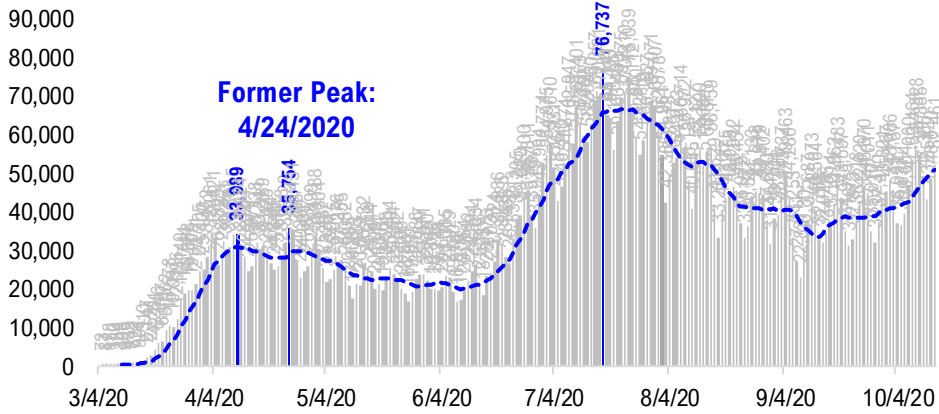


# FSInsight Daily COVID-19 Chartbook

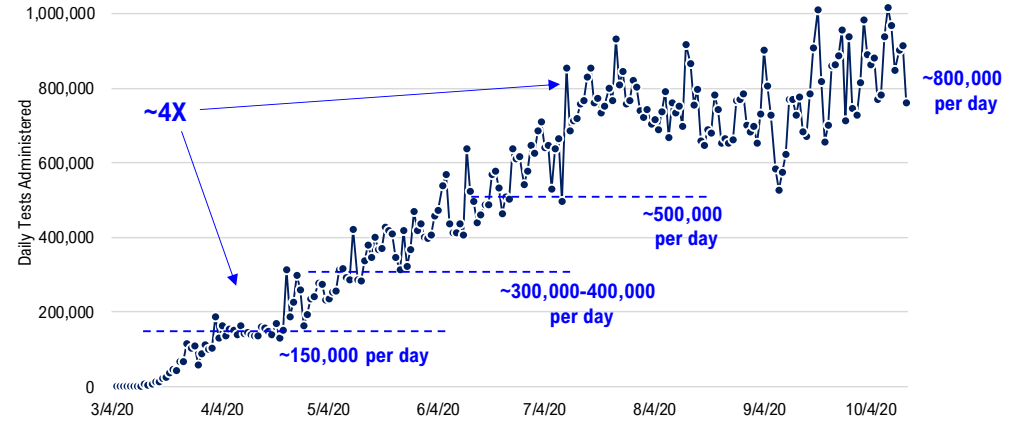


# #1: USA COVID-19 Situation at a Glance...

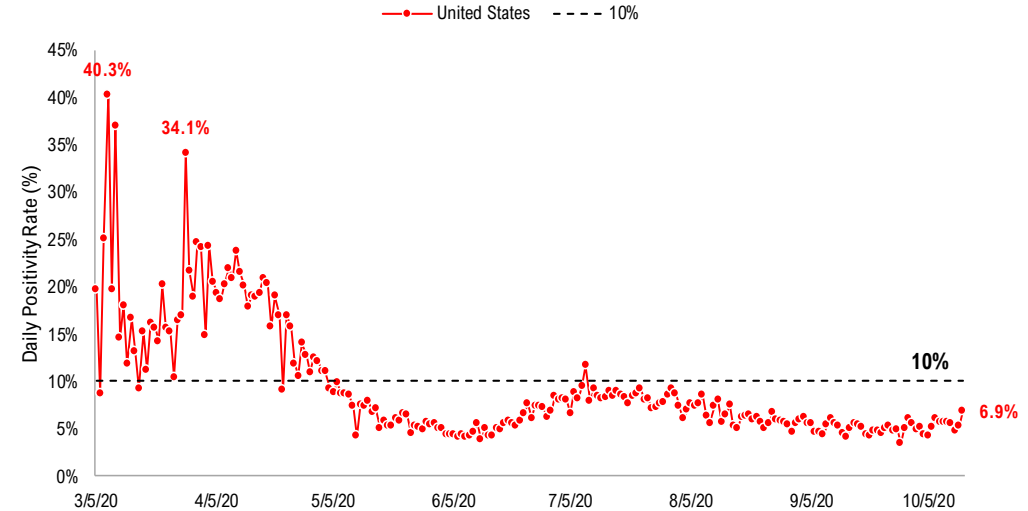
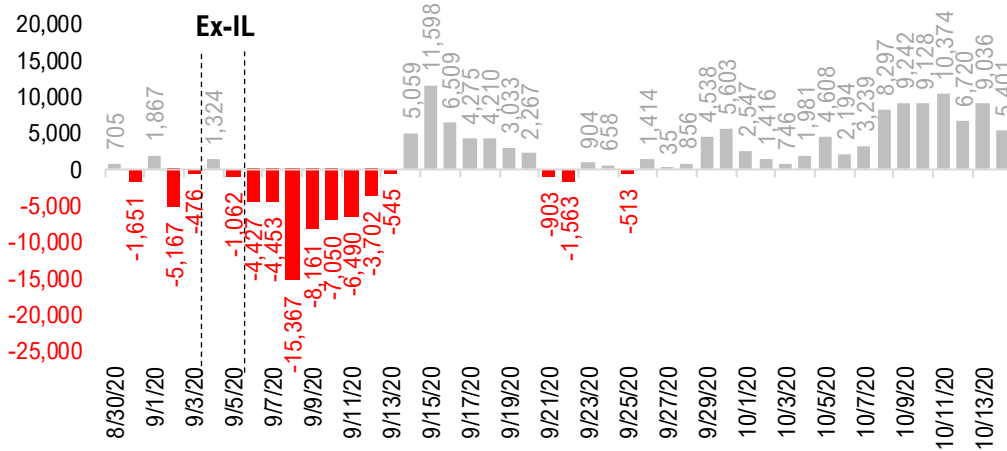
US daily new cases



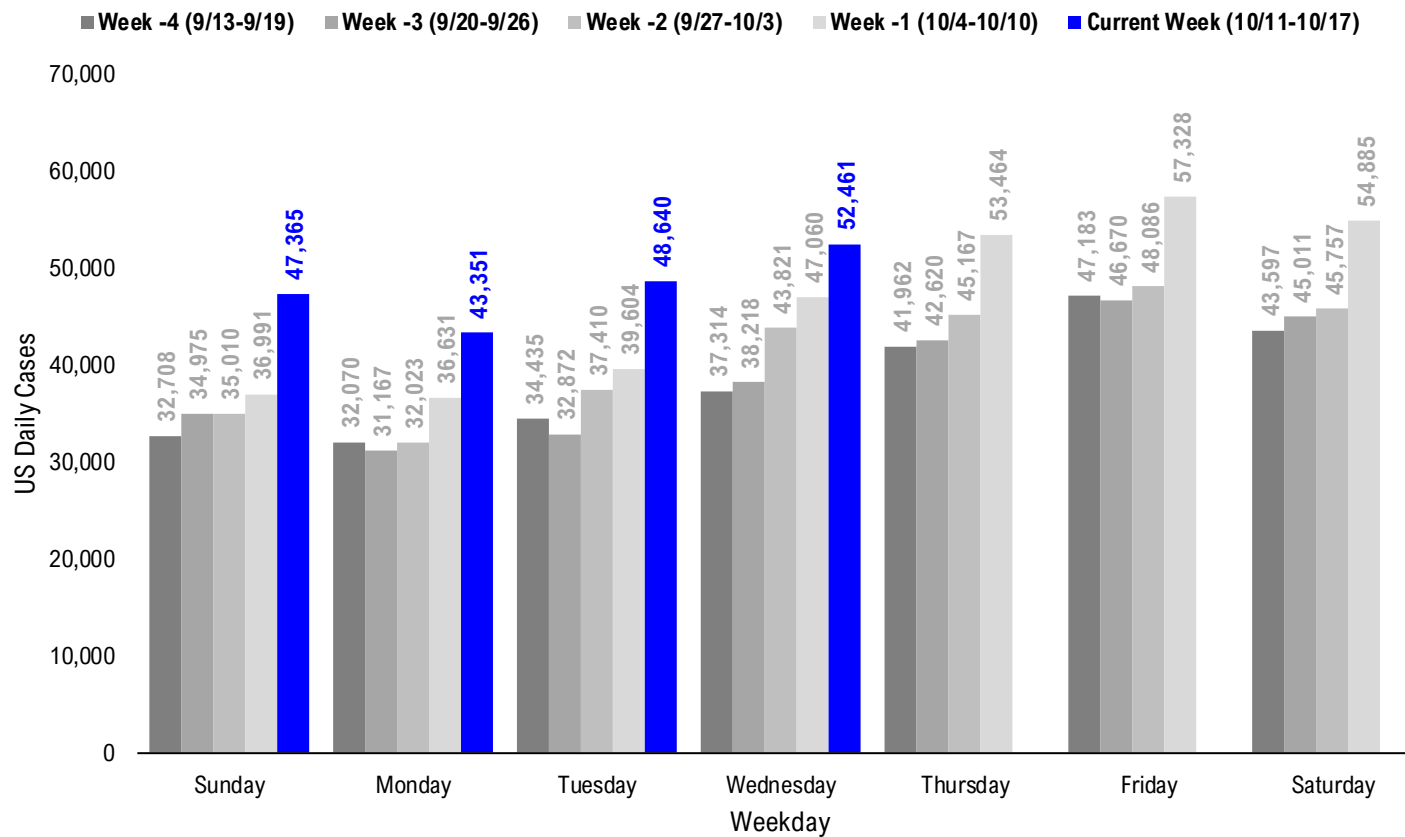
USA total COVID-19 tests administered



US daily new cases rolling 7D delta



# #2: USA COVID-19 Daily Cases Weekday Seasonality (Past 4 Weeks) ...



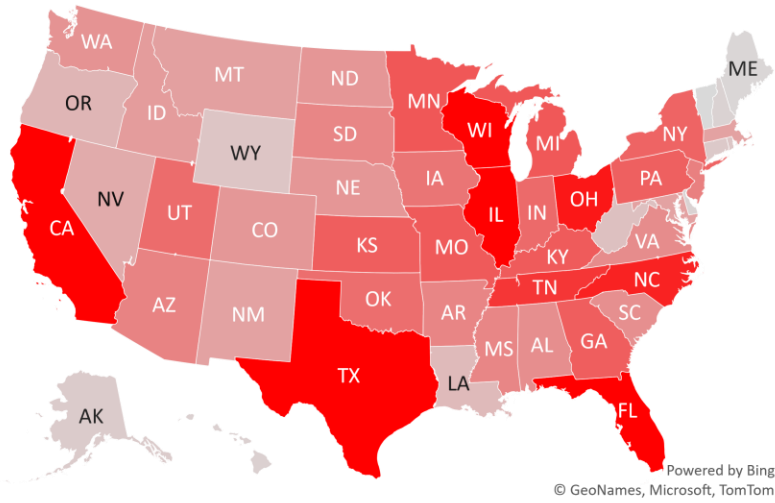
# #3: USA State COVID-19 Situation at a Glance...

	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	10/14	7D Delta	10/14	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	52.461	+5.401	147	+21	89	-33%	3.808	1.1%
<b>States:</b>										
1 Texas	8.7%	8.8%	4,564	+788	138	+25	89	-67%	612	2.4%
2 Wisconsin	1.8%	1.6%	3,107	+788	478	+132	4	-6%	144	0.7%
3 Florida	6.5%	5.0%	2,883	+301	111	+14	93	-81%	34	0.2%
4 Illinois	3.8%	4.2%	2,862	+232	222	+62	38	-14%	295	1.5%
5 California	11.9%	14.6%	2,666	-98	72	+8	82	-75%	-78	(0.3%)
6 Ohio	3.5%	3.3%	2,039	+615	140	+31	0	0%	228	2.1%
7 North Carolina	3.2%	2.7%	1,926	+215	157	-17	4	-27%	124	0.9%
8 Tennessee	2.1%	1.8%	1,709	-371	284	-21	78	-29%	146	1.1%
9 Minnesota	1.7%	1.8%	1,369	+458	217	+50	3	-15%	120	1.3%
10 Michigan	3.0%	2.6%	1,359	+343	147	+36	0	0%	212	2.6%
11 Missouri	1.8%	1.5%	1,338	+270	193	+19	4	-56%	276	2.1%
12 Kentucky	1.3%	1.0%	1,322	+401	203	+17	11	-14%	39	0.6%
13 Georgia	3.2%	2.9%	1,297	-195	100	-1	81	-75%	-65	(0.8%)
14 Kansas	0.9%	0.8%	1,293	+49	383	+58	0	0%	136	2.6%
15 Pennsylvania	3.9%	3.8%	1,276	-33	96	+18	187	-32%	92	1.0%
16 New York	5.9%	8.1%	1,232	-128	63	-1	187	-88%	190	2.0%
17 Indiana	2.0%	1.8%	1,165	-116	212	+60	3	-19%	276	2.5%
18 Utah	1.0%	0.9%	1,144	+137	324	+30	4	-26%	36	0.4%
19 Oklahoma	1.2%	1.0%	1,122	+116	272	+16	4	-24%	11	0.1%
20 Iowa	1.0%	0.9%	1,046	+96	215	+26	47	-45%	29	0.4%
21 New Jersey	2.7%	3.0%	938	+430	90	+28	192	-80%	98	1.6%
22 Arizona	2.2%	1.7%	901	+297	94	+13	104	-84%	30	0.6%
23 Arkansas	0.9%	0.6%	884	+200	214	+36	4	-32%	44	0.8%
24 South Dakota	0.3%	0.3%	876	-154	622	+61	5	-29%	30	0.7%
25 Mississippi	0.9%	0.6%	876	+313	211	+15	76	-59%	62	1.4%
26 Virginia	2.6%	2.6%	805	-393	113	+15	66	-31%	4	0.1%
27 Alabama	1.5%	1.1%	784	-157	179	+26	81	-58%	57	0.9%
28 South Carolina	1.6%	1.1%	781	-17	144	-5	74	-73%	85	1.4%

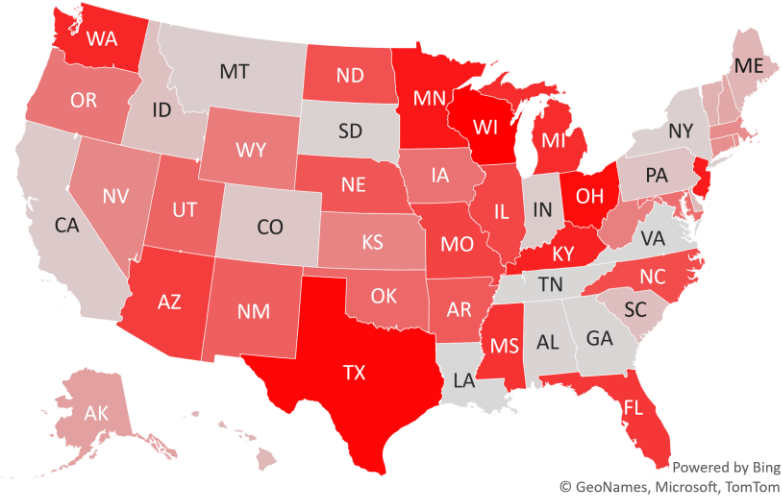
	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents				Since Peak		Hospitalization	
	% US Pop	% US GDP	10/14	7D Delta	10/14	7D Delta	# Days	% Decline in Daily Cases	7D Net Hospitalization	7D Net Hospitalization / 7D New Cases
United States	100%	100%	52.461	+5.401	147	+21	89	-33%	3.808	1.1%
<b>States:</b>										
29 Washington	2.3%	2.7%	734	+347	108	+54	91	-20%	26	0.5%
30 Nebraska	0.6%	0.6%	704	+206	285	+52	3	-34%	53	1.1%
31 North Dakota	0.2%	0.3%	702	+209	736	+164	3	-11%	90	2.2%
32 Colorado	1.7%	1.8%	692	-39	134	+27	4	-15%	42	0.7%
33 Idaho	0.5%	0.4%	645	-26	341	+7	89	-10%	36	0.9%
34 Montana	0.3%	0.2%	599	-117	470	+25	4	-27%	57	1.4%
35 Massachusetts	2.1%	2.8%	580	+45	101	+26	172	-80%	-16	(0.4%)
36 New Mexico	0.6%	0.5%	577	+152	208	+65	4	-3%	36	1.2%
37 Maryland	1.8%	2.0%	575	+115	86	+10	146	-59%	26	0.6%
38 Puerto Rico	1.0%	0.5%	490	+467	89	+24	18	-51%	18	0.9%
39 Nevada	0.9%	0.8%	479	+48	166	+31	88	-62%	24	0.6%
40 Oregon	1.3%	1.2%	380	+86	72	+3	4	-30%	5	0.2%
41 Louisiana	1.4%	1.3%	331	-721	75	-53	85	-87%	30	1.0%
42 West Virginia	0.5%	0.4%	263	+60	128	+33	3	-14%	12	0.7%
43 Wyoming	0.2%	0.2%	213	+84	326	+98	0	0%	-2	(0.2%)
44 Rhode Island	0.3%	0.3%	204	+24	130	+2	172	-68%	24	1.7%
45 Connecticut	1.1%	1.3%	164	+41	145	+45	175	-66%	50	2.2%
46 Alaska	0.2%	0.3%	143	+17	221	+5	2	-30%	10	0.8%
47 Hawaii	0.4%	0.5%	99	-11	48	-10	46	-77%	-6	(1.0%)
48 Guam	0.0%	0.0%	75	+21	529	+189	48	-19%	17	3.6%
49 Delaware	0.3%	0.4%	71	-13	115	+10	169	-66%	27	3.0%
50 New Hampshire	0.4%	0.4%	70	+1	51	+13	165	-45%	1	0.2%
51 District of Columbi	0.2%	0.7%	64	+19	70	-14	164	-79%	-17	(3.9%)
52 Maine	0.4%	0.3%	36	-3	23	+2	145	-55%	-1	(0.5%)
53 Vermont	0.2%	0.2%	4	-2	12	-11	192	-87%	-1	(1.6%)
54 U.S. Virgin Islands	0.0%	0.0%	3	+4	9	+28	54	-98%	0	0.0%
55 Northern Mariana	0.0%	0.0%	0	+0	0	-12	22	-100%	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...

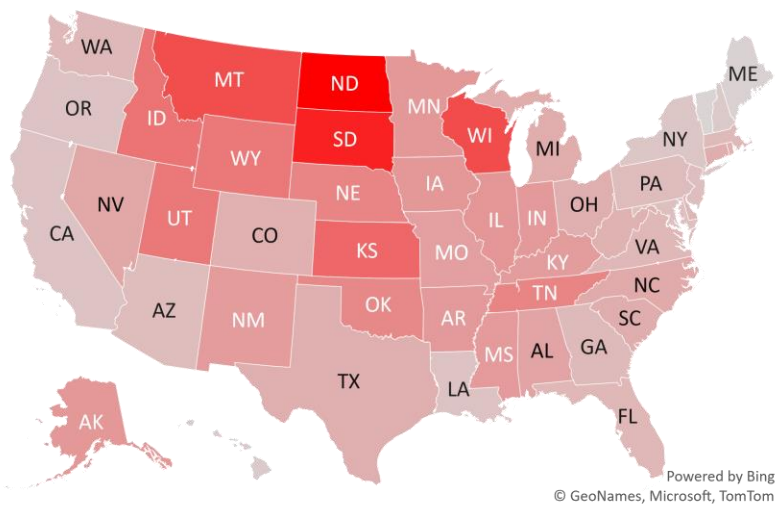
### Daily Case Increases



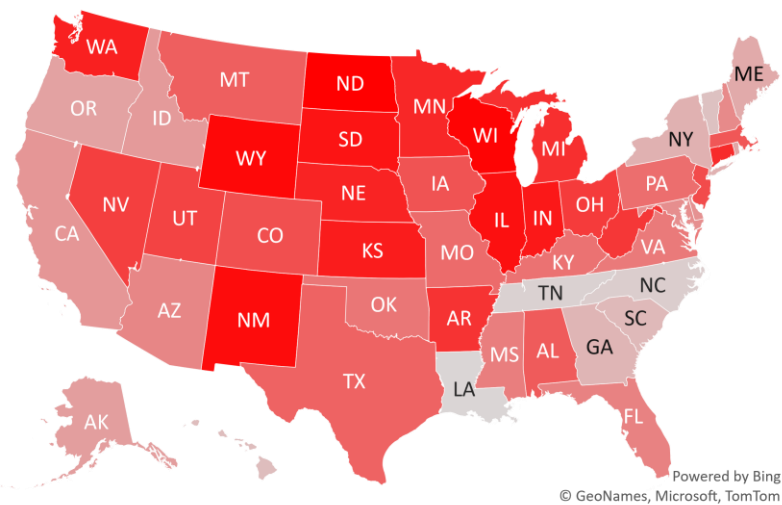
### 7D Delta in Daily New Cases



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



### 7D Delta in Daily New Cases per 1mm (3D Avg)



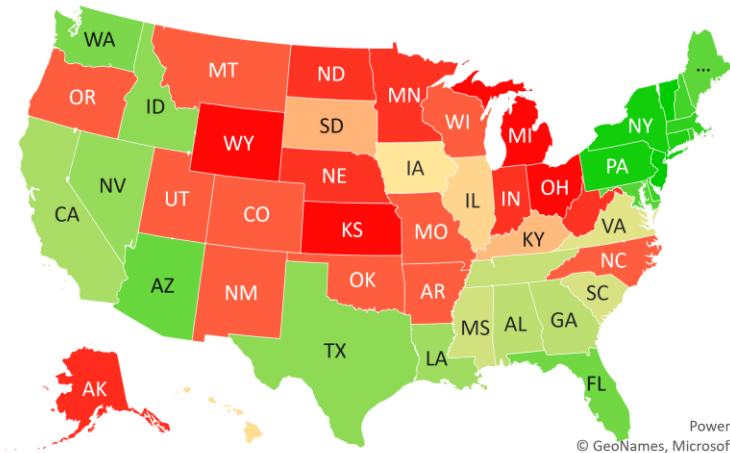
# #5: # of Days since Daily Case Peaked by States...

## # Days since Daily Cases (3D Avg) Peak (as of 10/14)

	Sorted			
	Peak Date	10/14/20	% off the Peak	% US Pop
United States	7/17/20	89	-33%	100%
<b>States:</b>				
Vermont	4/5/20	192	-87%	0.2%
New Jersey	4/5/20	192	-80%	2.7%
Pennsylvania	4/10/20	187	-32%	3.9%
New York	4/10/20	187	-88%	5.9%
Connecticut	4/22/20	175	-66%	1.1%
Rhode Island	4/25/20	172	-68%	0.3%
Massachusetts	4/25/20	172	-80%	2.1%
Delaware	4/28/20	169	-66%	0.3%
New Hampshire	5/2/20	165	-45%	0.4%
District of Columbia	5/3/20	164	-79%	0.2%
Maryland	5/21/20	146	-59%	1.8%
Maine	5/22/20	145	-55%	0.4%
Arizona	7/2/20	104	-84%	2.2%
Florida	7/13/20	93	-81%	6.5%
Washington	7/15/20	91	-20%	2.3%
Texas	7/17/20	89	-67%	8.7%
Idaho	7/17/20	89	-10%	0.5%
Nevada	7/18/20	88	-62%	0.9%
Louisiana	7/21/20	85	-87%	1.4%
California	7/24/20	82	-75%	11.9%
Georgia	7/25/20	81	-75%	3.2%
Alabama	7/25/20	81	-58%	1.5%
Tennessee	7/28/20	78	-29%	2.1%
Mississippi	7/30/20	76	-59%	0.9%
South Carolina	8/1/20	74	-73%	1.6%
Virginia	8/9/20	66	-31%	2.6%
U.S. Virgin Islands	8/21/20	54	-98%	0.0%
Guam	8/27/20	48	-19%	0.0%

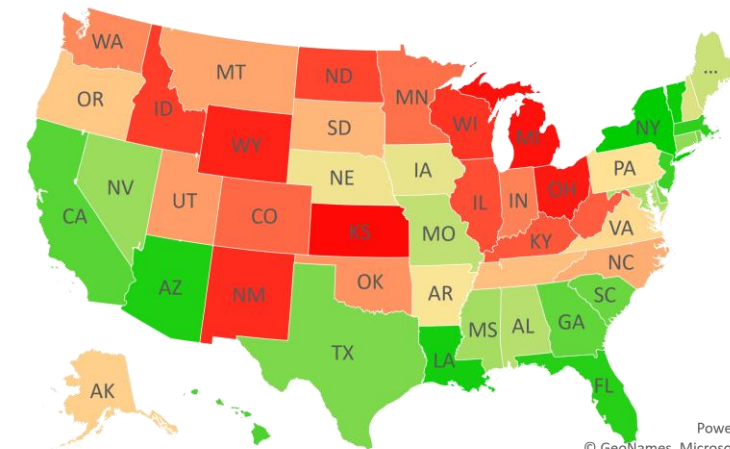
	Sorted			
	Peak Date	10/14/20	% off the Peak	% US Pop
United States	7/17/20	89	-33%	100%
<b>States:</b>				
Iowa	8/28/20	47	-45%	1.0%
Hawaii	8/29/20	46	-77%	0.4%
Illinois	9/6/20	38	-14%	3.8%
Northern Mariana Island	9/22/20	22	-100%	0.0%
Puerto Rico	9/26/20	18	-51%	1.0%
Kentucky	10/3/20	11	-14%	1.3%
South Dakota	10/9/20	5	-29%	0.3%
Wisconsin	10/10/20	4	-6%	1.8%
Utah	10/10/20	4	-26%	1.0%
Oregon	10/10/20	4	-30%	1.3%
Oklahoma	10/10/20	4	-24%	1.2%
New Mexico	10/10/20	4	-3%	0.6%
North Carolina	10/10/20	4	-27%	3.2%
Montana	10/10/20	4	-27%	0.3%
Missouri	10/10/20	4	-56%	1.8%
Colorado	10/10/20	4	-15%	1.7%
Arkansas	10/10/20	4	-32%	0.9%
West Virginia	10/11/20	3	-14%	0.5%
Nebraska	10/11/20	3	-34%	0.6%
North Dakota	10/11/20	3	-11%	0.2%
Minnesota	10/11/20	3	-15%	1.7%
Indiana	10/11/20	3	-19%	2.0%
Alaska	10/12/20	2	-30%	0.2%
Wyoming	10/14/20	0	0%	0.2%
Ohio	10/14/20	0	0%	3.5%
Michigan	10/14/20	0	0%	3.0%
Kansas	10/14/20	0	0%	0.9%

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



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



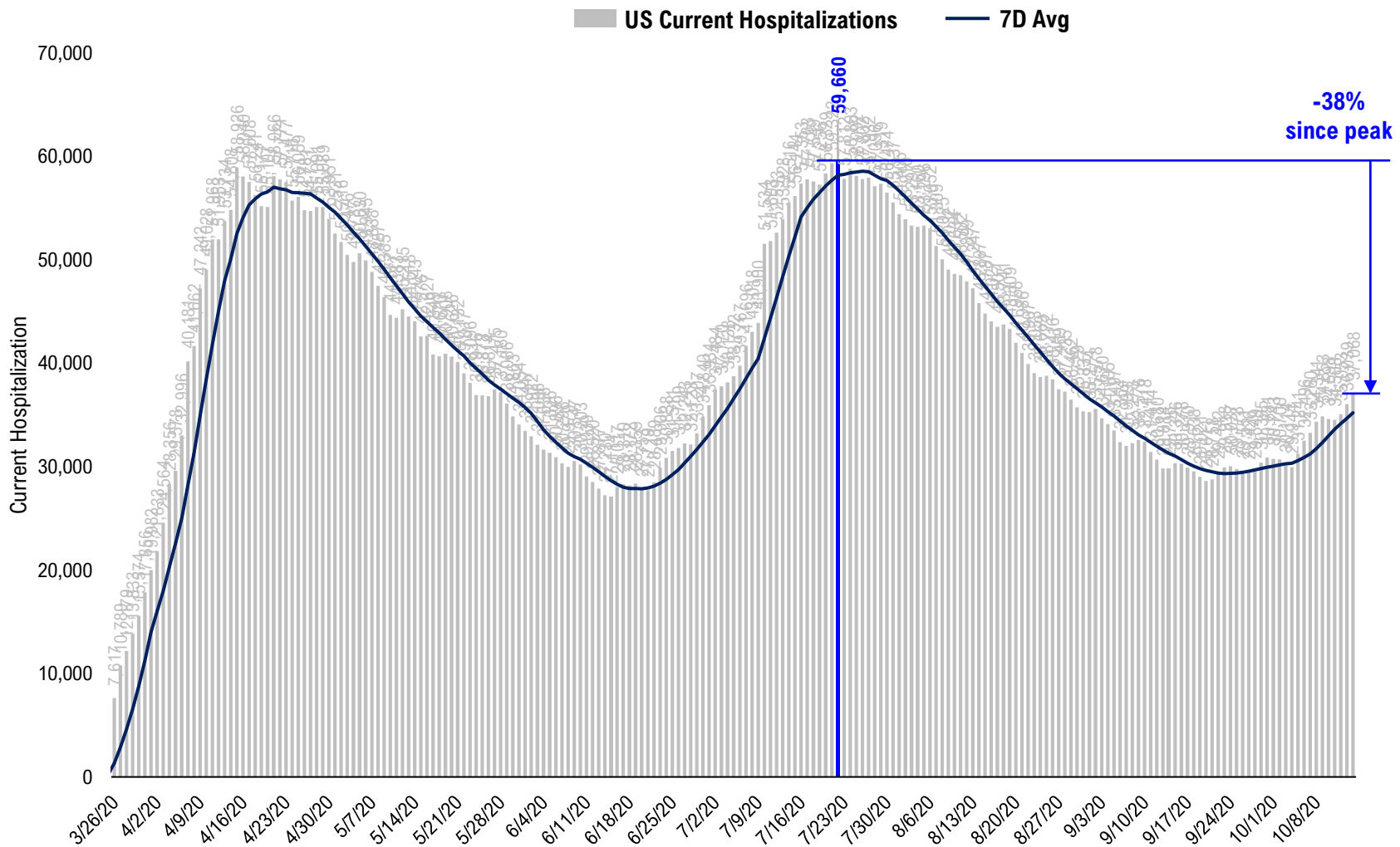
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# #6: US New Cases by States... (sorted by today's new cases)

	Sorted						Sorted				
	7D Ago	Last 3-day Trend					7D Ago	Last 3-day Trend			
	10/7/20	10/12/20	10/13/20	10/14/20	vs 7D ago		10/7/20	10/12/20	10/13/20	10/14/20	vs 7D ago
United States	47,060	43,351	48,640	52,461	+5,401	United States	47,060	43,351	48,640	52,461	+5,401
<b>States:</b>						<b>States:</b>					
Texas	3,776	2,384	5,050	4,564	<--higher	Washington	387	0	1,740	734	<--higher
Wisconsin	2,319	1,956	3,279	3,107	<--higher	Nebraska	498	495	457	704	<--higher
Florida	2,582	1,533	2,725	2,883		North Dakota	493	472	508	702	<--higher
Illinois	2,630	2,742	2,851	2,862		Colorado	731	576	1,048	692	
California	2,764	3,449	2,378	2,666		Idaho	671	597	584	645	
Ohio	1,424	1,430	1,447	2,039	<--higher	Montana	716	423	486	599	
North Carolina	1,711	1,276	1,734	1,926		Massachusetts	535	760	749	580	
Tennessee	2,080	2,965	1,147	1,709		New Mexico	425	379	351	577	<--higher
Minnesota	911	1,171	1,135	1,369	<--higher	Maryland	460	504	482	575	<--higher
Michigan	1,016	1,809	1,237	1,359	<--higher	Puerto Rico	23	228	135	490	<--higher
Missouri	1,068	1,235	988	1,338	<--higher	Nevada	431	569	487	479	
Kentucky	921	638	761	1,322	<--higher	Oregon	294	212	313	380	<--higher
Georgia	1,492	902	993	1,297		Louisiana	1,052	63	653	331	
Kansas	1,244	2,055	0	1,293		West Virginia	203	153	274	263	<--higher
Pennsylvania	1,309	1,088	1,342	1,276		Wyoming	129	191	162	213	<--higher
New York	1,360	1,029	1,393	1,232		Rhode Island	180	81	129	204	
Indiana	1,281	1,574	1,549	1,165		Connecticut	123	1,066	320	164	<--higher
Utah	1,007	988	987	1,144		Alaska	126	191	151	143	
Oklahoma	1,006	797	1,309	1,122		Hawaii	110	41	62	99	
Iowa	950	463	529	1,046		Guam	54	92	96	75	<--higher
New Jersey	508	469	988	938	<--higher	Delaware	84	159	105	71	
Arizona	604	475	684	901	<--higher	New Hampshire	69	65	71	70	
Arkansas	684	568	481	884	<--higher	District of Columbia	45	38	46	64	<--higher
South Dakota	1,030	361	414	876		Maine	39	29	28	36	
Mississippi	563	296	713	876	<--higher	Vermont	6	8	10	4	
Virginia	1,198	854	1,235	805		U.S. Virgin Islands	-1	0	0	3	
Alabama	941	734	1,117	784		Northern Mariana Islands	0	0	0	0	
South Carolina	798	718	727	781		American Samoa	0	0	0	0	

# #7: US Daily Hospitalizations...

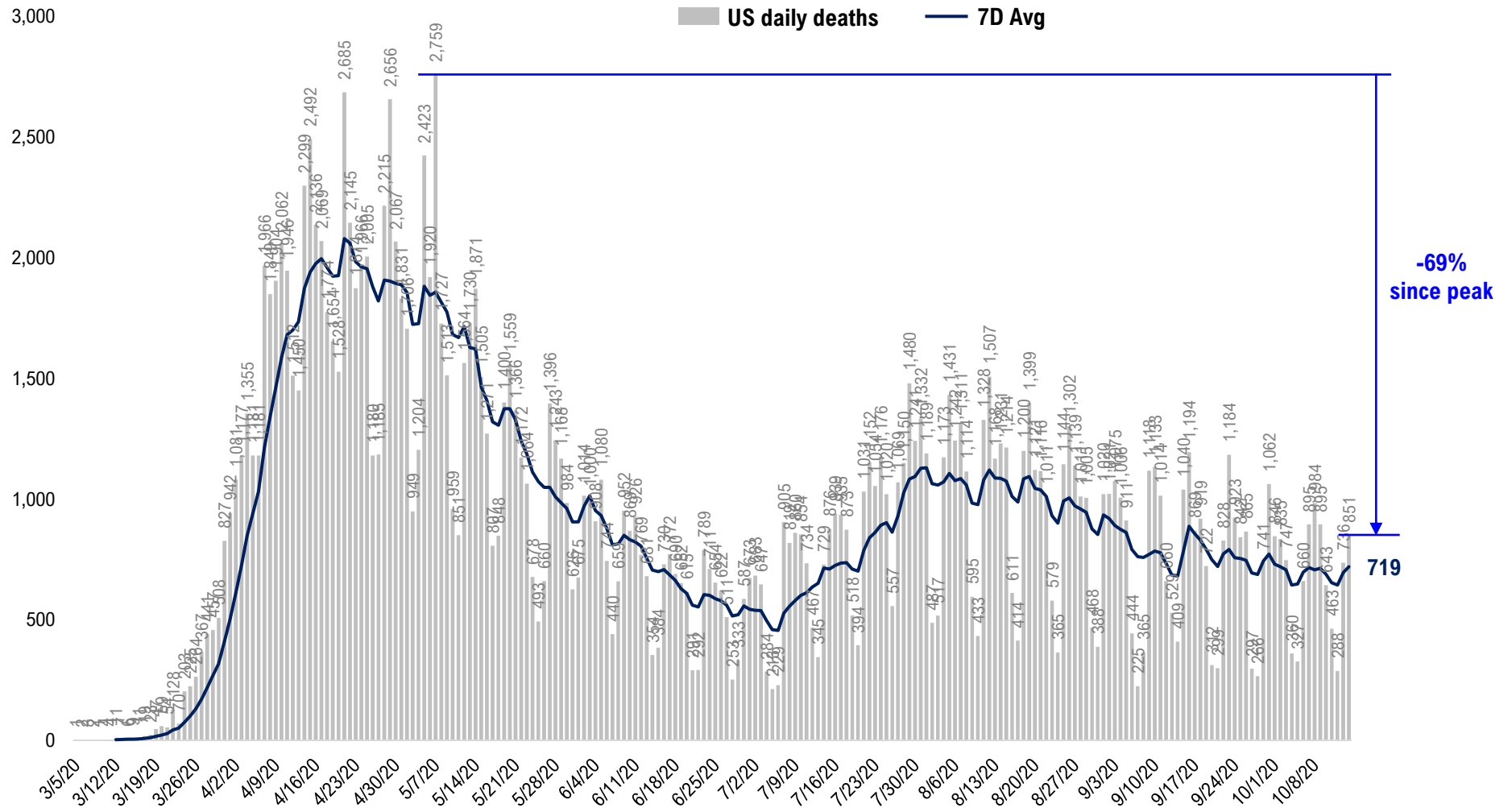
## US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)





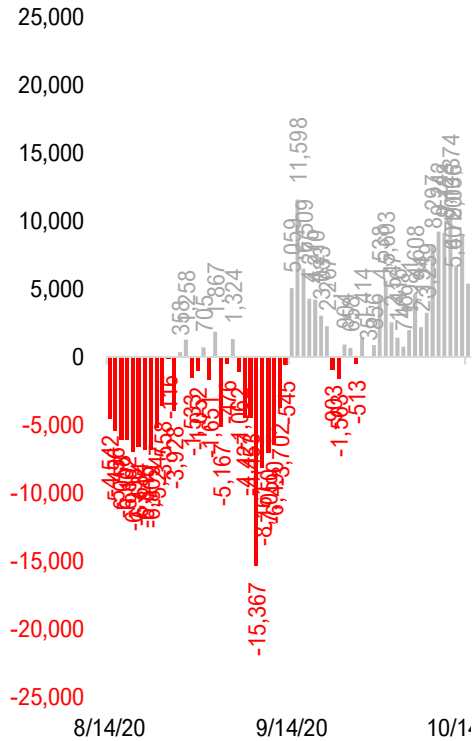
# #8: US Daily New Fatalities...

## US daily COVID-19 Fatalities

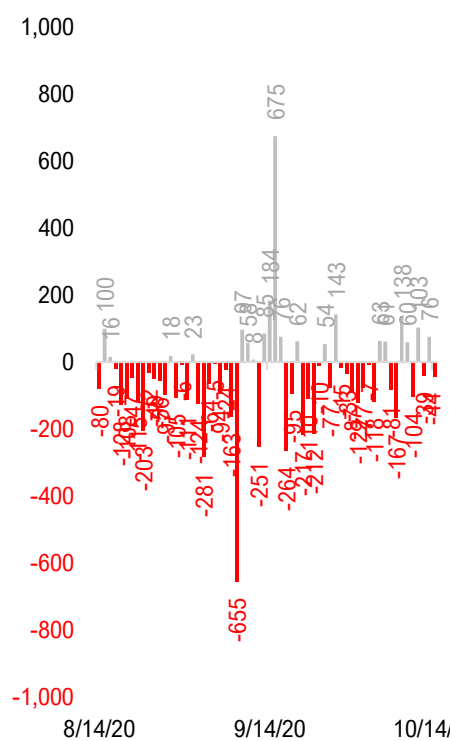


# #9: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

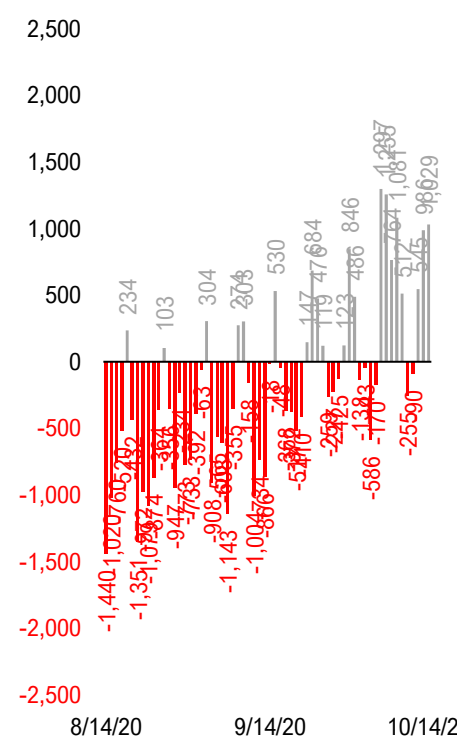
**Daily New Cases**  
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



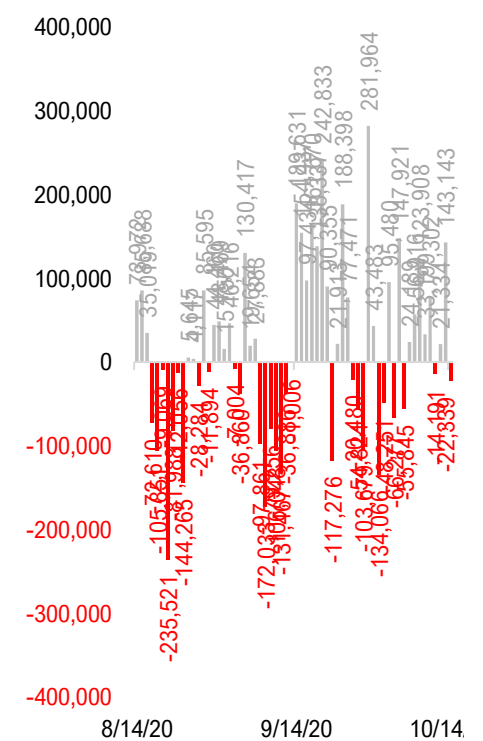
**Daily Deaths**



**Daily Net Hospitalization**  
(Red = more discharge than admission)

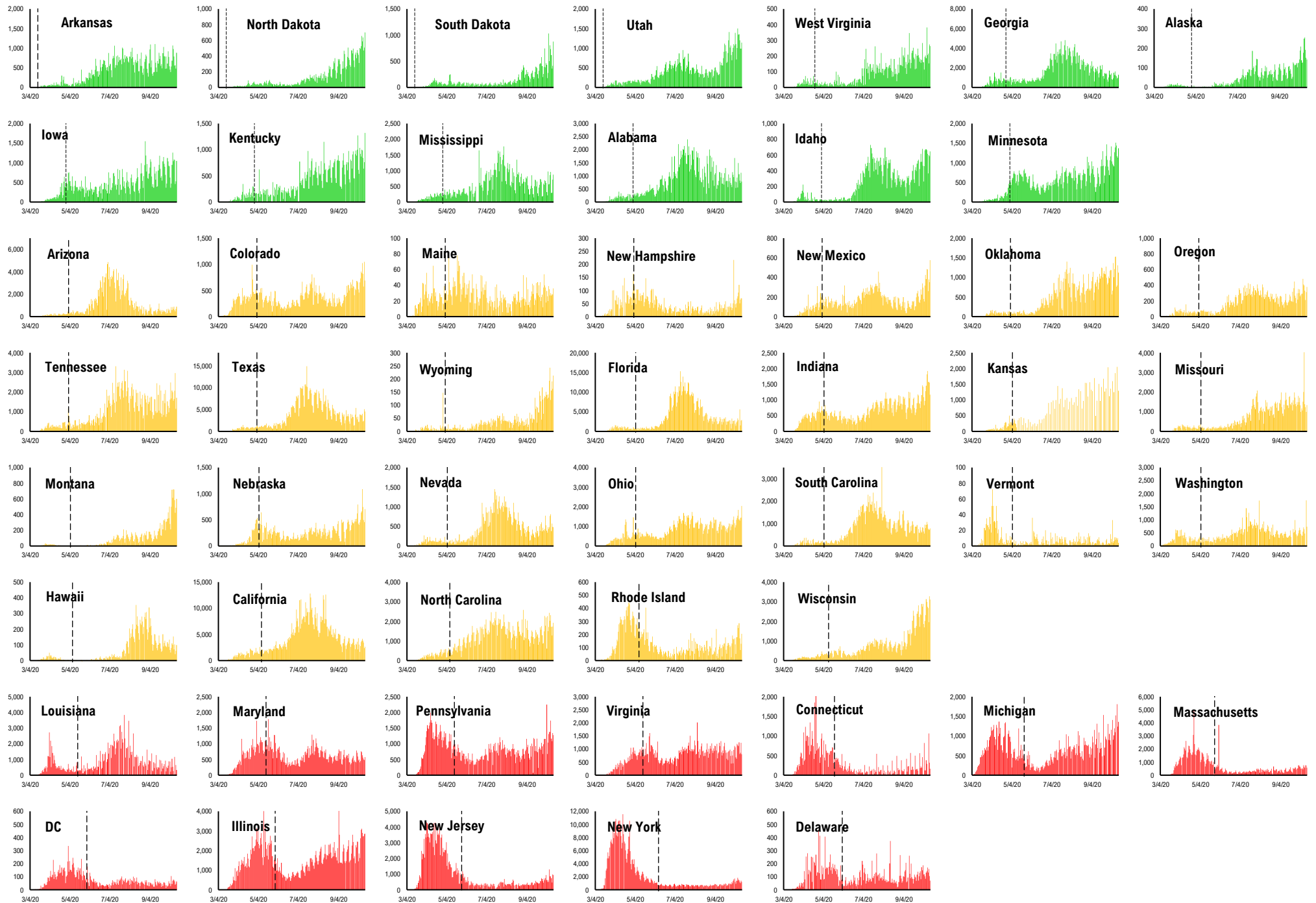


**Daily Tests**

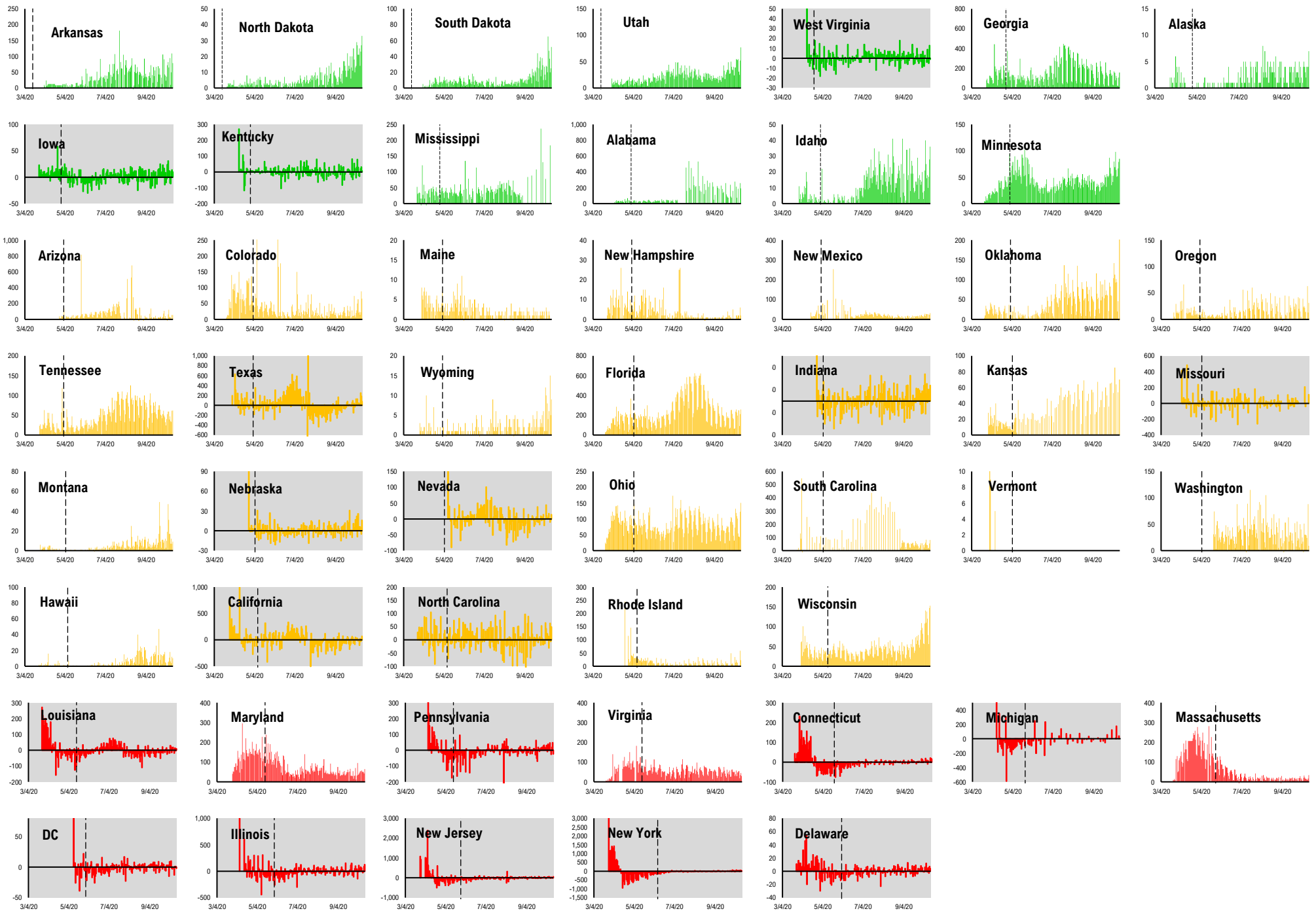


\* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog  
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

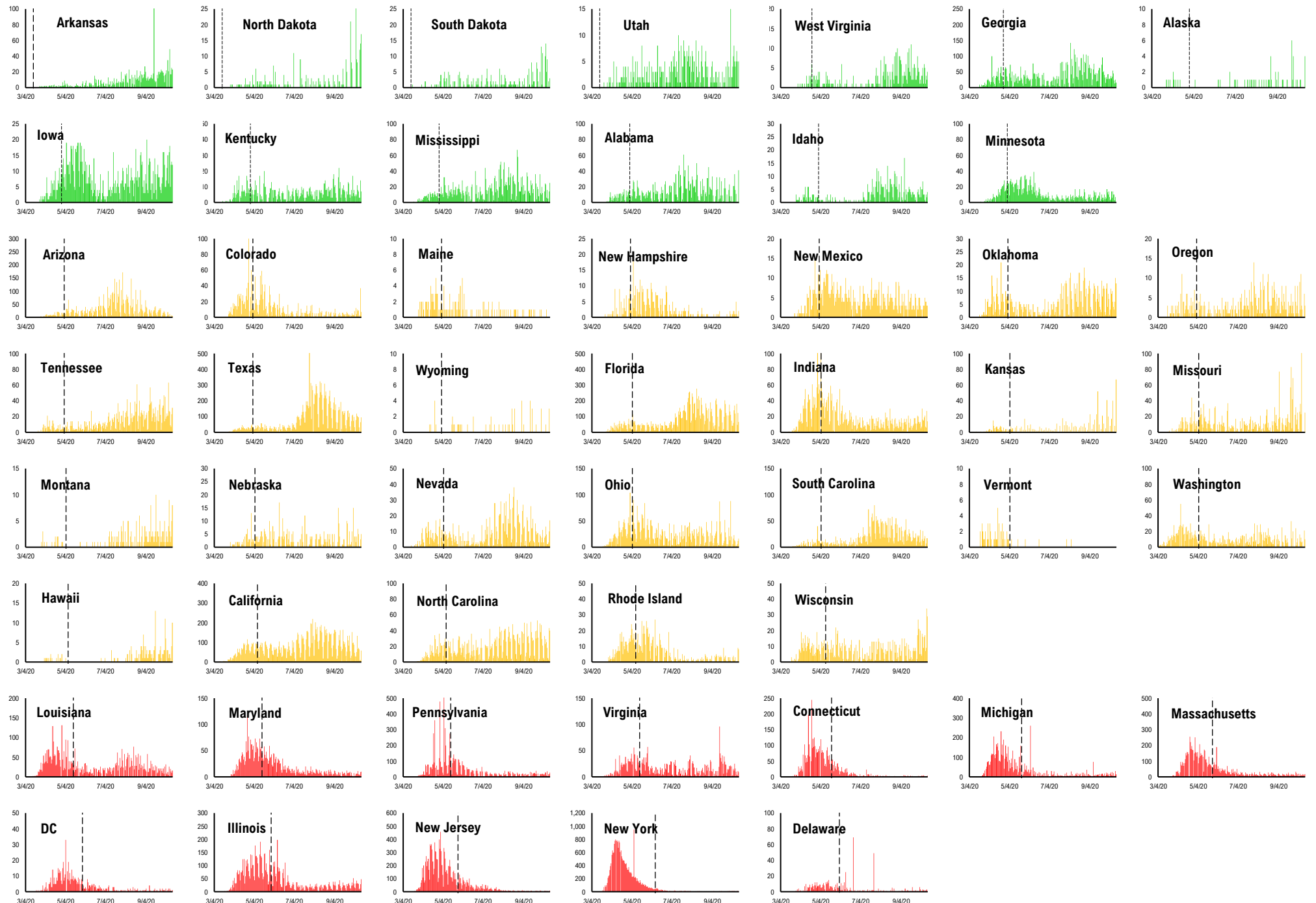
# #10: Daily New Cases by States... (sorted by "open" date)



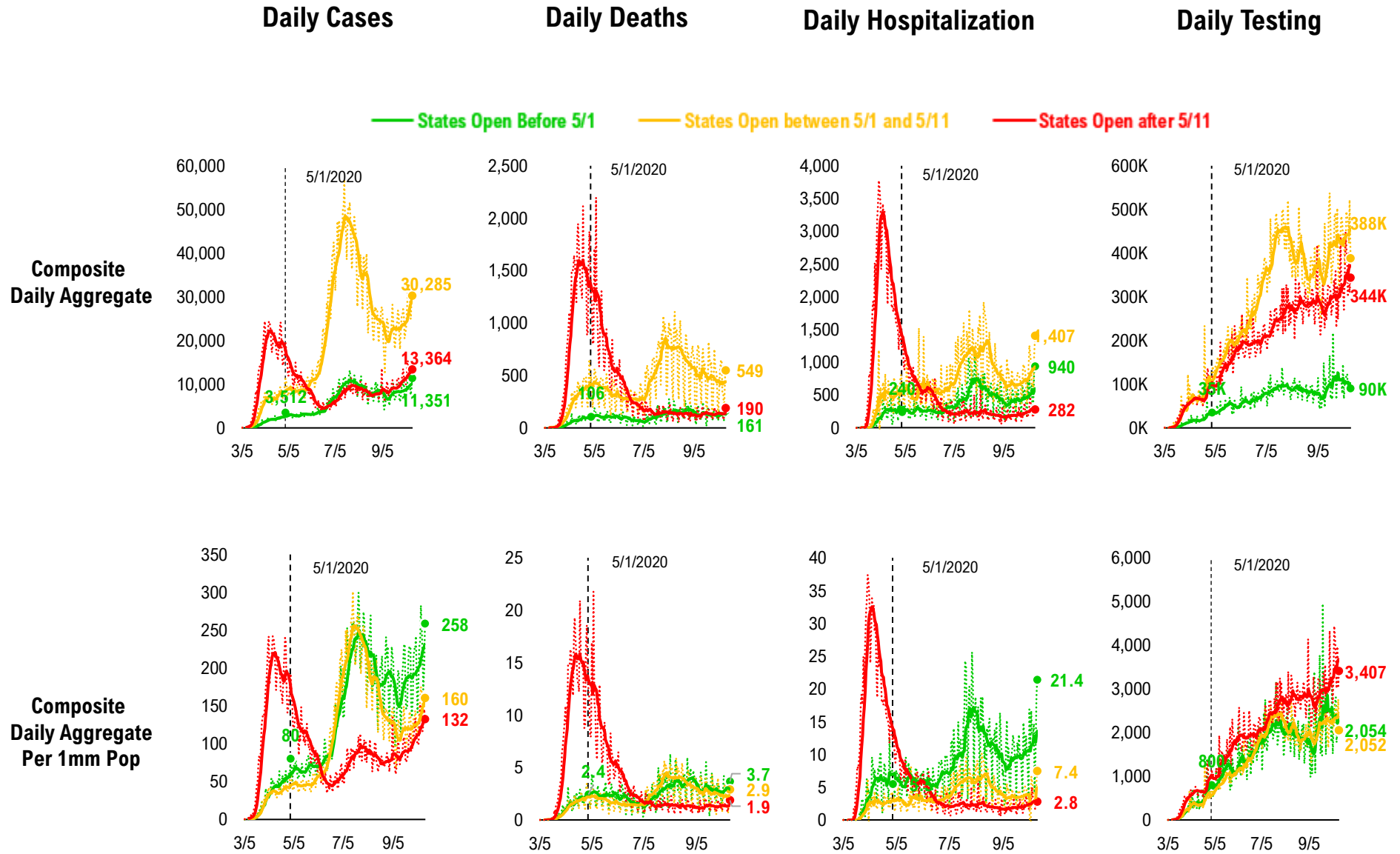
# #11: Daily Hospitalizations by States... (sorted by "open" date)



# #12: Daily New Deaths by States... (sorted by "open" date)

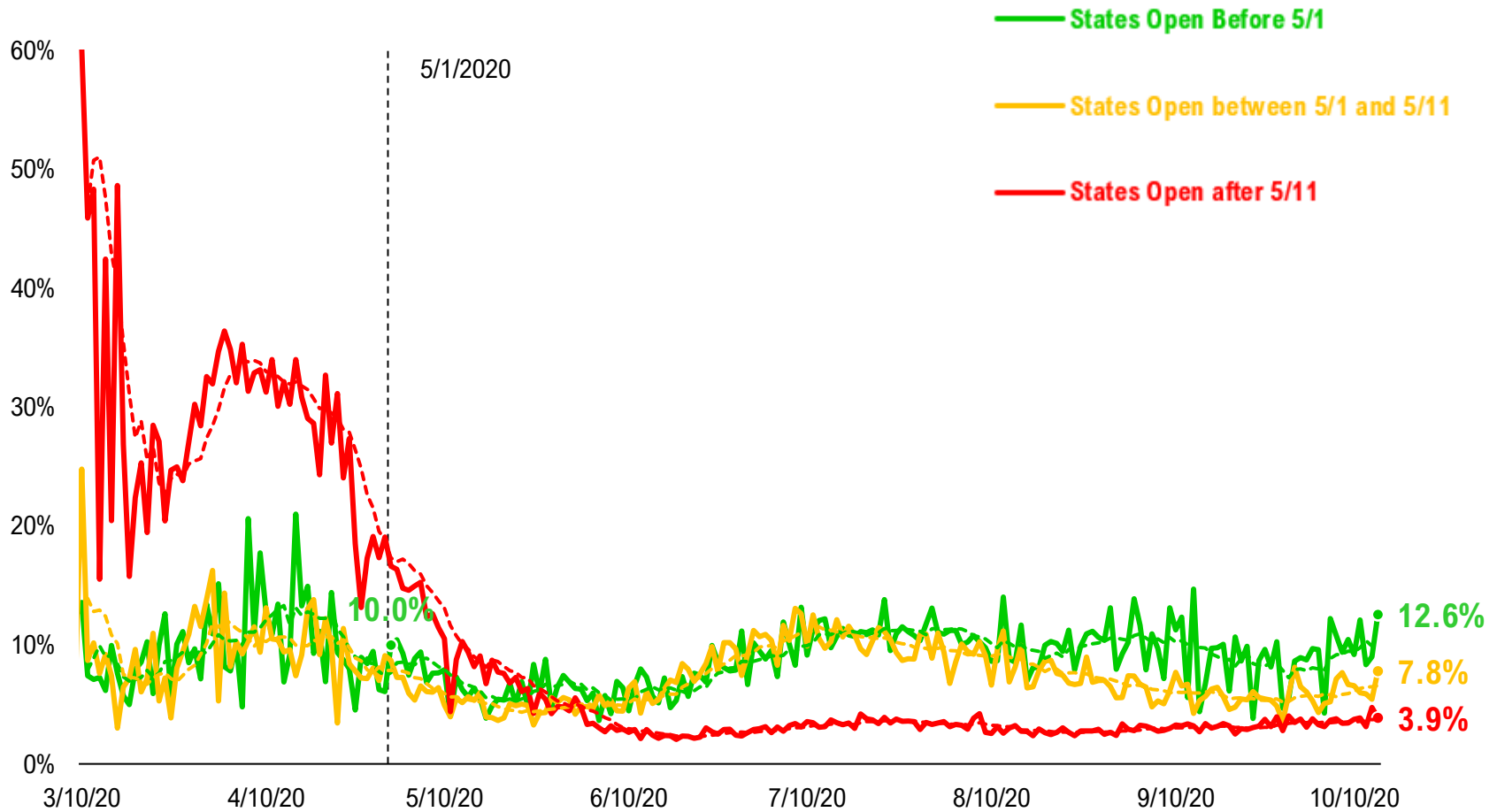


# #13: State COVID-19 situation by Reopen Date...

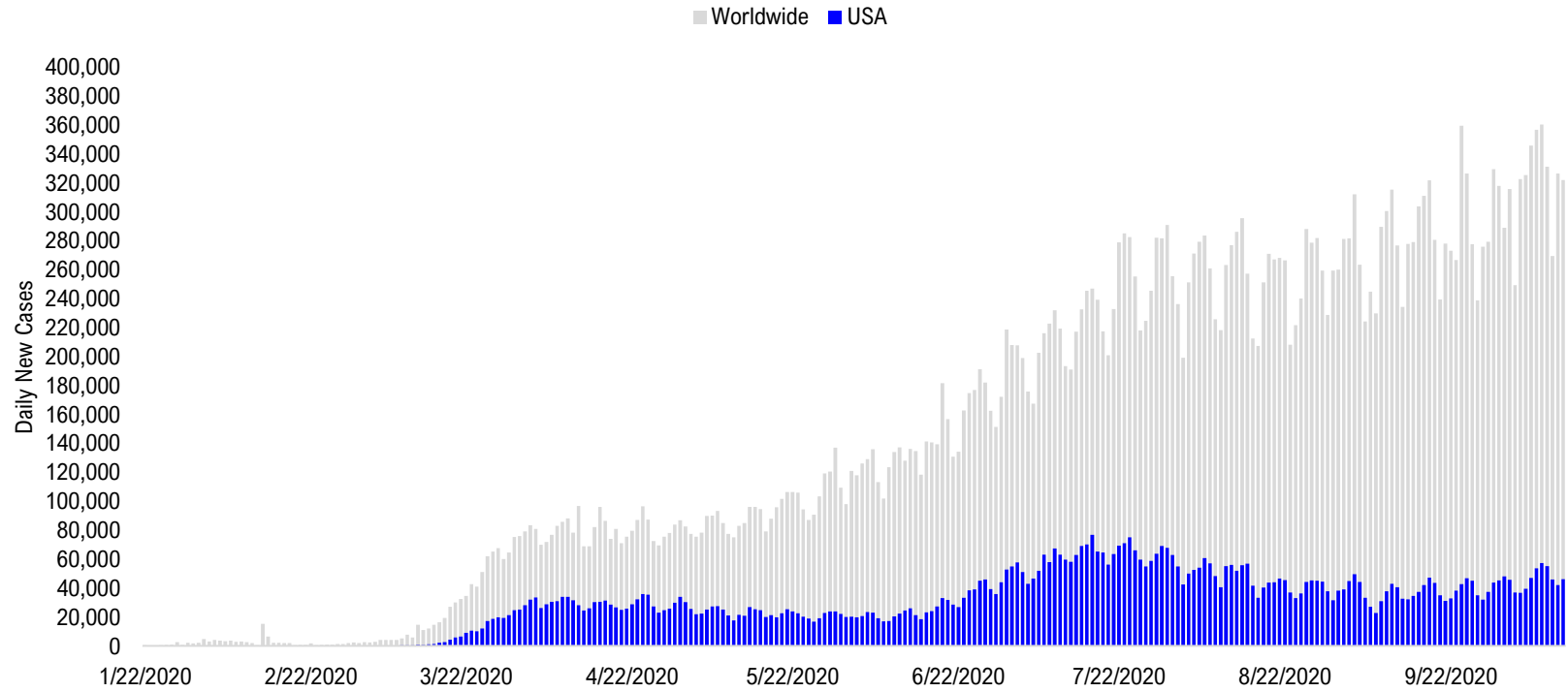


# #14: State COVID-19 Daily Positivity Rate by Reopen Date...

## Composite Daily Positivity Rate



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



5/29/2020	6/12/2020	6/26/2020	7/10/2020	7/24/2020	8/7/2020	8/21/2020	9/4/2020	9/18/2020	10/2/2020	10/13/2020
Latin America 42,759	Latin America 51,123	Latin America 68,227	Latin America 73,176	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 116,736
US + Canada 22,796	US + Canada 22,798	US + Canada 41,092	US + Canada 63,055	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	Pakistan + India + Bangladesh 63,772
Europe 19,130	Pakistan + India + Bangladesh 18,309	Pakistan + India + Bangladesh 24,668	Pakistan + India + Bangladesh 32,386	Pakistan + India + Bangladesh 52,184	US + Canada 56,201	US + Canada 45,159	US + Canada 44,962	Europe 57,930	Latin America 61,017	US + Canada 46,842
Pakistan + India + Bangladesh 12,032	Europe 18,149	Europe 17,889	Africa 17,127	Africa 20,063	Europe 23,878	Europe 32,466	Europe 40,116	US + Canada 43,204	US + Canada 47,755	Latin America 41,573
Africa 5,307	Africa 7,322	Africa 11,684	Europe 16,204	Europe 18,765	Africa 14,390	Africa 10,566	Asia ex- India+Pakistan 8,720	Asia ex- India+Pakistan 10,763	Asia ex- India+Pakistan 11,417	Asia ex- India+Pakistan 13,169
Asia ex- India+Pakistan 2,762	Asia ex- India+Pakistan 3,064	Asia ex- India+Pakistan 3,866	Asia ex- India+Pakistan 7,373	Asia ex- India+Pakistan 8,636	Asia ex- India+Pakistan 10,424	Asia ex- India+Pakistan 10,047	Africa 8,318	Africa 7,997	Africa 8,146	Africa 7,562



# 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.

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