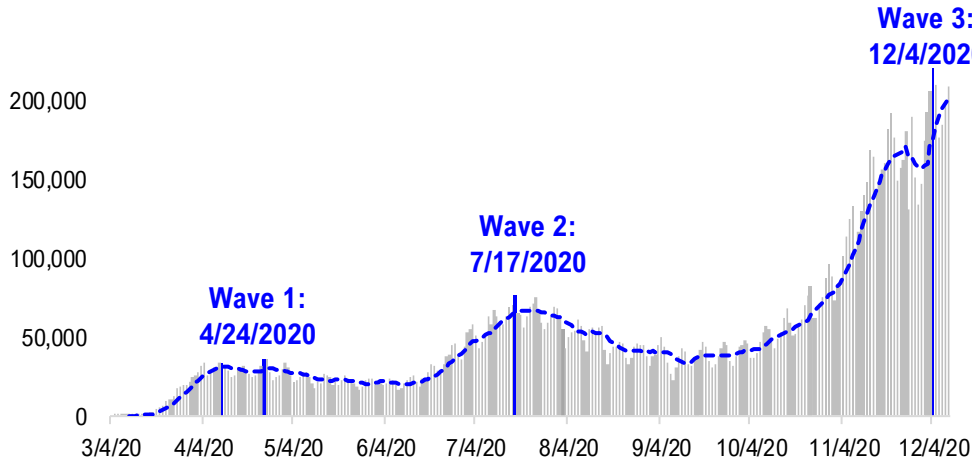


# FSInsight Daily COVID-19 Chartbook

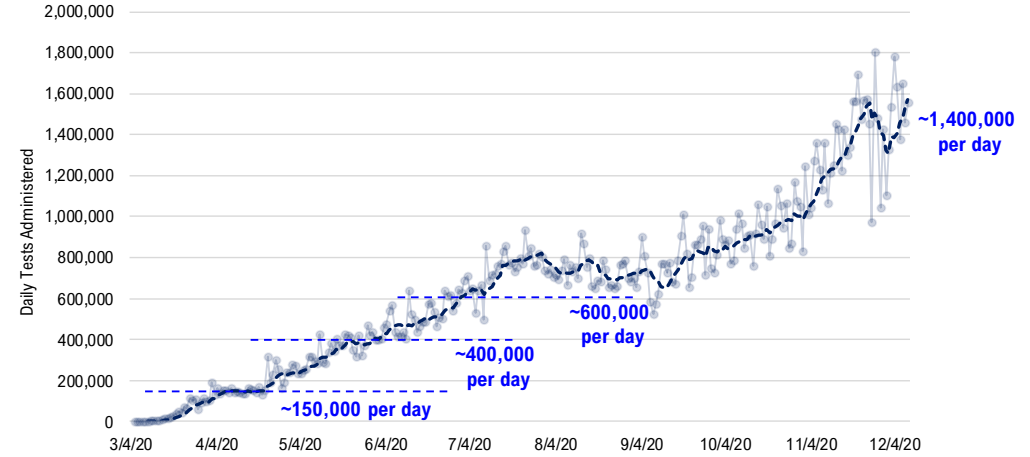


# #1: USA COVID-19 Situation at a Glance...

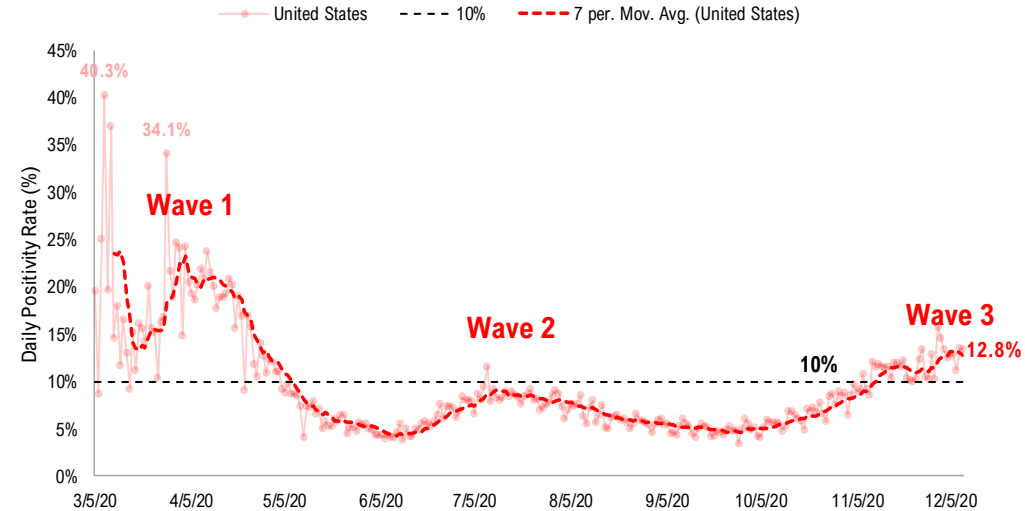
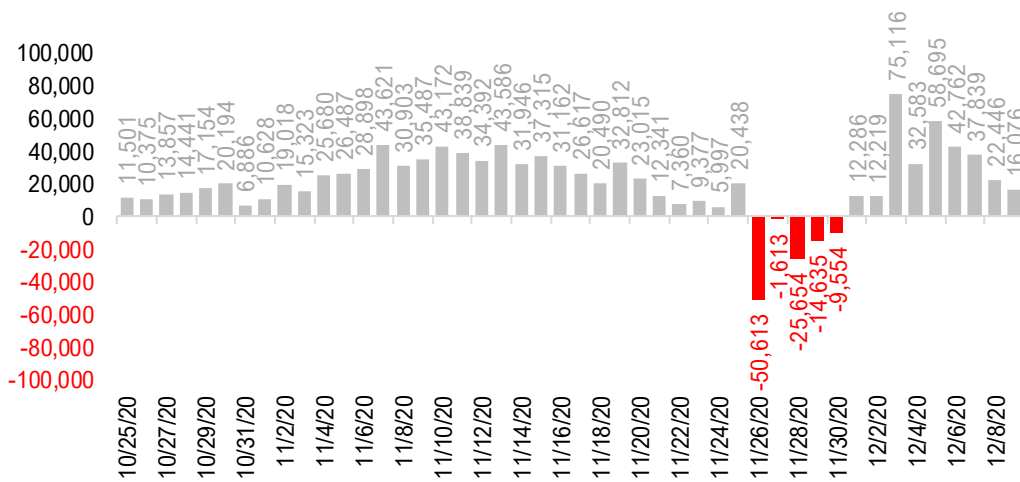
**US daily new cases**



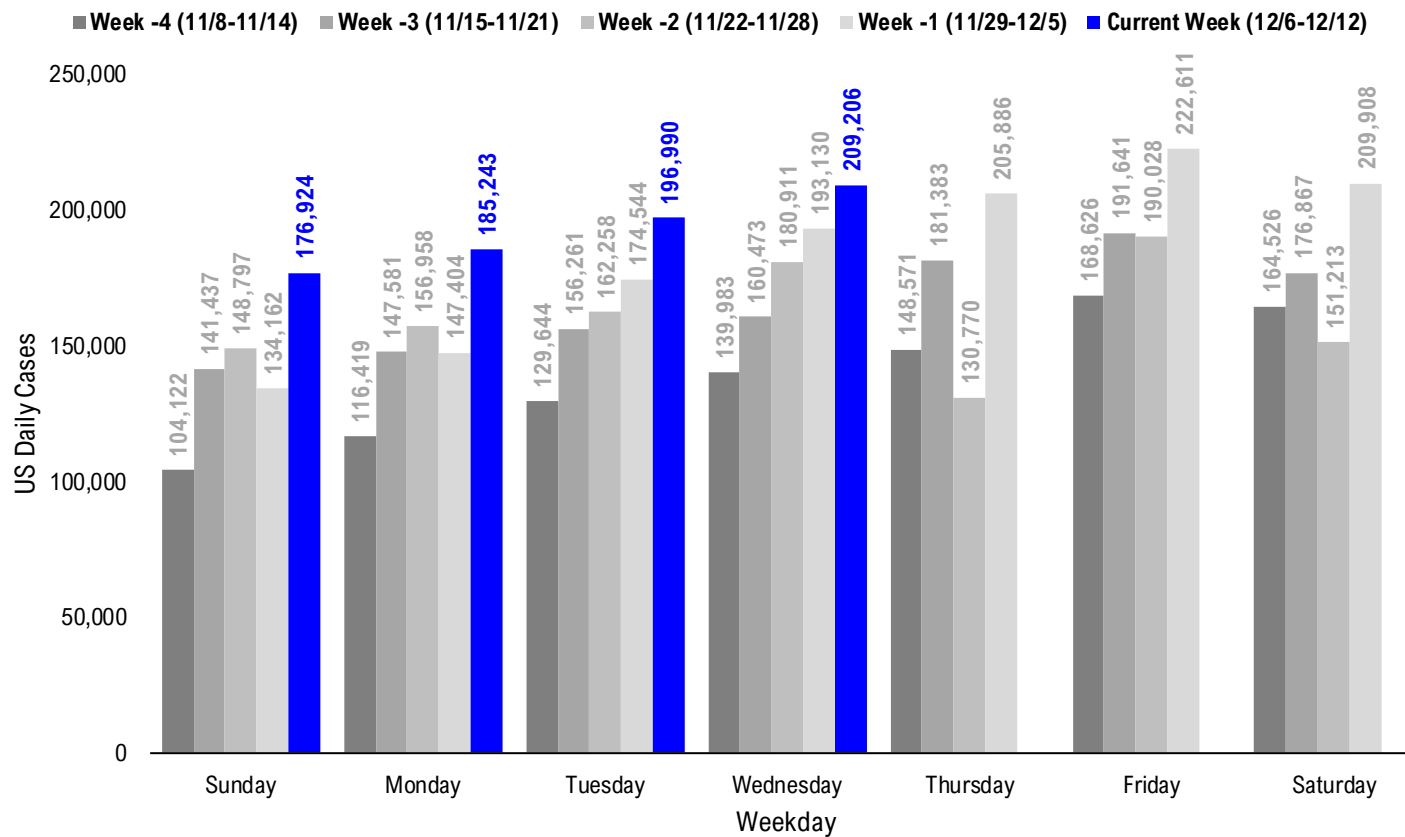
**USA total COVID-19 tests administered**



**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		% Decline in Daily Cases		7D Net Hospitalization	
			12/9	Delta	12/9	Delta	# Days	%	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	209,206	+16,076	601	+78	4	-7%	6,462	0.5%

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Hospitalization			
	% US Pop	% US GDP	7D		Since Peak		% Decline in Daily Cases		7D Net Hospitalization	
			12/9	Delta	12/9	Delta	# Days	%	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	209,206	+16,076	601	+78	4	-7%	6,462	0.5%

## States:

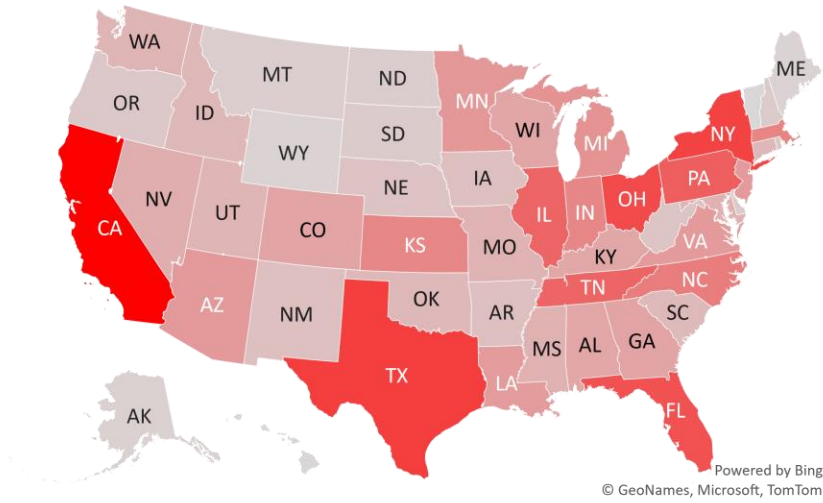
1 California	11.9%	14.6%	30,851	+10,092	665	+269	2	-1%	2,600	1.5%
2 Texas	8.7%	8.8%	10,930	-3,828	399	-65	6	-21%	-56	(0.1%)
3 New York	5.9%	8.1%	10,600	+1,627	467	+71	4	-15%	1,069	1.6%
4 Ohio	3.5%	3.3%	10,094	+2,259	915	+245	0	0%	-10	(0.0%)
5 Florida	6.5%	5.0%	9,592	-402	392	-3	149	-34%	311	0.5%
6 Pennsylvania	3.9%	3.8%	8,703	+412	656	+181	4	-30%	870	1.2%
7 Illinois	3.8%	4.2%	8,256	-1,501	654	-96	26	-39%	-480	(0.8%)
8 Tennessee	2.1%	1.8%	8,213	+4,114	1092	+225	0	0%	146	0.4%
9 North Carolina	3.2%	2.7%	6,495	+2,296	494	+182	3	-13%	401	1.0%
10 Massachusetts	2.1%	2.8%	5,965	+938	608	+146	4	-27%	317	0.9%
11 Kansas	0.9%	0.8%	5,778	+1,163	1317	+282	14	-13%	-87	(0.5%)
12 Indiana	2.0%	1.8%	5,754	-843	832	-42	4	-30%	-197	(0.4%)
13 Michigan	3.0%	2.6%	4,905	-2,050	673	-101	21	-22%	-341	(0.8%)
14 Minnesota	1.7%	1.8%	4,516	-649	760	-98	9	-46%	-159	(0.4%)
15 Arizona	2.2%	1.7%	4,444	+604	839	+153	6	-7%	588	1.4%
16 New Jersey	2.7%	3.0%	4,431	+135	506	+52	3	-21%	246	0.7%
17 Virginia	2.6%	2.6%	4,398	+1,981	472	+216	0	0%	175	0.7%
18 Louisiana	1.4%	1.3%	4,339	+735	558	-94	6	-33%	249	1.4%
19 Colorado	1.7%	1.8%	3,757	-105	681	-37	18	-35%	-311	(1.0%)
20 Georgia	3.2%	2.9%	3,744	-307	386	+123	5	-8%	422	1.6%
21 Wisconsin	1.8%	1.6%	3,619	-158	566	-29	26	-56%	-245	(0.9%)
22 Alabama	1.5%	1.1%	3,522	-406	701	+48	5	-9%	310	1.3%
23 Kentucky	1.3%	1.0%	3,468	-129	634	-100	6	-26%	24	0.1%
24 Nevada	0.9%	0.8%	3,053	+924	887	+187	4	-5%	159	0.8%
25 Mississippi	0.9%	0.6%	2,746	+289	643	+74	5	-19%	106	0.8%
26 Maryland	1.8%	2.0%	2,692	+472	420	+40	3	-21%	137	0.7%
27 Missouri	1.8%	1.5%	2,640	-39	464	-48	25	-43%	-72	(0.3%)
28 Utah	1.0%	0.9%	2,574	-1,430	742	-132	18	-40%	8	0.0%

## States:

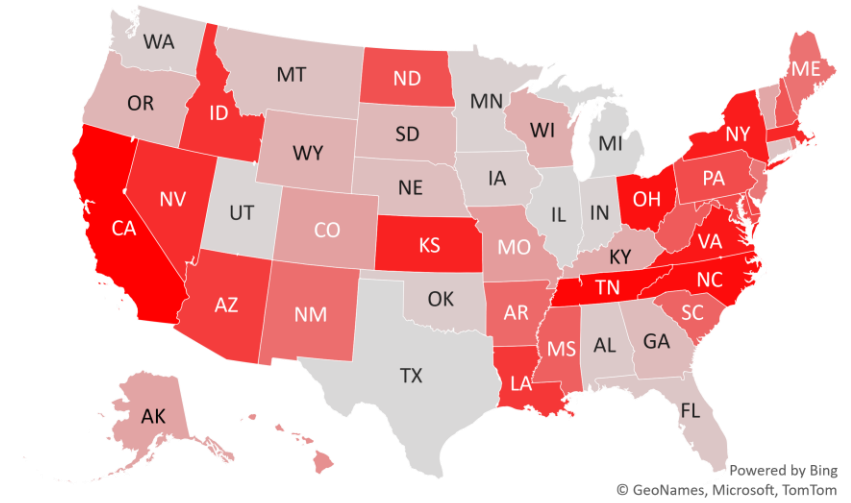
29 Washington	2.3%	2.7%	2,536	-590	543	+209	14	-2%	133	0.7%
30 Oklahoma	1.2%	1.0%	2,307	-552	548	-24	3	-48%	-37	(0.2%)
31 Idaho	0.5%	0.4%	2,298	+869	1062	+269	0	0%	9	0.1%
32 Connecticut	1.1%	1.3%	2,290	-382	1200	+373	0	0%	60	0.3%
33 South Carolina	1.6%	1.1%	2,210	+280	447	+132	3	-19%	306	1.7%
34 Iowa	1.0%	0.9%	1,797	-578	349	-127	26	-72%	-268	(2.7%)
35 Arkansas	0.9%	0.6%	1,757	+250	464	+64	4	-30%	-7	(0.1%)
36 New Mexico	0.6%	0.5%	1,748	+204	773	-109	19	-49%	-23	(0.2%)
37 Nebraska	0.6%	0.6%	1,476	-311	695	-144	20	-52%	-82	(0.7%)
38 West Virginia	0.5%	0.4%	1,402	+315	644	+104	3	-13%	28	0.3%
39 Rhode Island	0.3%	0.3%	1,232	+133	1046	+123	4	-33%	53	0.6%
40 Oregon	1.3%	1.2%	1,205	-301	300	-20	3	-27%	-12	(0.1%)
41 South Dakota	0.3%	0.3%	985	-306	766	-102	25	-63%	-30	(0.5%)
42 New Hampshire	0.4%	0.4%	969	+403	692	+238	0	0%	70	1.3%
43 Delaware	0.3%	0.4%	929	+574	849	+354	0	0%	75	1.3%
44 North Dakota	0.2%	0.3%	885	+405	545	-101	25	-77%	-32	(0.8%)
45 Montana	0.3%	0.2%	787	-348	704	-88	24	-45%	12	0.2%
46 Alaska	0.2%	0.3%	584	-113	739	-42	4	-33%	1	0.0%
47 Puerto Rico	1.0%	0.5%	432	+70	201	+12	2	-33%	-1	(0.0%)
48 Wyoming	0.2%	0.2%	410	-292	903	-259	20	-47%	-31	(0.9%)
49 Maine	0.4%	0.3%	405	+173	274	+101	0	0%	35	1.6%
50 District of Columbi	0.2%	0.7%	265	+108	339	+153	4	-30%	38	1.9%
51 Vermont	0.2%	0.2%	105	-120	144	-48	5	-48%	-7	(0.9%)
52 Hawaii	0.4%	0.5%	80	+2	50	+2	102	-76%	-7	(1.0%)
53 U.S. Virgin Islands	0.0%	0.0%	18	+5	203	+143	110	-52%	0	0.0%
54 Guam	0.0%	0.0%	13	-18	70	-135	29	-94%	-1	(0.8%)
55 Northern Mariana	0.0%	0.0%	2	+2	41	+29	52	-22%	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...

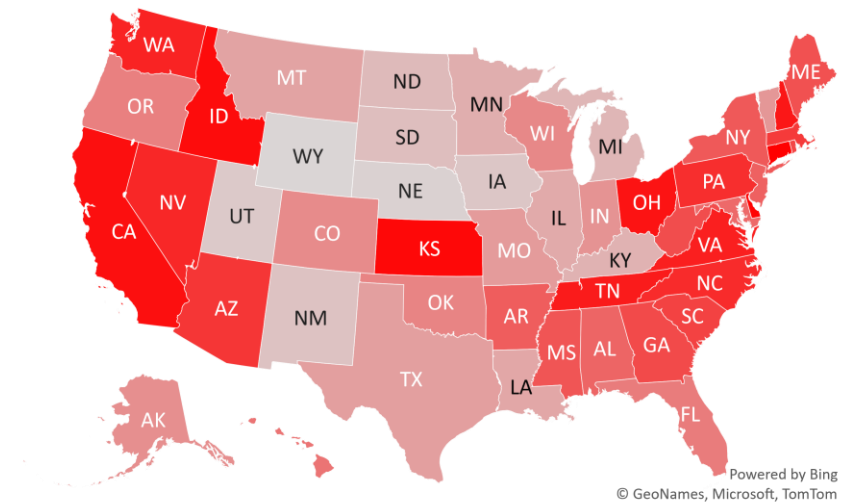
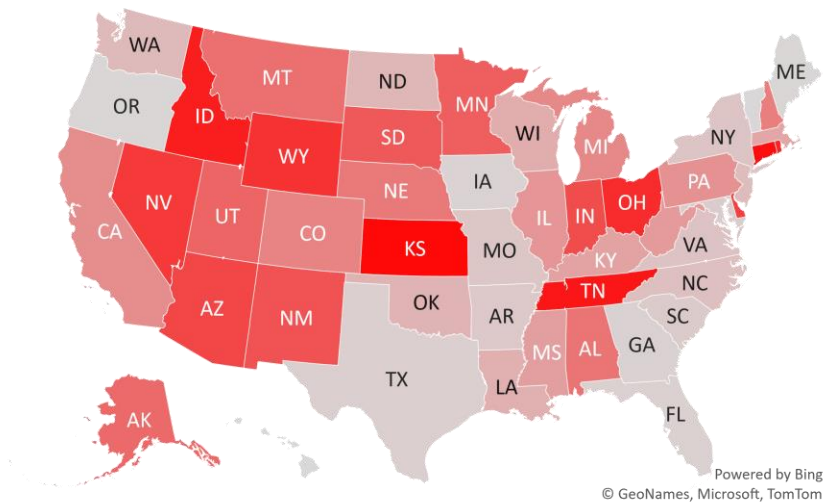
### Daily Case Increases



### 7D Delta in Daily New Cases



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





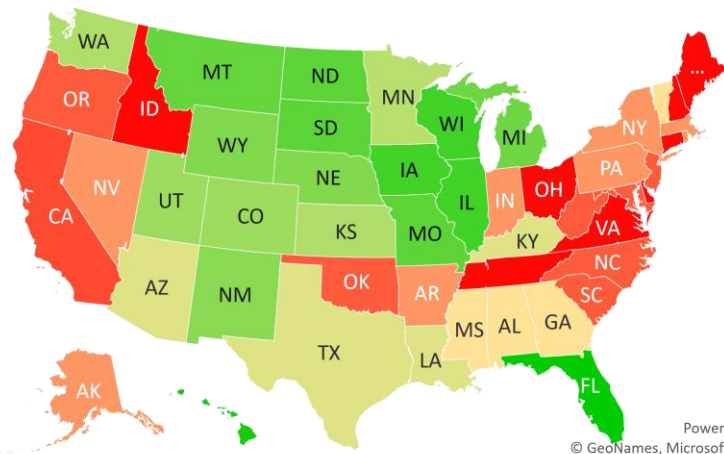
# #5: # of Days since Daily Case Peaked by States...

## # Days since Daily Cases (3D Avg) Peak (as of 12/9)

	Sorted			
	Peak Date	12/9/20	% off the Peak	% US Pop
United States	12/5/20	4	-7%	100%
<b>States:</b>				
Florida	7/13/20	149	-34%	6.5%
U.S. Virgin Islands	8/21/20	110	-52%	0.0%
Hawaii	8/29/20	102	-76%	0.4%
Northern Mariana Island	10/18/20	52	-22%	0.0%
Guam	11/10/20	29	-94%	0.0%
Wisconsin	11/13/20	26	-56%	1.8%
Illinois	11/13/20	26	-39%	3.8%
Iowa	11/13/20	26	-72%	1.0%
South Dakota	11/14/20	25	-63%	0.3%
North Dakota	11/14/20	25	-77%	0.2%
Missouri	11/14/20	25	-43%	1.8%
Montana	11/15/20	24	-45%	0.3%
Michigan	11/18/20	21	-22%	3.0%
Wyoming	11/19/20	20	-47%	0.2%
Nebraska	11/19/20	20	-52%	0.6%
New Mexico	11/20/20	19	-49%	0.6%
Utah	11/21/20	18	-40%	1.0%
Colorado	11/21/20	18	-35%	1.7%
Washington	11/25/20	14	-2%	2.3%
Kansas	11/25/20	14	-13%	0.9%
Minnesota	11/30/20	9	-46%	1.7%
Texas	12/3/20	6	-21%	8.7%
Louisiana	12/3/20	6	-33%	1.4%
Kentucky	12/3/20	6	-26%	1.3%
Arizona	12/3/20	6	-7%	2.2%
Vermont	12/4/20	5	-48%	0.2%
Mississippi	12/4/20	5	-19%	0.9%
Georgia	12/4/20	5	-8%	3.2%

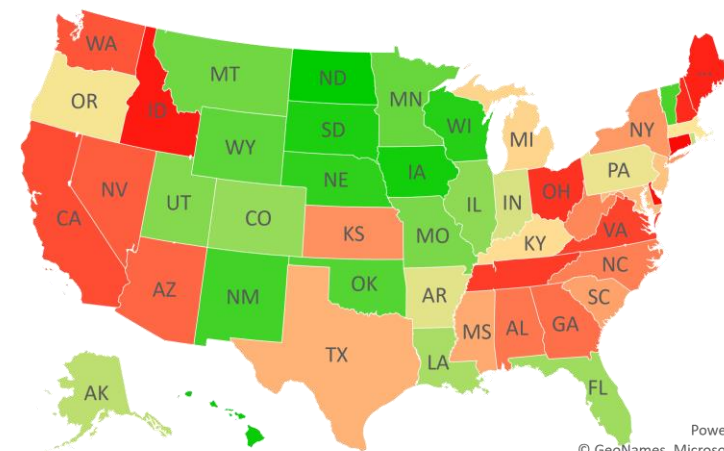
	Sorted			
	Peak Date	12/9/20	% off the Peak	% US Pop
United States	12/5/20	4	-7%	100%
<b>States:</b>				
Alabama	12/4/20	5	-9%	1.5%
Rhode Island	12/5/20	4	-33%	0.3%
Pennsylvania	12/5/20	4	-30%	3.9%
New York	12/5/20	4	-15%	5.9%
Nevada	12/5/20	4	-5%	0.9%
Massachusetts	12/5/20	4	-27%	2.1%
Indiana	12/5/20	4	-30%	2.0%
District of Columbia	12/5/20	4	-30%	0.2%
Arkansas	12/5/20	4	-30%	0.9%
Alaska	12/5/20	4	-33%	0.2%
West Virginia	12/6/20	3	-13%	0.5%
South Carolina	12/6/20	3	-19%	1.6%
Oregon	12/6/20	3	-27%	1.3%
Oklahoma	12/6/20	3	-48%	1.2%
New Jersey	12/6/20	3	-21%	2.7%
North Carolina	12/6/20	3	-13%	3.2%
Maryland	12/6/20	3	-21%	1.8%
Puerto Rico	12/7/20	2	-33%	1.0%
California	12/7/20	2	-1%	11.9%
Virginia	12/9/20	0	0%	2.6%
Tennessee	12/9/20	0	0%	2.1%
Ohio	12/9/20	0	0%	3.5%
New Hampshire	12/9/20	0	0%	0.4%
Maine	12/9/20	0	0%	0.4%
Idaho	12/9/20	0	0%	0.5%
Delaware	12/9/20	0	0%	0.3%
Connecticut	12/9/20	0	0%	1.1%

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



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



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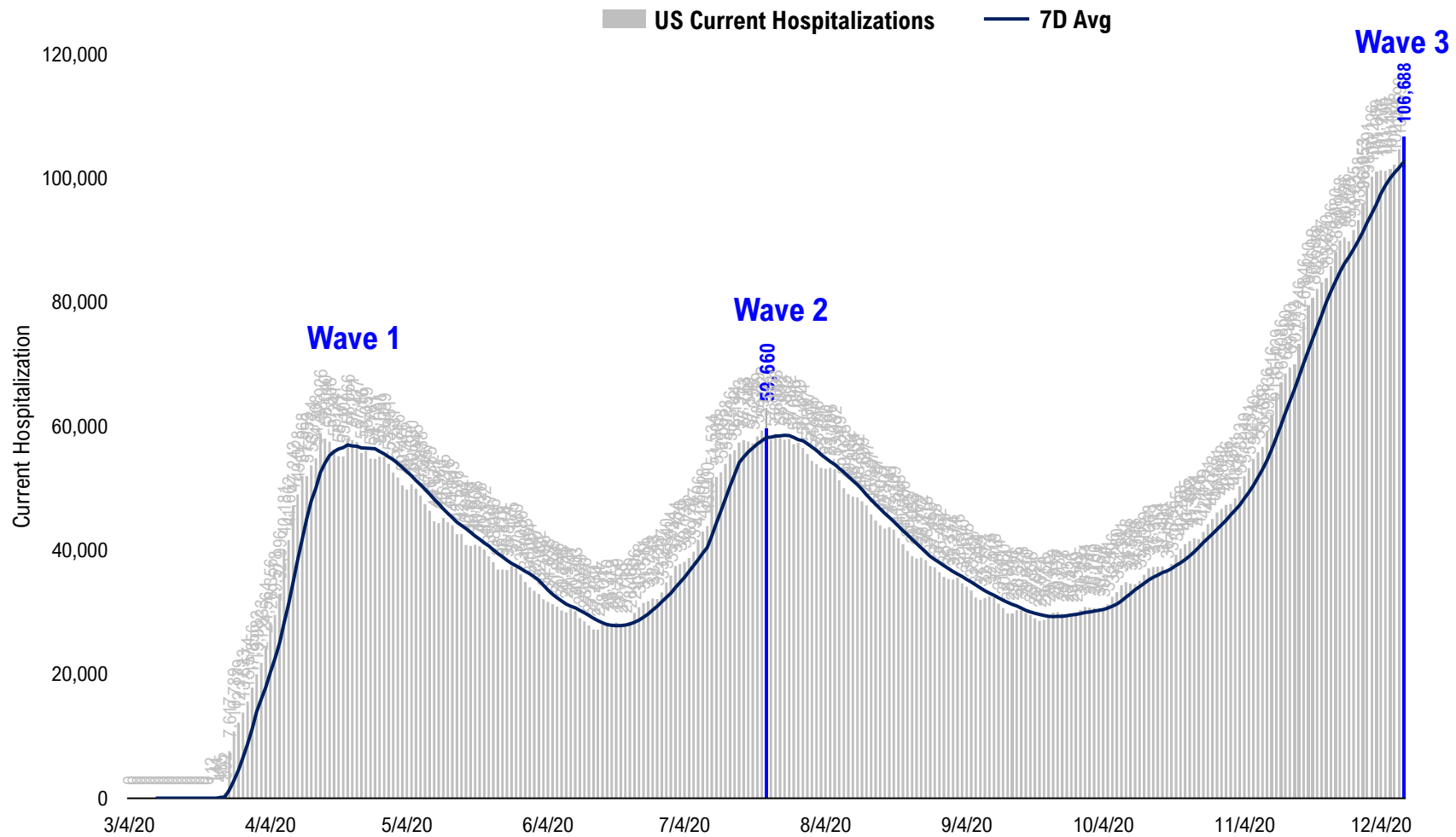
# #6: US New Cases by States... (sorted by today's new cases)

	Sorted				
	7D Ago	Last 3-day Trend			
	12/2/20	12/7/20	12/8/20	12/9/20	vs 7D ago
United States	193,130	185,243	196,990	209,206	+16,076
<b>States:</b>					
California	20,759	24,735	23,272	30,851	<--higher
Texas	14,758	8,712	15,095	10,930	
New York	8,973	7,302	9,335	10,600	
Ohio	7,835	9,273	12,721	10,094	<--higher
Florida	9,994	7,711	7,985	9,592	
Pennsylvania	8,291	6,330	10,170	8,703	
Illinois	9,757	8,691	7,910	8,256	
Tennessee	4,099	8,136	6,019	8,213	<--higher
North Carolina	4,199	4,372	4,670	6,495	<--higher
Massachusetts	5,027	2,481	4,122	5,965	
Kansas	4,615	5,730	0	5,778	<--higher
Indiana	6,597	5,661	5,385	5,754	
Michigan	6,955	9,350	5,909	4,905	
Minnesota	5,165	5,290	3,051	4,516	
Arizona	3,840	1,567	12,314	4,444	
New Jersey	4,296	3,563	5,476	4,431	
Virginia	2,417	3,817	3,860	4,398	<--higher
Louisiana	3,604	1,016	2,429	4,339	<--higher
Colorado	3,862	4,037	3,971	3,757	
Georgia	4,051	4,861	3,686	3,744	
Wisconsin	3,777	2,155	4,114	3,619	
Alabama	3,928	2,352	4,436	3,522	
Kentucky	3,597	1,960	3,076	3,468	
Nevada	2,129	2,448	2,694	3,053	<--higher
Mississippi	2,457	1,263	1,732	2,746	
Maryland	2,220	2,302	2,632	2,692	<--higher
Missouri	2,679	2,658	3,250	2,640	
Utah	4,004	2,231	2,333	2,574	

	Sorted				
	7D Ago	Last 3-day Trend			
	12/2/20	12/7/20	12/8/20	12/9/20	vs 7D ago
United States	193,130	185,243	196,990	209,206	+16,076
<b>States:</b>					
Washington	3,126	6,957	2,923	2,536	
Oklahoma	2,859	1,903	2,297	2,307	
Idaho	1,429	1,383	2,012	2,298	<--higher
Connecticut	2,672	8,129	2,414	2,290	
South Carolina	1,930	2,496	2,203	2,210	
Iowa	2,375	677	830	1,797	
Arkansas	1,507	1,004	1,437	1,757	
New Mexico	1,544	1,859	1,255	1,748	
Nebraska	1,787	1,266	1,293	1,476	
West Virginia	1,087	1,131	932	1,402	<--higher
Rhode Island	1,099	844	1,249	1,232	
Oregon	1,506	1,292	1,294	1,205	
South Dakota	1,291	509	538	985	
New Hampshire	566	1,045	807	969	<--higher
Delaware	355	799	753	929	<--higher
North Dakota	480	361	0	885	<--higher
Montana	1,135	716	755	787	
Alaska	697	476	562	584	
Puerto Rico	362	934	562	432	
Wyoming	702	668	490	410	
Maine	232	427	274	405	<--higher
District of Columbia	157	183	270	265	<--higher
Vermont	225	65	100	105	
Hawaii	78	81	53	80	
U.S. Virgin Islands	13	16	31	18	<--higher
Guam	31	15	7	13	
Northern Mariana Islands	0	3	2	2	
American Samoa	0	0	0	0	

# #7: US Daily Hospitalizations...

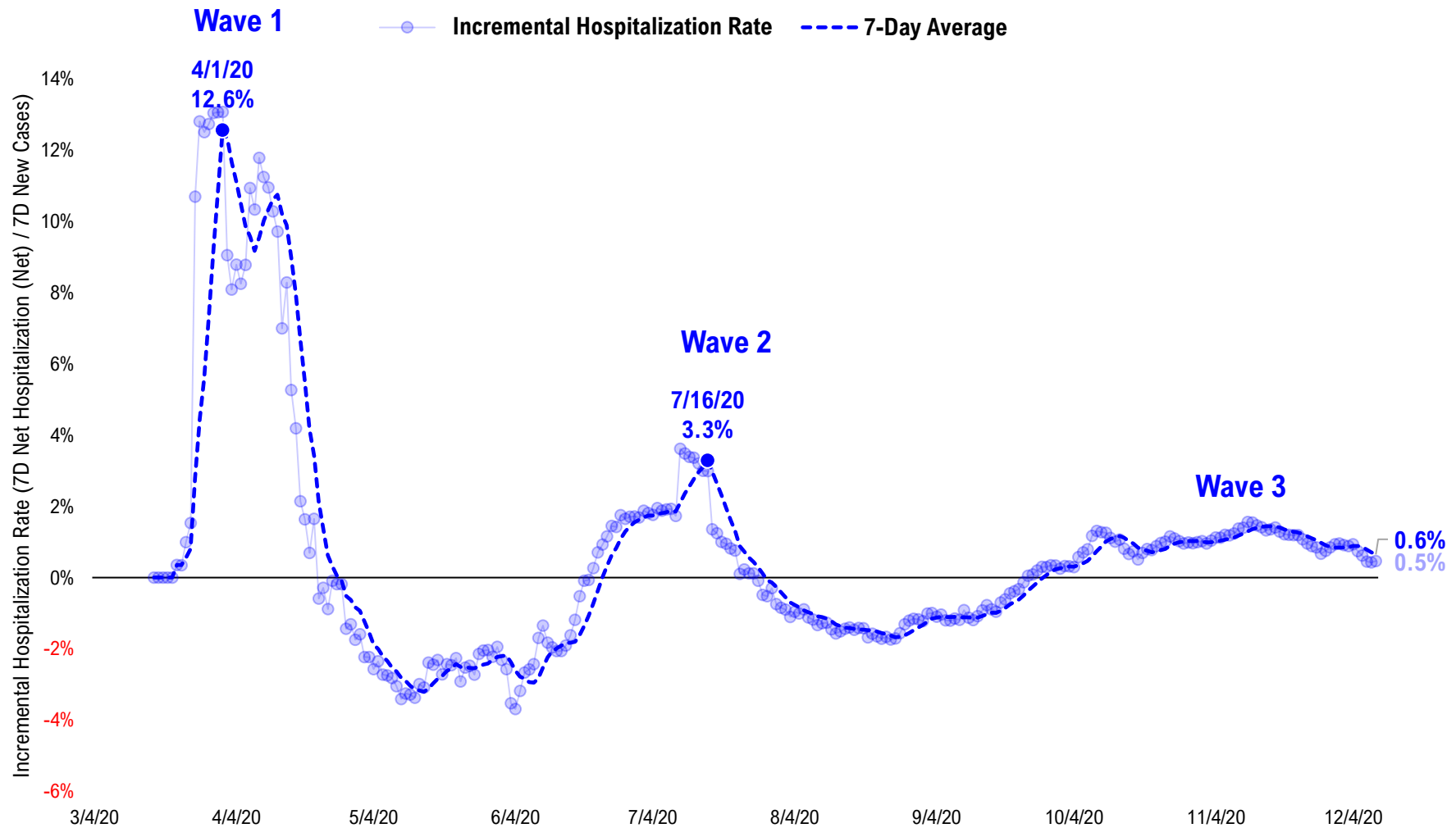
### US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)





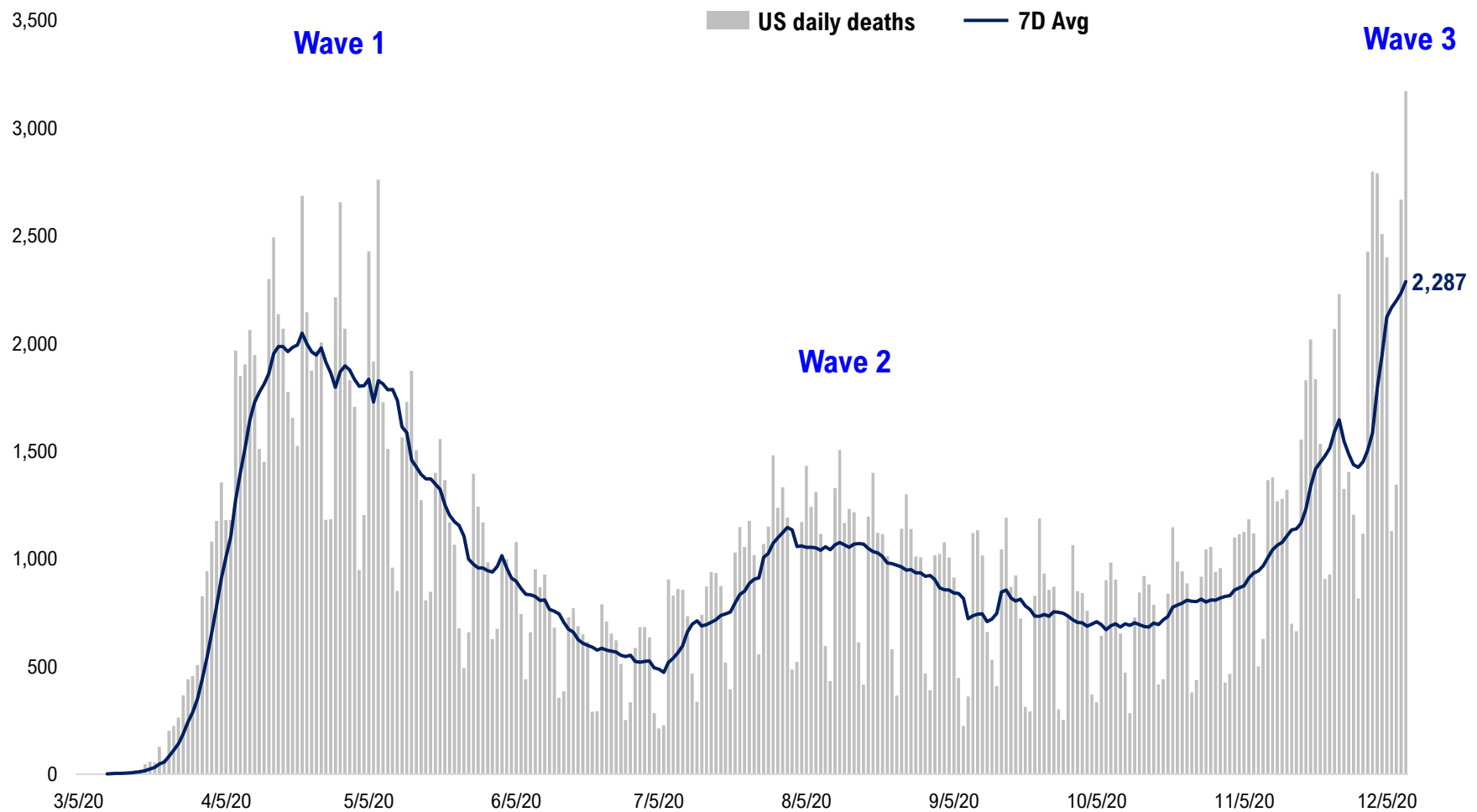
# #8: Incremental Hospitalization Rate...

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

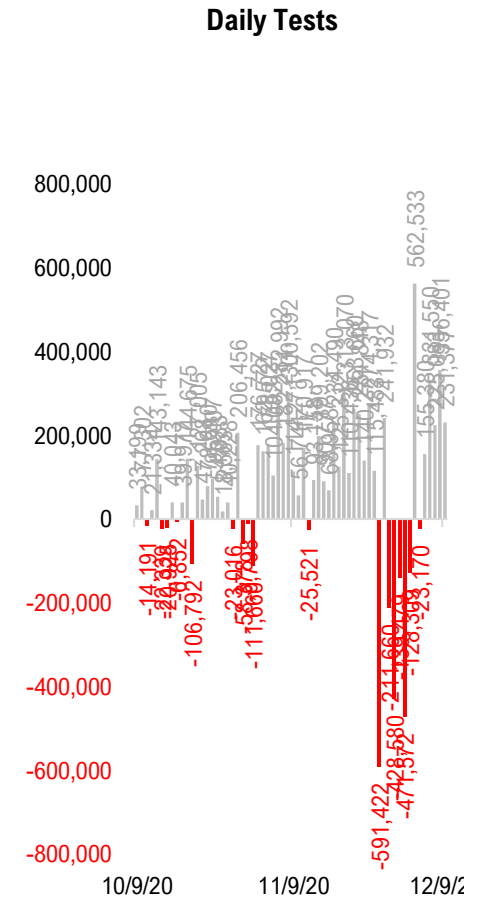
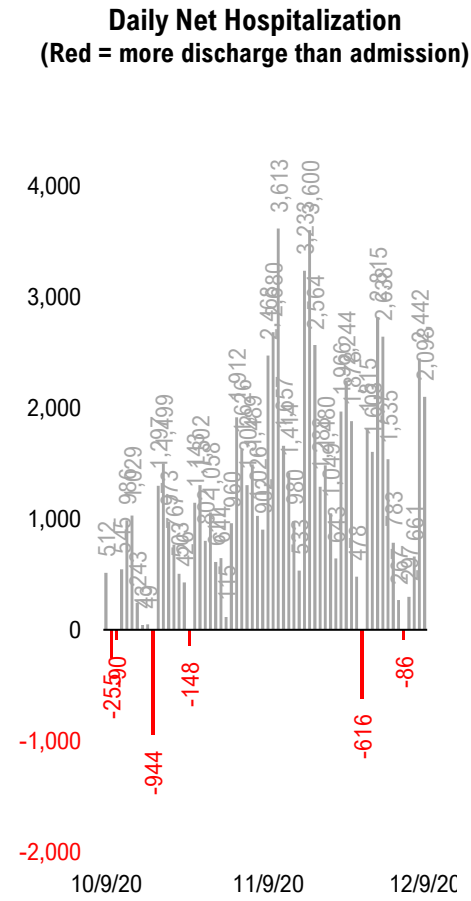
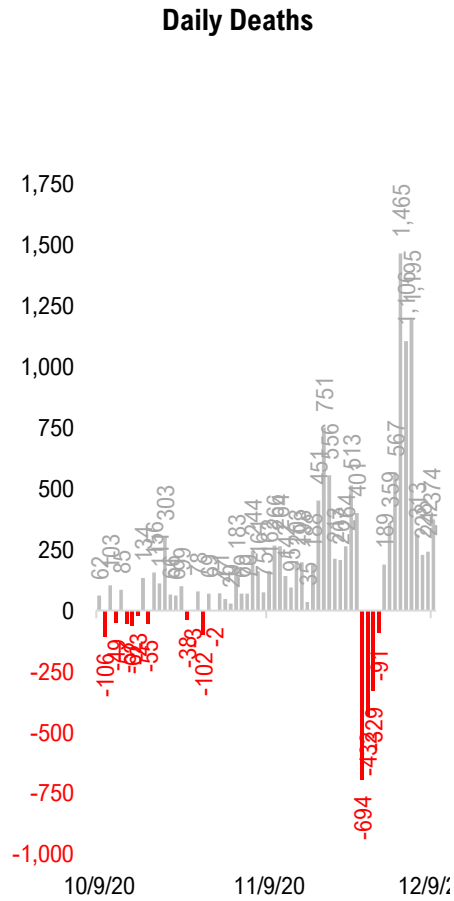
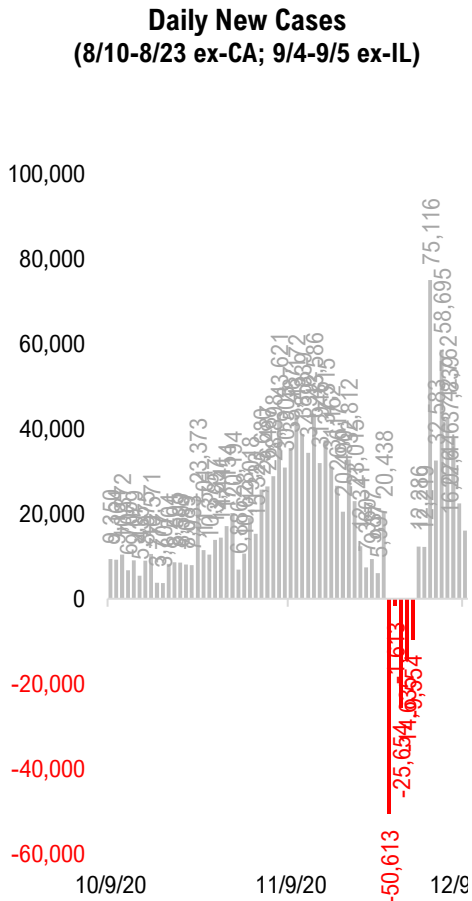


# #9: US Daily New Fatalities...

## US daily COVID-19 Fatalities

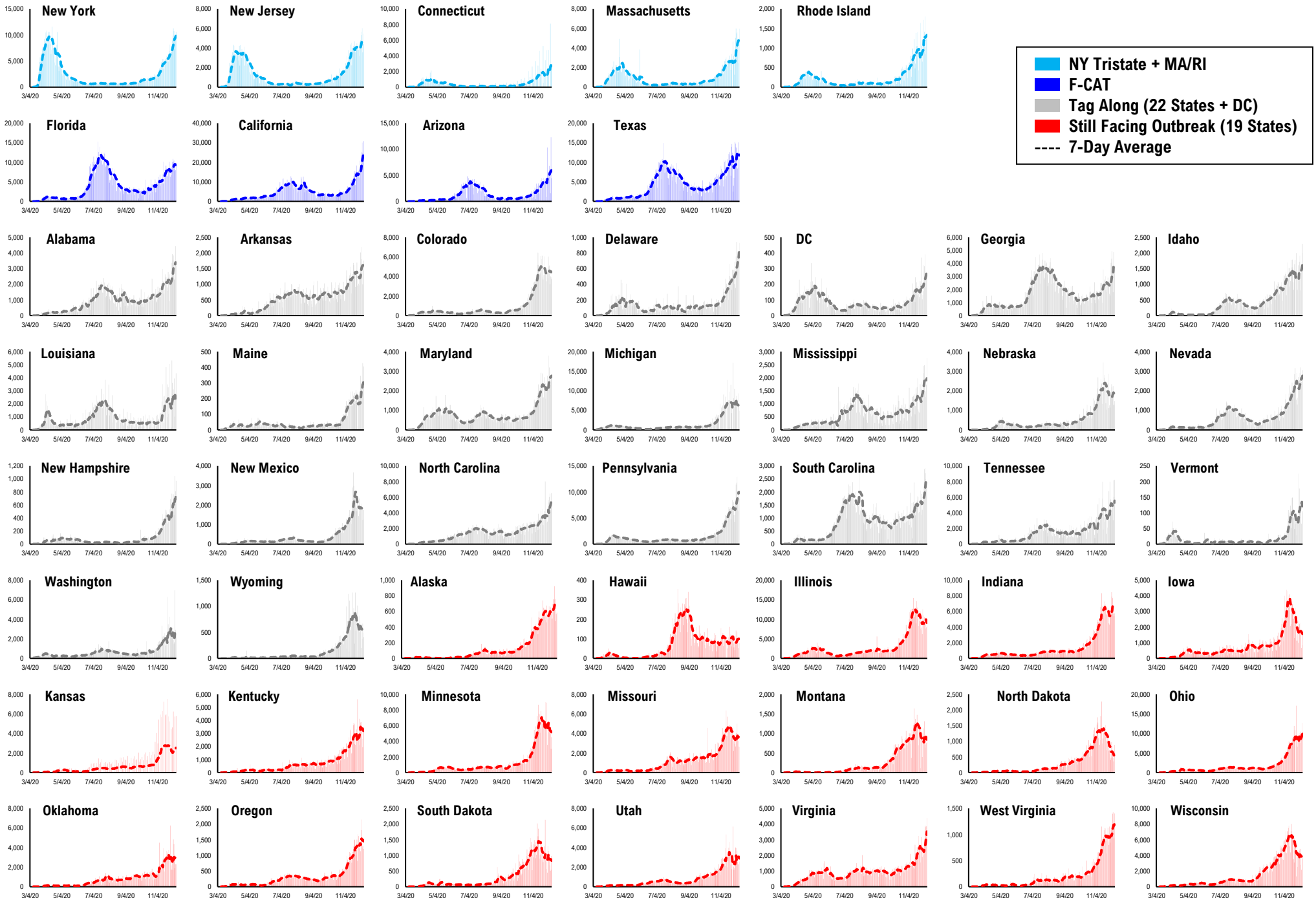


# #10: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

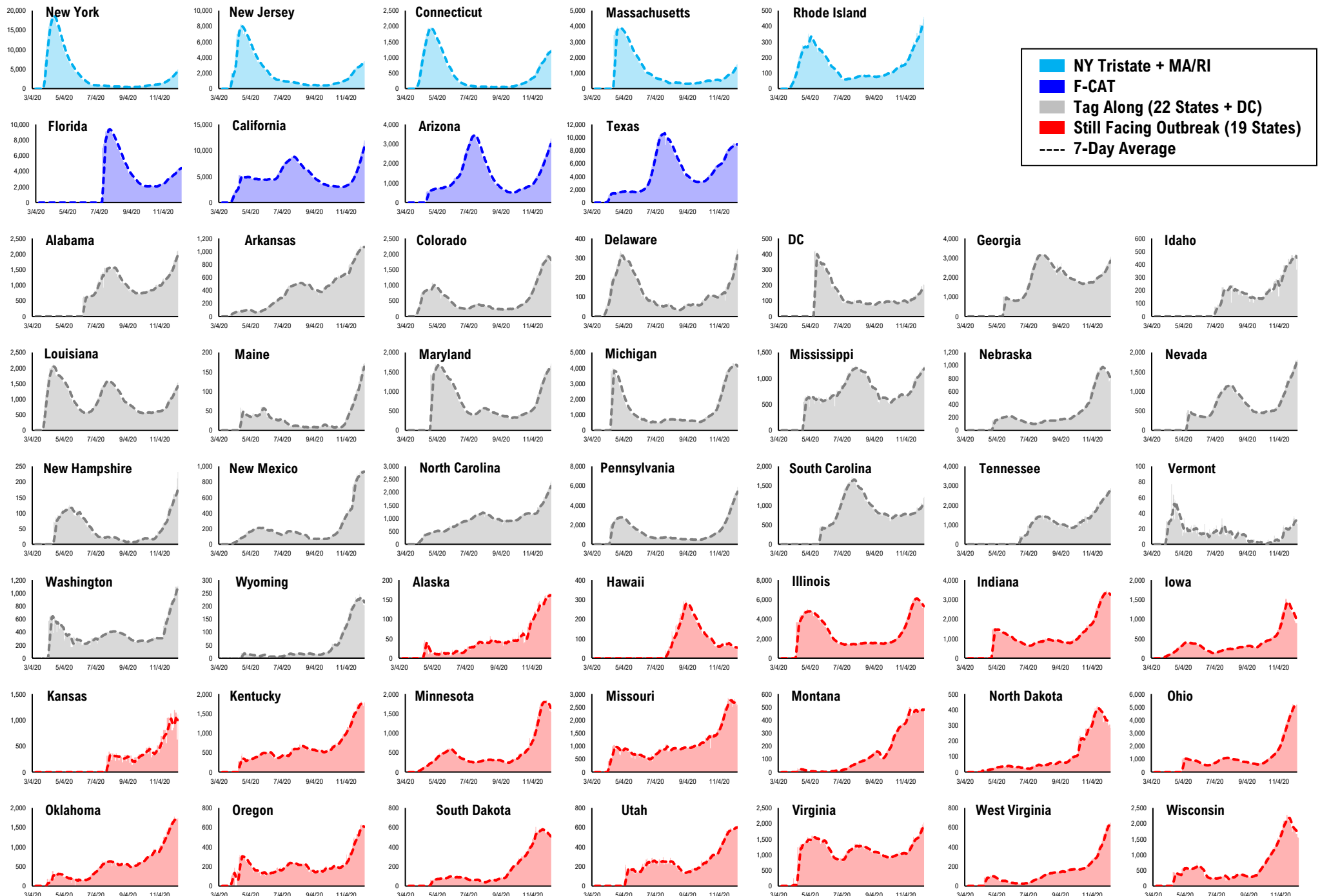


\* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog  
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

# #11: Daily New Cases by States...

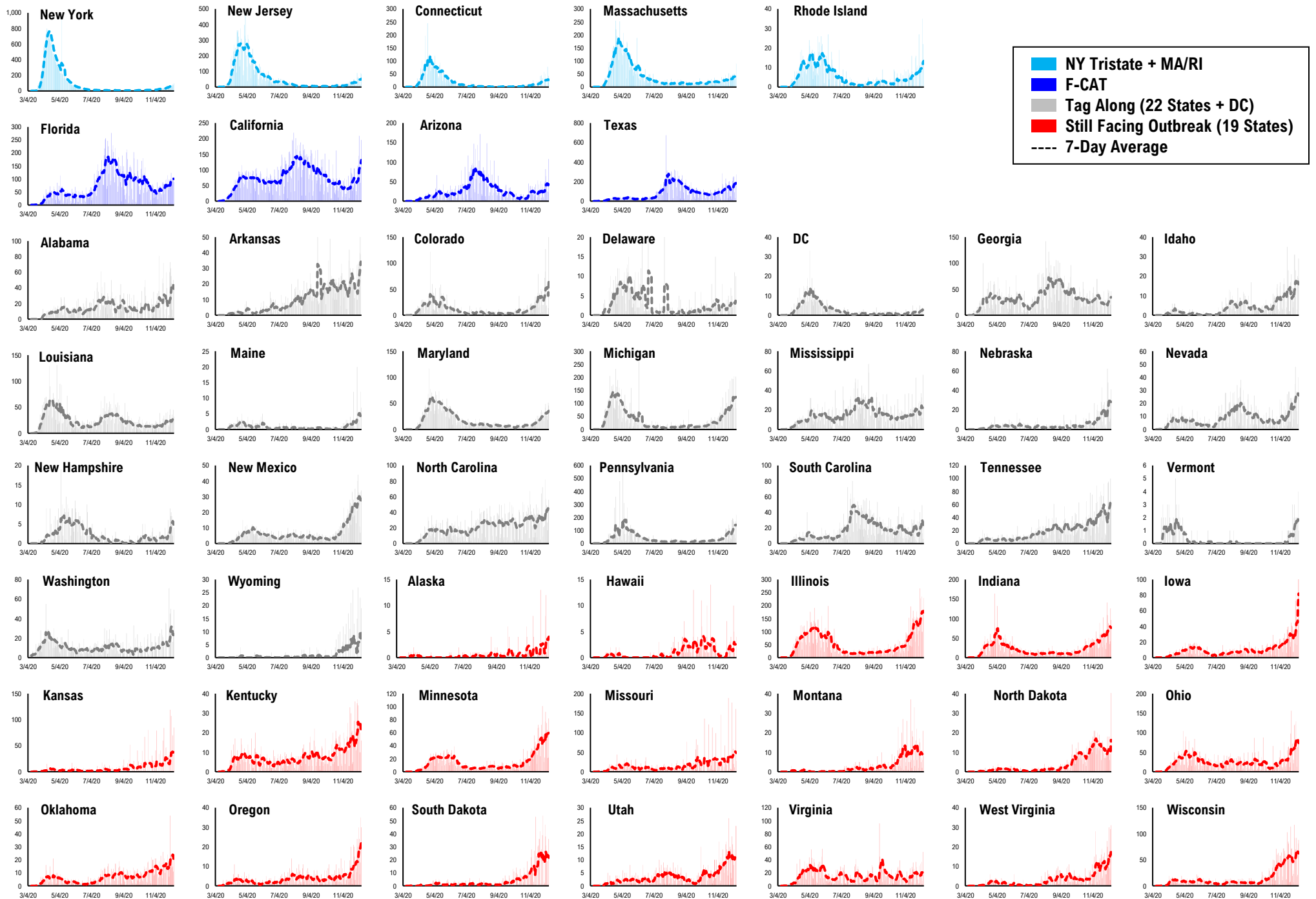


# #12: Current Hospitalizations by States...

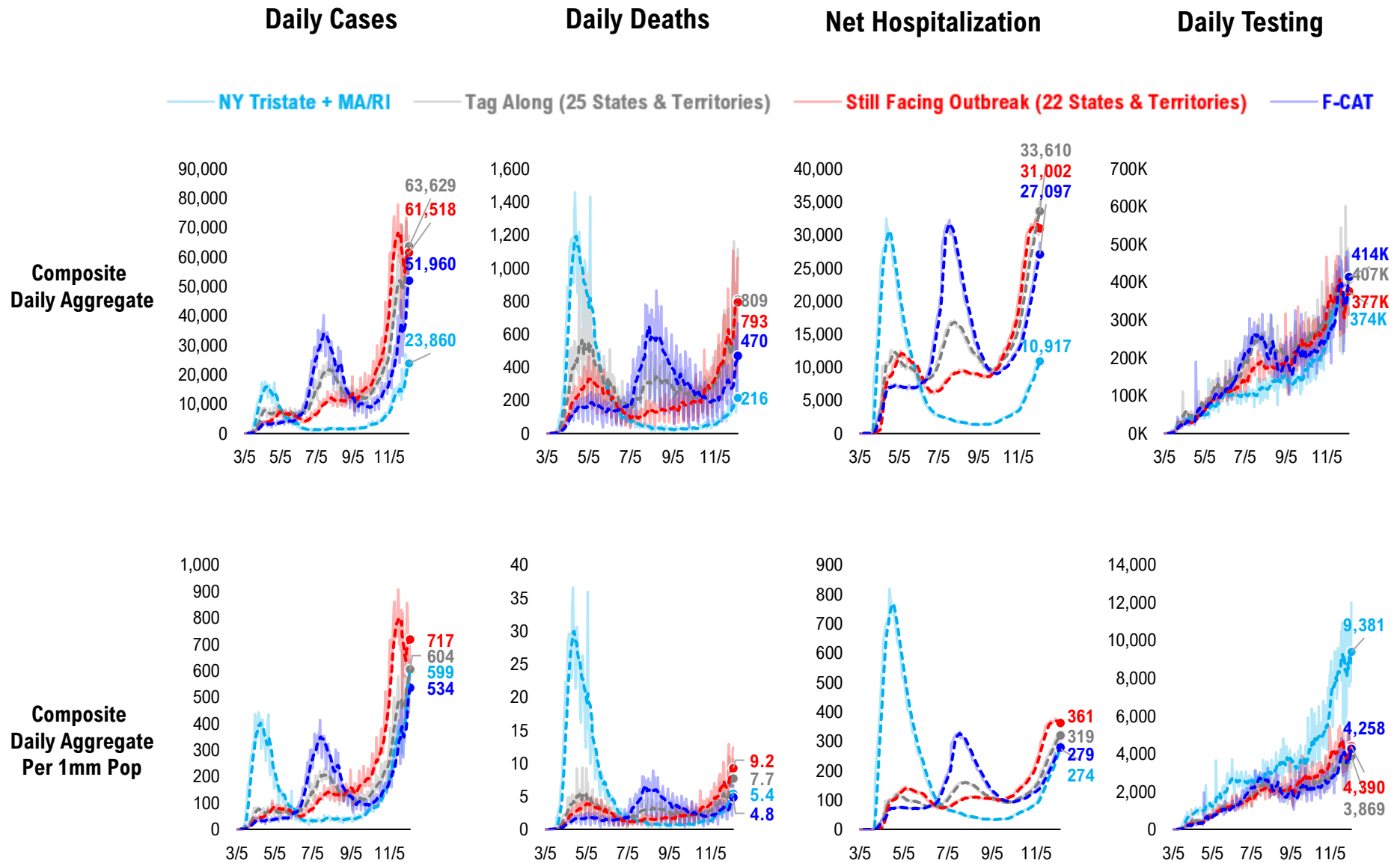




# #13: Daily New Deaths by States...

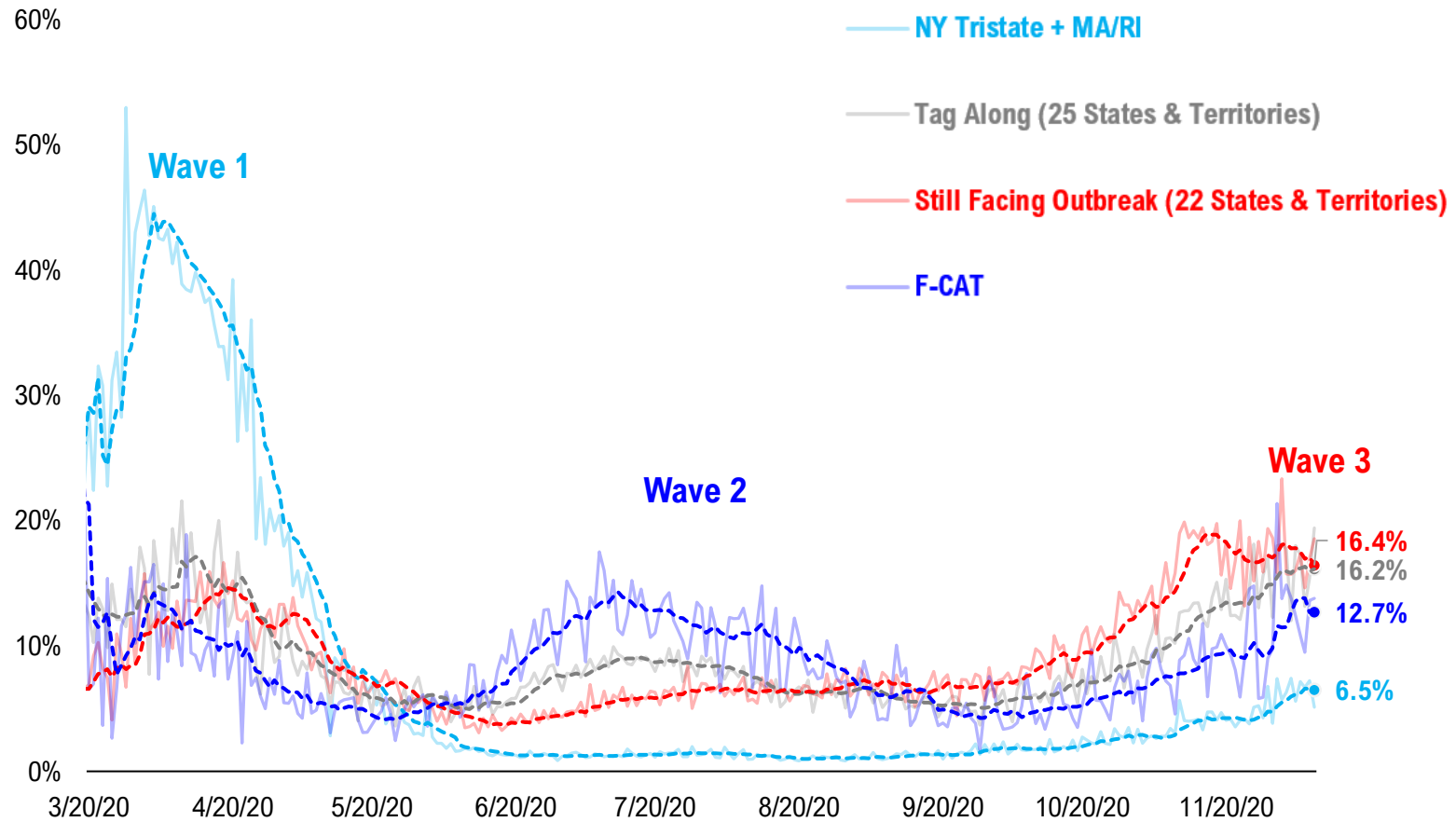


# #14: State COVID-19 situation by Tier...

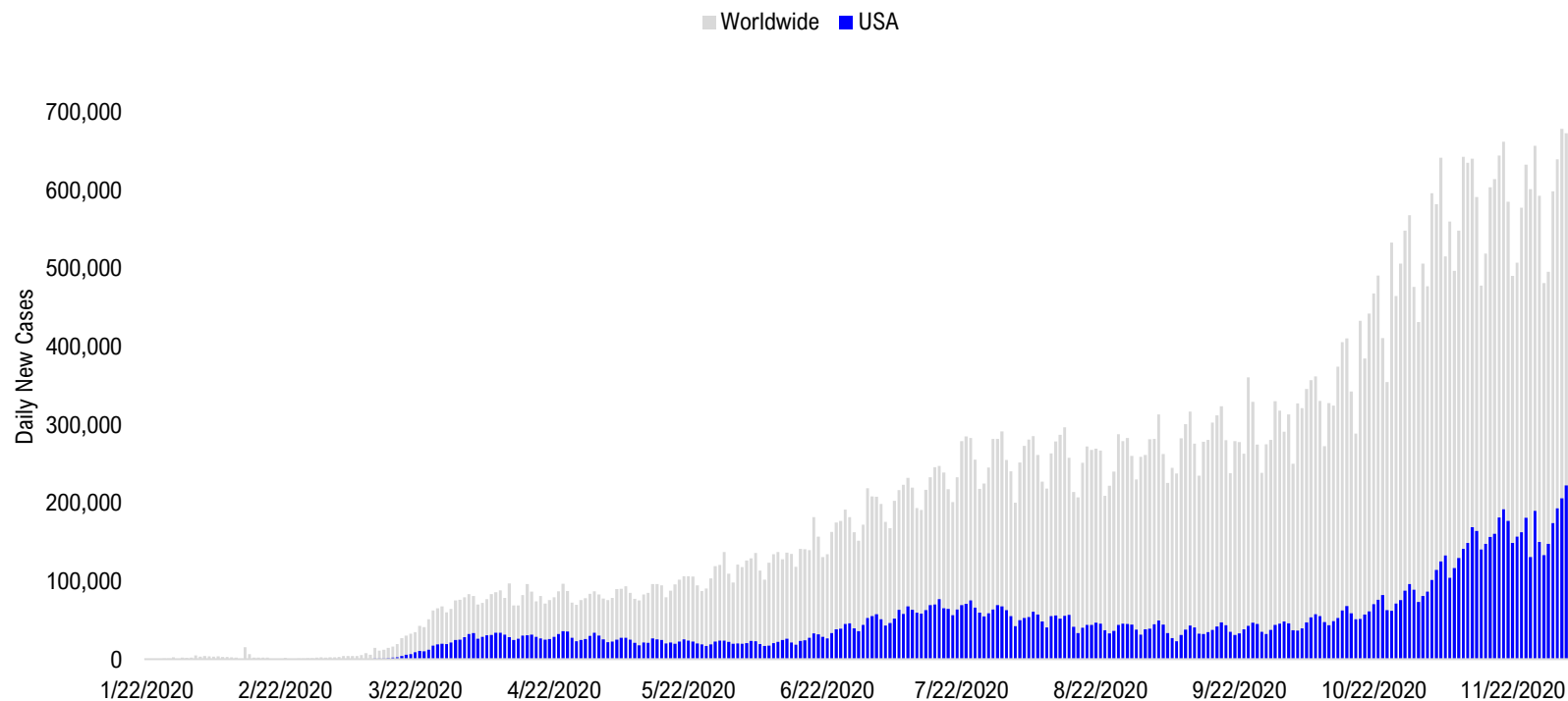


# #15: State COVID-19 Daily Positivity Rate by Tier...

## Composite Daily Positivity Rate



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



Jul 24	Aug 7	Aug 21	Sep 4	Sep 18	Oct 2	Oct 16	Oct 30	Nov 13	Nov 27	Dec 8
Latin America 97,008	Latin America 97,310	Latin America 85,471	Latin America 88,295	Pakistan + India + Bangladesh 98,115	Pakistan + India + Bangladesh 84,614	Europe 156,633	Europe 288,054	Europe 302,160	Europe 274,422	Europe 211,513
US + Canada 72,289	Pakistan + India + Bangladesh 63,674	Pakistan + India + Bangladesh 72,740	Pakistan + India + Bangladesh 87,400	Latin America 76,730	Europe 77,734	Latin America 67,985	US + Canada 89,511	US + Canada 157,634	US + Canada 172,661	US + Canada 190,052
Pakistan + India + Bangladesh 52,184	US + Canada 56,201	US + Canada 45,159	US + Canada 44,962	Europe 57,930	Latin America 61,017	Pakistan + India + Bangladesh 66,697	Latin America 65,611	Latin America 74,234	Latin America 75,171	Latin America 61,594
Africa 20,063	Europe 23,878	Europe 32,466	Europe 40,116	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 35,809
Europe 18,765	Africa 14,390	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	Asia ex- India+Pakistan 15,786
Asia ex- India+Pakistan 8,636	Asia ex- India+Pakistan 12,060	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	Africa 12,357

# Disclosures

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