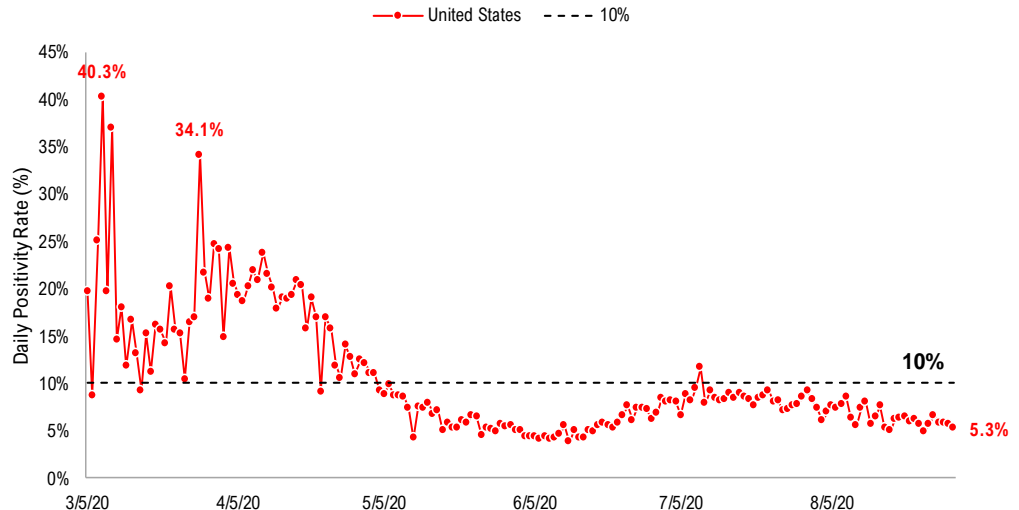
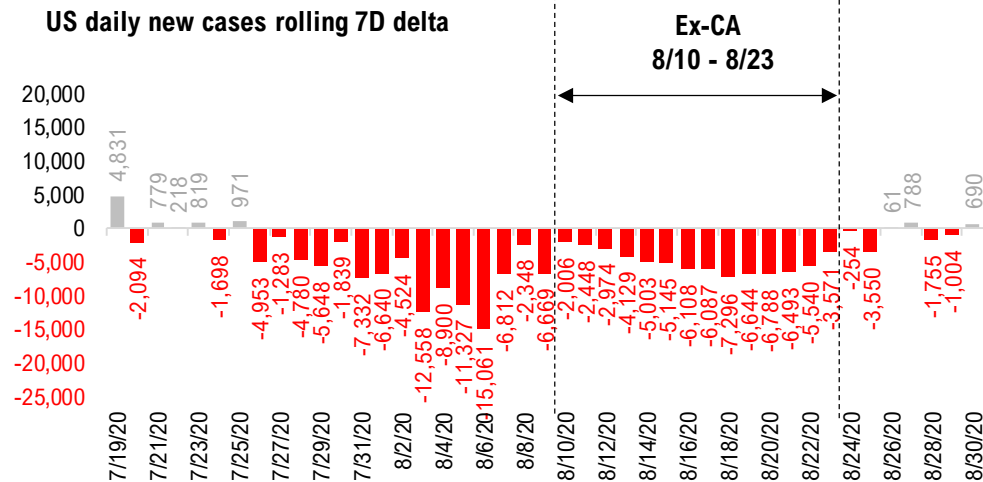
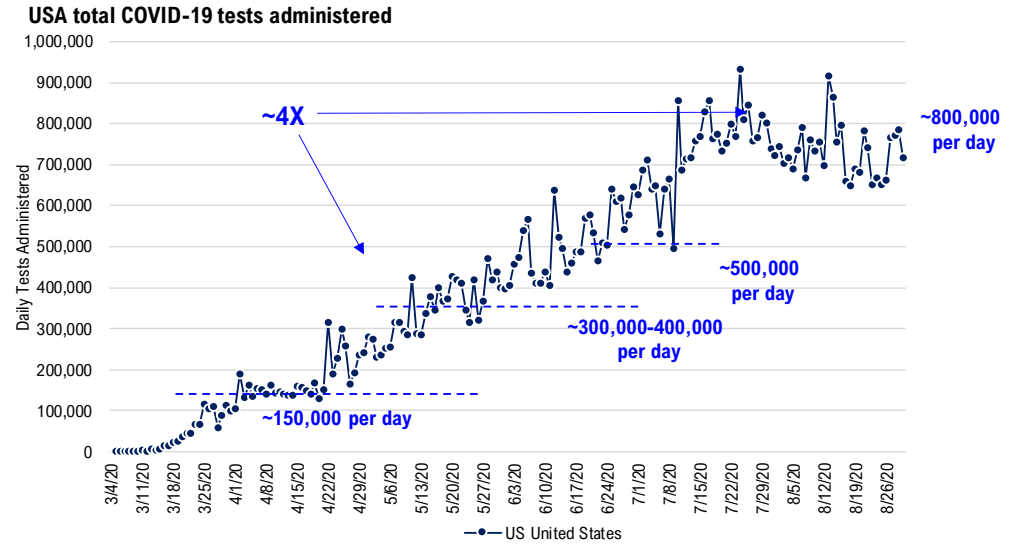
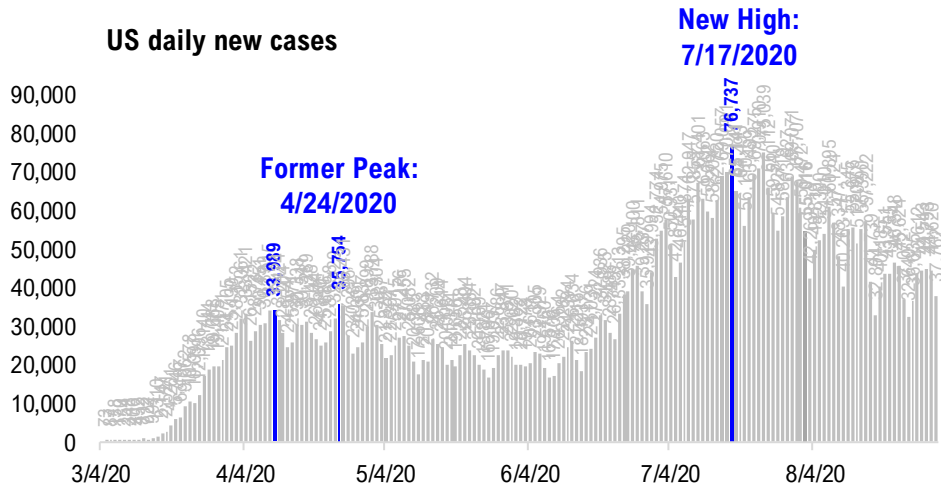


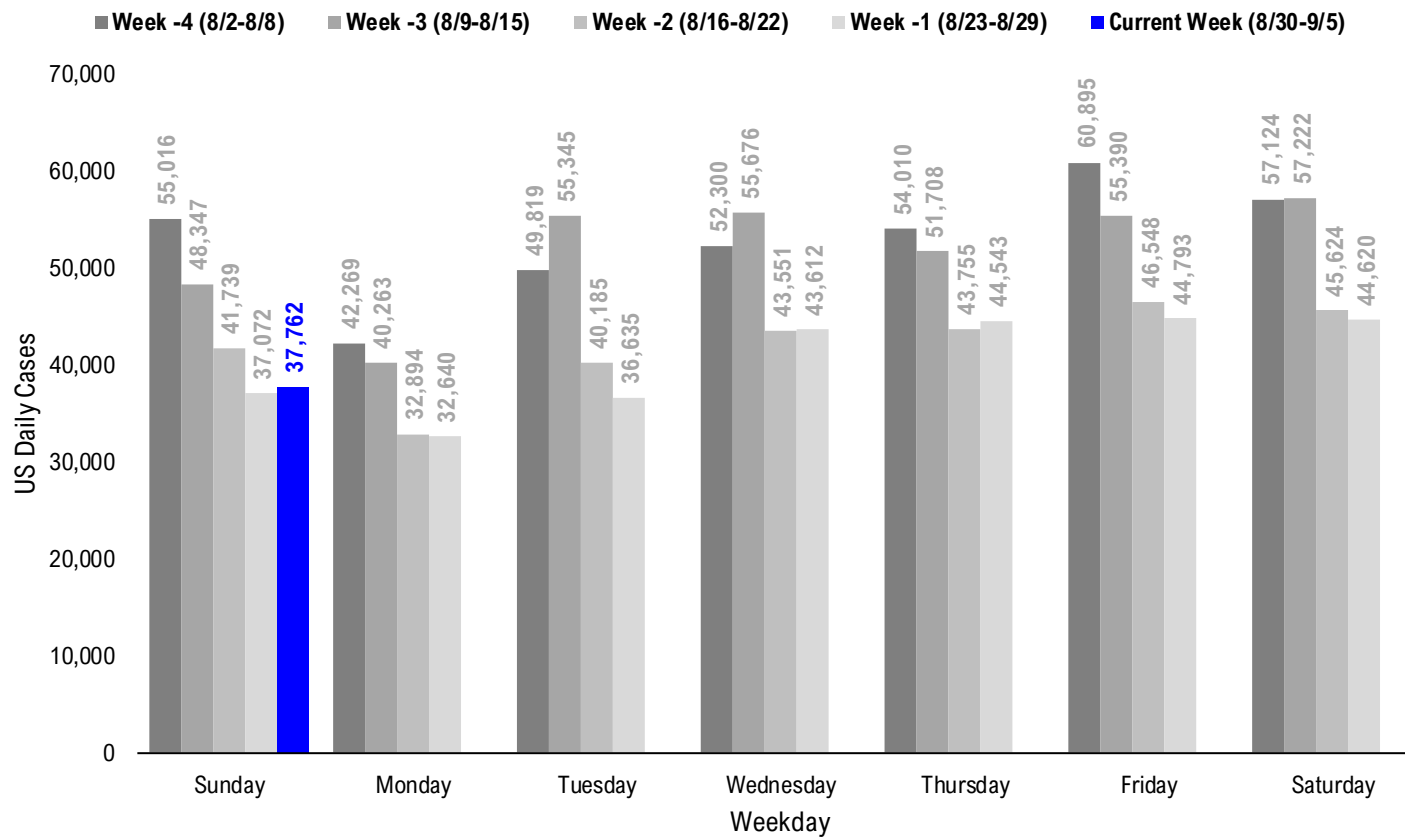
FSInsight Daily COVID-19 Chartbook



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



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



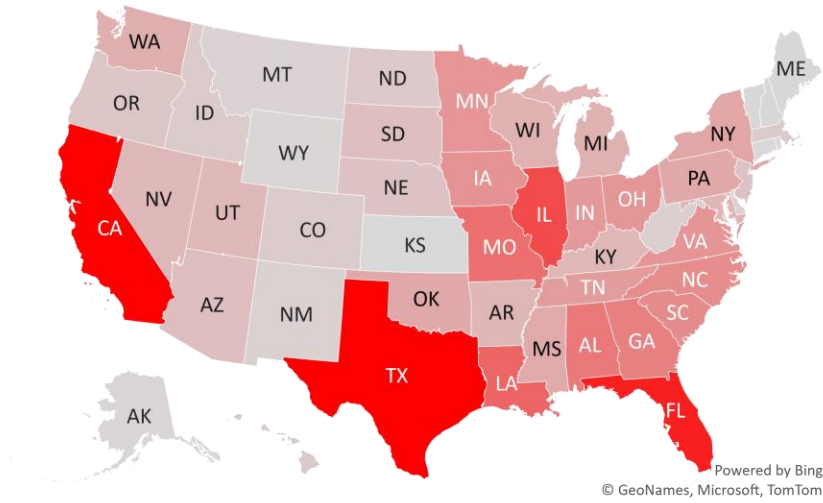
#3: USA State COVID-19 Situation at a Glance...

		Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	8/30/20	7D Delta	8/30/20	7D Delta	# Days	Cases		
United States		100%	37,762	+690	129	-2	44	-41%		
United States (ex-CA)		88%	32,781	+1,397	126	+1	44	-44%		
States:										
1	California	11.9%	6,070	-707	138	-21	37	-53%		
2	Texas	8.7%	3,759	+266	143	-7	44	-65%		
3	Florida	6.5%	2,583	-391	149	-37	48	-75%		
4	Illinois	3.8%	1,992	+99	166	-6	108	-29%		
5	Louisiana	1.4%	1,624	+401	160	+8	40	-72%		
6	Missouri	1.8%	1,465	+647	222	+40	31	-29%		
7	Alabama	1.5%	1,346	-114	286	+45	36	-33%		
8	Georgia	3.2%	1,215	-512	185	-41	36	-54%		
9	South Carolina	1.6%	1,075	+382	241	+68	49	-37%		
10	North Carolina	3.2%	1,051	-421	161	-5	43	-25%		
11	Iowa	1.0%	971	+431	310	+71	2	-20%		
12	Virginia	2.6%	938	+44	124	+3	21	-25%		
13	Minnesota	1.7%	932	+215	165	+31	1	-7%		
14	Ohio	3.5%	922	+285	98	+18	30	-26%		
15	Indiana	2.0%	879	+267	139	+8	21	-15%		
16	Tennessee	2.1%	835	-1,019	192	-40	33	-52%		
17	New York	5.9%	698	+126	34	+1	142	-94%		
18	Pennsylvania	3.9%	670	+51	61	+6	142	-57%		
19	Oklahoma	1.2%	667	+101	208	-2	33	-33%		
20	Mississippi	0.9%	647	+21	222	-52	31	-57%		
21	Washington	2.3%	578	-238	75	-8	46	-44%		
22	Michigan	3.0%	539	-229	69	-1	128	-44%		
23	Wisconsin	1.8%	537	+84	126	-2	36	-27%		
24	Maryland	1.8%	497	-82	95	-8	101	-54%		
25	Arkansas	0.9%	478	+103	233	+33	36	-23%		
26	Kentucky	1.3%	455	-8	153	+11	16	-18%		
27	Utah	1.0%	448	+147	135	+17	43	-47%		
28	Nevada	0.9%	447	-85	183	-36	43	-58%		

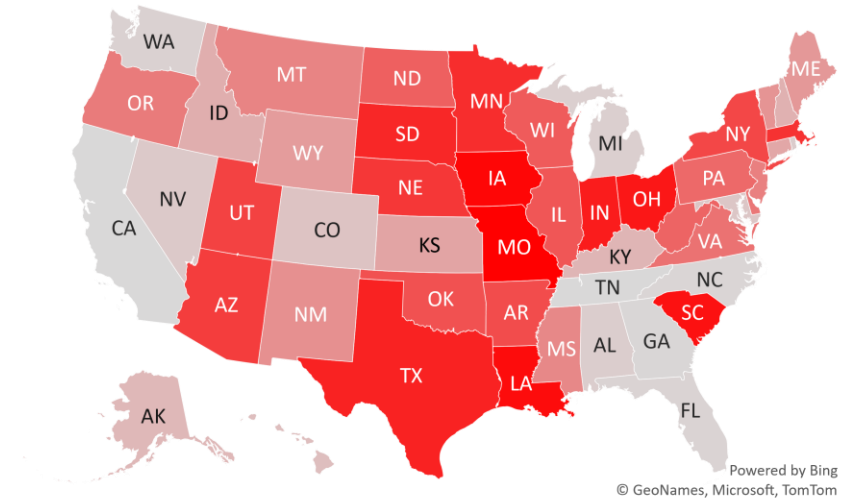
		Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	8/30/20	7D Delta	8/30/20	7D Delta	# Days	Cases		
United States		100%	37,762	+690	129	-2	44	-41%		
United States (ex-CA)		88%	32,781	+1,397	126	+1	44	-44%		
States:										
29	South Dakota	0.3%	380	+239	425	+205	0	0%		
30	Arizona	2.2%	374	+166	70	-14	59	-88%		
31	Nebraska	0.6%	293	+184	163	+70	120	-39%		
32	New Jersey	2.7%	291	+33	37	+1	147	-92%		
33	Oregon	1.3%	261	+36	63	+2	29	-28%		
34	Puerto Rico	1.0%	243	+48	79	-15	12	-42%		
35	North Dakota	0.2%	218	+78	395	+117	1	-11%		
36	Hawaii	0.4%	200	-48	182	+4	1	-12%		
37	Massachusetts	2.1%	199	+199	53	+23	127	-89%		
38	Idaho	0.5%	190	-1	139	+2	44	-63%		
39	Colorado	1.7%	182	-78	51	-2	126	-60%		
40	West Virginia	0.5%	143	+56	89	+35	51	-9%		
41	Delaware	0.3%	109	+42	165	+104	124	-52%		
42	New Mexico	0.6%	105	+11	58	-13	32	-67%		
43	Montana	0.3%	89	+28	128	+15	30	-16%		
44	Alaska	0.2%	44	-20	114	+14	28	-38%		
45	Wyoming	0.2%	36	+0	56	-7	123	-44%		
46	District of Columbia	0.2%	34	-22	78	-8	119	-76%		
47	Maine	0.4%	23	+5	24	+4	100	-53%		
48	Vermont	0.2%	11	+7	16	+5	147	-83%		
49	U.S. Virgin Islands	0.0%	11	+11	240	-44	9	-43%		
50	New Hampshire	0.4%	8	-7	15	+1	120	-84%		
51	Rhode Island	0.3%	0	-88	30	-94	127	-93%		
52	Northern Mariana Islands	0.0%	0	+0	12	+12	149	-67%		
53	Kansas	0.9%	0	+0	127	+17	4	-64%		
54	Guam	0.0%	0	-53	231	-2	3	-65%		
55	Connecticut	1.1%	0	+0	14	+5	130	-97%		
56	American Samoa	0.0%	0	+0	0	+0	-	-		

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

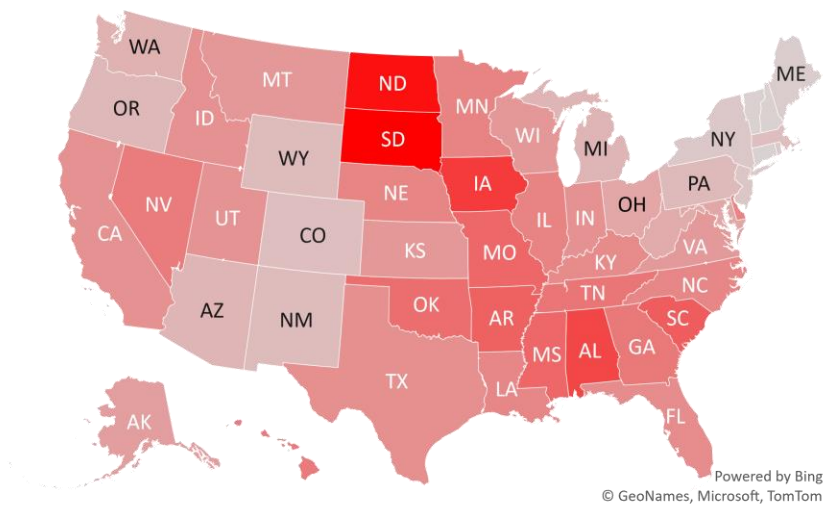
Daily Case Increases



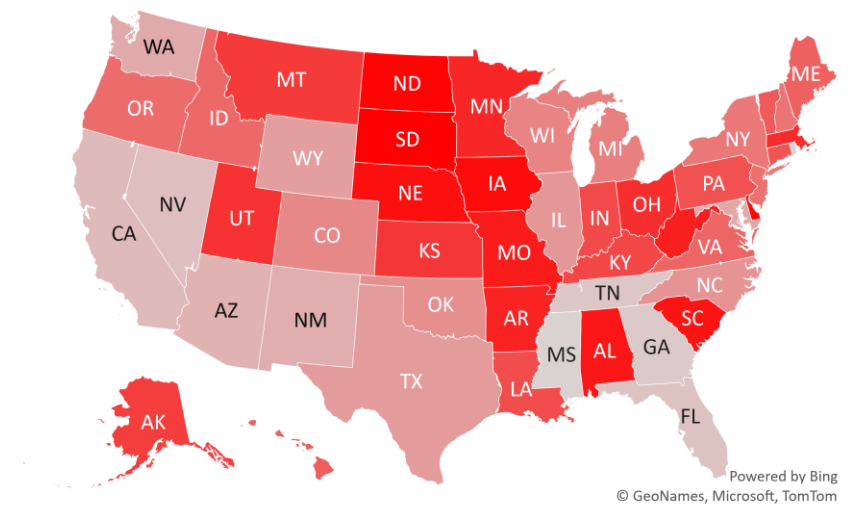
7D Delta in Daily New Cases



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



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



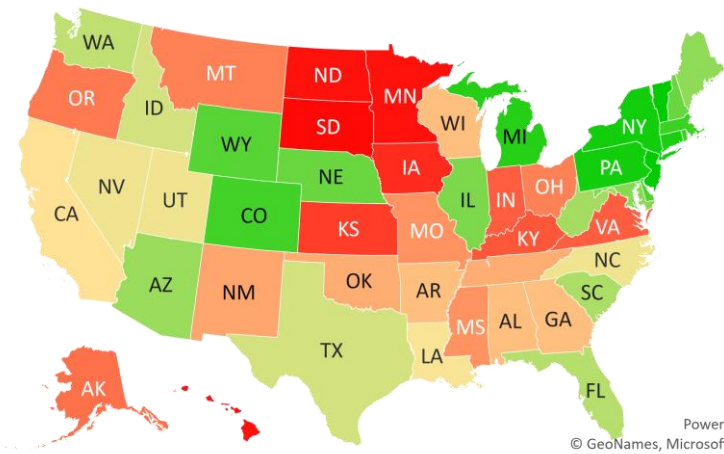
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 8/30)

	Sorted			
	Peak Date	8/30/20	% off the Peak	% US Pop
United States	7/17/20	44	-41%	100%
United States (Ex-CA)	7/17/20	44	-44%	88%
States:				
Northern Mariana Island	4/3/20	149	-67%	0.0%
Vermont	4/5/20	147	-83%	0.2%
New Jersey	4/5/20	147	-92%	2.7%
Pennsylvania	4/10/20	142	-57%	3.9%
New York	4/10/20	142	-94%	5.9%
Connecticut	4/22/20	130	-97%	1.1%
Michigan	4/24/20	128	-44%	3.0%
Rhode Island	4/25/20	127	-93%	0.3%
Massachusetts	4/25/20	127	-89%	2.1%
Colorado	4/26/20	126	-60%	1.7%
Delaware	4/28/20	124	-52%	0.3%
Wyoming	4/29/20	123	-44%	0.2%
New Hampshire	5/2/20	120	-84%	0.4%
Nebraska	5/2/20	120	-39%	0.6%
District of Columbia	5/3/20	119	-76%	0.2%
Illinois	5/14/20	108	-29%	3.8%
Maryland	5/21/20	101	-54%	1.8%
Maine	5/22/20	100	-53%	0.4%
Arizona	7/2/20	59	-88%	2.2%
West Virginia	7/10/20	51	-9%	0.5%
South Carolina	7/12/20	49	-37%	1.6%
Florida	7/13/20	48	-75%	6.5%
Washington	7/15/20	46	-44%	2.3%
Texas	7/17/20	44	-65%	8.7%
Idaho	7/17/20	44	-63%	0.5%
Utah	7/18/20	43	-47%	1.0%
Nevada	7/18/20	43	-58%	0.9%
North Carolina	7/18/20	43	-25%	3.2%

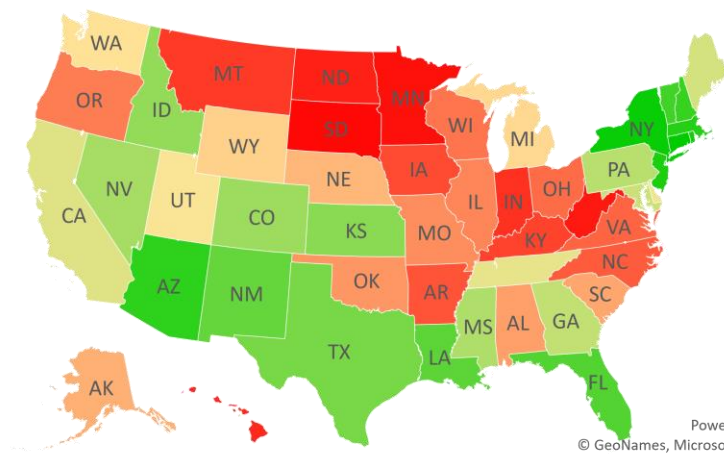
	Sorted			
	Peak Date	8/30/20	% off the Peak	% US Pop
United States	7/17/20	44	-41%	100%
United States (Ex-CA)	7/17/20	44	-44%	88%
States:				
Louisiana	7/21/20	40	-72%	1.4%
California	7/24/20	37	-53%	11.9%
Wisconsin	7/25/20	36	-27%	1.8%
Georgia	7/25/20	36	-54%	3.2%
Arkansas	7/25/20	36	-23%	0.9%
Alabama	7/25/20	36	-33%	1.5%
Tennessee	7/28/20	33	-52%	2.1%
Oklahoma	7/28/20	33	-33%	1.2%
New Mexico	7/29/20	32	-67%	0.6%
Mississippi	7/30/20	31	-57%	0.9%
Missouri	7/30/20	31	-29%	1.8%
Ohio	7/31/20	30	-26%	3.5%
Montana	7/31/20	30	-16%	0.3%
Oregon	8/1/20	29	-28%	1.3%
Alaska	8/2/20	28	-38%	0.2%
Virginia	8/9/20	21	-25%	2.6%
Indiana	8/9/20	21	-15%	2.0%
Kentucky	8/14/20	16	-18%	1.3%
Puerto Rico	8/18/20	12	-42%	1.0%
U.S. Virgin Islands	8/21/20	9	-43%	0.0%
Kansas	8/26/20	4	-64%	0.9%
Guam	8/27/20	3	-65%	0.0%
Iowa	8/28/20	2	-20%	1.0%
North Dakota	8/29/20	1	-11%	0.2%
Minnesota	8/29/20	1	-7%	1.7%
Hawaii	8/29/20	1	-12%	0.4%
South Dakota	8/30/20	0	0%	0.3%

Days since Daily Case Peak: Greener = More Days



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Daily Cases % off the Peak: Greener = Larger Decline



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

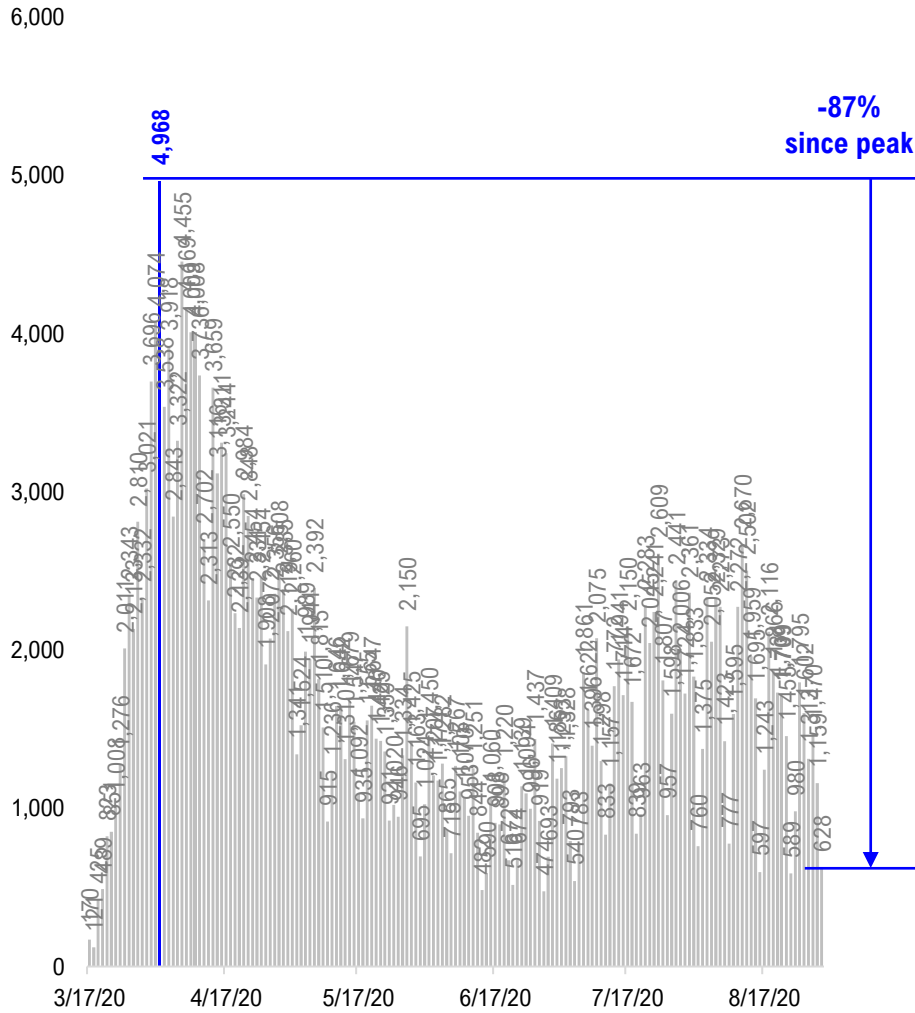
	Sorted				7D Ago		Sorted				7D Ago	
	7D Ago	Last 3-day Trend					7D Ago	Last 3-day Trend				
	8/23/20	8/28/20	8/29/20	8/30/20			8/23/20	8/28/20	8/29/20	8/30/20		
United States	37,072	44,793	44,620	37,762	-6,858		United States	37,072	44,793	44,620	37,762	-6,858
United States (ex-CA)	30,295	39,464	39,639	31,692	-7,947		United States (ex-CA)	30,295	39,464	39,639	31,692	-7,947
States:							States:					
California	6,777	5,329	4,981	6,070			South Dakota	141	323	425	380	
Texas	3,493	3,972	4,732	3,759			Arizona	208	519	629	374	
Florida	2,974	3,815	3,197	2,583			Nebraska	109	335	317	293	
Illinois	1,893	2,434	1,880	1,992			New Jersey	258	358	349	291	
Louisiana	1,223	606	0	1,624	<--higher		Oregon	225	293	239	261	
Missouri	818	1,418	1,198	1,465			Puerto Rico	195	257	260	243	
Alabama	1,460	1,162	1,704	1,346			North Dakota	140	310	374	218	
Georgia	1,727	2,298	2,386	1,215			Hawaii	248	264	309	200	
South Carolina	693	1,353	1,298	1,075			Massachusetts	0	460	446	199	
North Carolina	1,472	1,415	2,585	1,051			Idaho	191	262	293	190	
Iowa	540	1,185	778	971			Colorado	260	430	268	182	
Virginia	894	1,013	1,217	938			West Virginia	87	191	143	143	
Minnesota	717	850	1,017	932			Delaware	67	107	266	109	
Ohio	637	1,296	1,216	922			New Mexico	94	122	136	105	
Indiana	612	809	1,121	879			Montana	61	134	188	89	
Tennessee	1,854	1,636	1,465	835			Alaska	64	117	90	44	
New York	572	636	635	698			Wyoming	36	41	21	36	
Pennsylvania	619	835	843	670			District of Columbia	56	57	74	34	
Oklahoma	566	710	1,093	667			Maine	18	22	53	23	
Mississippi	626	599	735	647			Vermont	4	3	16	11	
Washington	816	542	598	578			U.S. Virgin Islands	0	23	43	11	
Michigan	768	741	779	539			New Hampshire	15	22	30	8	
Wisconsin	453	843	819	537			Rhode Island	88	94	0	0	
Maryland	579	601	630	497			Northern Mariana Islands	0	0	2	0	
Arkansas	375	838	795	478			Kansas	0	1,111	0	0	
Kentucky	463	779	820	455			Guam	53	55	60	0	
Utah	301	391	458	448			Connecticut	0	145	0	0	
Nevada	532	632	609	447			American Samoa	0	0	0	0	

<--higher - if the state has 20% or more daily cases than prior two days...
 Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

#7: US Daily Hospitalizations...(aggregated by data type)

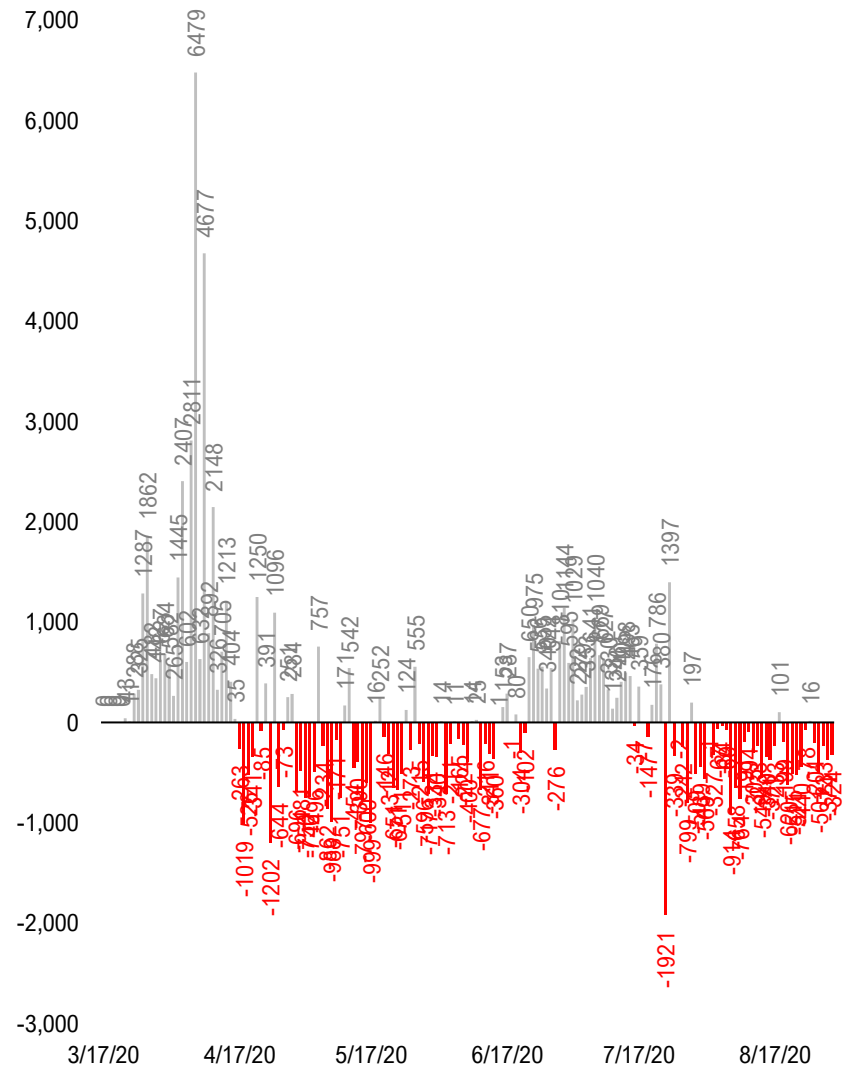
US Gross Hospitalizations

(Composite of 33 states that report "gross hospitalizations")



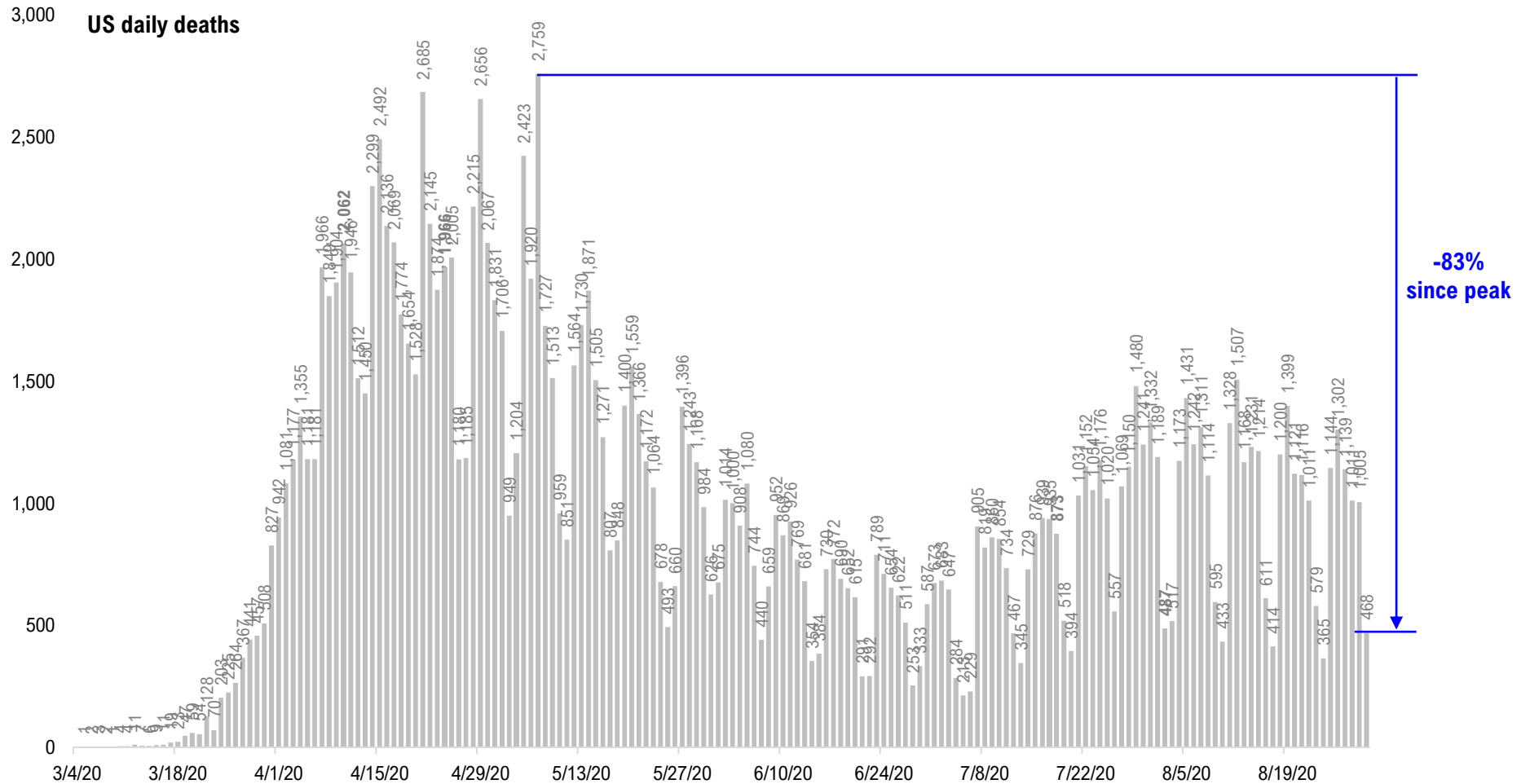
US Net Hospitalizations

(Composite of 18 states that report "net/current hospitalizations")



#8: US Daily New Fatalities...

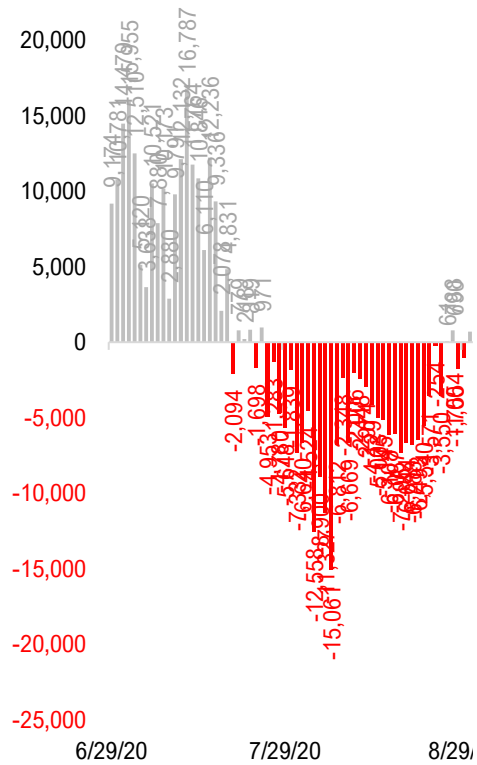
US daily COVID-19 Fatalities



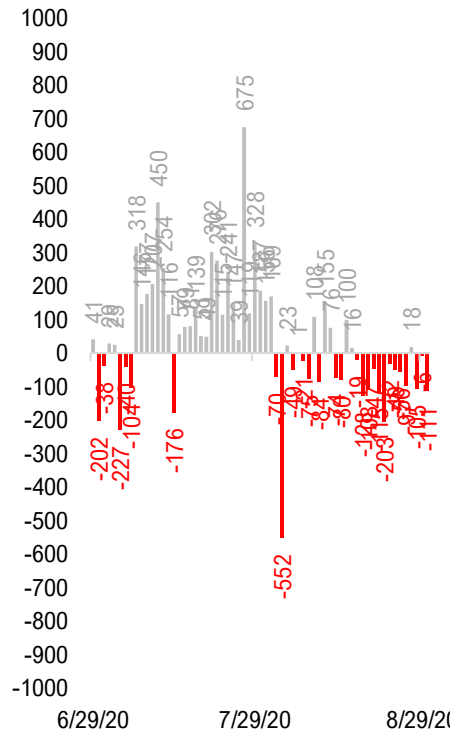
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

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

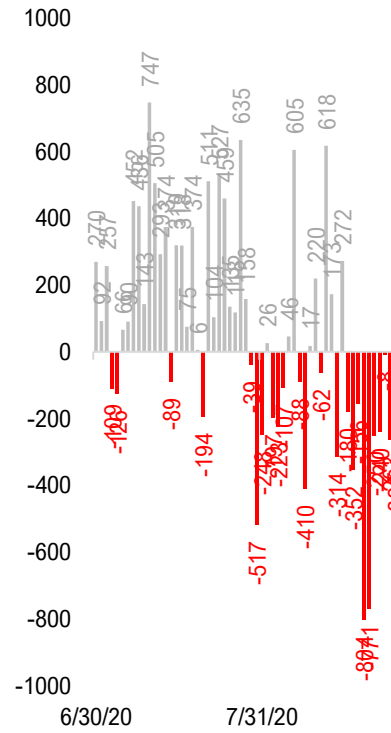
Daily New Cases (8/10-8/23 ex-CA)



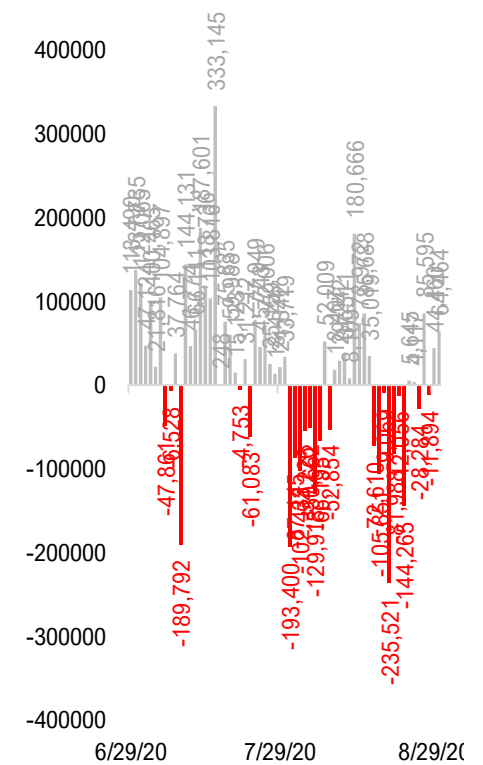
Daily Deaths



Daily New Gross hospitalization (aggregate of 33 states)

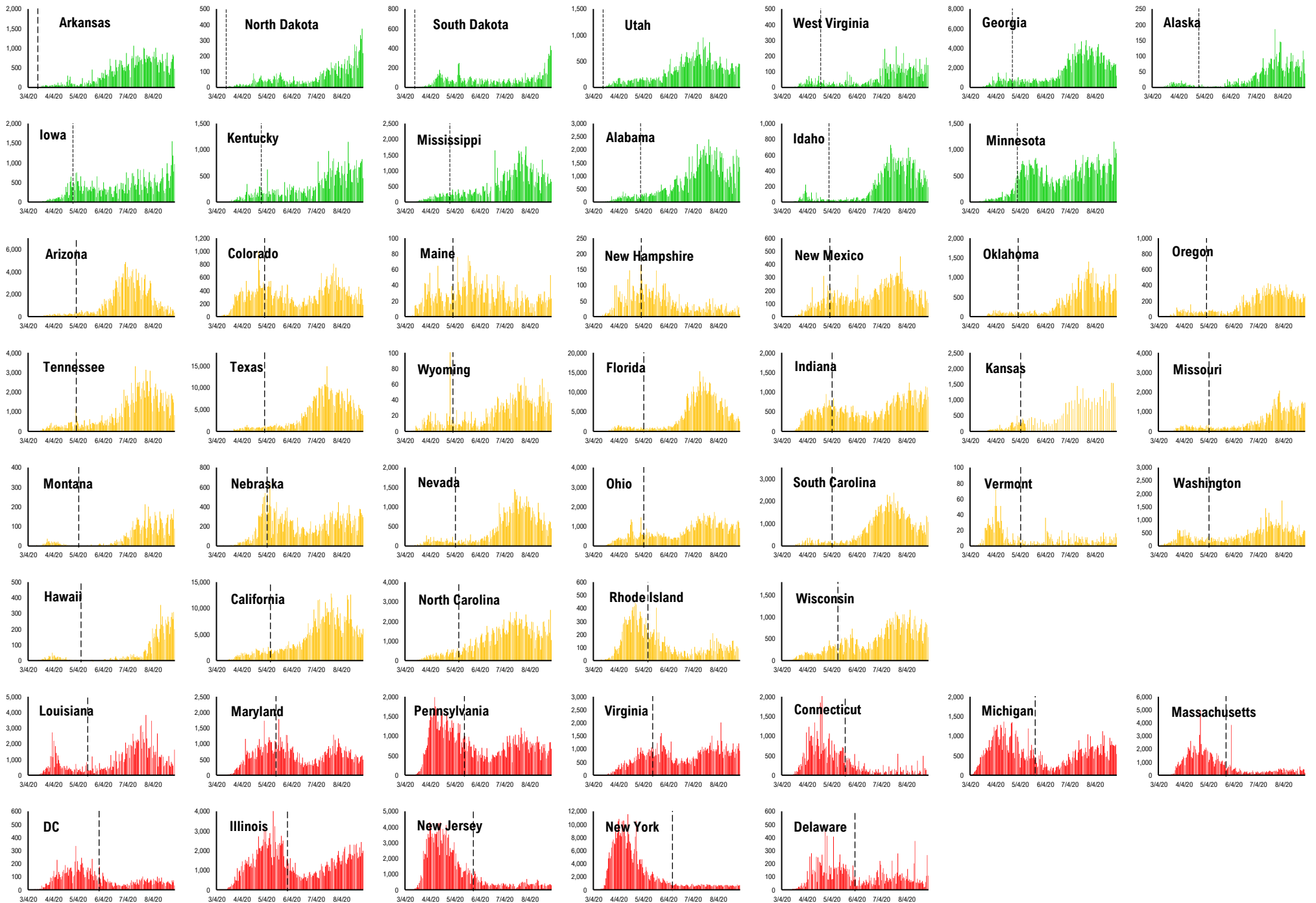


Daily Tests

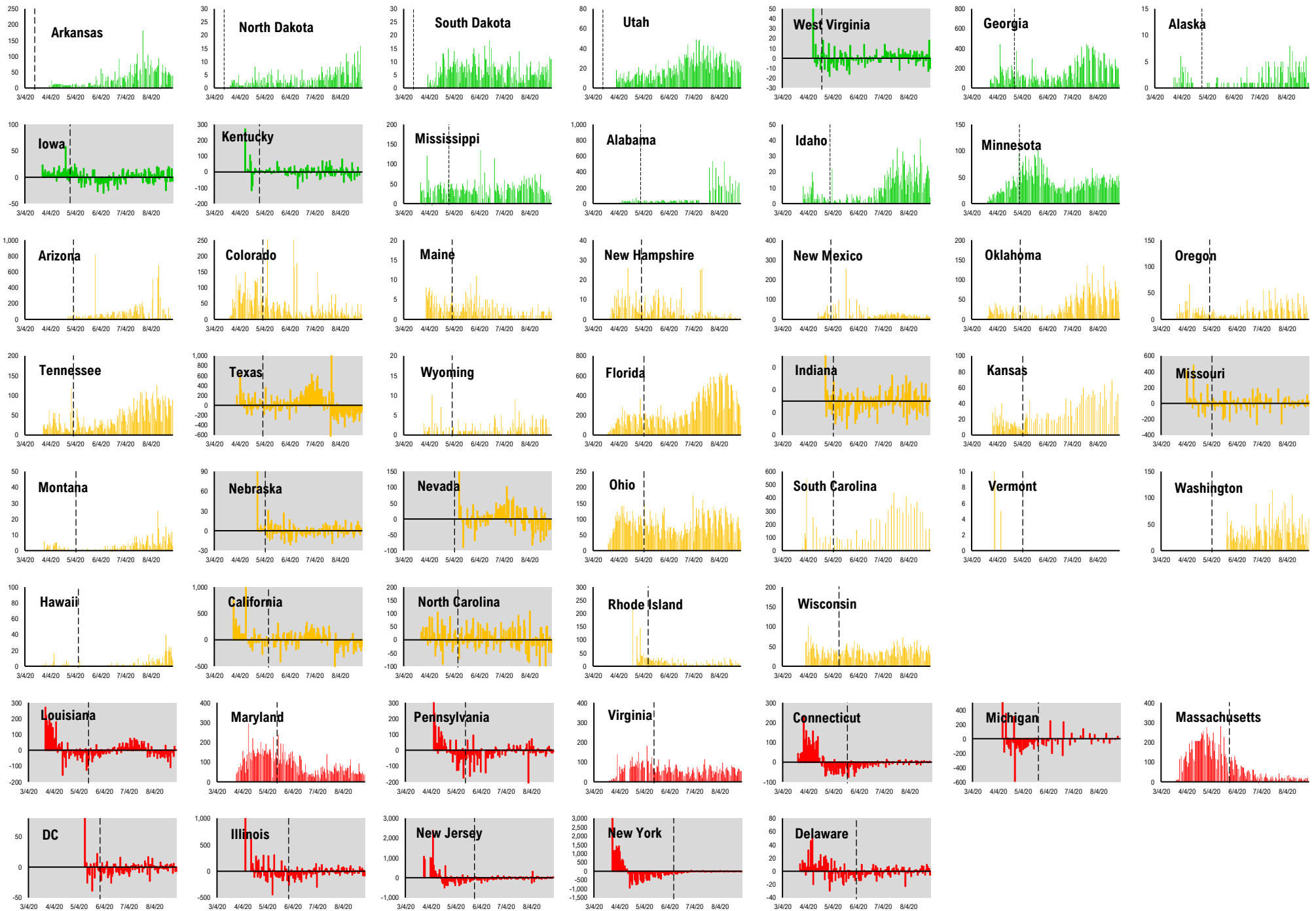


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

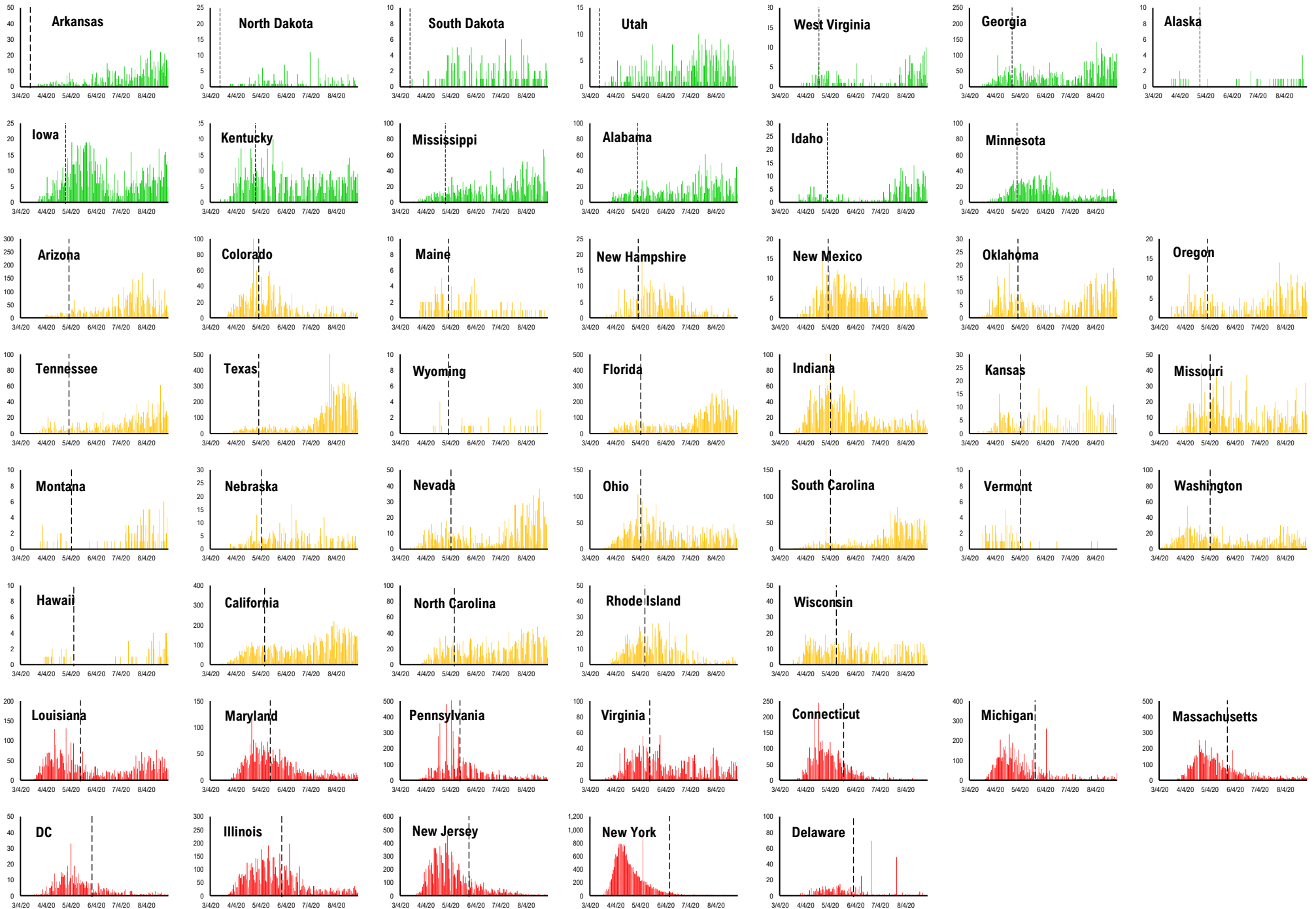
#10: Daily New Cases by States... (sorted by "open" date)



#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...

Daily Cases

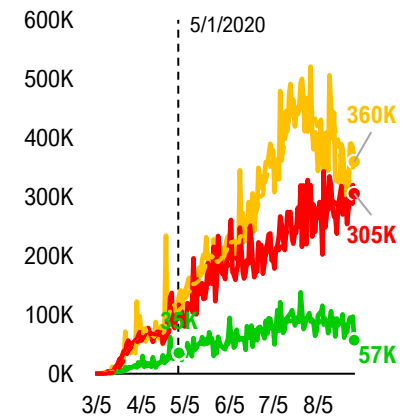
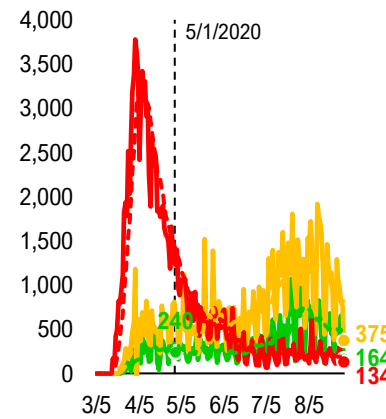
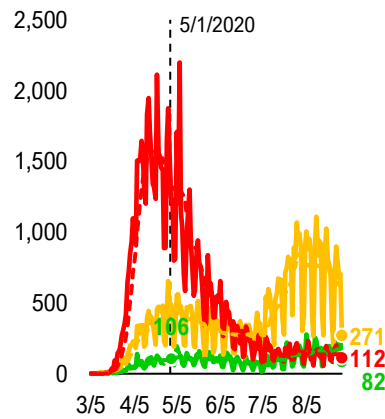
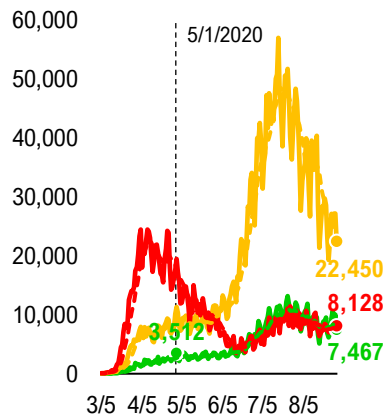
Daily Deaths

Daily Hospitalization

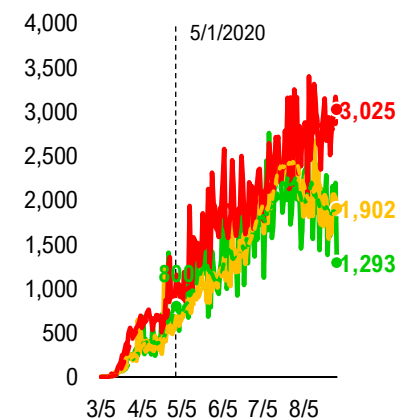
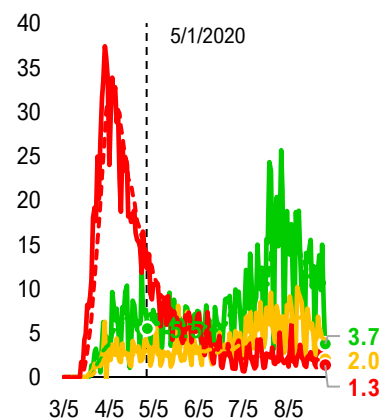
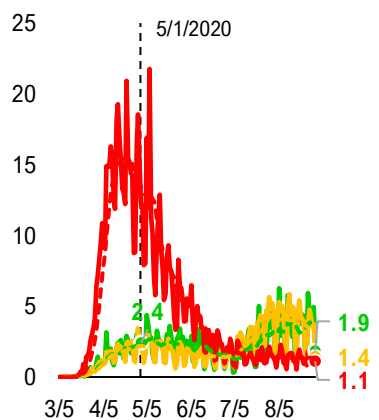
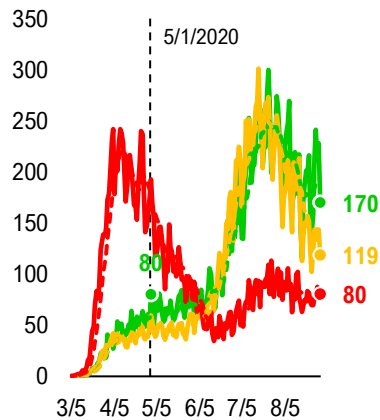
Daily Testing

— States Open Before 5/1 — States Open between 5/1 and 5/11 — States Open after 5/11

Composite Daily Aggregate

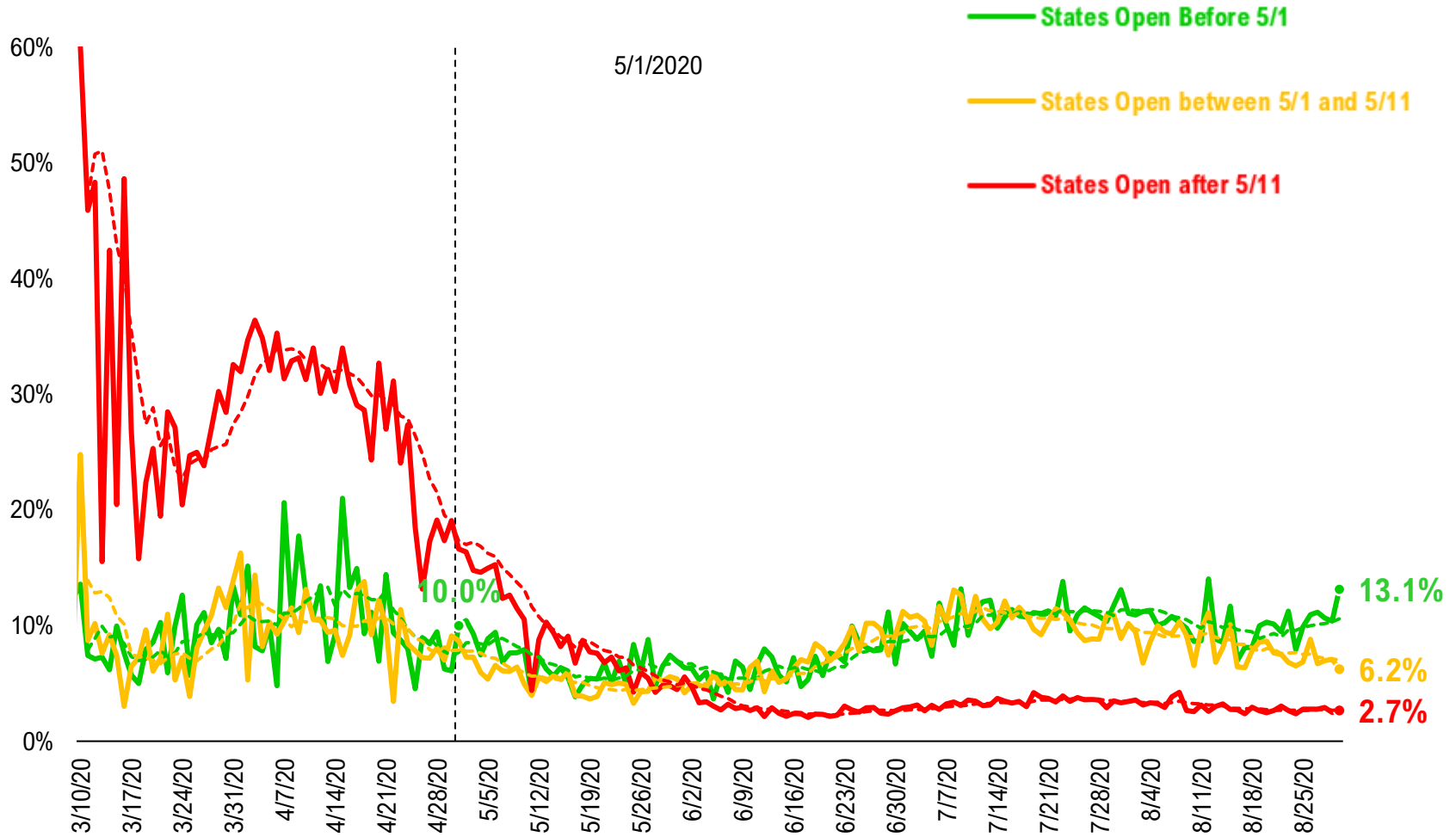


Composite Daily Aggregate Per 1mm Pop

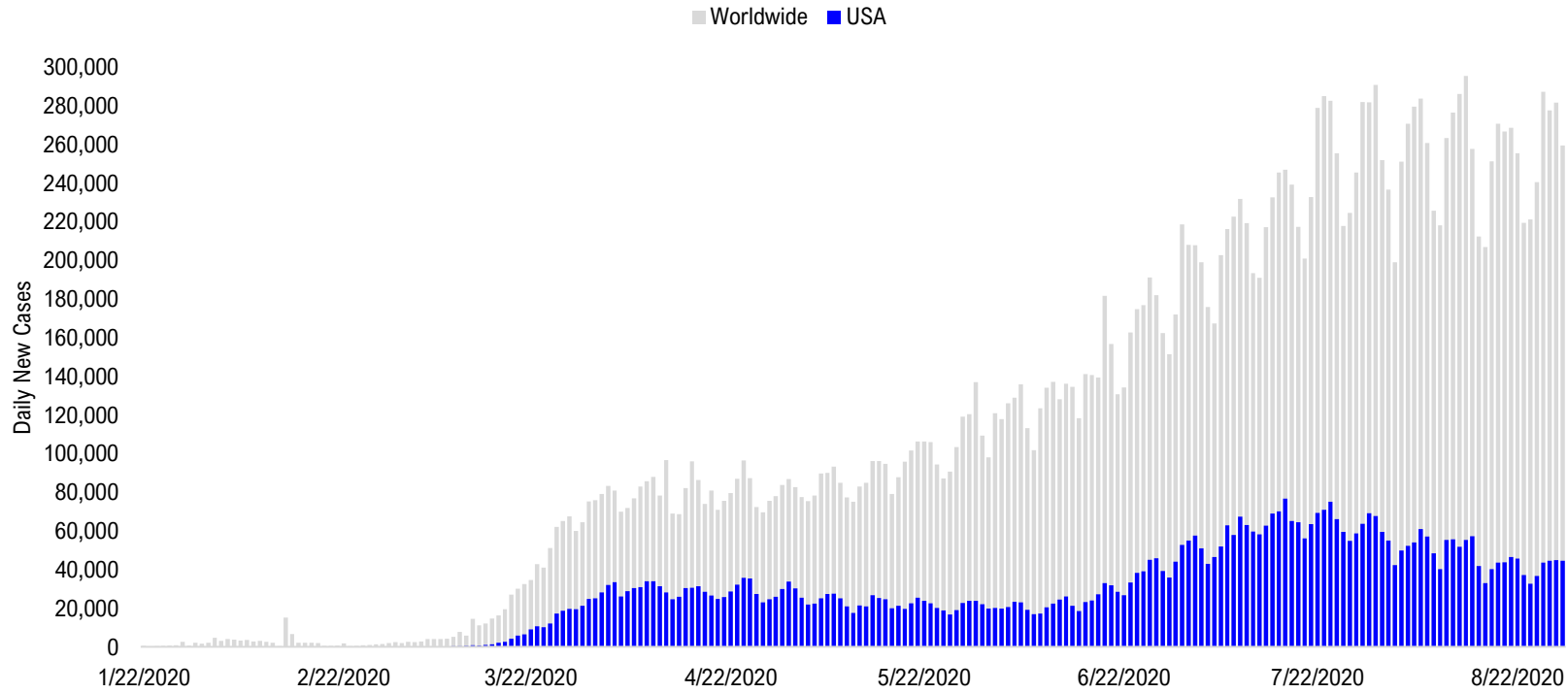


#14: State COVID-19 Daily Positivity Rate by Reopen Date...

Composite Daily Positivity Rate



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



4/10/2020	4/24/2020	5/8/2020	5/22/2020	6/5/2020	6/19/2020	7/3/2020	7/17/2020	7/31/2020	8/14/2020	8/29/2020
Europe 38,507	US + Canada 34,019	US + Canada 28,068	Latin America 33,875	Latin America 47,182	Latin America 58,570	Latin America 72,231	Latin America 72,602	Latin America 97,308	Latin America 100,636	Latin America 86,269
US + Canada 34,328	Europe 30,673	Europe 27,484	US + Canada 25,073	US + Canada 21,894	US + Canada 28,473	US + Canada 55,408	US + Canada 72,365	US + Canada 67,272	Pakistan + India + Bangladesh 68,924	Pakistan + India + Bangladesh 80,152
Latin America 5,790	Latin America 11,820	Latin America 18,868	Europe 19,494	Europe 17,839	Pakistan + India + Bangladesh 22,981	Pakistan + India + Bangladesh 27,389	Pakistan + India + Bangladesh 39,450	Pakistan + India + Bangladesh 58,625	US + Canada 54,663	US + Canada 45,072
Asia ex- India+Pakistan 1,638	Pakistan + India + Bangladesh 2,801	Pakistan + India + Bangladesh 5,721	Pakistan + India + Bangladesh 9,981	Pakistan + India + Bangladesh 16,820	Europe 18,534	Europe 15,950	Africa 19,290	Europe 20,854	Europe 28,282	Europe 31,568
Pakistan + India + Bangladesh 1,098	Asia ex- India+Pakistan 2,369	Africa 2,945	Africa 4,166	Africa 6,467	Africa 8,930	Africa 14,218	Europe 17,320	Africa 17,999	Africa 10,680	Asia ex- India+Pakistan 9,712
Africa 760	Africa 1,520	Asia ex- India+Pakistan 1,906	Asia ex- India+Pakistan 2,225	Asia ex- India+Pakistan 2,565	Asia ex- India+Pakistan 3,314	Asia ex- India+Pakistan 12,006	Asia ex- India+Pakistan 7,321	Asia ex- India+Pakistan 10,630	Asia ex- India+Pakistan 10,512	Africa 8,366

Disclosures

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