US + Canada 185,074
US + Canada 44,962	Europe 57,979	Latin America 61,017	Pakistan + India + Bangladesh 66,697	Latin America 65,611	Latin America 74,234	Latin America 79,198	Latin America 92,555	Latin America 89,562	Latin America 132,521	Latin America 96,423
Europe 40,040	US + Canada 43,204	US + Canada 47,741	US + Canada 63,472	Pakistan + India + Bangladesh 51,456	Pakistan + India + Bangladesh 49,697	Pakistan + India + Bangladesh 48,359	Pakistan + India + Bangladesh 35,248	Pakistan + India + Bangladesh 26,828	Africa 35,216	Asia ex- India+Pakistan 26,744
Asia ex- India+Pakistan 9,072	Asia ex- India+Pakistan 11,070	Asia ex- India+Pakistan 11,658	Asia ex- India+Pakistan 13,790	Asia ex- India+Pakistan 12,846	Africa 14,829	Asia ex- India+Pakistan 16,287	Africa 19,264	Africa 25,863	Asia ex- India+Pakistan 24,781	Africa 25,332
Africa 8,318	Africa 7,997	Africa 8,146	Africa 10,428	Africa 12,181	Asia ex- India+Pakistan 14,319	Africa 14,762	Asia ex- India+Pakistan 17,917	Asia ex- India+Pakistan 18,682	Pakistan + India + Bangladesh 16,059	Pakistan + India + Bangladesh 15,689

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Analyst Industry/Sector Views

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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