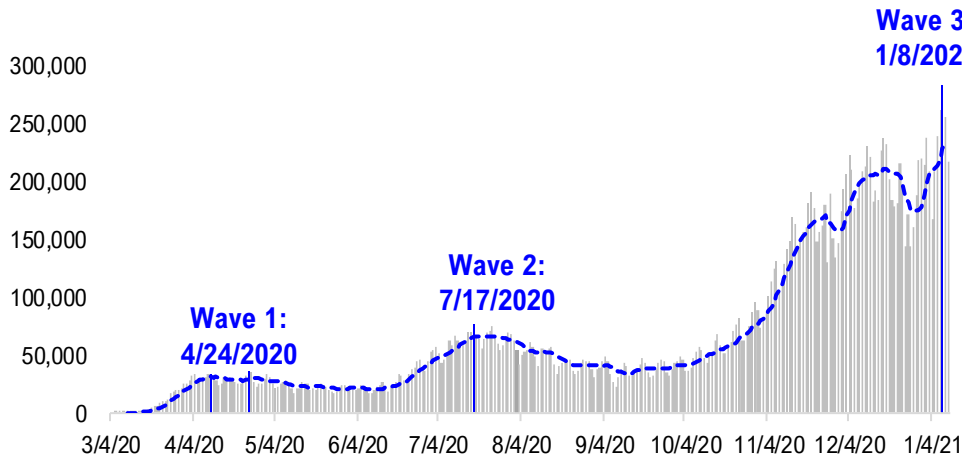


FSInsight Daily COVID-19 Chartbook

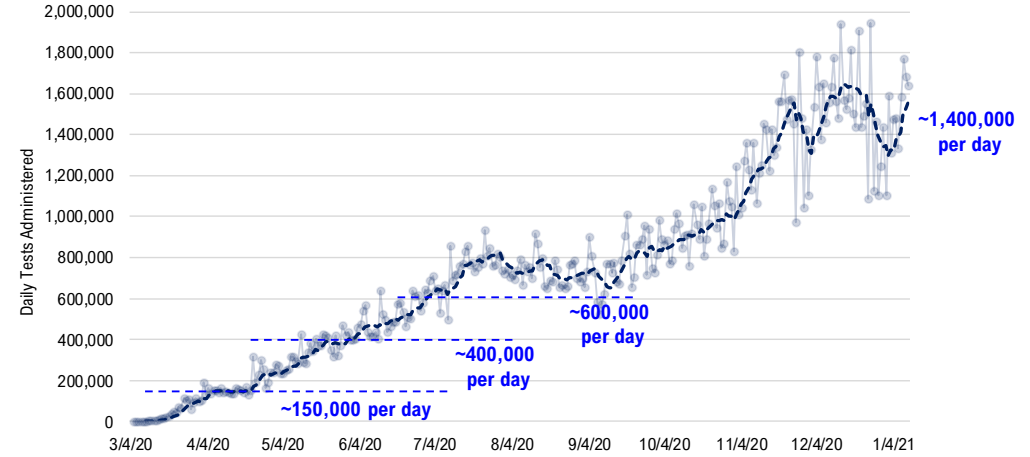


#1: USA COVID-19 Situation at a Glance...

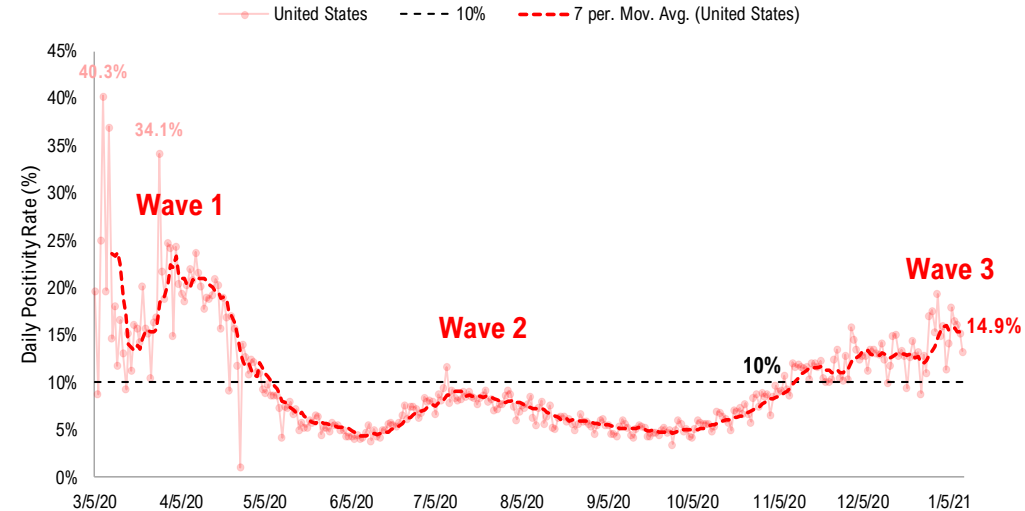
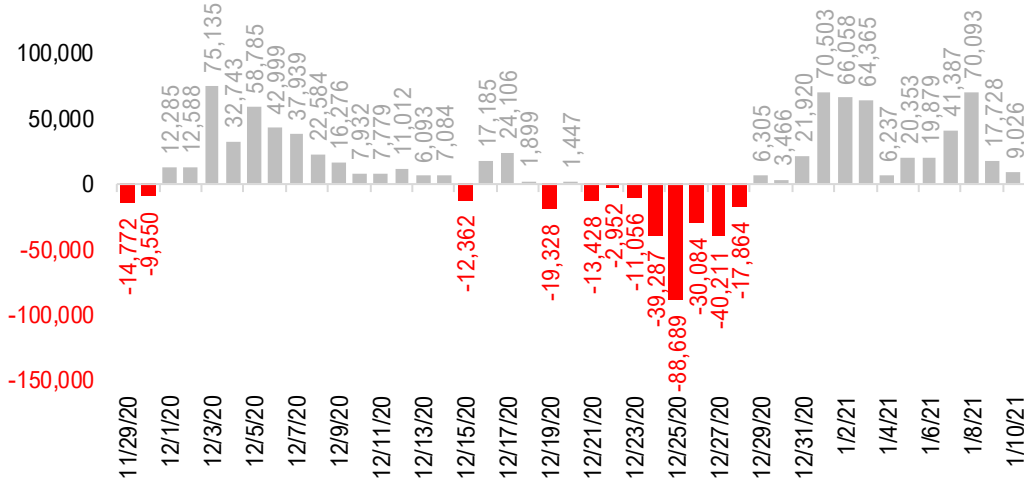
US daily new cases



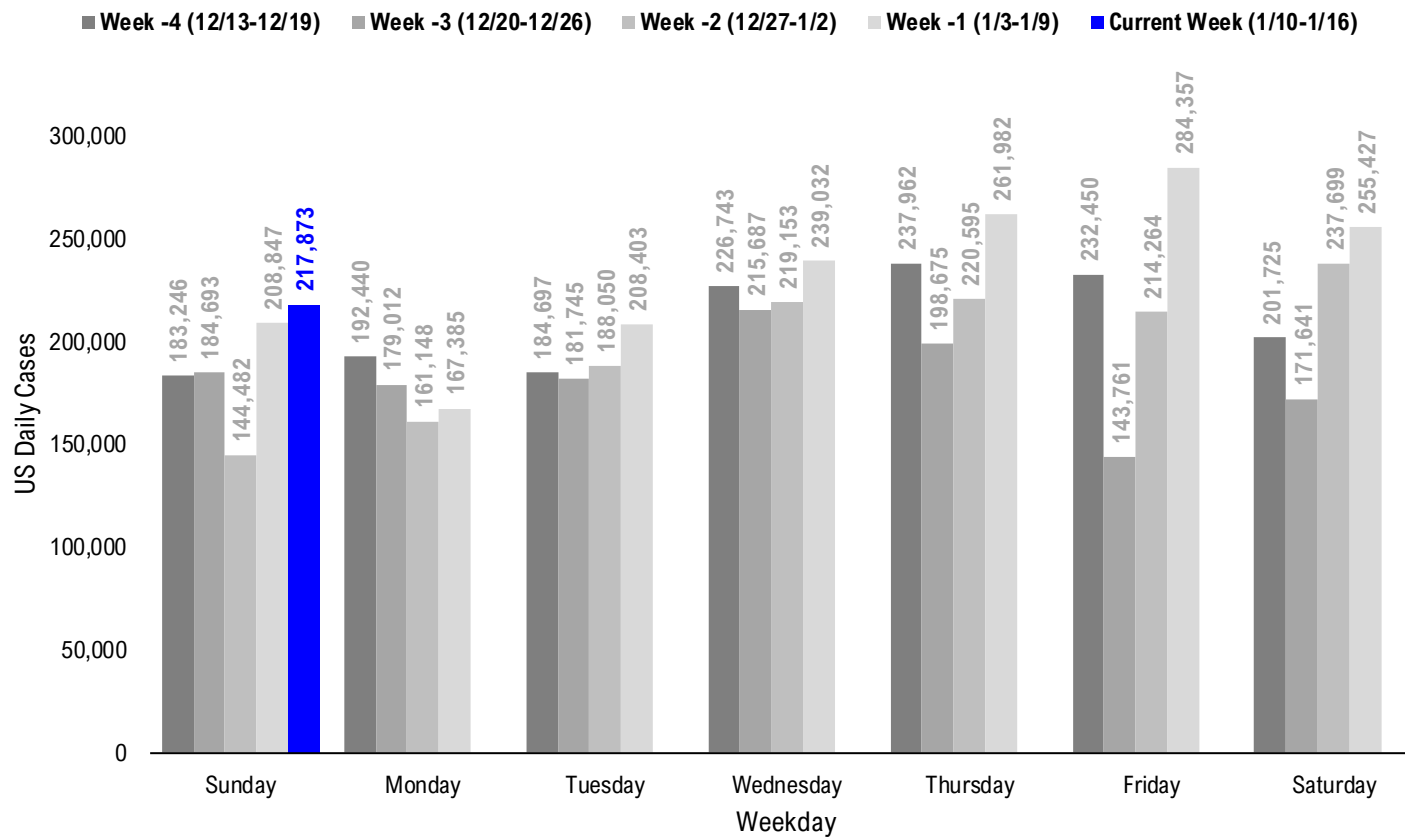
USA total COVID-19 tests administered



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	1/10	7D Delta	1/10	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	217.873	+9.026	769	+98	1	-6%	3.685

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	1/10	7D Delta	1/10	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
	United States	100%	100%	217.873	+9.026	769	+98	1	-6%	3.685

States:

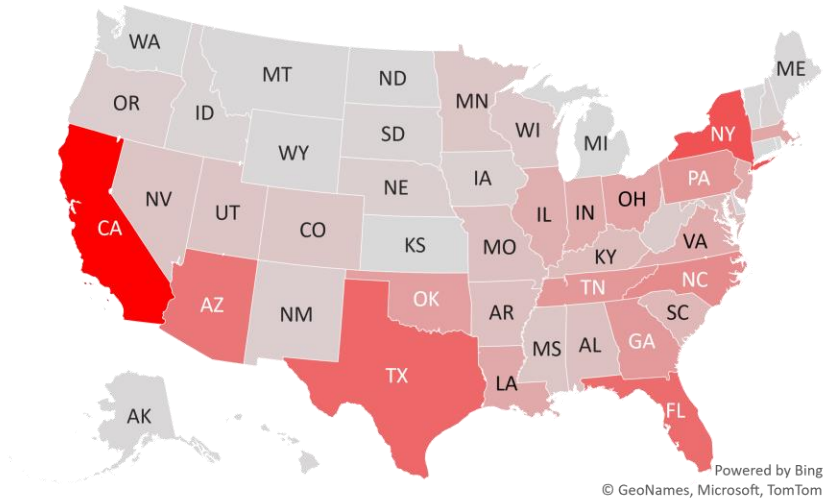
1 California	11.9%	14.6%	49,685	+4,333	1285	+55	0	0%	1,003	0.4%
2 New York	5.9%	8.1%	15,355	+3,987	876	+140	1	-4%	521	0.5%
3 Texas	8.7%	8.8%	12,954	-1,581	565	+210	3	-25%	548	0.4%
4 Florida	6.5%	5.0%	12,313	+1,710	734	+80	2	-17%	525	0.5%
5 Arizona	2.2%	1.7%	11,201	-6,033	1555	-102	7	-6%	431	0.7%
6 North Carolina	3.2%	2.7%	8,833	+2,346	968	+161	1	-5%	198	0.3%
7 Pennsylvania	3.9%	3.8%	7,506	+2,927	722	+161	36	-23%	-328	(0.6%)
8 Tennessee	2.1%	1.8%	7,419	+3,254	958	-91	23	-36%	-108	(0.2%)
9 Georgia	3.2%	2.9%	7,169	+2,092	832	+192	0	0%	689	1.4%
10 Oklahoma	1.2%	1.0%	6,487	-1,530	1349	+242	0	0%	16	0.1%
11 Ohio	3.5%	3.3%	6,088	-720	684	+83	31	-31%	-1	(0.0%)
12 Massachusetts	2.1%	2.8%	5,656	+2,175	1025	+421	1	-8%	-66	(0.1%)
13 Louisiana	1.4%	1.3%	5,413	-367	630	+215	3	-45%	127	0.5%
14 Virginia	2.6%	2.6%	5,141	+131	632	+78	1	-1%	352	1.0%
15 Indiana	2.0%	1.8%	5,093	+2,112	849	+127	36	-29%	-121	(0.3%)
16 New Jersey	2.7%	3.0%	5,019	+1,349	646	+95	1	-6%	68	0.2%
17 Illinois	3.8%	4.2%	4,711	+242	545	+112	58	-49%	-290	(0.6%)
18 South Carolina	1.6%	1.1%	3,747	-648	909	-5	1	-5%	302	1.0%
19 Maryland	1.8%	2.0%	3,310	+1,162	595	+118	0	0%	241	1.1%
20 Kentucky	1.3%	1.0%	3,227	+372	910	+47	2	-20%	36	0.1%
21 Arkansas	0.9%	0.6%	2,856	+1,213	797	+132	0	0%	130	0.9%
22 Alabama	1.5%	1.1%	2,750	+274	861	+133	3	-16%	-22	(0.1%)
23 Missouri	1.8%	1.5%	2,744	+439	592	+93	57	-27%	-1	(0.0%)
24 Utah	1.0%	0.9%	2,276	+457	903	+189	2	-29%	40	0.2%
25 Nevada	0.9%	0.8%	2,259	-488	841	+96	1	-13%	-113	(0.7%)
26 Mississippi	0.9%	0.6%	2,214	+430	850	+150	1	-12%	4	0.0%
27 Colorado	1.7%	1.8%	2,201	+123	476	+62	50	-54%	-118	(0.6%)
28 Minnesota	1.7%	1.8%	2,159	-553	414	+104	41	-71%	-136	(0.8%)

States:

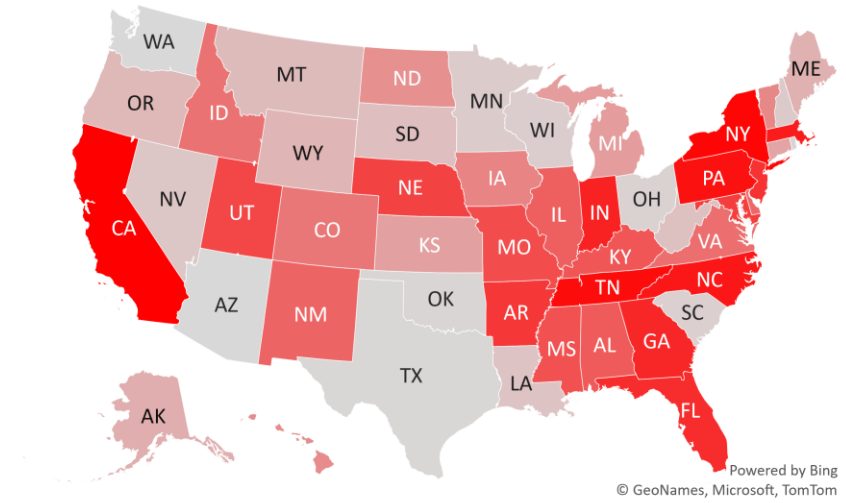
29 Wisconsin	1.8%	1.6%	1,832	-614	478	+167	58	-63%	36	0.2%
30 West Virginia	0.5%	0.4%	1,434	-297	969	-96	7	-9%	-45	(0.4%)
31 Oregon	1.3%	1.2%	1,207	-190	363	+60	35	-12%	-26	(0.3%)
32 New Mexico	0.6%	0.5%	1,203	+188	690	+128	51	-55%	-34	(0.3%)
33 Nebraska	0.6%	0.6%	1,006	+460	543	+32	52	-63%	-32	(0.4%)
34 Iowa	1.0%	0.9%	940	+75	382	+72	58	-70%	-36	(0.4%)
35 Delaware	0.3%	0.4%	798	+187	796	+101	1	-15%	51	0.9%
36 New Hampshire	0.4%	0.4%	729	-537	573	-20	6	-29%	-63	(1.2%)
37 Idaho	0.5%	0.4%	432	+124	465	+198	31	-59%	23	0.3%
38 South Dakota	0.3%	0.3%	417	-286	447	-69	57	-78%	-25	(0.9%)
39 Puerto Rico	1.0%	0.5%	350	+113	278	+95	22	-21%	-13	(0.3%)
40 District of Columbi	0.2%	0.7%	334	+79	492	+123	0	0%	47	2.3%
41 Maine	0.4%	0.3%	279	-68	415	+70	17	-14%	11	0.3%
42 Alaska	0.2%	0.3%	250	-40	439	-58	36	-60%	-5	(0.2%)
43 Montana	0.3%	0.2%	222	-215	491	+233	56	-62%	9	0.2%
44 Hawaii	0.4%	0.5%	198	+49	167	+36	134	-19%	43	3.1%
45 Vermont	0.2%	0.2%	177	+73	301	+98	1	-11%	12	1.0%
46 North Dakota	0.2%	0.3%	158	+8	245	+6	57	-90%	-26	(1.9%)
47 Wyoming	0.2%	0.2%	113	-189	382	+114	52	-78%	9	0.5%
48 Guam	0.0%	0.0%	8	+7	52	+32	61	-95%	0	0.0%
49 Washington	2.3%	2.7%	0	-8,216	305	-55	46	-45%	39	0.3%
50 U.S. Virgin Islands	0.0%	0.0%	0	-5	115	+84	142	-73%	0	0.0%
51 Rhode Island	0.3%	0.3%	0	-888	322	-475	36	-79%	-36	(0.6%)
52 Northern Mariana	0.0%	0.0%	0	+0	0	+0	75	-100%	0	0.0%
53 Michigan	3.0%	2.6%	0	+0	211	-89	53	-76%	-278	(1.3%)
54 Kansas	0.9%	0.8%	0	+0	630	+22	46	-59%	44	0.3%
55 Connecticut	1.1%	1.3%	0	+0	303	-110	32	-75%	53	0.3%
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	0.0%

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

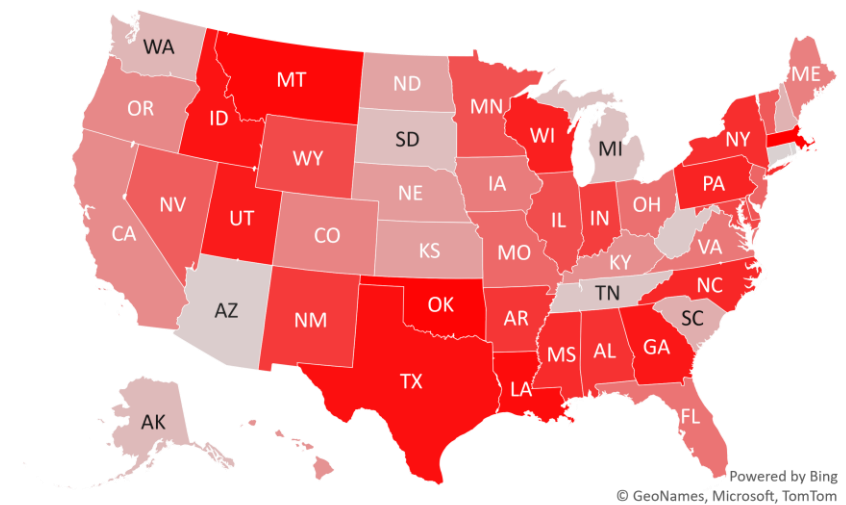
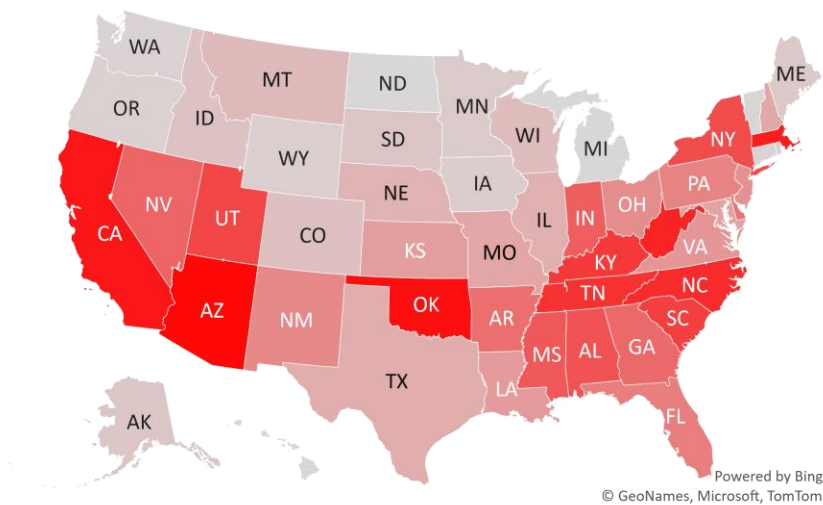
Daily Case Increases



7D Delta in Daily New Cases



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



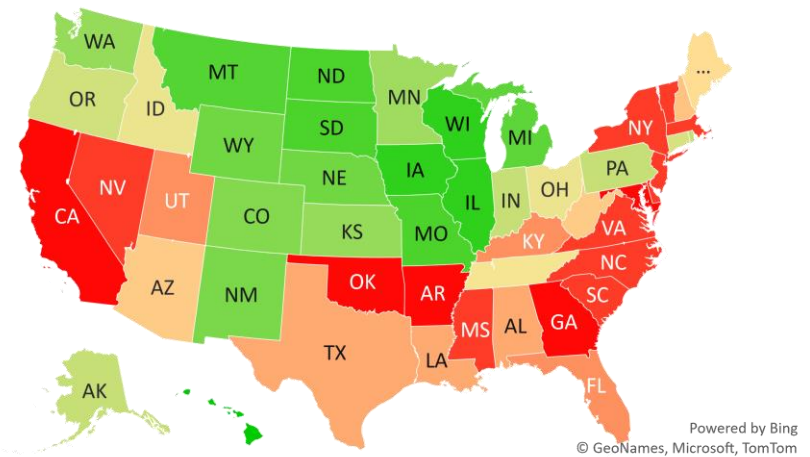
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 1/10)

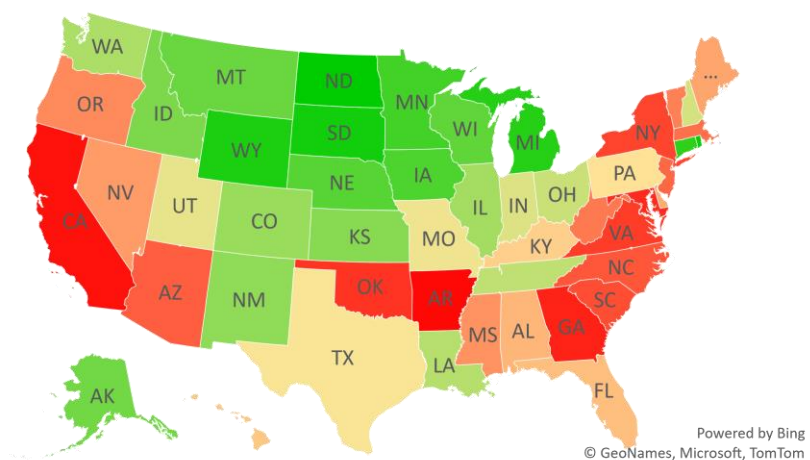
	Peak Date	1/10/21	% off the Peak	% US Pop
United States	1/9/21	1	-6%	100%
States:				
U.S. Virgin Islands	8/21/20	142	-73%	0.0%
Hawaii	8/29/20	134	-19%	0.4%
Northern Mariana Island	10/27/20	75	-100%	0.0%
Guam	11/10/20	61	-95%	0.0%
Wisconsin	11/13/20	58	-63%	1.8%
Illinois	11/13/20	58	-49%	3.8%
Iowa	11/13/20	58	-70%	1.0%
South Dakota	11/14/20	57	-78%	0.3%
North Dakota	11/14/20	57	-90%	0.2%
Missouri	11/14/20	57	-27%	1.8%
Montana	11/15/20	56	-62%	0.3%
Michigan	11/18/20	53	-76%	3.0%
Wyoming	11/19/20	52	-78%	0.2%
Nebraska	11/19/20	52	-63%	0.6%
New Mexico	11/20/20	51	-55%	0.6%
Colorado	11/21/20	50	-54%	1.7%
Washington	11/25/20	46	-45%	2.3%
Kansas	11/25/20	46	-59%	0.9%
Minnesota	11/30/20	41	-71%	1.7%
Rhode Island	12/5/20	36	-79%	0.3%
Pennsylvania	12/5/20	36	-23%	3.9%
Indiana	12/5/20	36	-29%	2.0%
Alaska	12/5/20	36	-60%	0.2%
Oregon	12/6/20	35	-12%	1.3%
Connecticut	12/9/20	32	-75%	1.1%
Ohio	12/10/20	31	-31%	3.5%
Idaho	12/10/20	31	-59%	0.5%
Tennessee	12/18/20	23	-36%	2.1%

	Peak Date	1/10/21	% off the Peak	% US Pop
United States	1/9/21	1	-6%	100%
States:				
Puerto Rico	12/19/20	22	-21%	1.0%
Maine	12/24/20	17	-14%	0.4%
West Virginia	1/3/21	7	-9%	0.5%
Arizona	1/3/21	7	-6%	2.2%
New Hampshire	1/4/21	6	-29%	0.4%
Texas	1/7/21	3	-25%	8.7%
Louisiana	1/7/21	3	-45%	1.4%
Alabama	1/7/21	3	-16%	1.5%
Utah	1/8/21	2	-29%	1.0%
Kentucky	1/8/21	2	-20%	1.3%
Florida	1/8/21	2	-17%	6.5%
Vermont	1/9/21	1	-11%	0.2%
Virginia	1/9/21	1	-1%	2.6%
South Carolina	1/9/21	1	-5%	1.6%
New York	1/9/21	1	-4%	5.9%
Nevada	1/9/21	1	-13%	0.9%
New Jersey	1/9/21	1	-6%	2.7%
North Carolina	1/9/21	1	-5%	3.2%
Mississippi	1/9/21	1	-12%	0.9%
Massachusetts	1/9/21	1	-8%	2.1%
Delaware	1/9/21	1	-15%	0.3%
Oklahoma	1/10/21	0	0%	1.2%
Maryland	1/10/21	0	0%	1.8%
Georgia	1/10/21	0	0%	3.2%
District of Columbia	1/10/21	0	0%	0.2%
California	1/10/21	0	0%	11.9%
Arkansas	1/10/21	0	0%	0.9%

Days since Daily Case Peak: Longer = Good



Daily Cases % off the Peak: Larger Decline = Good



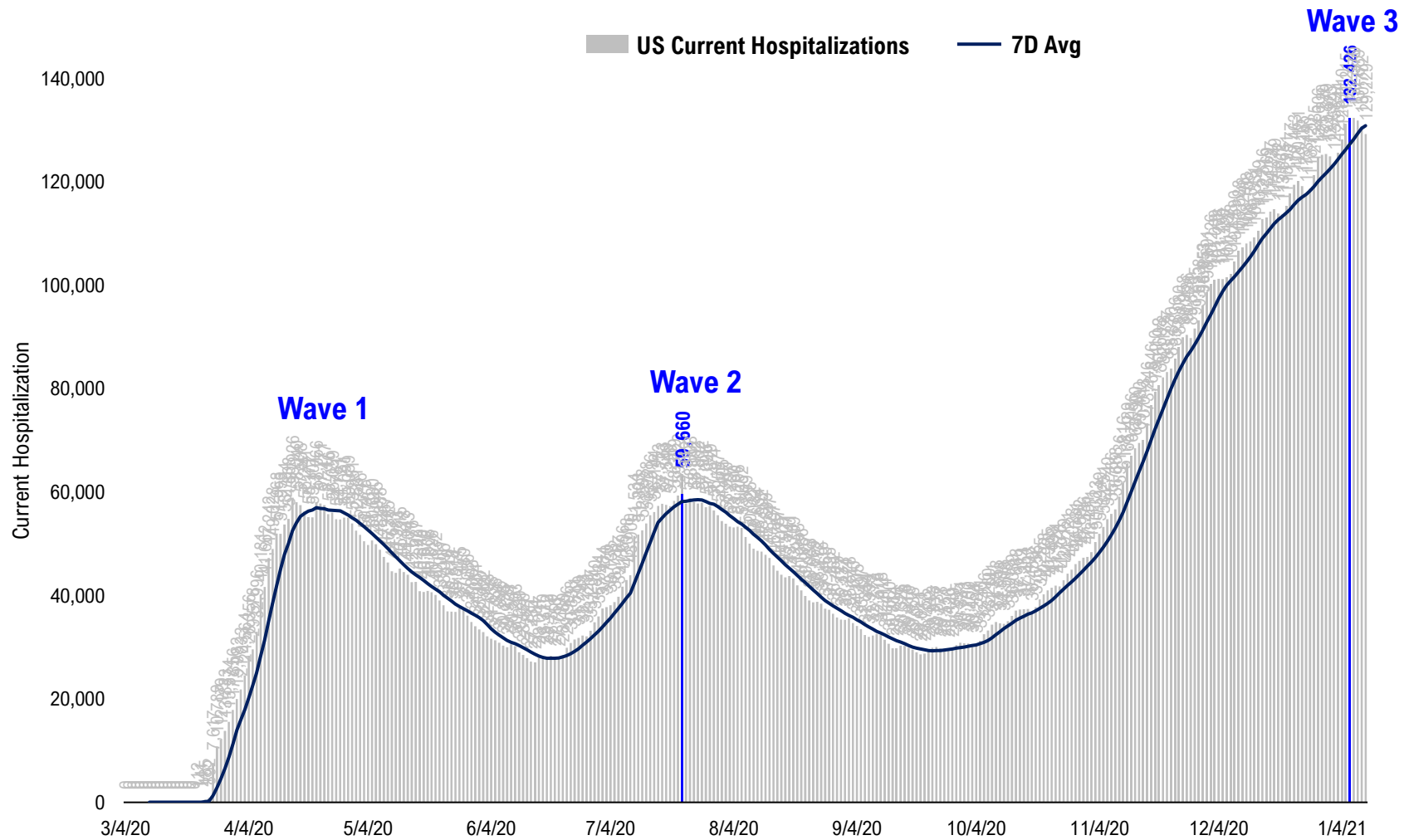
#6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	1/3/21	1/8/21	1/9/21	1/10/21	vs 7D ago
United States	208,847	284,357	255,427	217,873	+9,026
States:					
California	45,352	50,030	52,636	49,685	
New York	11,368	18,832	16,943	15,355	<--higher
Texas	14,535	17,335	18,861	12,954	
Florida	10,603	19,530	15,445	12,313	
Arizona	17,234	11,658	11,094	11,201	
North Carolina	6,487	10,028	11,581	8,833	<--higher
Pennsylvania	4,579	10,178	10,045	7,506	<--higher
Tennessee	4,165	6,369	5,844	7,419	<--higher
Georgia	5,077	10,379	8,957	7,169	<--higher
Oklahoma	8,017	5,232	4,289	6,487	
Ohio	6,808	9,535	8,374	6,088	
Massachusetts	3,481	8,120	7,414	5,656	<--higher
Louisiana	5,780	3,372	0	5,413	
Virginia	5,010	5,238	5,798	5,141	
Indiana	2,981	6,095	5,966	5,093	<--higher
New Jersey	3,670	5,769	6,427	5,019	<--higher
Illinois	4,469	9,277	6,717	4,711	
South Carolina	4,395	5,595	4,705	3,747	
Maryland	2,148	3,732	3,758	3,310	<--higher
Kentucky	2,855	4,737	4,231	3,227	
Arkansas	1,643	2,211	2,151	2,856	<--higher
Alabama	2,476	5,057	4,863	2,750	
Missouri	2,305	4,332	3,825	2,744	
Utah	1,819	3,793	2,613	2,276	<--higher
Nevada	2,747	2,866	2,648	2,259	
Mississippi	1,784	2,175	3,203	2,214	<--higher
Colorado	2,078	3,187	2,837	2,201	
Minnesota	2,712	2,374	2,469	2,159	

	Sorted				
	7D Ago	Last 3-day Trend			
	1/3/21	1/8/21	1/9/21	1/10/21	vs 7D ago
United States	208,847	284,357	255,427	217,873	+9,026
States:					
Wisconsin	2,446	3,474	3,046	1,832	
West Virginia	1,731	1,896	1,880	1,434	
Oregon	1,397	1,762	1,629	1,207	
New Mexico	1,015	1,637	1,498	1,203	
Nebraska	546	1,122	1,023	1,006	<--higher
Iowa	865	1,608	1,072	940	
Delaware	611	554	972	798	<--higher
New Hampshire	1,266	891	719	729	
Idaho	308	1,085	977	432	<--higher
South Dakota	703	448	321	417	
Puerto Rico	237	1,759	554	350	<--higher
District of Columbia	255	357	350	334	<--higher
Maine	347	782	612	279	
Alaska	290	403	311	250	
Montana	437	818	534	222	
Hawaii	149	264	248	198	<--higher
Vermont	104	216	171	177	<--higher
North Dakota	150	282	120	158	
Wyoming	302	479	72	113	
Guam	1	13	5	8	<--higher
Washington	8,216	4,046	2,913	0	
U.S. Virgin Islands	5	37	0	0	
Rhode Island	888	1,023	0	0	
Northern Mariana Islands	0	0	0	0	
Michigan	0	3,625	2,706	0	
Kansas	0	5,504	0	0	
Connecticut	0	3,236	0	0	
American Samoa	0	0	0	0	

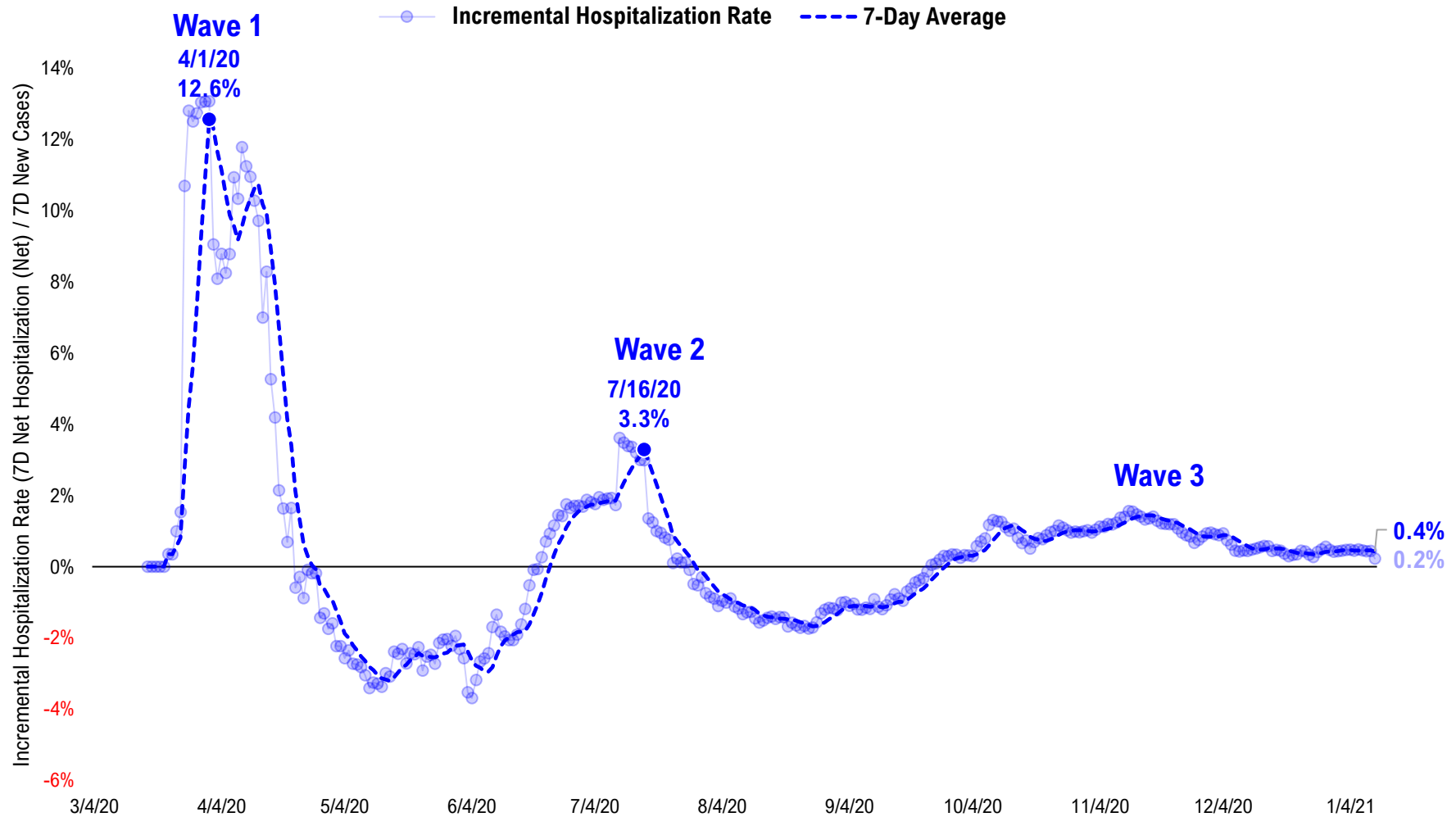
#7: US Daily Hospitalizations...

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



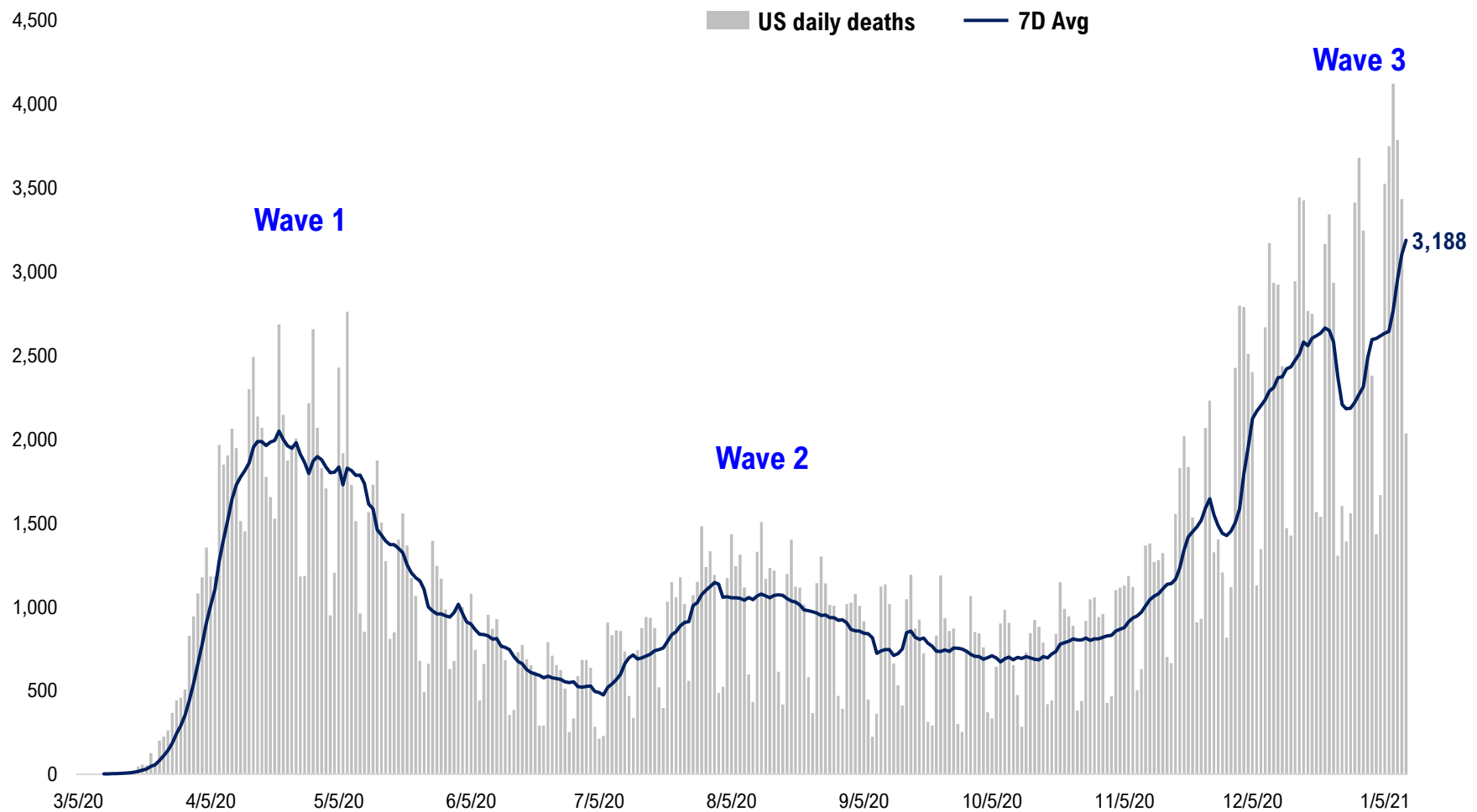
#8: Incremental Hospitalization Rate...

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

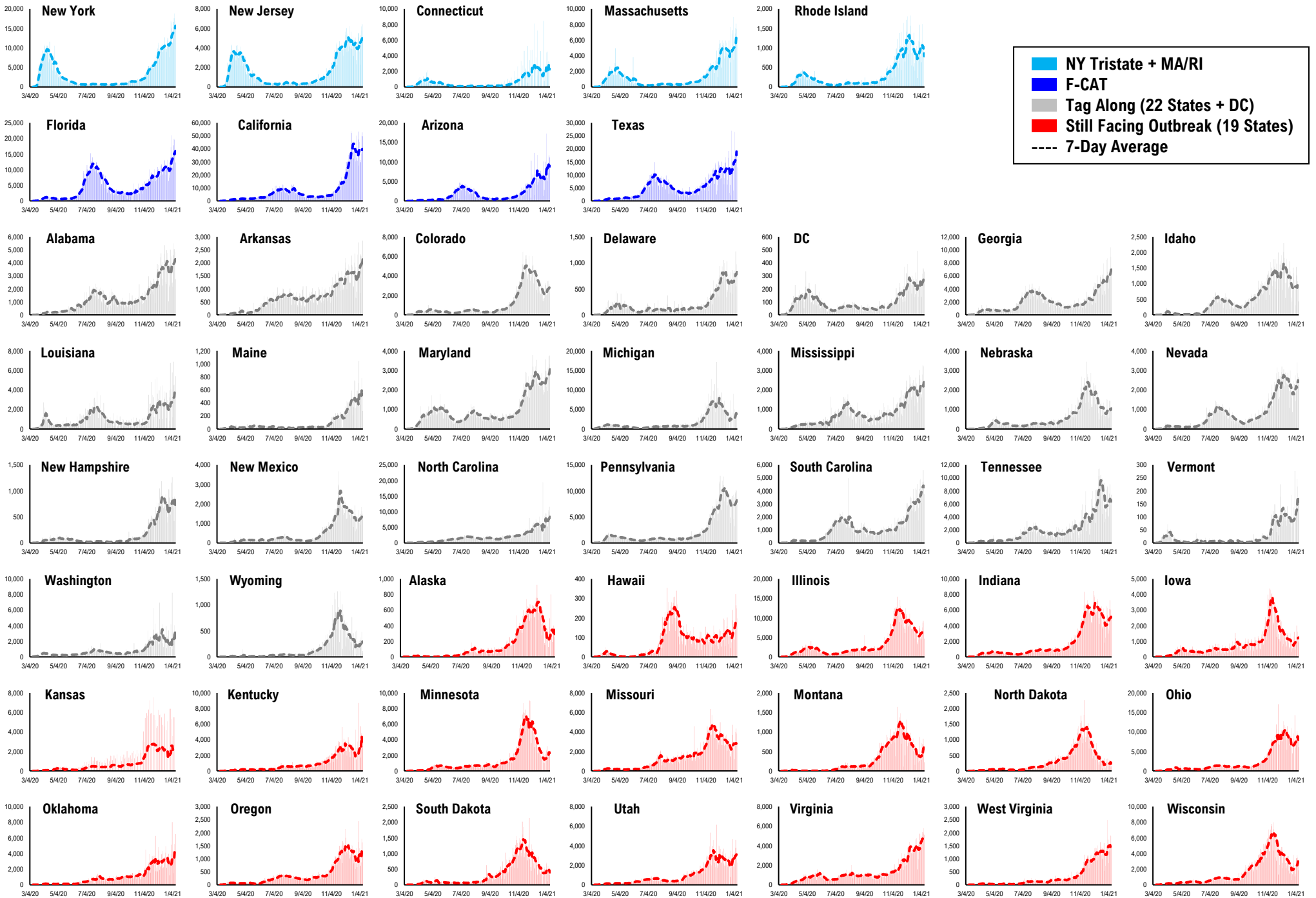
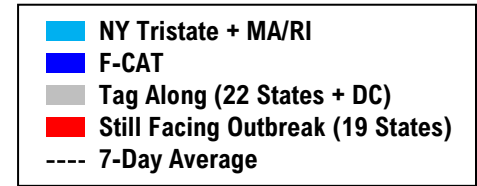


#9: US Daily New Fatalities...

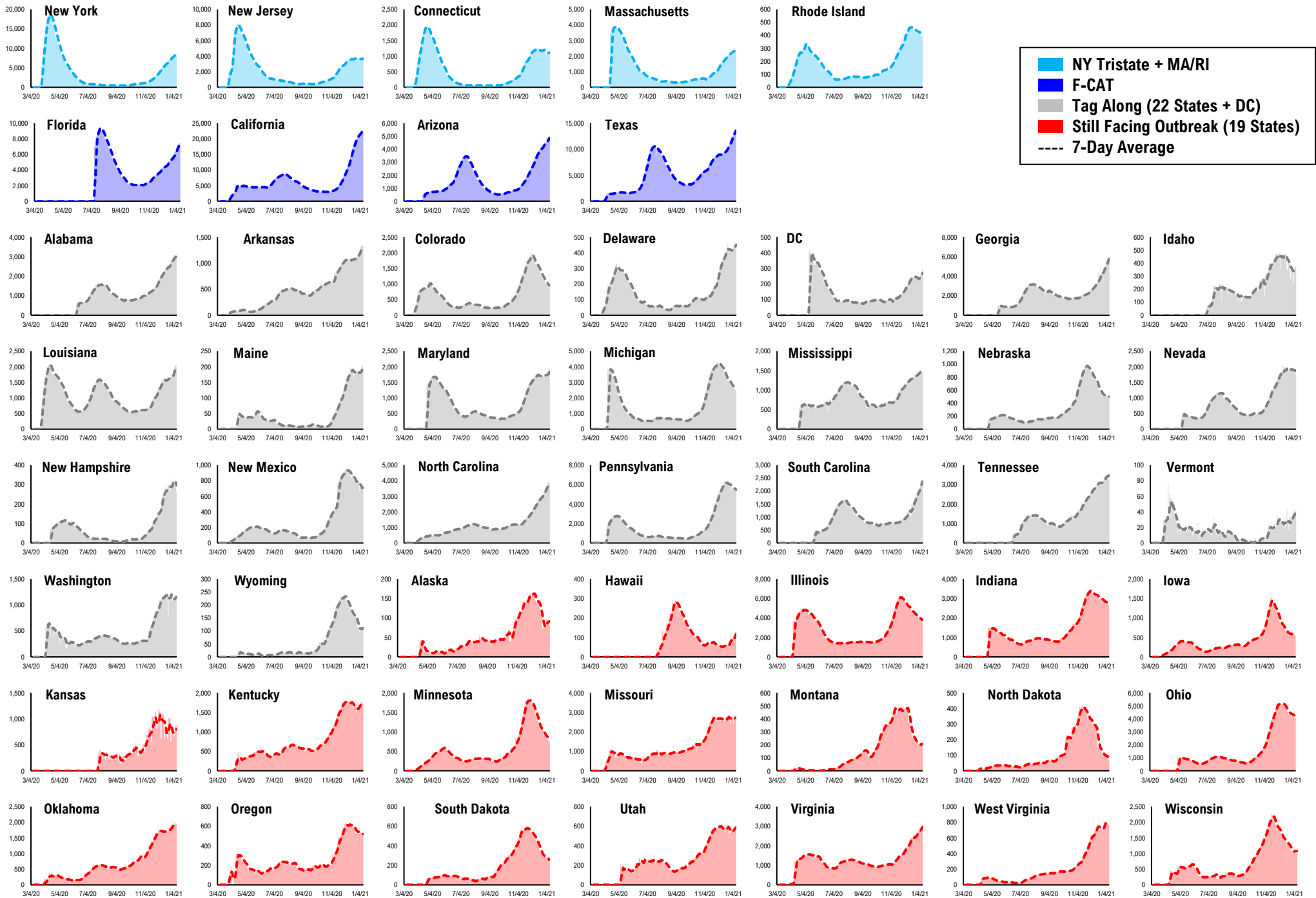
US daily COVID-19 Fatalities



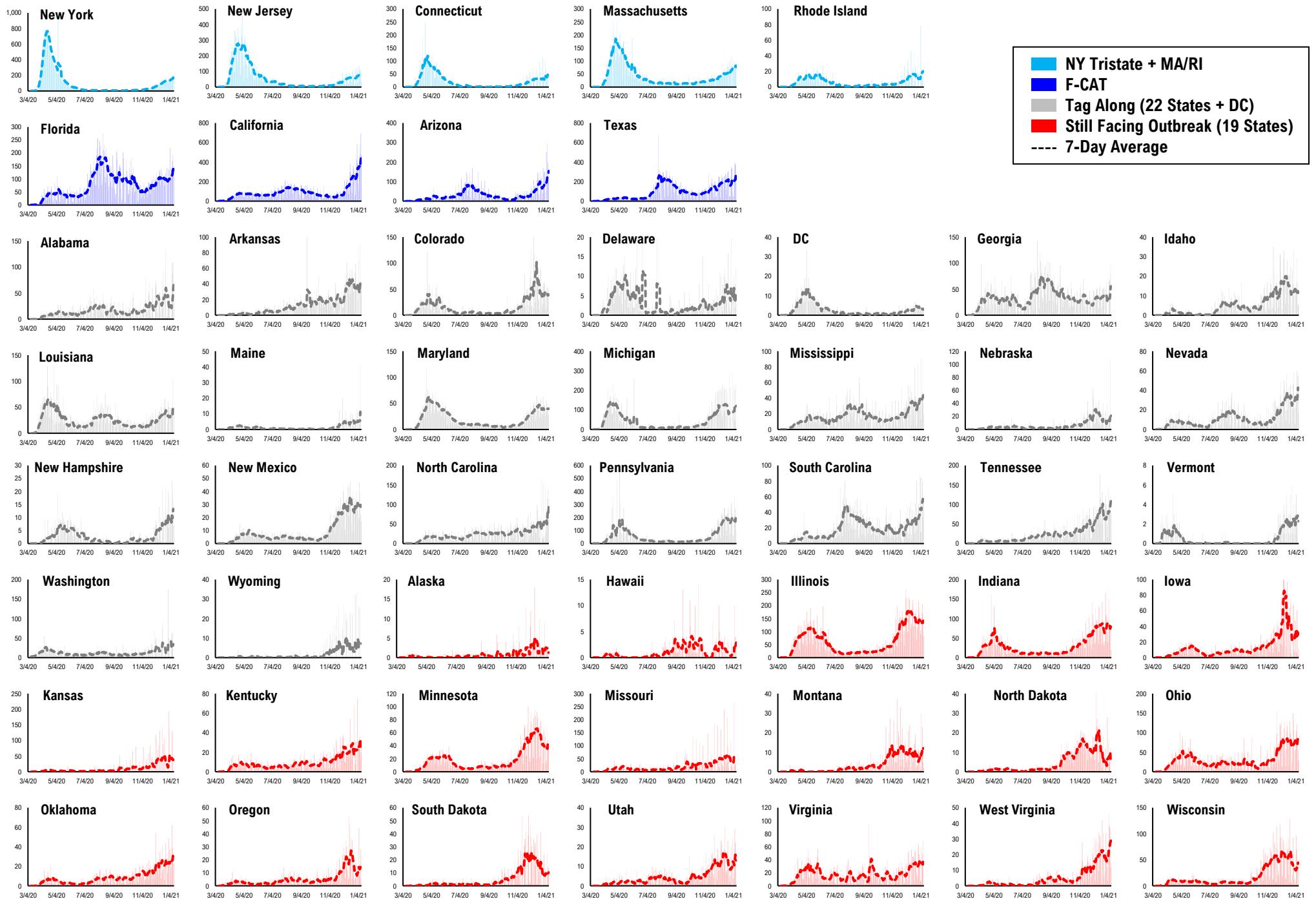
#11: Daily New Cases by States...



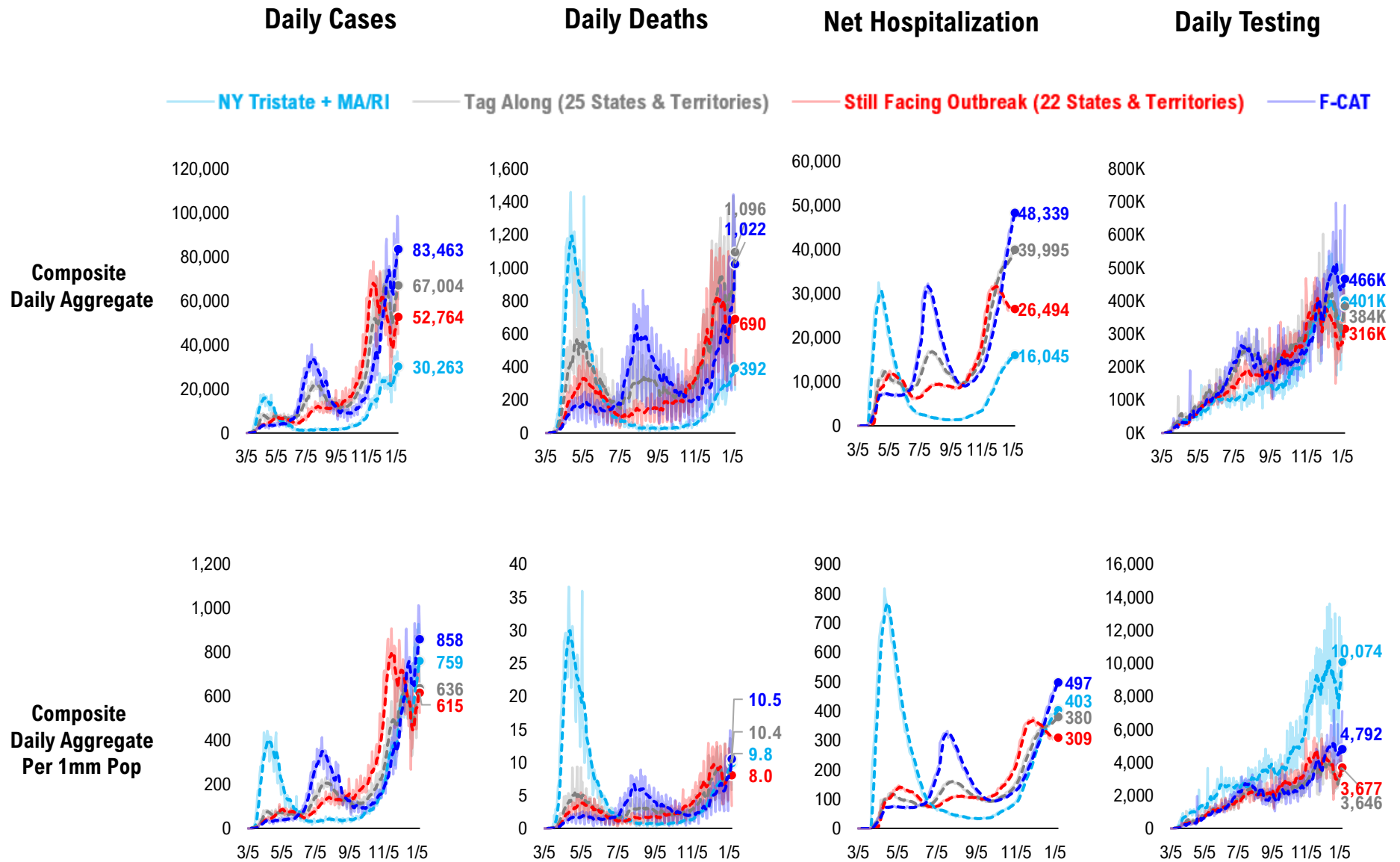
#12: Current Hospitalizations by States...



#13: Daily New Deaths by States...

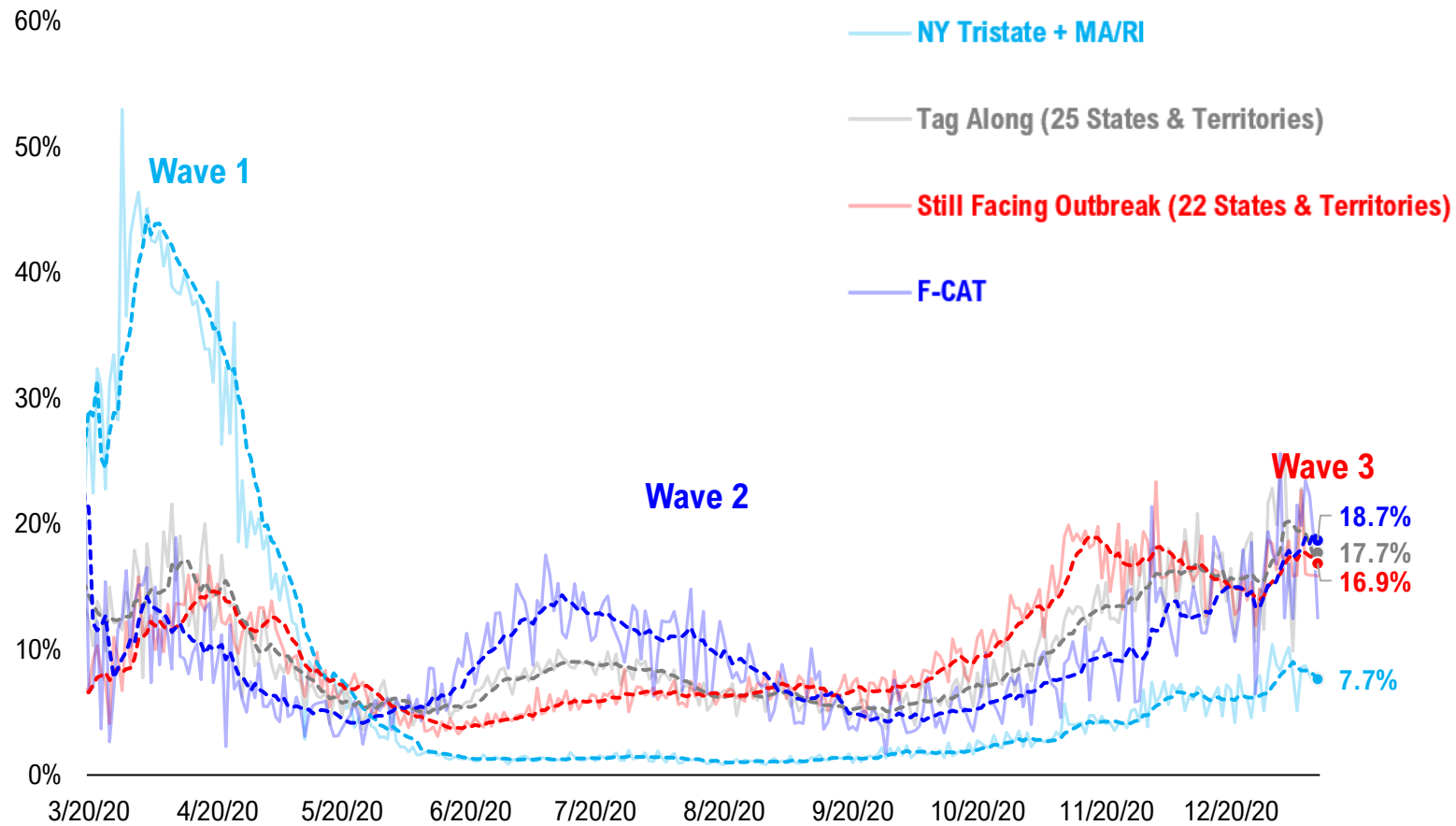


#14: State COVID-19 situation by Tier...

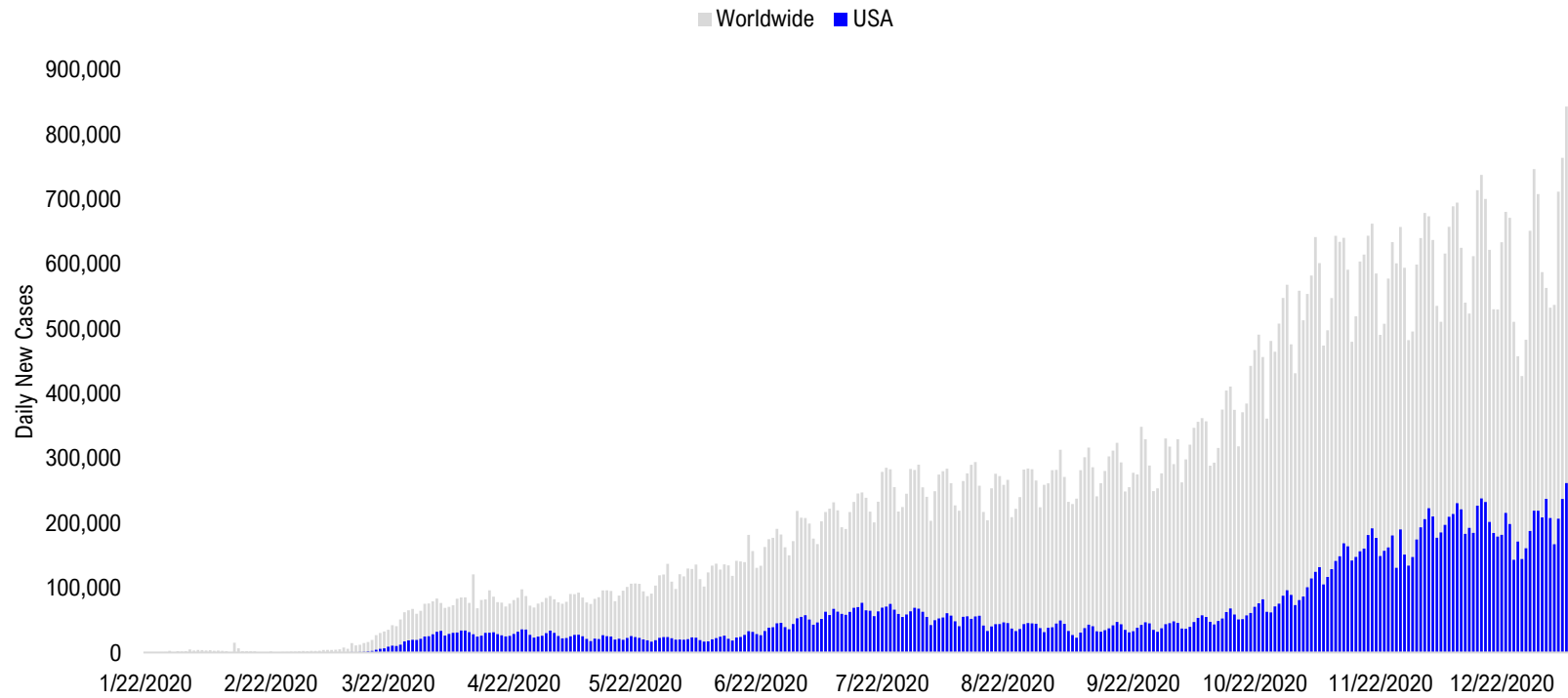


#15: State COVID-19 Daily Positivity Rate by Tier...

Composite Daily Positivity Rate



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



Aug 21	Sep 4	Sep 18	Oct 2	Oct 16	Oct 30	Nov 13	Nov 27	Dec 11	Dec 25	Jan 9
Latin America 85,471	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 287,746
Pakistan + India + Bangladesh 72,740	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 224,580	US + Canada 190,814	US + Canada 276,295
US + Canada 45,159	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 75,171	Latin America 92,555	Latin America 89,562	Latin America 131,615
Europe 31,851	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 35,233
Asia ex- India+Pakistan 10,921	Asia ex- India+Pakistan 9,069	Asia ex- India+Pakistan 11,067	Asia ex- India+Pakistan 11,658	Asia ex- India+Pakistan 13,788	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 25,887
Africa 10,566	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 18,697	Pakistan + India + Bangladesh 21,610

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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