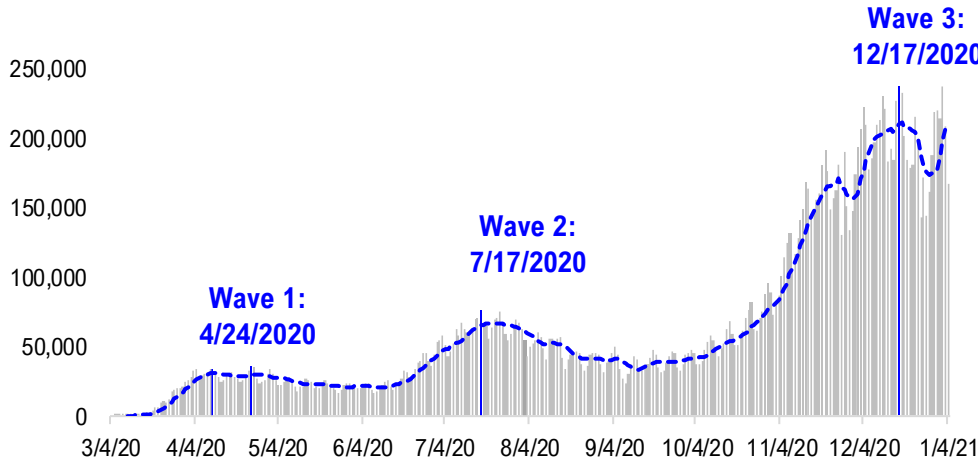


FSInsight Daily COVID-19 Chartbook

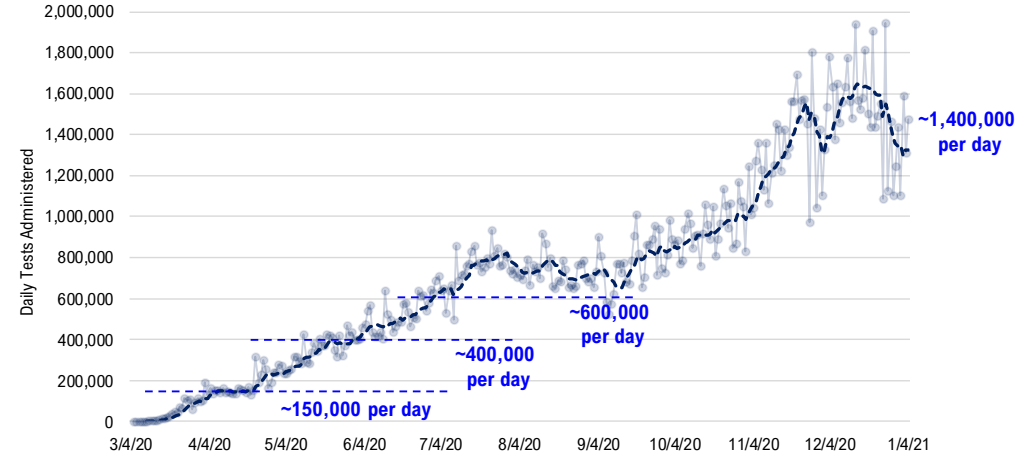


#1: USA COVID-19 Situation at a Glance...

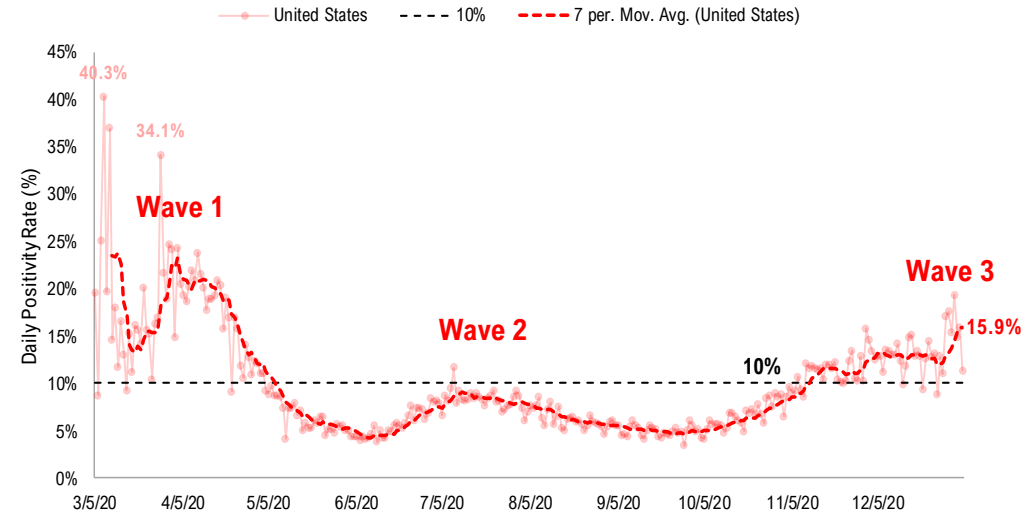
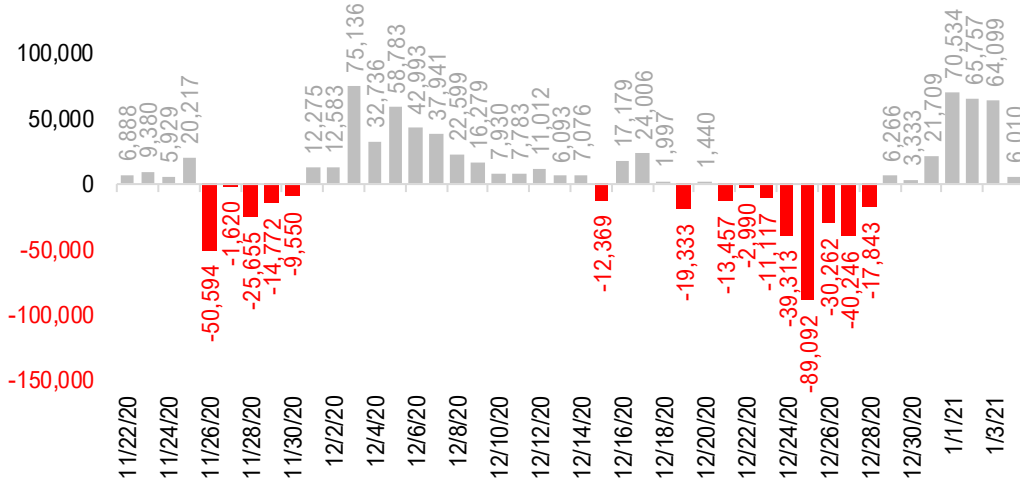
US daily new cases



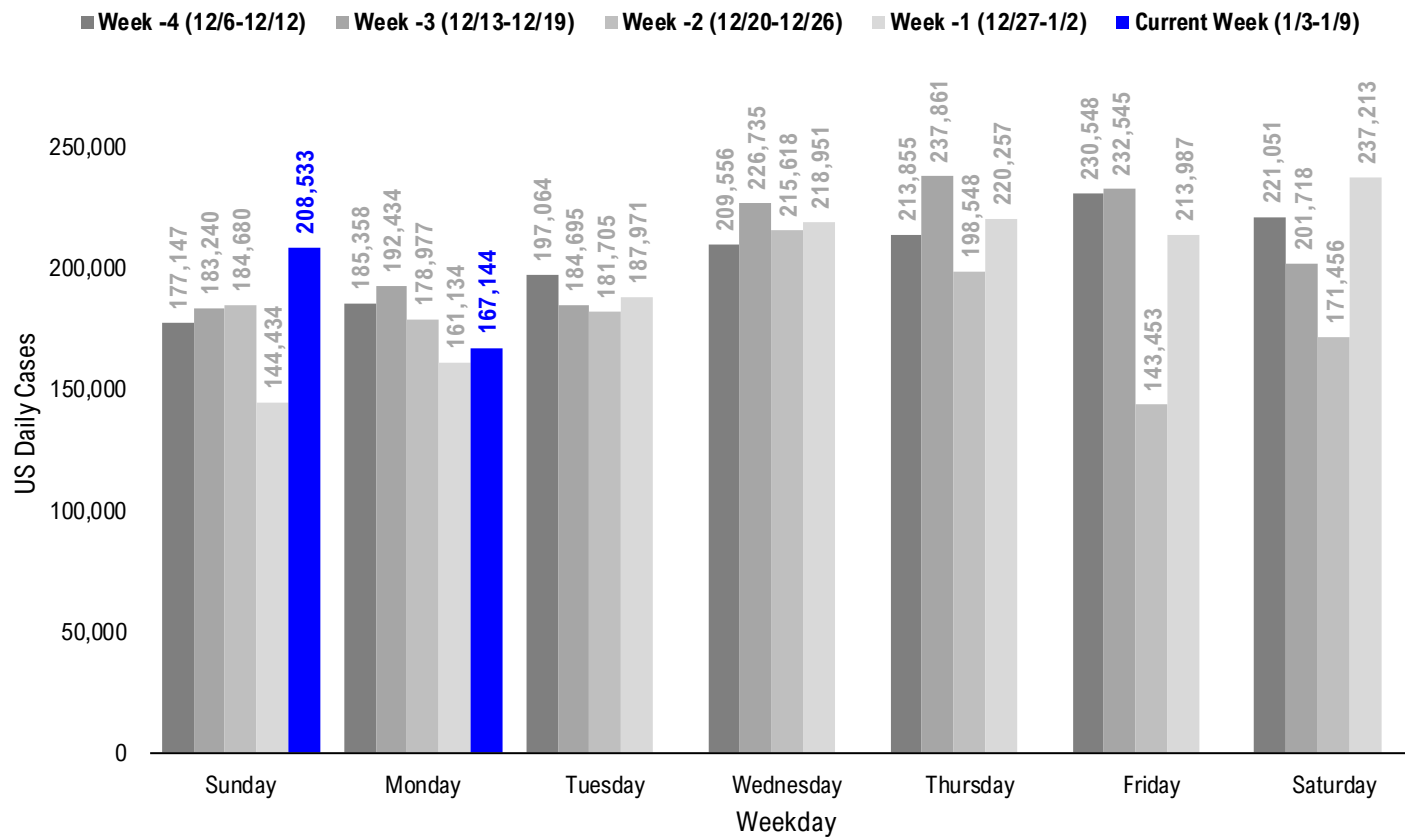
USA total COVID-19 tests administered



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	1/4	7D Delta	1/4	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	167,144	+6,010	622	+138	17	-12%	6,975	0.5%

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	1/4	7D Delta	1/4	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	167,144	+6,010	622	+138	17	-12%	6,975	0.5%

States:

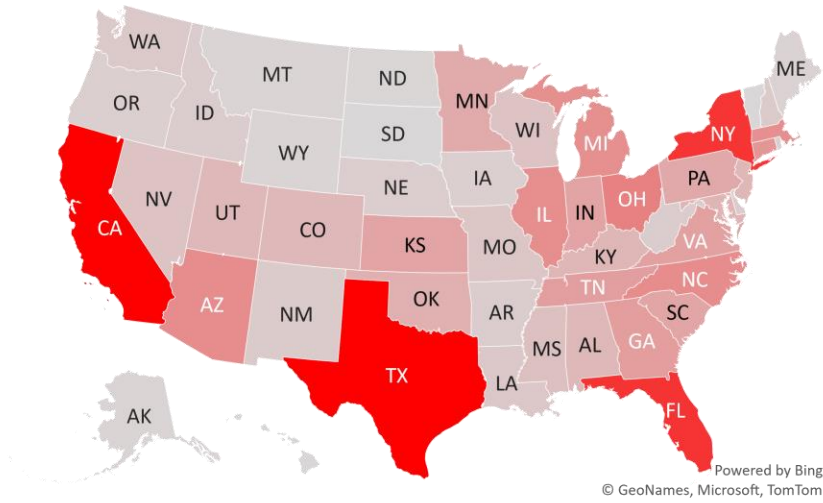
1 California	11.9%	14.6%	29,633	-3,537	1083	+124	17	-13%	1,361	0.5%
2 Texas	8.7%	8.8%	15,976	+3,135	397	+154	4	-42%	1,610	1.5%
3 Florida	6.5%	5.0%	11,256	+3,058	502	+161	3	-38%	1,129	1.2%
4 New York	5.9%	8.1%	11,209	+802	645	+151	2	-22%	692	0.7%
5 Ohio	3.5%	3.3%	5,942	+1,423	771	+161	25	-22%	-106	(0.2%)
6 North Carolina	3.2%	2.7%	5,187	+1,299	669	-164	7	-20%	443	0.9%
7 Arizona	2.2%	1.7%	5,158	-4,928	1432	+631	1	-14%	257	0.4%
8 Illinois	3.8%	4.2%	5,059	+606	376	+73	52	-65%	-295	(0.7%)
9 Michigan	3.0%	2.6%	4,992	+1,753	466	+113	47	-46%	-113	(0.5%)
10 Massachusetts	2.1%	2.8%	4,906	+708	841	+115	4	-5%	109	0.3%
11 Connecticut	1.1%	1.3%	4,516	-3,941	835	+44	26	-30%	-108	(0.8%)
12 Georgia	3.2%	2.9%	4,030	+878	493	+186	2	-34%	785	1.8%
13 Tennessee	2.1%	1.8%	3,953	+241	814	+225	17	-46%	256	0.6%
14 Virginia	2.6%	2.6%	3,771	+1,172	499	+179	3	-12%	202	0.6%
15 Indiana	2.0%	1.8%	3,617	+1,152	590	+188	30	-50%	-30	(0.1%)
16 Kansas	0.9%	0.8%	3,572	-2,801	409	-320	40	-73%	108	0.7%
17 South Carolina	1.6%	1.1%	3,510	+1,785	778	+196	1	-8%	288	1.1%
18 Pennsylvania	3.9%	3.8%	3,226	-553	444	+21	30	-53%	-365	(0.7%)
19 Minnesota	1.7%	1.8%	3,144	+2,067	496	+157	35	-65%	-68	(0.5%)
20 Oklahoma	1.2%	1.0%	2,699	-749	1334	+489	0	0%	181	0.7%
21 Maryland	1.8%	2.0%	2,483	+498	418	+86	29	-21%	13	0.1%
22 Kentucky	1.3%	1.0%	2,317	+863	1036	+421	0	0%	185	0.9%
23 New Jersey	2.7%	3.0%	2,275	-469	430	+90	29	-33%	14	0.0%
24 Colorado	1.7%	1.8%	2,185	+535	363	+104	44	-65%	-158	(0.9%)
25 Alabama	1.5%	1.1%	2,161	-108	568	+196	16	-41%	262	1.0%
26 Utah	1.0%	0.9%	2,160	+444	614	-10	44	-51%	19	0.1%
27 Mississippi	0.9%	0.6%	1,616	-85	593	+155	3	-37%	107	0.7%
28 Nevada	0.9%	0.8%	1,414	+546	648	+181	30	-31%	-20	(0.1%)

States:

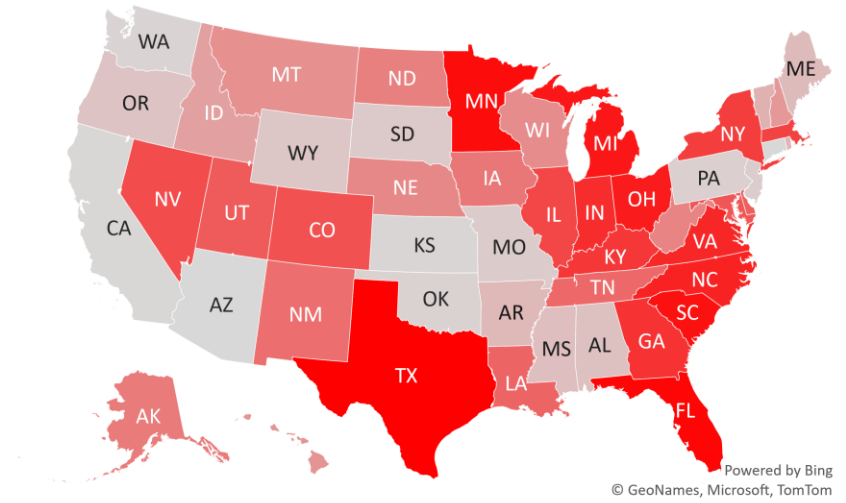
29 Wisconsin	1.8%	1.6%	1,407	+72	282	+39	52	-78%	-44	(0.3%)
30 Missouri	1.8%	1.5%	1,196	-326	307	+50	51	-62%	19	0.1%
31 Louisiana	1.4%	1.3%	1,190	+367	500	+209	4	-53%	294	1.4%
32 Washington	2.3%	2.7%	995	-882	403	+172	40	-27%	-62	(0.4%)
33 New Mexico	0.6%	0.5%	921	+230	504	+181	45	-67%	-85	(1.0%)
34 New Hampshire	0.4%	0.4%	878	+17	809	+130	0	0%	50	0.9%
35 Delaware	0.3%	0.4%	849	+418	777	+149	21	-14%	4	0.1%
36 Arkansas	0.9%	0.6%	846	-43	451	+209	3	-41%	141	1.1%
37 West Virginia	0.5%	0.4%	828	+102	756	+273	1	-29%	79	0.8%
38 Idaho	0.5%	0.4%	798	+3	416	+84	25	-64%	-41	(0.7%)
39 Nebraska	0.6%	0.6%	738	+101	379	+101	46	-74%	-16	(0.2%)
40 Oregon	1.3%	1.2%	711	-109	359	+136	29	-13%	-39	(0.5%)
41 Iowa	1.0%	0.9%	701	+139	216	+73	52	-83%	-15	(0.2%)
42 Rhode Island	0.3%	0.3%	633	-28	725	+215	30	-53%	3	0.0%
43 Puerto Rico	1.0%	0.5%	558	+162	170	-63	16	-52%	-26	(0.6%)
44 Maine	0.4%	0.3%	376	-63	438	+247	11	-9%	-1	(0.0%)
45 Wyoming	0.2%	0.2%	372	-132	483	-116	46	-72%	-1	(0.1%)
46 Montana	0.3%	0.2%	283	+64	346	+12	50	-73%	-22	(0.8%)
47 Alaska	0.2%	0.3%	260	+134	616	+262	30	-44%	19	0.8%
48 North Dakota	0.2%	0.3%	199	+106	326	+59	51	-86%	-10	(0.6%)
49 District of Columbia	0.2%	0.7%	140	+0	308	+9	30	-37%	19	1.2%
50 South Dakota	0.3%	0.3%	111	-156	557	+139	51	-73%	-20	(0.7%)
51 Hawaii	0.4%	0.5%	89	+44	96	+35	128	-54%	-39	(3.8%)
52 Vermont	0.2%	0.2%	80	-11	246	+65	31	-12%	21	2.8%
53 Guam	0.0%	0.0%	17	+6	36	+10	55	-97%	-11	(17.5%)
54 U.S. Virgin Islands	0.0%	0.0%	1	+1	19	+19	136	-96%	0	0.0%
55 Northern Mariana	0.0%	0.0%	0	+0	0	-23	69	-100%	0	
56 American Samoa	0.0%	0.0%	0	+0	0	+0	0	0%	0	

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

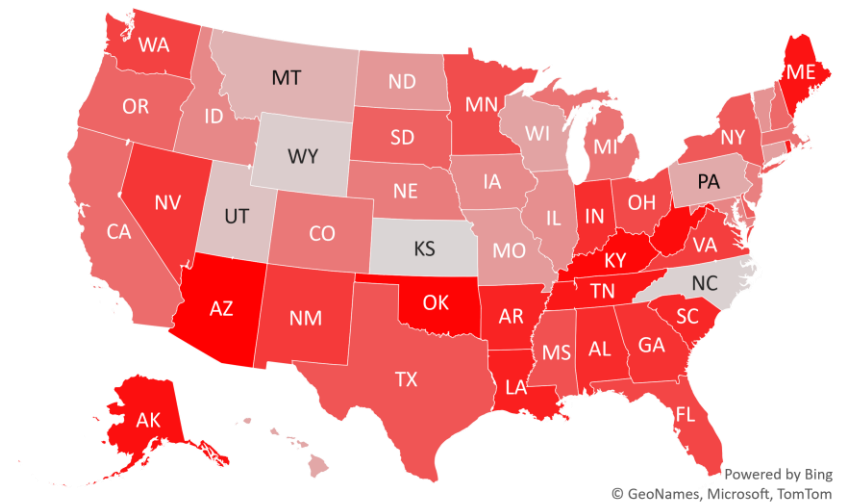
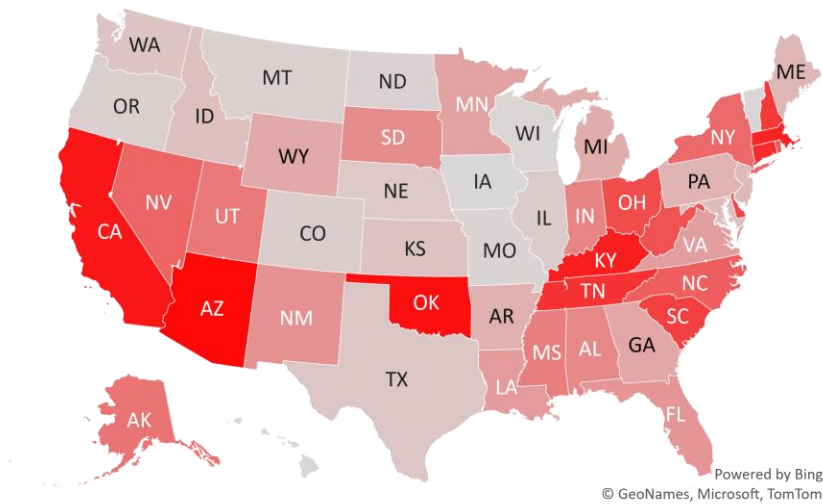
Daily Case Increases



7D Delta in Daily New Cases



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



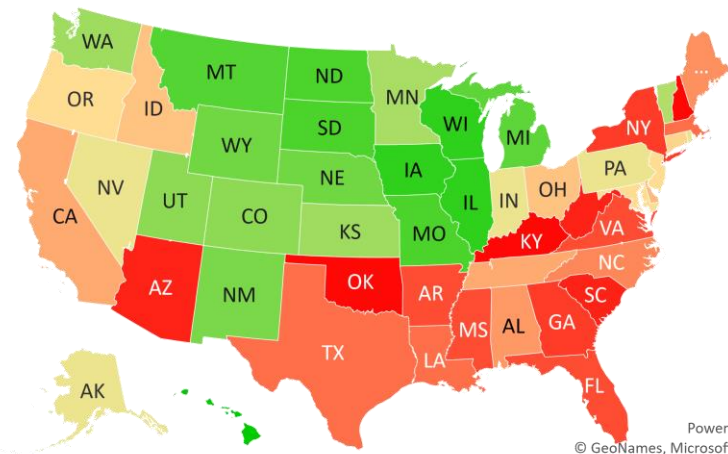
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 1/4)

	Sorted			
	Peak Date	1/4/21	% off the Peak	% US Pop
United States	12/18/20	17	-12%	100%
States:				
U.S. Virgin Islands	8/21/20	136	-96%	0.0%
Hawaii	8/29/20	128	-54%	0.4%
Northern Mariana Island	10/27/20	69	-100%	0.0%
Guam	11/10/20	55	-97%	0.0%
Wisconsin	11/13/20	52	-78%	1.8%
Illinois	11/13/20	52	-65%	3.8%
Iowa	11/13/20	52	-83%	1.0%
South Dakota	11/14/20	51	-73%	0.3%
North Dakota	11/14/20	51	-86%	0.2%
Missouri	11/14/20	51	-62%	1.8%
Montana	11/15/20	50	-73%	0.3%
Michigan	11/18/20	47	-46%	3.0%
Wyoming	11/19/20	46	-72%	0.2%
Nebraska	11/19/20	46	-74%	0.6%
New Mexico	11/20/20	45	-67%	0.6%
Utah	11/21/20	44	-51%	1.0%
Colorado	11/21/20	44	-65%	1.7%
Washington	11/25/20	40	-27%	2.3%
Kansas	11/25/20	40	-73%	0.9%
Minnesota	11/30/20	35	-65%	1.7%
Vermont	12/4/20	31	-12%	0.2%
Rhode Island	12/5/20	30	-53%	0.3%
Pennsylvania	12/5/20	30	-53%	3.9%
Nevada	12/5/20	30	-31%	0.9%
Indiana	12/5/20	30	-50%	2.0%
District of Columbia	12/5/20	30	-37%	0.2%
Alaska	12/5/20	30	-44%	0.2%
Oregon	12/6/20	29	-13%	1.3%

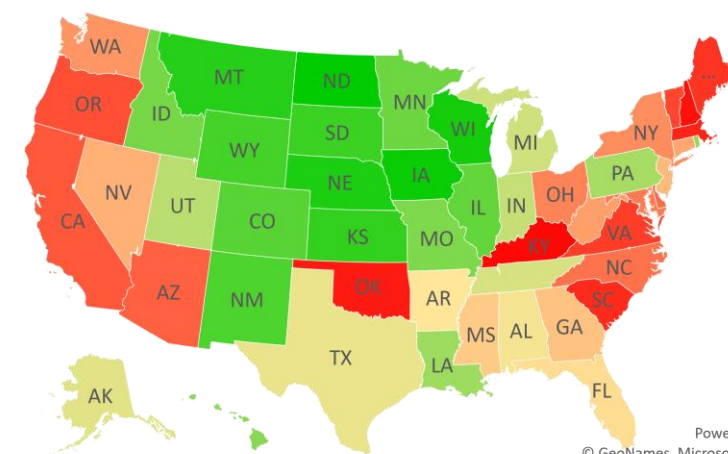
	Sorted			
	Peak Date	1/4/21	% off the Peak	% US Pop
United States	12/18/20	17	-12%	100%
States:				
New Jersey	12/6/20	29	-33%	2.7%
Maryland	12/6/20	29	-21%	1.8%
Connecticut	12/9/20	26	-30%	1.1%
Ohio	12/10/20	25	-22%	3.5%
Idaho	12/10/20	25	-64%	0.5%
Delaware	12/14/20	21	-14%	0.3%
Tennessee	12/18/20	17	-46%	2.1%
California	12/18/20	17	-13%	11.9%
Puerto Rico	12/19/20	16	-52%	1.0%
Alabama	12/19/20	16	-41%	1.5%
Maine	12/24/20	11	-9%	0.4%
North Carolina	12/28/20	7	-20%	3.2%
Texas	12/31/20	4	-42%	8.7%
Massachusetts	12/31/20	4	-5%	2.1%
Louisiana	12/31/20	4	-53%	1.4%
Virginia	1/1/21	3	-12%	2.6%
Mississippi	1/1/21	3	-37%	0.9%
Florida	1/1/21	3	-38%	6.5%
Arkansas	1/1/21	3	-41%	0.9%
New York	1/2/21	2	-22%	5.9%
Georgia	1/2/21	2	-34%	3.2%
West Virginia	1/3/21	1	-29%	0.5%
South Carolina	1/3/21	1	-8%	1.6%
Arizona	1/3/21	1	-14%	2.2%
Oklahoma	1/4/21	0	0%	1.2%
New Hampshire	1/4/21	0	0%	0.4%
Kentucky	1/4/21	0	0%	1.3%

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)

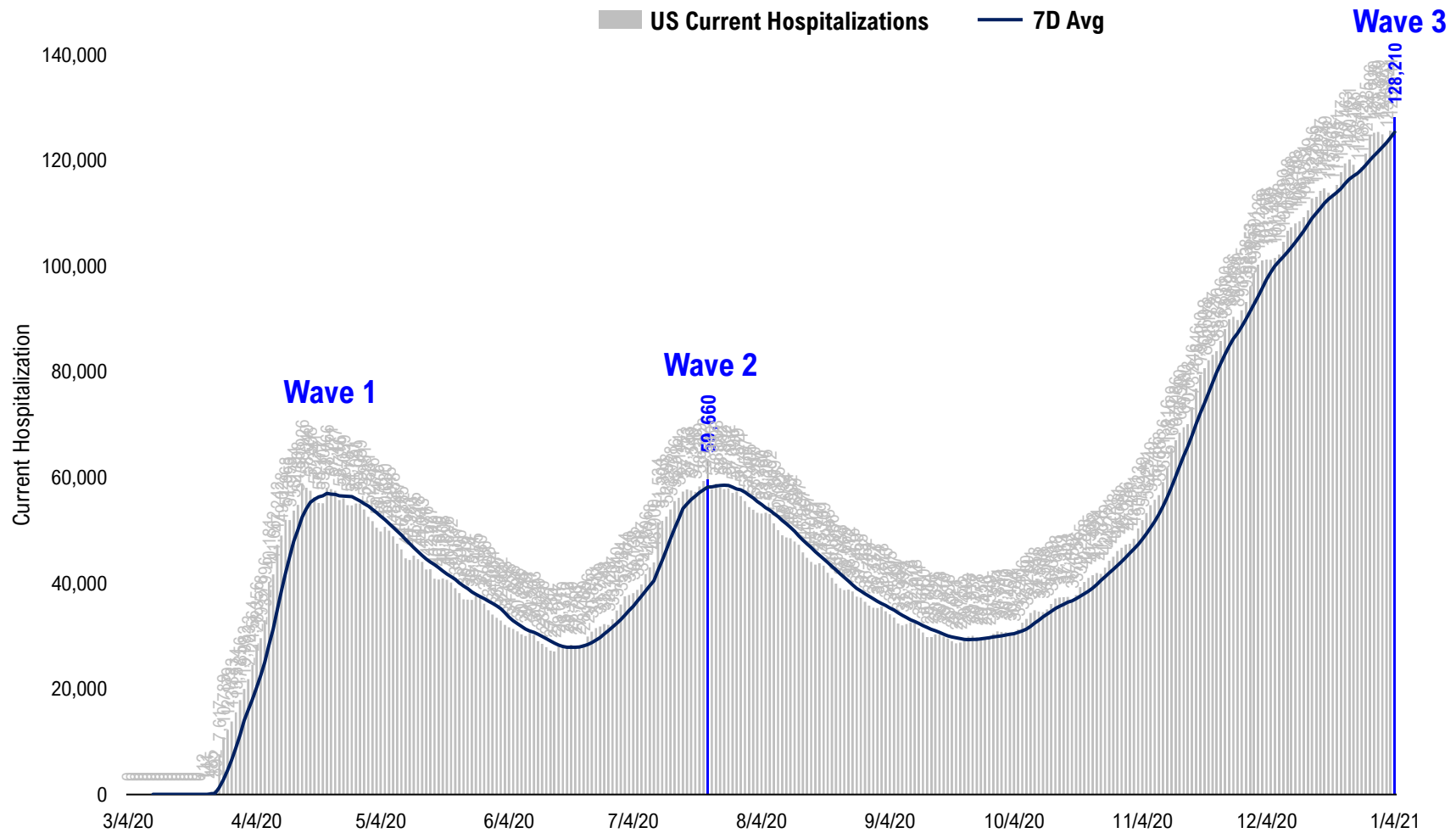
	Sorted				
	7D Ago	Last 3-day Trend			
	12/28/20	1/2/21	1/3/21	1/4/21	vs 7D ago
United States	161,134	237,213	208,533	167,144	+6,010
States:					
California	33,170	53,341	45,352	29,633	
Texas	12,841	3,995	14,535	15,976	<--higher
Florida	8,198	10,503	10,603	11,256	<--higher
New York	10,407	15,074	11,368	11,209	
Ohio	4,519	14,293	6,808	5,942	<--higher
North Carolina	3,888	9,365	6,487	5,187	<--higher
Arizona	10,086	8,883	17,234	5,158	
Illinois	4,453	4,762	4,469	5,059	
Michigan	3,239	8,983	0	4,992	<--higher
Massachusetts	4,198	9,003	3,481	4,906	
Connecticut	8,457	4,412	0	4,516	
Georgia	3,152	6,604	5,077	4,030	<--higher
Tennessee	3,712	8,550	4,165	3,953	
Virginia	2,599	3,989	5,010	3,771	<--higher
Indiana	2,465	5,317	2,981	3,617	<--higher
Kansas	6,373	0	0	3,572	
South Carolina	1,725	4,424	4,081	3,510	<--higher
Pennsylvania	3,779	9,253	4,579	3,226	
Minnesota	1,077	2,530	2,712	3,144	<--higher
Oklahoma	3,448	5,119	8,017	2,699	
Maryland	1,985	2,952	2,148	2,483	<--higher
Kentucky	1,454	8,709	2,855	2,317	<--higher
New Jersey	2,744	5,511	3,670	2,275	
Colorado	1,650	2,011	2,078	2,185	<--higher
Alabama	2,269	3,711	2,476	2,161	
Utah	1,716	1,927	1,819	2,160	<--higher
Mississippi	1,701	1,891	1,784	1,616	
Nevada	868	1,825	2,747	1,414	<--higher

	Sorted				
	7D Ago	Last 3-day Trend			
	12/28/20	1/2/21	1/3/21	1/4/21	vs 7D ago
United States	161,134	237,213	208,533	167,144	+6,010
States:					
Wisconsin	1,335	1,078	2,446	1,407	
Missouri	1,522	2,157	2,305	1,196	
Louisiana	823	0	5,780	1,190	<--higher
Washington	1,877	0	8,216	995	
New Mexico	691	1,237	1,015	921	<--higher
New Hampshire	861	1,156	1,266	878	
Delaware	431	809	611	849	<--higher
Arkansas	889	1,597	1,643	846	
West Virginia	726	1,507	1,731	828	
Idaho	795	1,122	308	798	
Nebraska	637	918	546	738	
Oregon	820	2,439	1,397	711	
Iowa	562	476	865	701	<--higher
Rhode Island	661	783	888	633	
Puerto Rico	396	835	237	558	<--higher
Maine	439	1,044	347	376	
Wyoming	504	164	302	372	
Montana	219	389	437	283	<--higher
Alaska	126	801	290	260	<--higher
North Dakota	93	396	150	199	<--higher
District of Columbia	140	257	255	140	
South Dakota	267	665	703	111	
Hawaii	45	169	149	89	<--higher
Vermont	91	277	104	80	
Guam	11	0	1	17	<--higher
U.S. Virgin Islands	0	0	5	1	
Northern Mariana Islands	0	0	0	0	
American Samoa	0	0	0	0	

<--higher - if the state has 20% more daily cases than 7D ago...
 Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

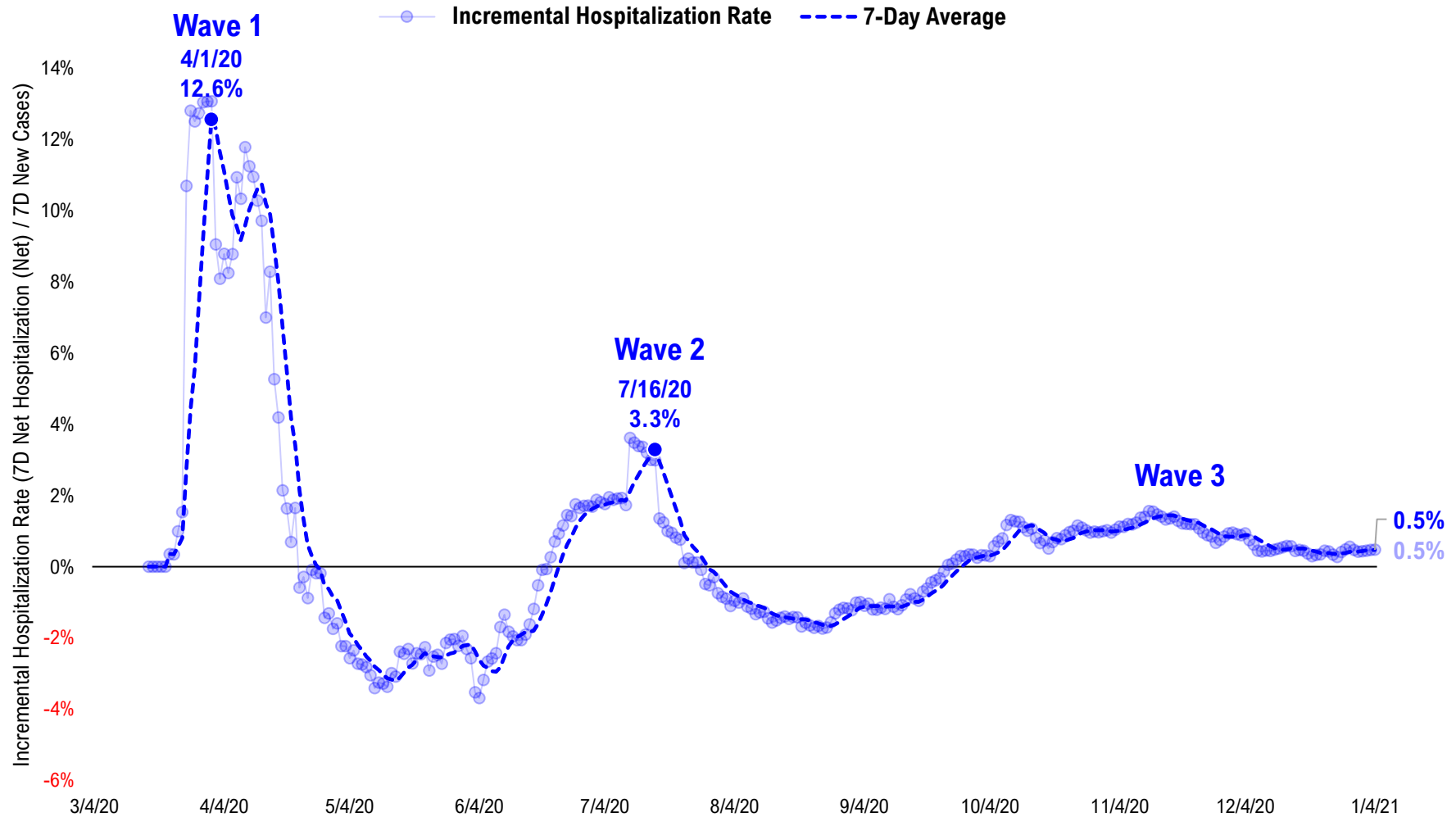
#7: US Daily Hospitalizations...

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



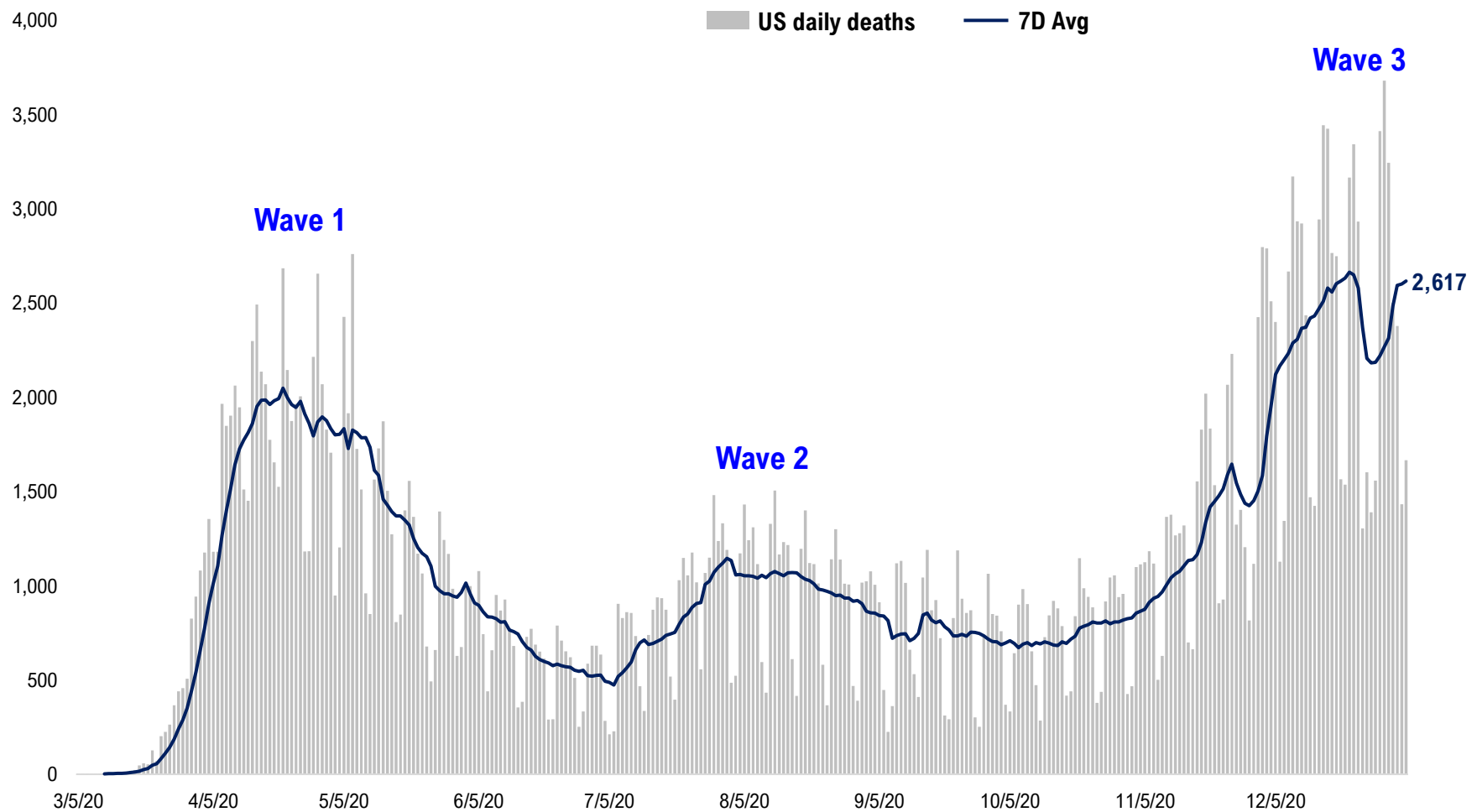
#8: Incremental Hospitalization Rate...

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

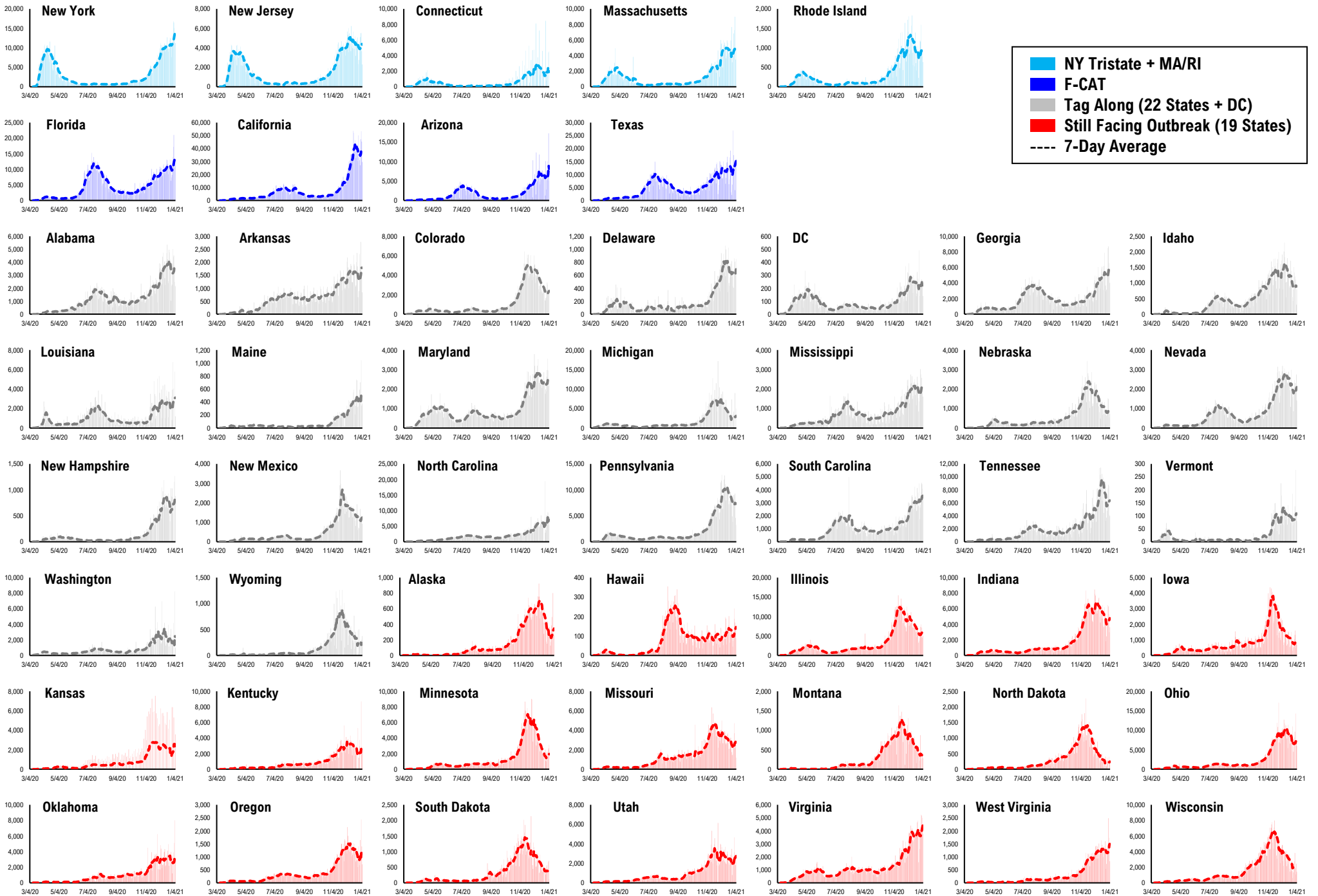


#9: US Daily New Fatalities...

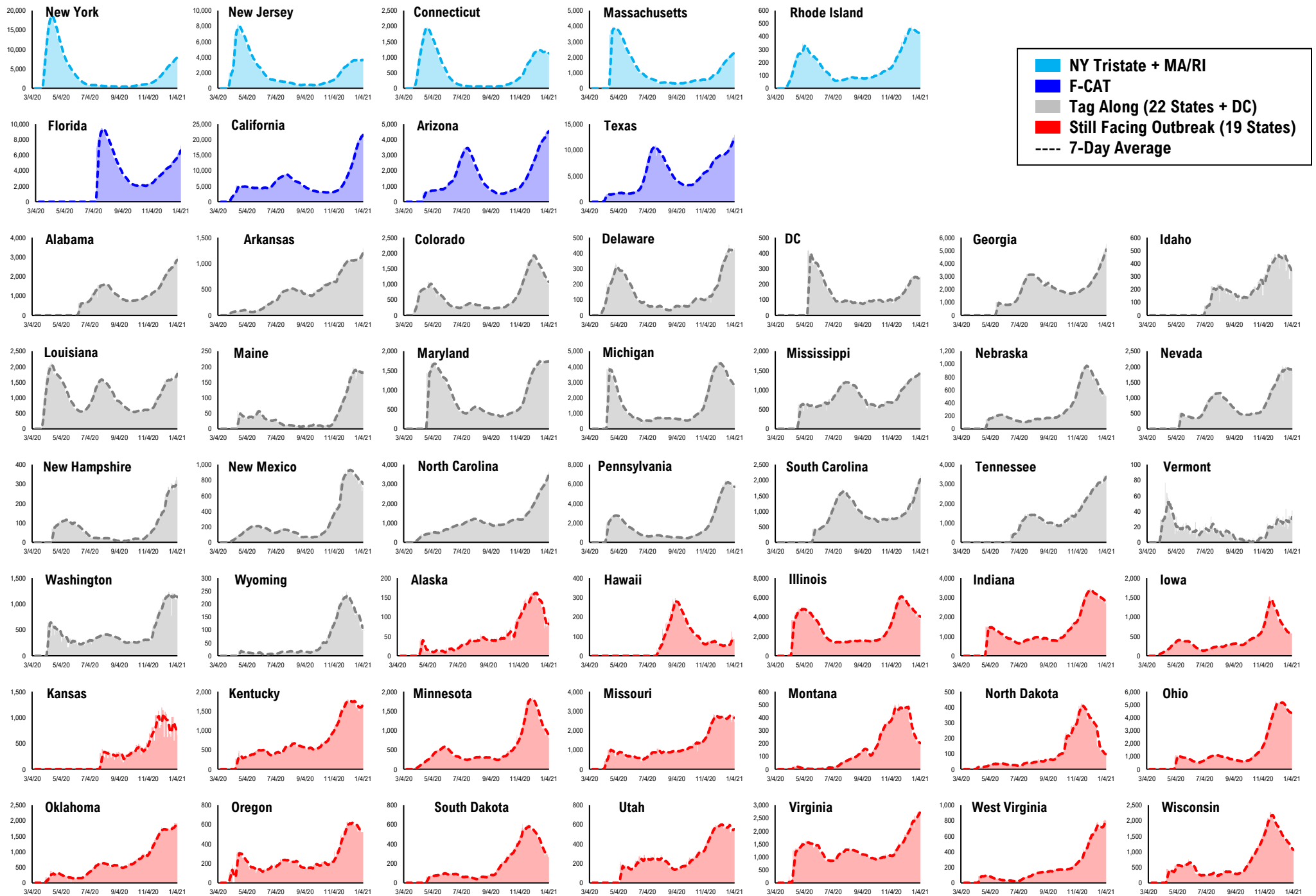
US daily COVID-19 Fatalities



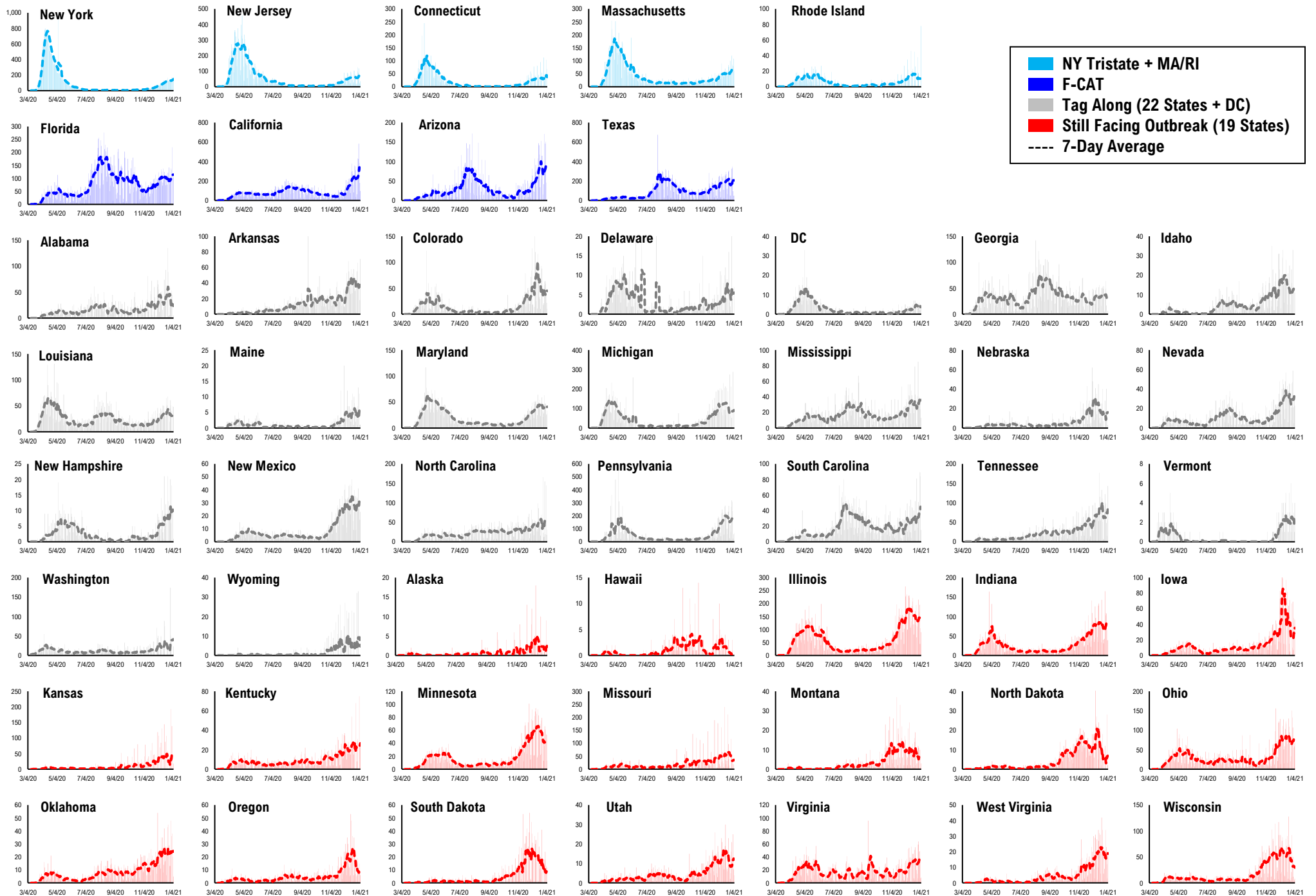
#11: Daily New Cases by States...



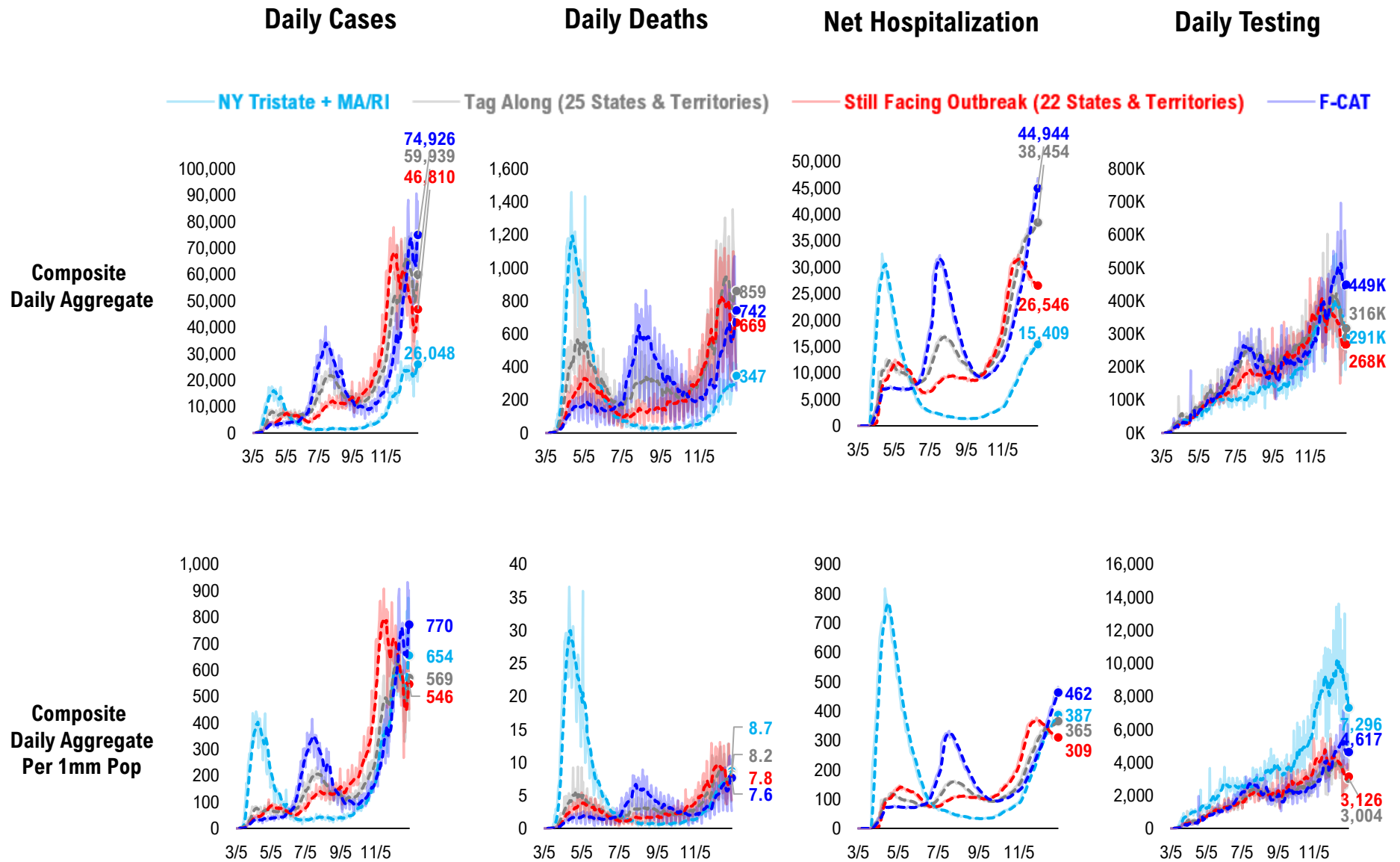
#12: Current Hospitalizations by States...



#13: Daily New Deaths by States...

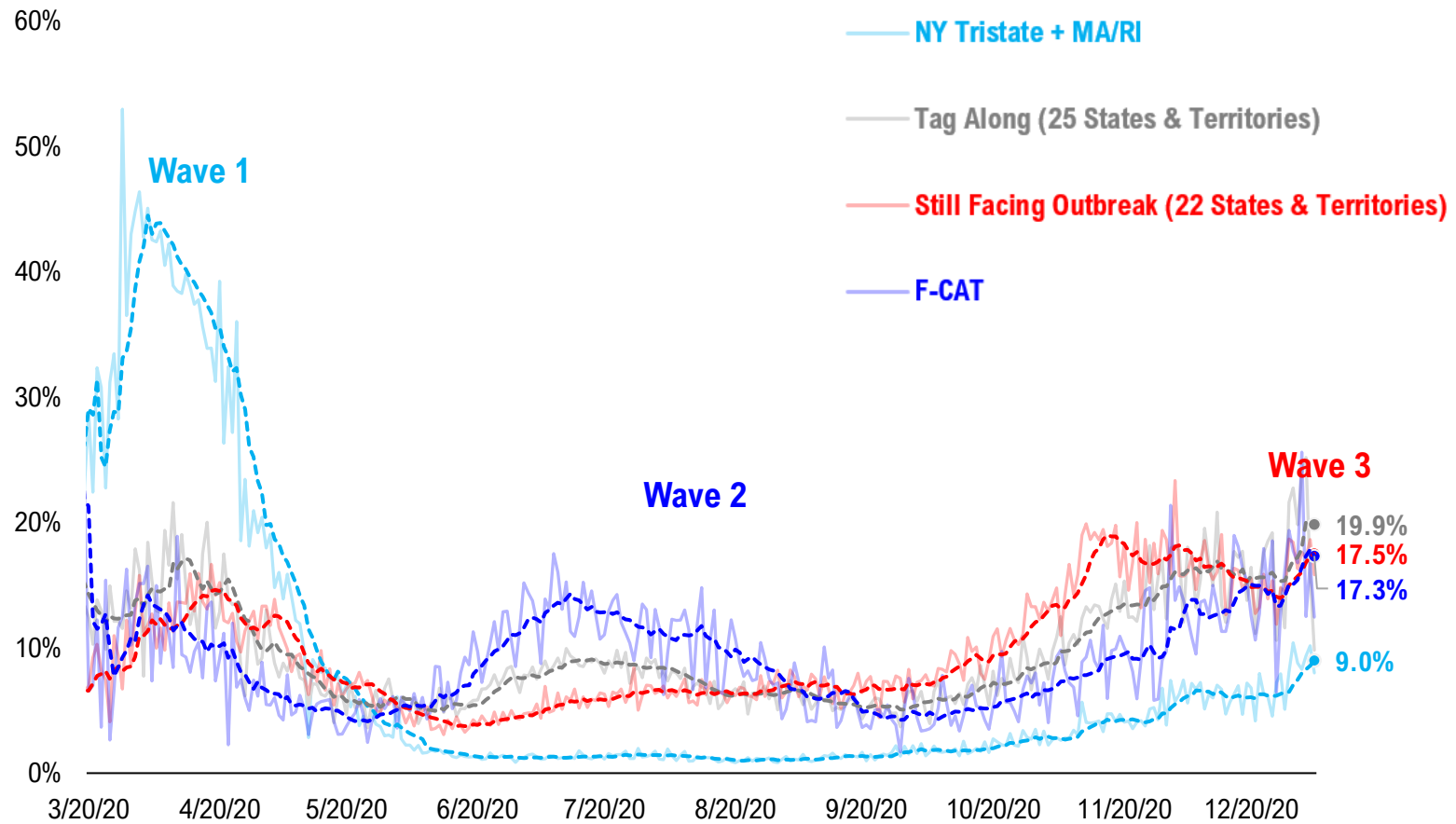


#14: State COVID-19 situation by Tier...

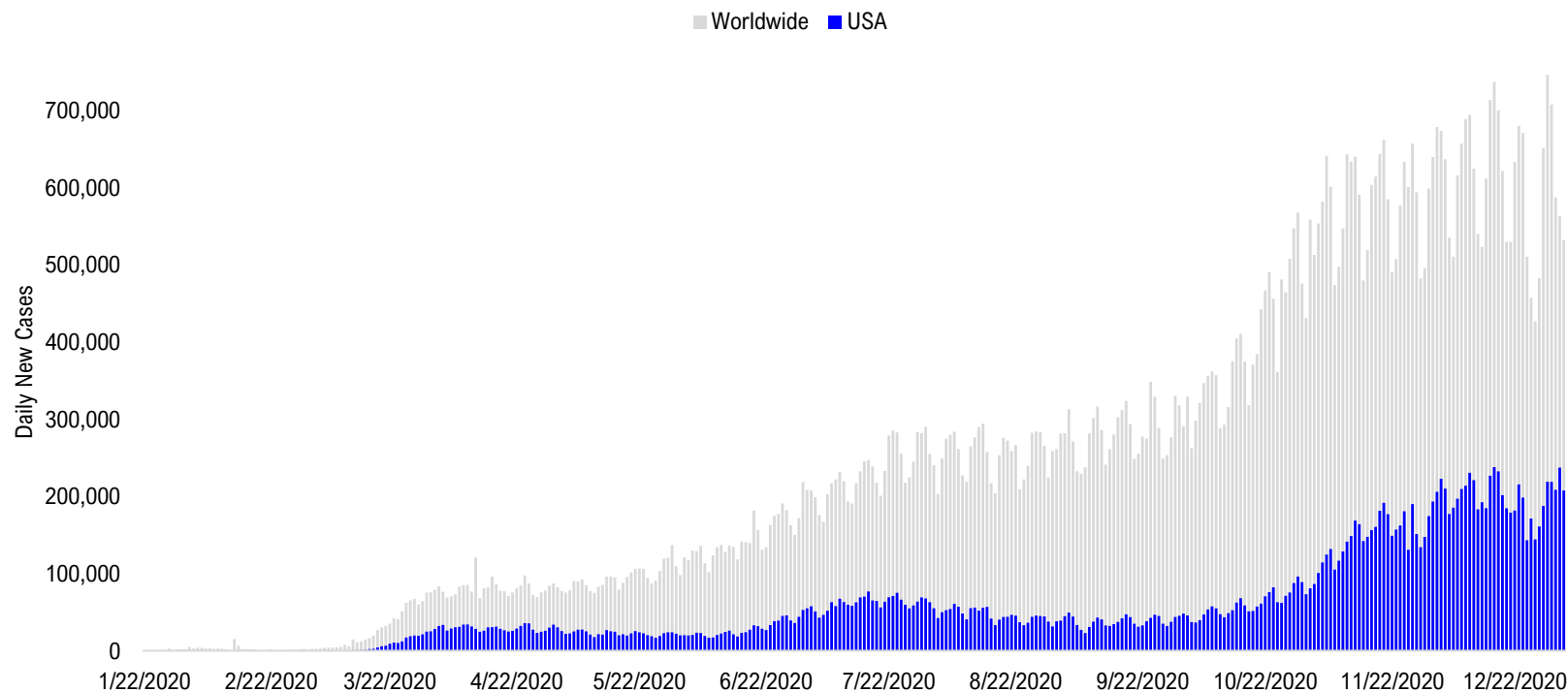


#15: State COVID-19 Daily Positivity Rate by Tier...

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 3
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	US + Canada 225,026
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	Europe 191,364
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 54,276
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	Pakistan + India + Bangladesh 27,552
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	Africa 23,969
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	Asia ex- India+Pakistan 17,763

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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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