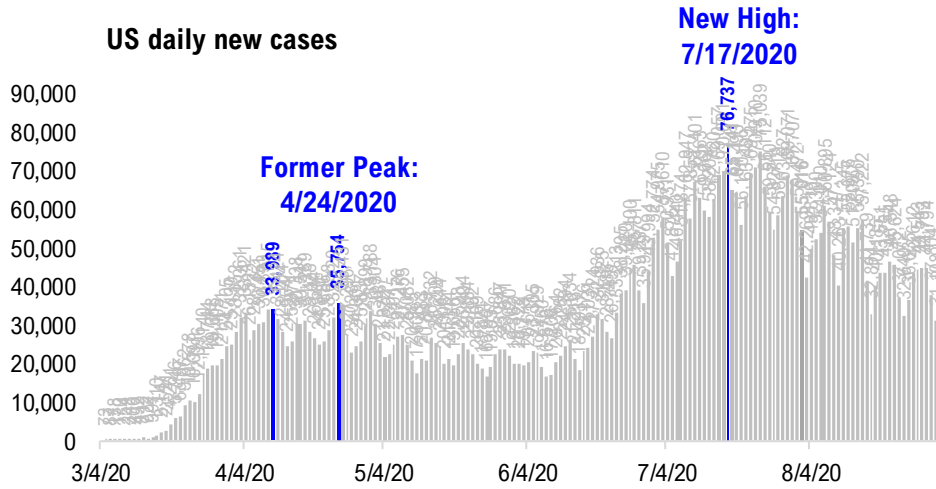


# FSInsight Daily COVID-19 Chartbook

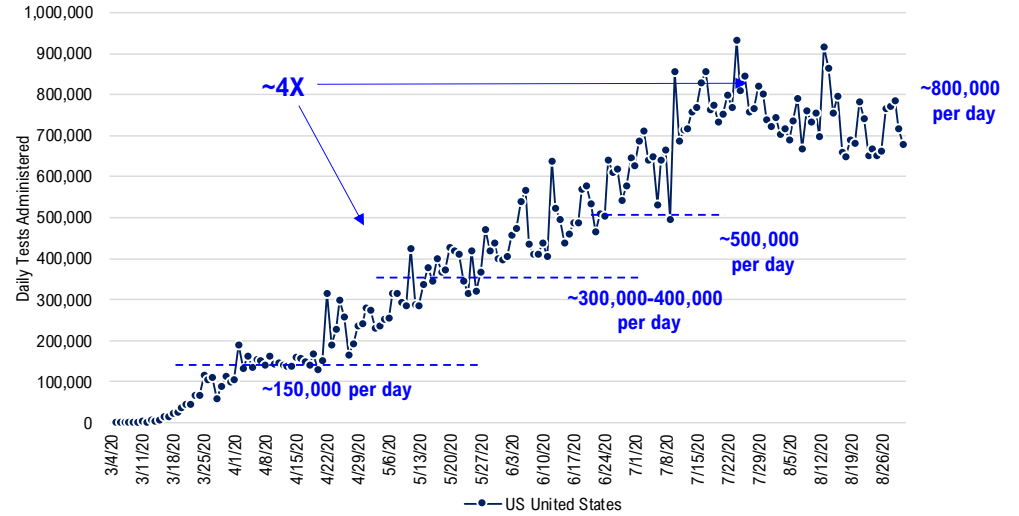


# #1: USA COVID-19 Situation at a Glance...

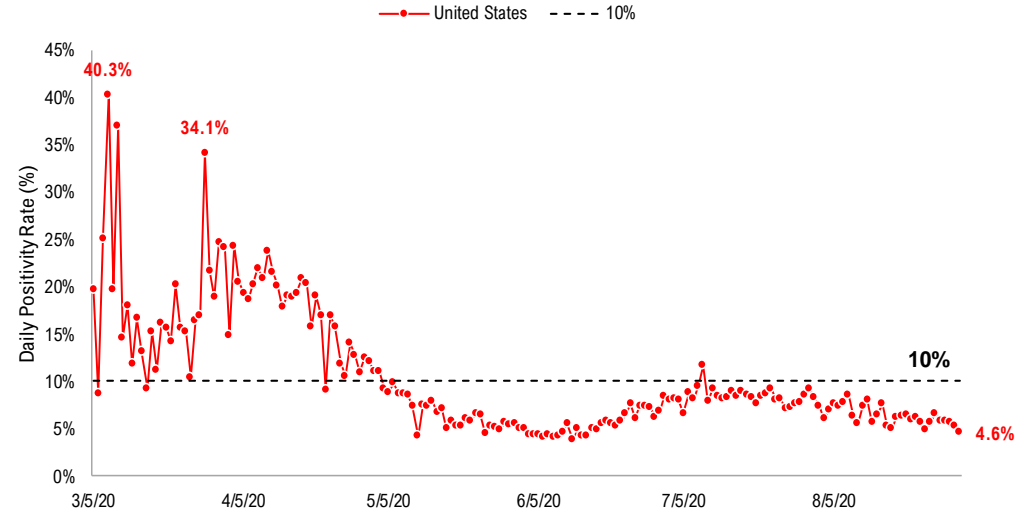
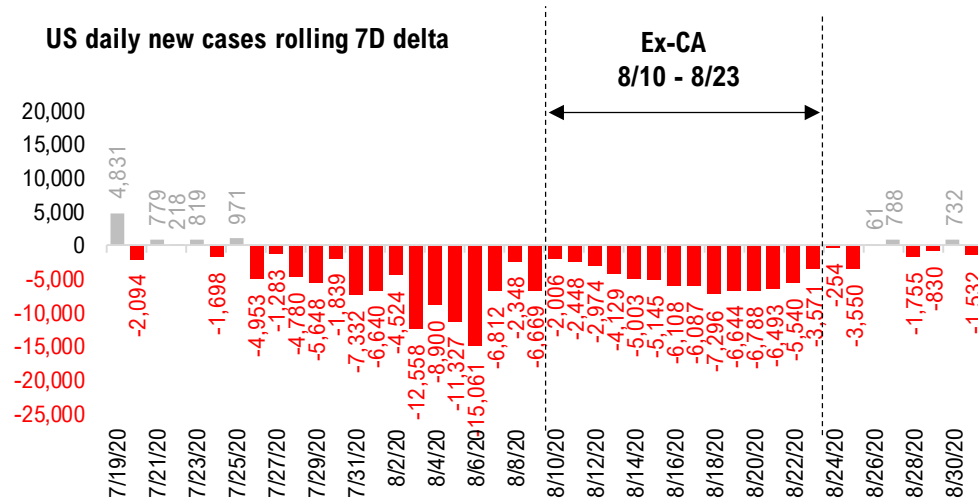
**US daily new cases**



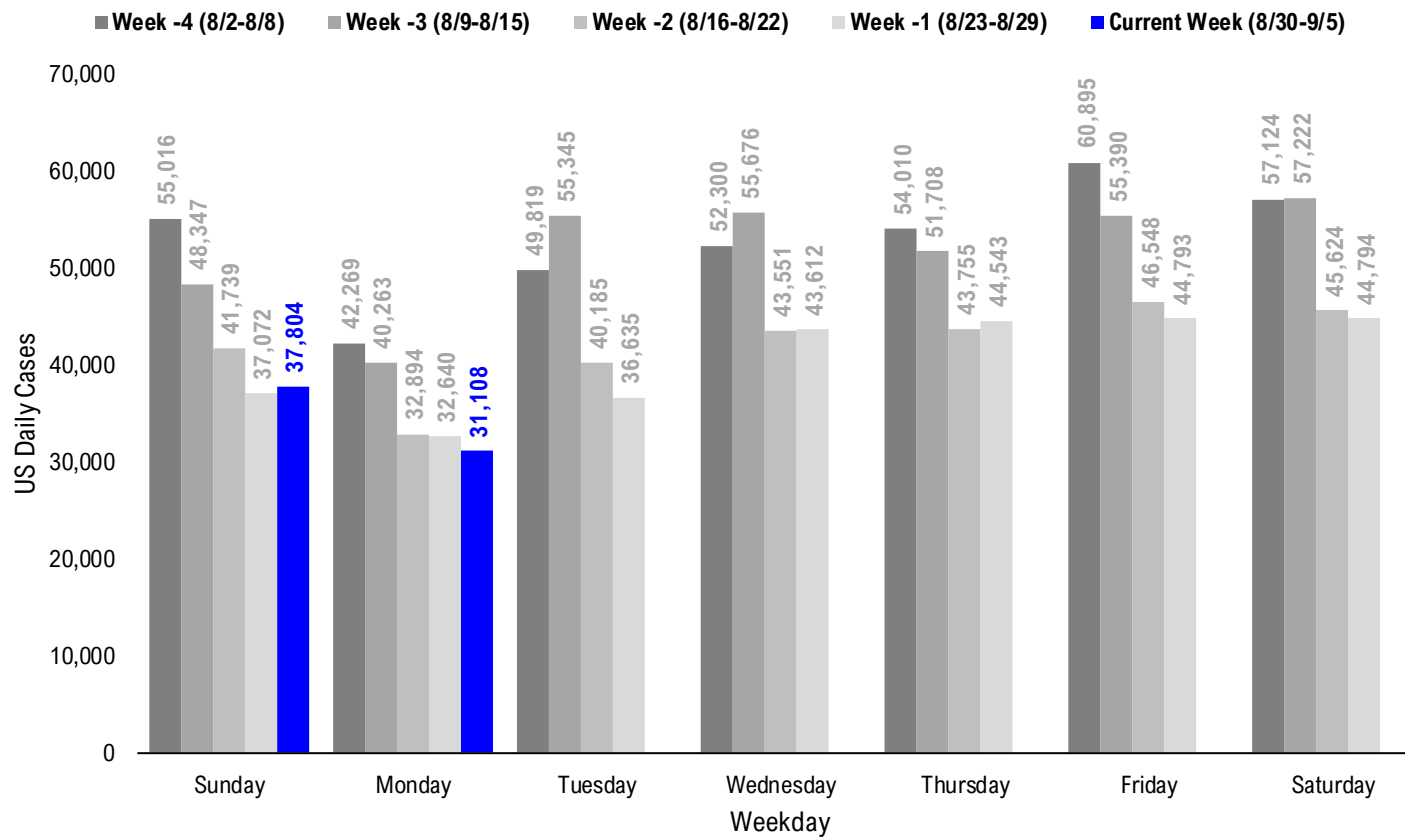
**USA total COVID-19 tests administered**



**US daily new cases rolling 7D delta**



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

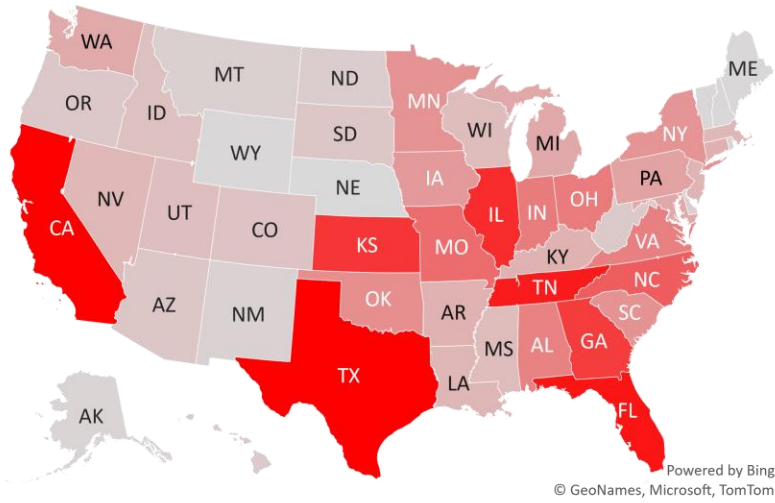


# #3: USA State COVID-19 Situation at a Glance...

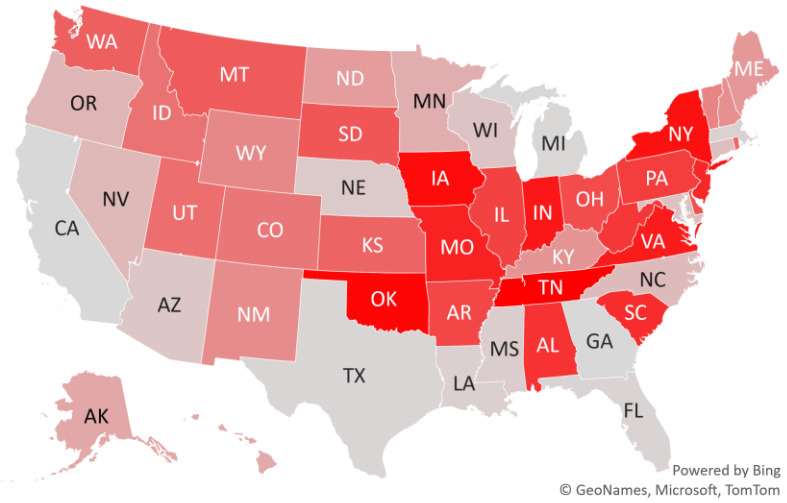
	Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases		Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases
	% US Pop	8/31/20	7D Delta	8/31/20	7D Delta	# Days				% US Pop	8/31/20	7D Delta	8/31/20	7D Delta	# Days		
United States	100%	31,108	-1,532	115	-2	45	-47%		United States	100%	31,108	-1,532	115	-2	45	-47%	
United States (ex-CA)	88%	25,038	-762	111	+2	45	-54%		United States (ex-CA)	88%	25,038	-762	111	+2	45	-54%	
<b>States:</b>									<b>States:</b>								
1 California	11.9%	4,176	-770	128	-26	38	-56%		29 Massachusetts	2.1%	304	-358	46	+7	128	-91%	
2 Texas	8.7%	2,374	-380	125	-4	45	-70%		30 Mississippi	0.9%	274	-237	185	-48	32	-64%	
3 Florida	6.5%	1,885	-373	119	-29	49	-80%		31 Wisconsin	1.8%	266	-126	93	-10	37	-46%	
4 Tennessee	2.1%	1,818	+1,151	201	+17	34	-50%		32 Utah	1.0%	253	+4	121	+25	44	-53%	
5 Illinois	3.8%	1,668	+56	146	-8	109	-38%		33 Puerto Rico	1.0%	247	-198	78	-16	13	-42%	
6 Kansas	0.9%	1,564	+19	179	+2	5	-49%		34 Idaho	0.5%	221	+4	131	+1	45	-65%	
7 Georgia	3.2%	1,498	-806	160	-48	37	-60%		35 Colorado	1.7%	201	+3	38	-6	127	-70%	
8 North Carolina	3.2%	1,186	-97	153	+11	44	-28%		36 South Dakota	0.3%	187	+38	374	+170	1	-12%	
9 Missouri	1.8%	1,042	+173	201	+39	32	-36%		37 Arizona	2.2%	174	-137	54	-15	60	-91%	
10 Ohio	3.5%	895	+46	86	+12	31	-35%		38 Oregon	1.3%	162	-58	52	-6	30	-40%	
11 Indiana	2.0%	883	+195	143	+29	22	-13%		39 West Virginia	0.5%	140	+100	79	+33	52	-18%	
12 Virginia	2.6%	847	+183	117	+9	22	-29%		40 Hawaii	0.4%	133	-36	151	-13	2	-27%	
13 Alabama	1.5%	823	+105	263	-5	37	-39%		41 North Dakota	0.2%	114	-10	309	+79	2	-31%	
14 Oklahoma	1.2%	713	+356	208	+59	34	-33%		42 Delaware	0.3%	86	+39	158	+99	125	-54%	
15 Minnesota	1.7%	675	-39	155	+27	2	-13%		43 Montana	0.3%	82	+30	112	+27	31	-27%	
16 South Carolina	1.6%	668	+105	197	+56	50	-49%		44 New Mexico	0.6%	69	-4	49	-10	33	-72%	
17 New York	5.9%	656	+248	34	+6	143	-94%		45 Guam	0.0%	48	-39	217	-64	4	-67%	
18 Iowa	1.0%	608	+250	249	+77	3	-36%		46 Rhode Island	0.3%	46	+7	84	-4	128	-79%	
19 Pennsylvania	3.9%	521	+95	53	+5	143	-62%		47 Alaska	0.2%	37	-32	78	-23	29	-57%	
20 Maryland	1.8%	458	-109	87	-10	102	-58%		48 District of Columbia	0.2%	33	-16	67	-14	120	-80%	
21 Michigan	3.0%	451	-417	59	-27	129	-52%		49 Wyoming	0.2%	22	-2	45	+0	124	-55%	
22 Washington	2.3%	441	+24	71	-0	47	-48%		50 New Hampshire	0.4%	21	-6	14	-1	121	-84%	
23 Connecticut	1.1%	384	-108	36	-10	131	-91%		51 Maine	0.4%	14	-7	22	+5	101	-57%	
24 Arkansas	0.9%	368	+48	181	+44	37	-40%		52 Vermont	0.2%	8	-1	19	+5	148	-80%	
25 Kentucky	1.3%	364	-6	122	+0	17	-35%		53 U.S. Virgin Islands	0.0%	5	-19	184	+22	10	-57%	
26 New Jersey	2.7%	349	+124	37	+3	148	-92%		54 Nebraska	0.6%	0	-158	105	+33	121	-60%	
27 Louisiana	1.4%	326	-297	140	+7	41	-76%		55 Northern Mariana Islands	0.0%	0	+0	12	+12	150	-67%	
28 Nevada	0.9%	320	-89	149	-22	44	-66%		56 American Samoa	0.0%	0	+0	0	+0	-	-	

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

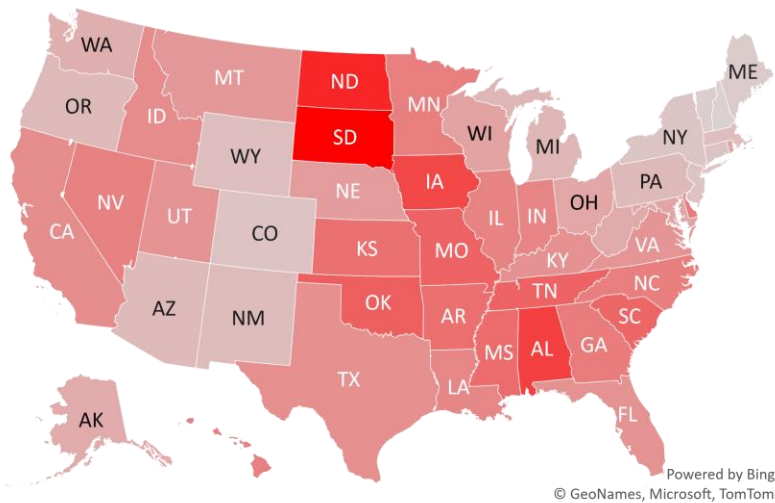
### Daily Case Increases



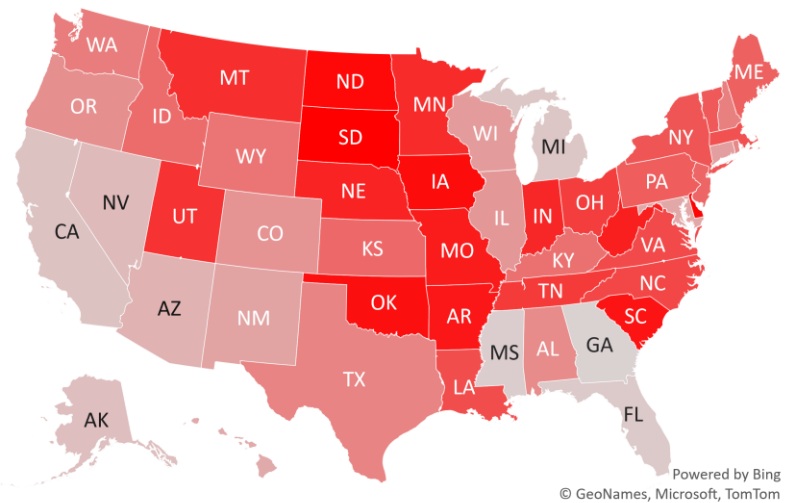
### 7D Delta in Daily New Cases



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



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



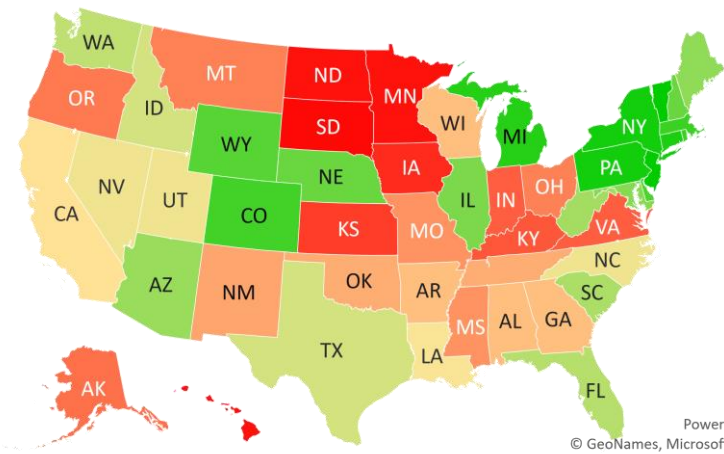
# #5: # of Days since Daily Case Peaked by States...

## # Days since Daily Cases (3D Avg) Peak (as of 8/31)

	Sorted			
	Peak Date	8/31/20	% off the Peak	% US Pop
United States	7/17/20	45	-47%	100%
United States (Ex-CA)	7/17/20	45	-54%	88%
<b>States:</b>				
Northern Mariana Island	4/3/20	150	-67%	0.0%
Vermont	4/5/20	148	-80%	0.2%
New Jersey	4/5/20	148	-92%	2.7%
Pennsylvania	4/10/20	143	-62%	3.9%
New York	4/10/20	143	-94%	5.9%
Connecticut	4/22/20	131	-91%	1.1%
Michigan	4/24/20	129	-52%	3.0%
Rhode Island	4/25/20	128	-79%	0.3%
Massachusetts	4/25/20	128	-91%	2.1%
Colorado	4/26/20	127	-70%	1.7%
Delaware	4/28/20	125	-54%	0.3%
Wyoming	4/29/20	124	-55%	0.2%
New Hampshire	5/2/20	121	-84%	0.4%
Nebraska	5/2/20	121	-60%	0.6%
District of Columbia	5/3/20	120	-80%	0.2%
Illinois	5/14/20	109	-38%	3.8%
Maryland	5/21/20	102	-58%	1.8%
Maine	5/22/20	101	-57%	0.4%
Arizona	7/2/20	60	-91%	2.2%
West Virginia	7/10/20	52	-18%	0.5%
South Carolina	7/12/20	50	-49%	1.6%
Florida	7/13/20	49	-80%	6.5%
Washington	7/15/20	47	-48%	2.3%
Texas	7/17/20	45	-70%	8.7%
Idaho	7/17/20	45	-65%	0.5%
Utah	7/18/20	44	-53%	1.0%
Nevada	7/18/20	44	-66%	0.9%
North Carolina	7/18/20	44	-28%	3.2%

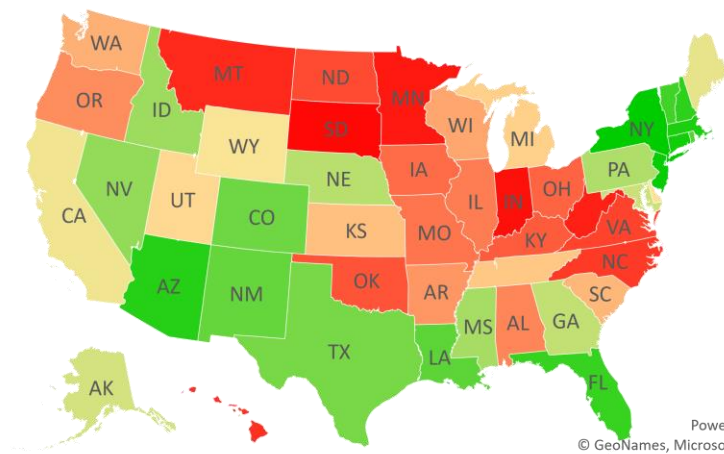
	Sorted			
	Peak Date	8/31/20	% off the Peak	% US Pop
United States	7/17/20	45	-47%	100%
United States (Ex-CA)	7/17/20	45	-54%	88%
<b>States:</b>				
Louisiana	7/21/20	41	-76%	1.4%
California	7/24/20	38	-56%	11.9%
Wisconsin	7/25/20	37	-46%	1.8%
Georgia	7/25/20	37	-60%	3.2%
Arkansas	7/25/20	37	-40%	0.9%
Alabama	7/25/20	37	-39%	1.5%
Tennessee	7/28/20	34	-50%	2.1%
Oklahoma	7/28/20	34	-33%	1.2%
New Mexico	7/29/20	33	-72%	0.6%
Mississippi	7/30/20	32	-64%	0.9%
Missouri	7/30/20	32	-36%	1.8%
Ohio	7/31/20	31	-35%	3.5%
Montana	7/31/20	31	-27%	0.3%
Oregon	8/1/20	30	-40%	1.3%
Alaska	8/2/20	29	-57%	0.2%
Virginia	8/9/20	22	-29%	2.6%
Indiana	8/9/20	22	-13%	2.0%
Kentucky	8/14/20	17	-35%	1.3%
Puerto Rico	8/18/20	13	-42%	1.0%
U.S. Virgin Islands	8/21/20	10	-57%	0.0%
Kansas	8/26/20	5	-49%	0.9%
Guam	8/27/20	4	-67%	0.0%
Iowa	8/28/20	3	-36%	1.0%
North Dakota	8/29/20	2	-31%	0.2%
Minnesota	8/29/20	2	-13%	1.7%
Hawaii	8/29/20	2	-27%	0.4%
South Dakota	8/30/20	1	-12%	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	Last 3-day Trend			
	8/24/20	8/29/20	8/30/20	8/31/20	
United States	32,640	44,794	37,804	31,108	-6,696
United States (ex-CA)	27,694	39,813	31,734	26,932	-4,802
<b>States:</b>					
California	4,946	4,981	6,070	4,176	
Texas	2,754	4,732	3,759	2,374	
Florida	2,258	3,197	2,583	1,885	
Tennessee	667	1,465	835	1,818	<--higher
Illinois	1,612	1,880	1,992	1,668	
Kansas	1,545	0	0	1,564	
Georgia	2,304	2,386	1,215	1,498	
North Carolina	1,283	2,585	1,051	1,186	
Missouri	869	1,198	1,465	1,042	
Ohio	849	1,216	922	895	
Indiana	688	1,121	879	883	
Virginia	664	1,217	938	847	
Alabama	718	1,704	1,346	823	
Oklahoma	357	1,093	667	713	
Minnesota	714	1,017	932	675	
South Carolina	563	1,298	1,075	668	
New York	408	635	698	656	
Iowa	358	778	971	608	
Pennsylvania	426	843	670	521	
Maryland	567	630	497	458	
Michigan	868	779	539	451	
Washington	417	598	578	441	
Connecticut	492	0	0	384	
Arkansas	320	795	478	368	
Kentucky	370	820	455	364	
New Jersey	225	349	291	349	
Louisiana	623	0	1,624	326	
Nevada	409	609	447	320	

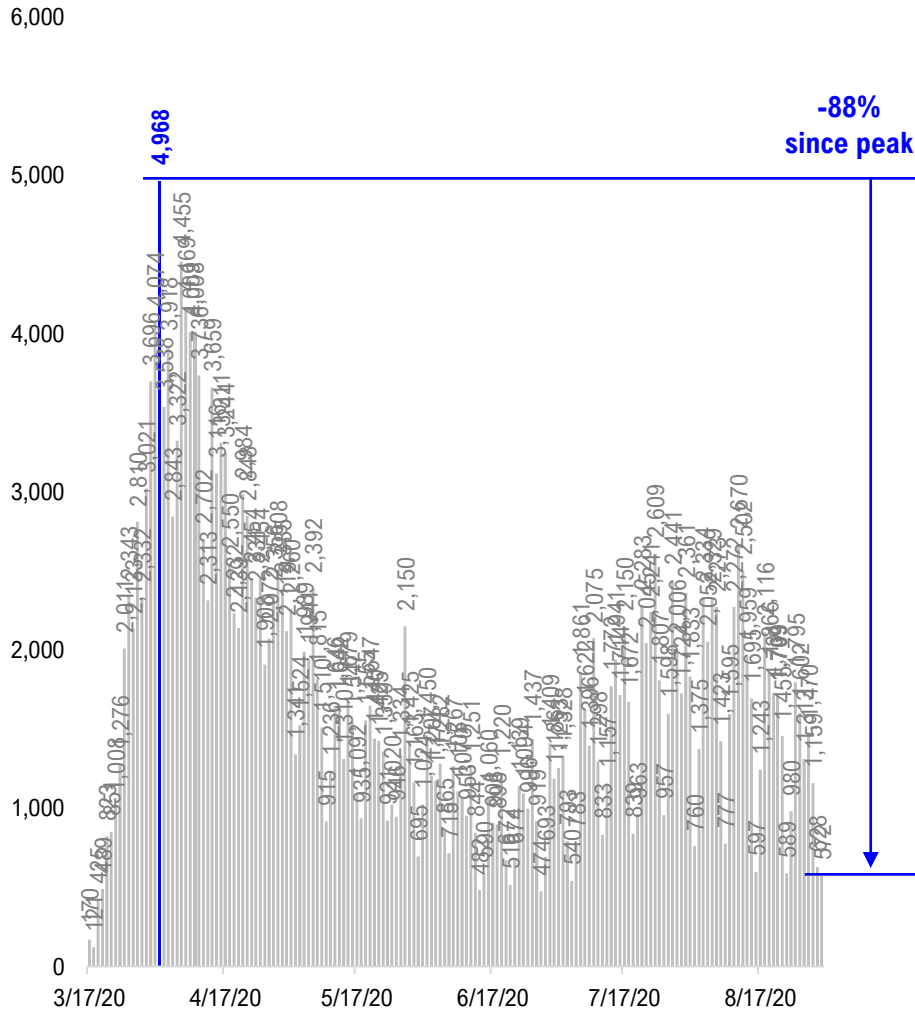
*Sorted*

	7D Ago	Last 3-day Trend			
	8/24/20	8/29/20	8/30/20	8/31/20	
United States	32,640	44,794	37,804	31,108	-6,696
United States (ex-CA)	27,694	39,813	31,734	26,932	-4,802
<b>States:</b>					
Massachusetts	662	446	199	304	
Mississippi	511	735	647	274	
Wisconsin	392	819	537	266	
Utah	249	458	448	253	
Puerto Rico	445	260	243	247	
Idaho	217	293	190	221	
Colorado	198	268	182	201	
South Dakota	149	425	380	187	
Arizona	311	629	374	174	
Oregon	220	239	258	162	
West Virginia	40	143	143	140	
Hawaii	169	309	200	133	
North Dakota	124	374	218	114	
Delaware	47	266	109	86	
Montana	52	188	88	82	
New Mexico	73	136	105	69	
Guam	87	60	0	48	
Rhode Island	39	174	46	46	
Alaska	69	90	44	37	
District of Columbia	49	74	34	33	
Wyoming	24	21	36	22	
New Hampshire	27	30	8	21	
Maine	21	53	23	14	
Vermont	9	16	11	8	
U.S. Virgin Islands	24	43	11	5	
Nebraska	158	317	293	0	
Northern Mariana Islands	0	2	0	0	
American Samoa	0	0	0	0	

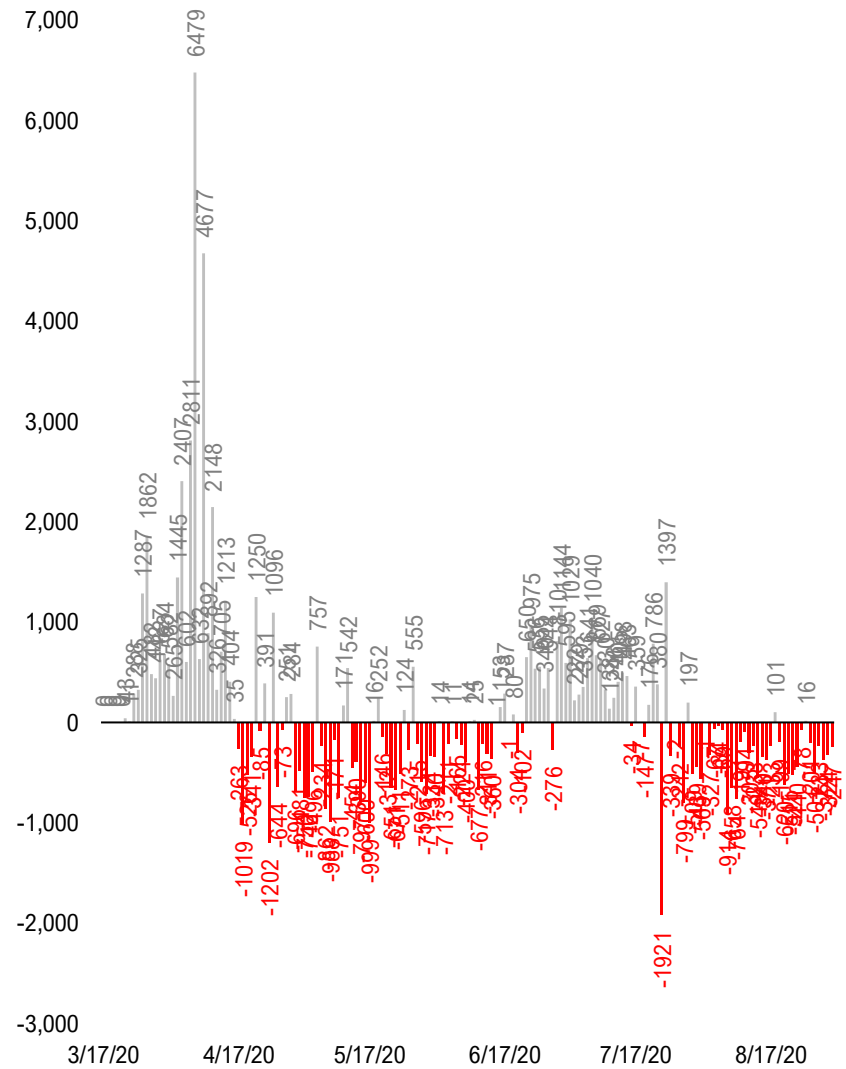
<--higher -- if the state has 20% or more daily cases than prior two days...  
 Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

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

**US Gross Hospitalizations**  
(Composite of 33 states that report "gross hospitalizations")



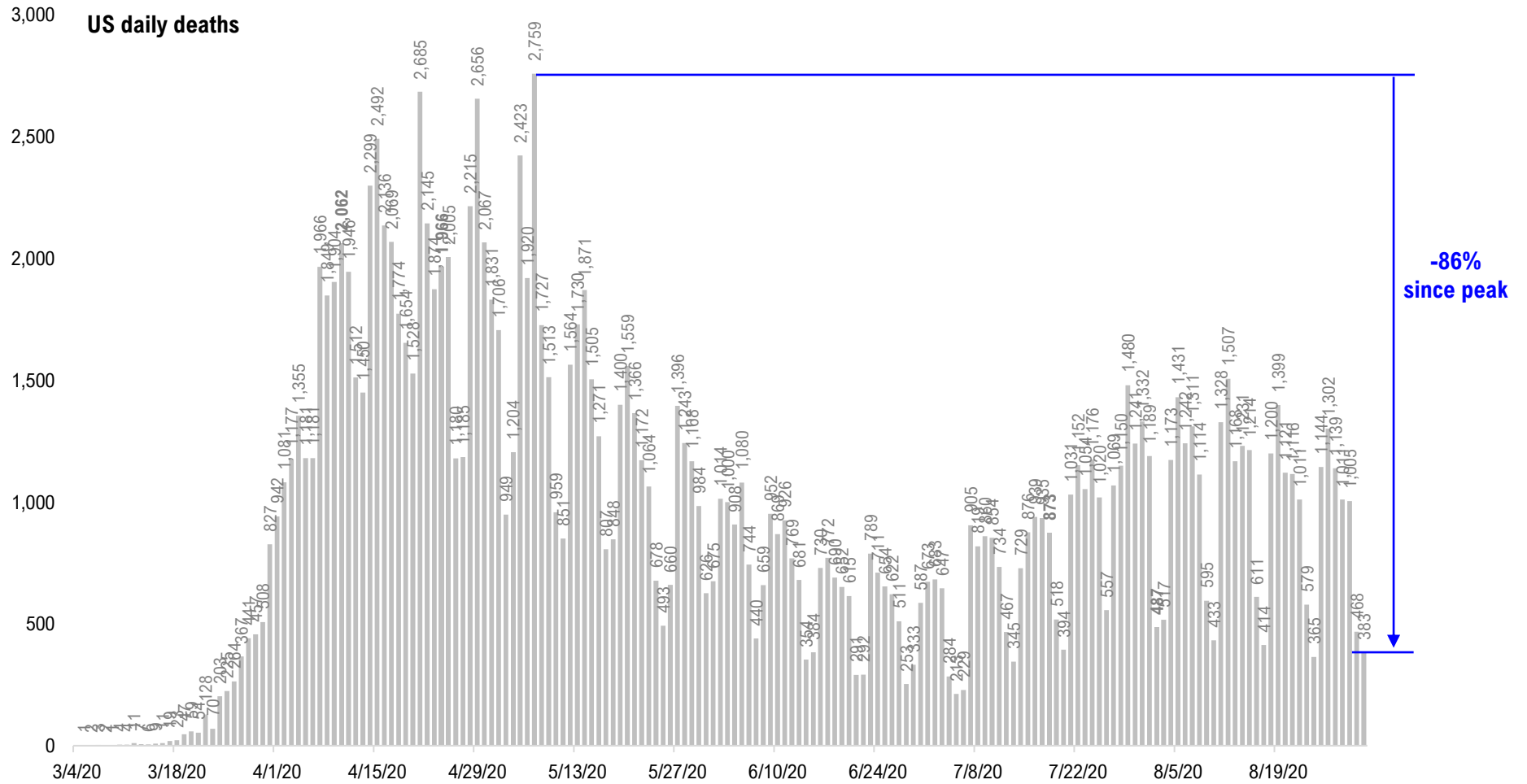
**US Net Hospitalizations**  
(Composite of 18 states that report "net/current hospitalizations")





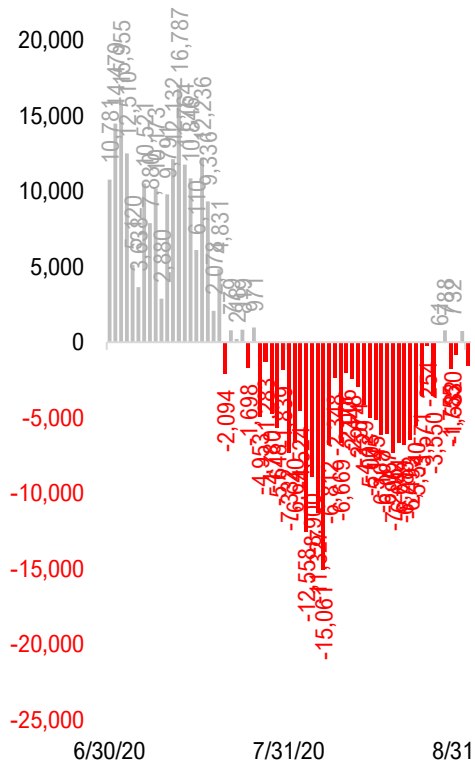
# #8: US Daily New Fatalities...

## US daily COVID-19 Fatalities

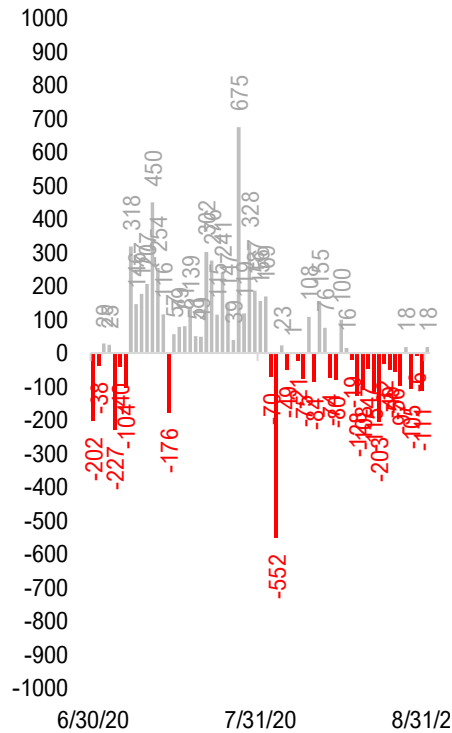


# #9: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

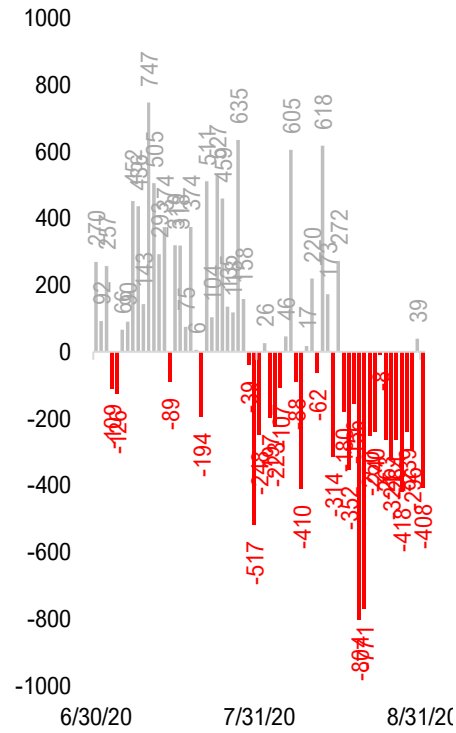
Daily New Cases (8/10-8/23 ex-CA)



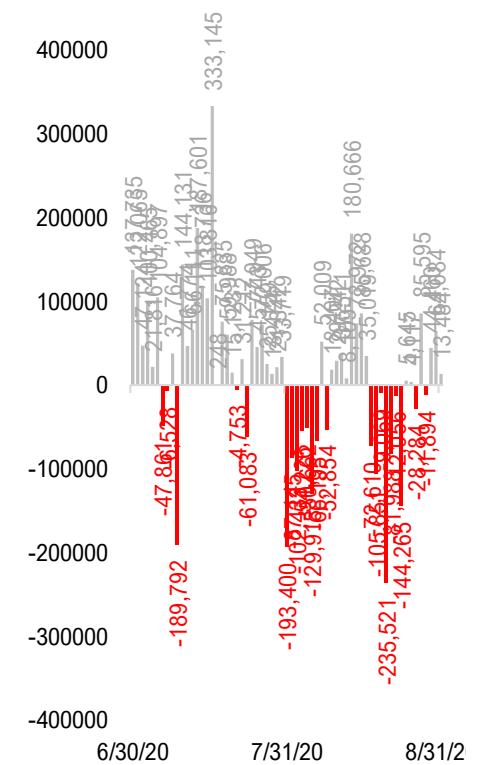
Daily Deaths



Daily New Gross hospitalization (aggregate of 33 states)

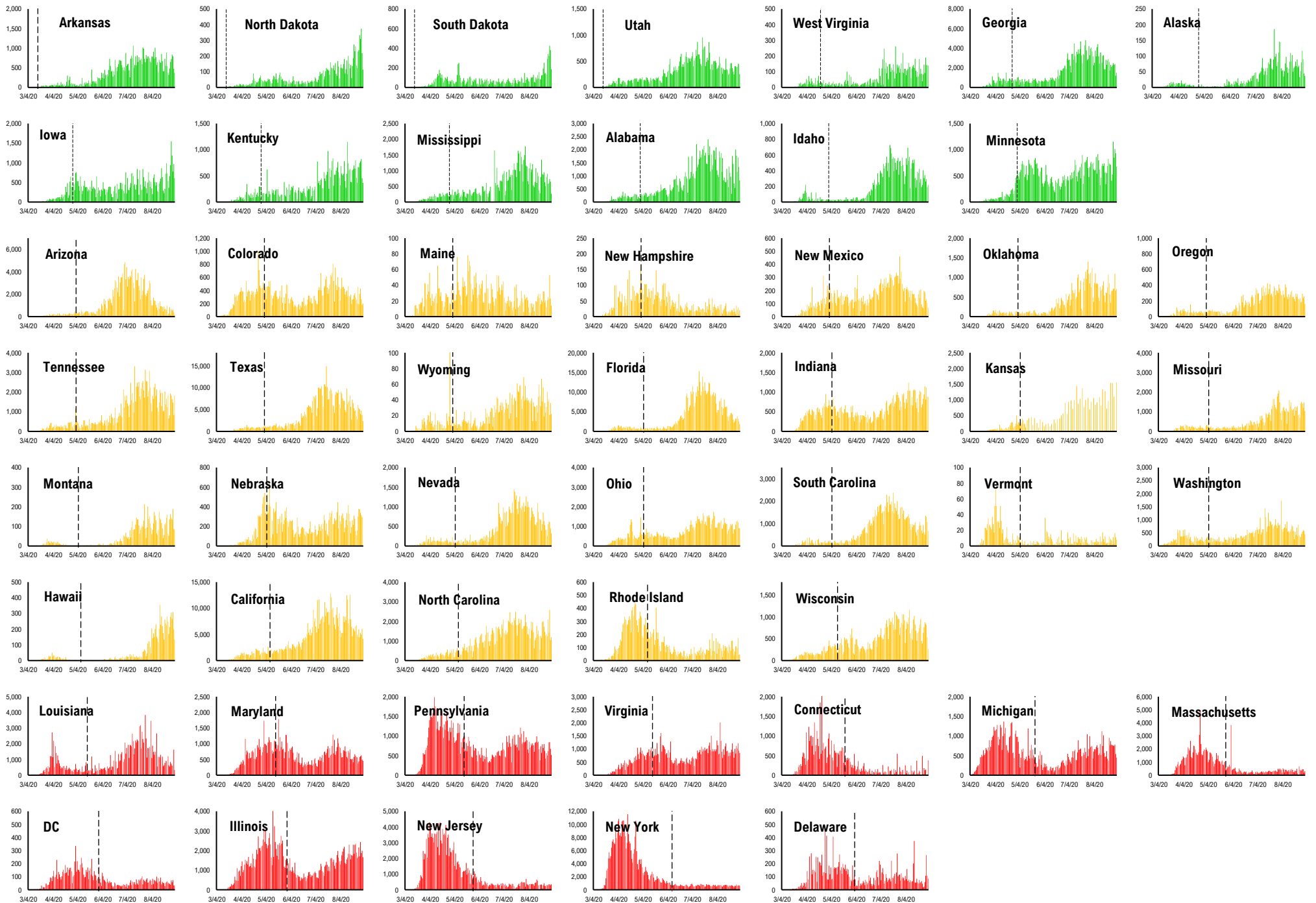


Daily Tests

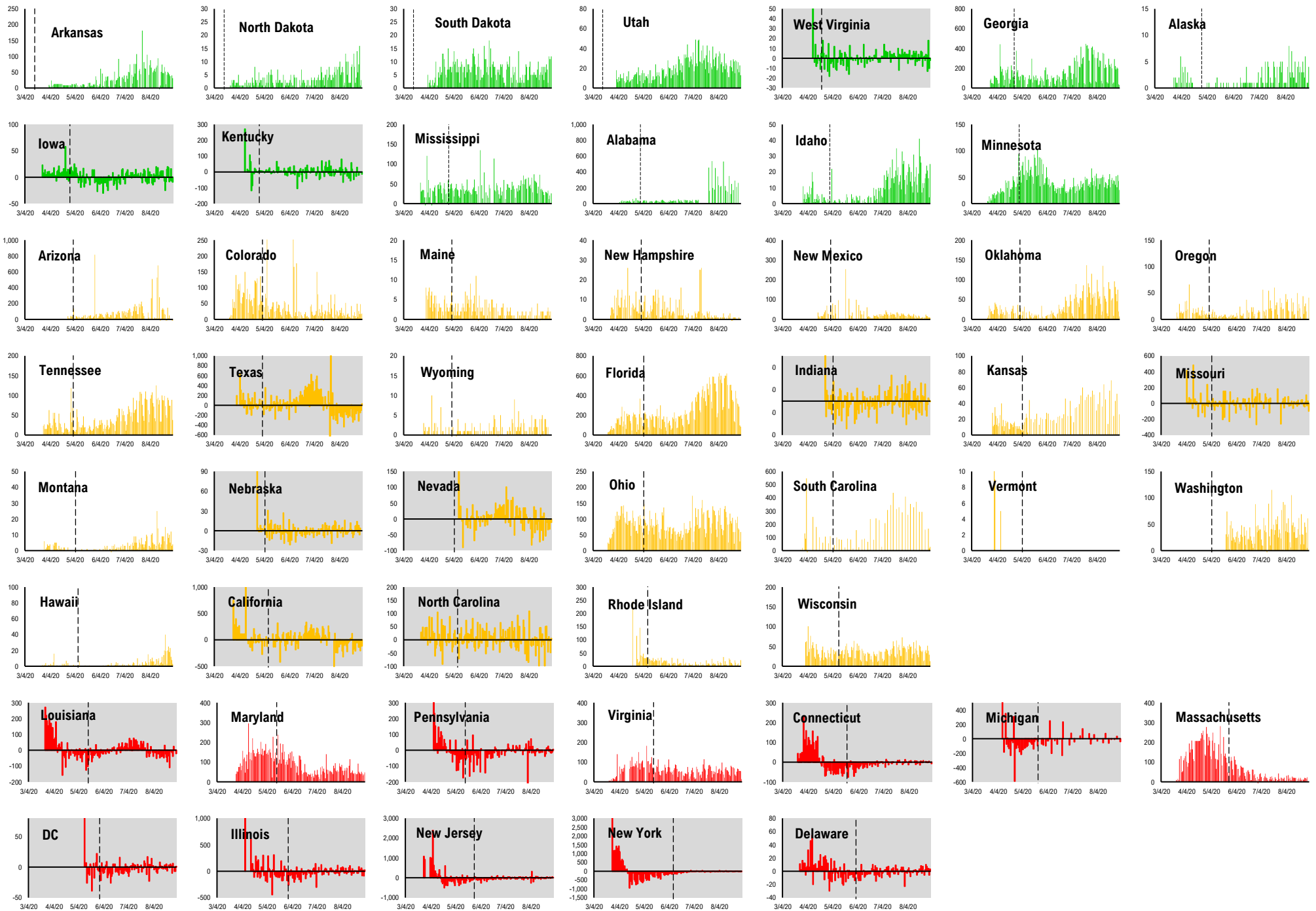


\* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog  
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

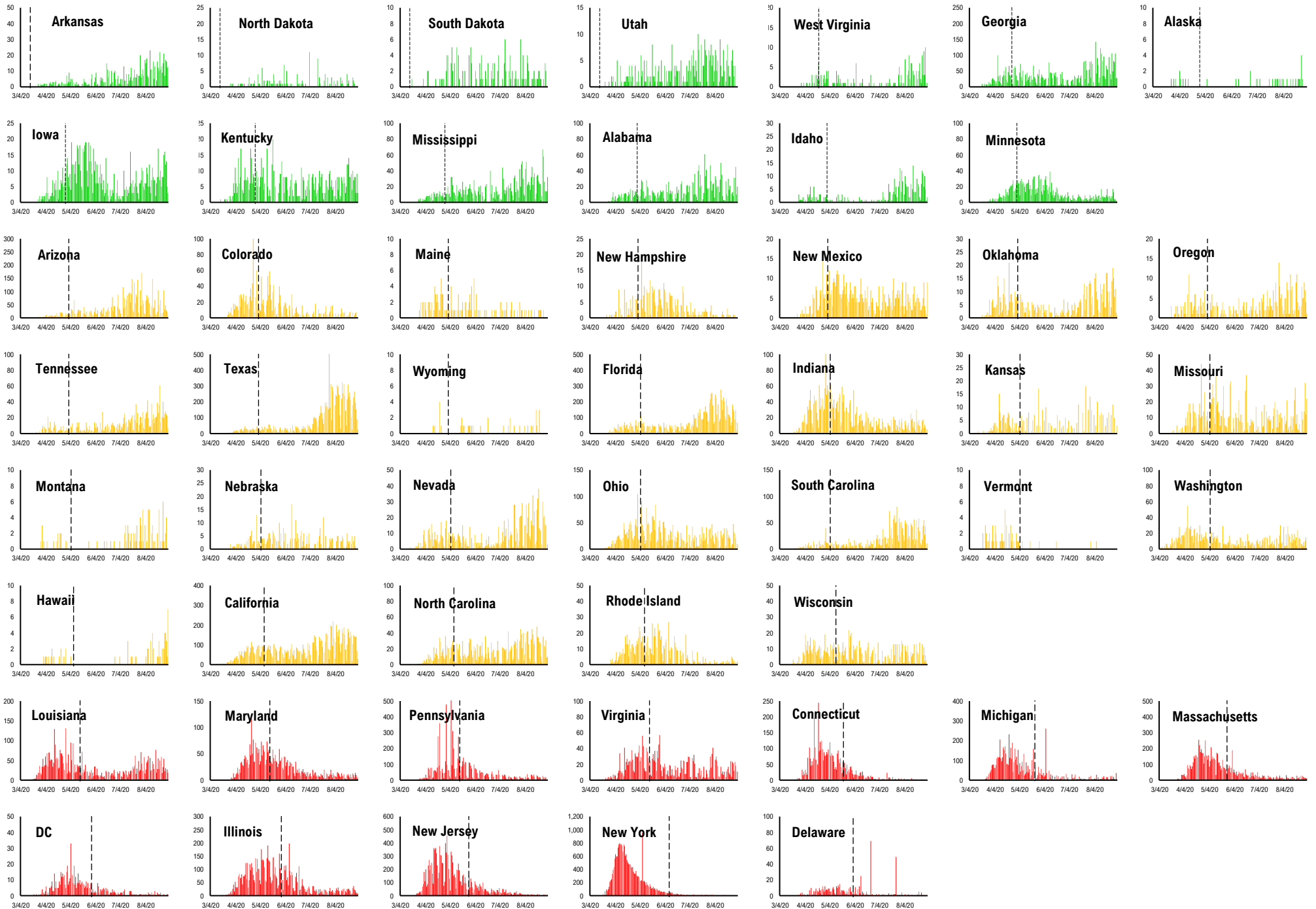
# #10: Daily New Cases by States... (sorted by "open" date)



# #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

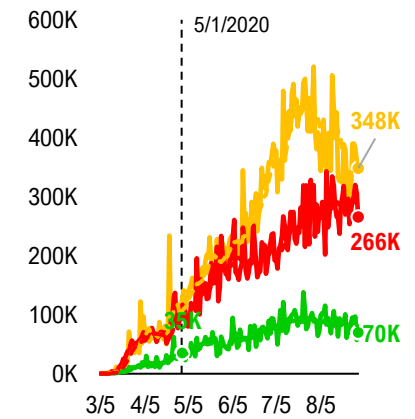
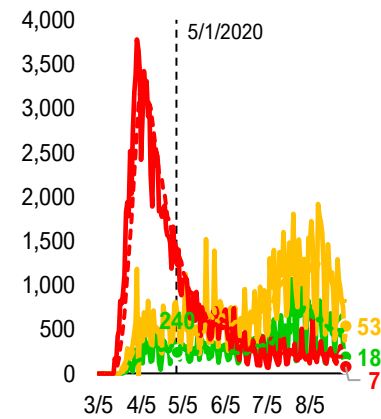
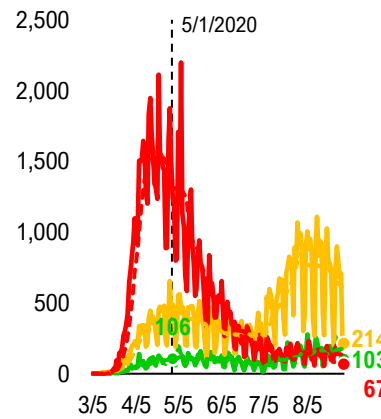
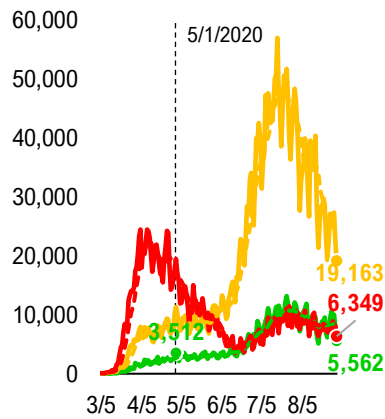
Daily Deaths

Daily Hospitalization

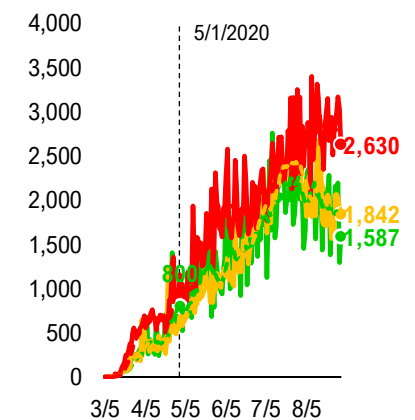
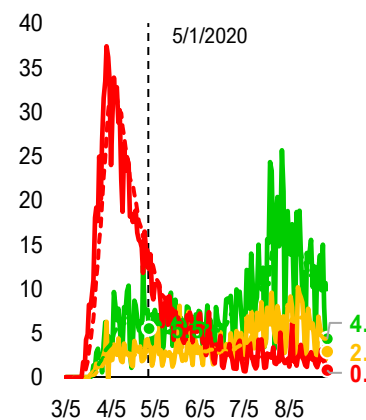
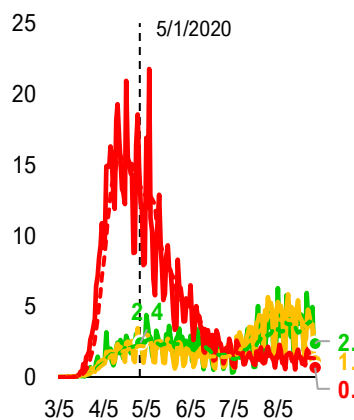
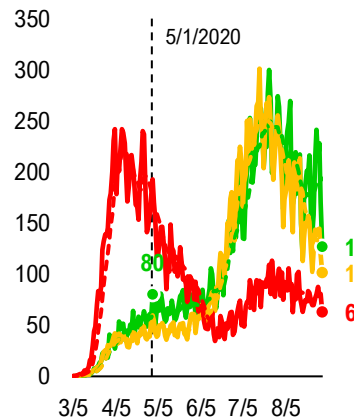
Daily Testing

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

Composite Daily Aggregate

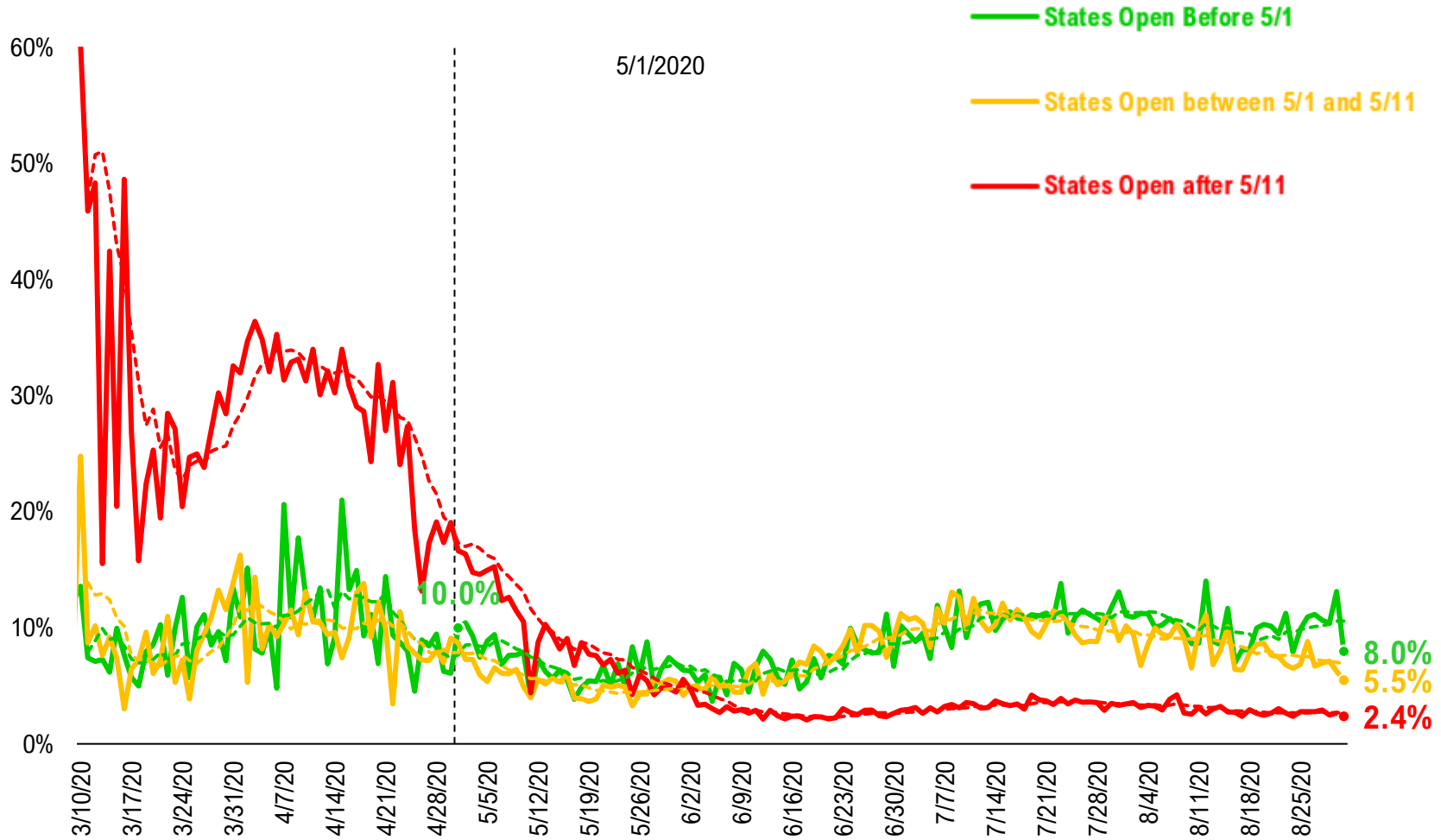


Composite Daily Aggregate Per 1mm Pop

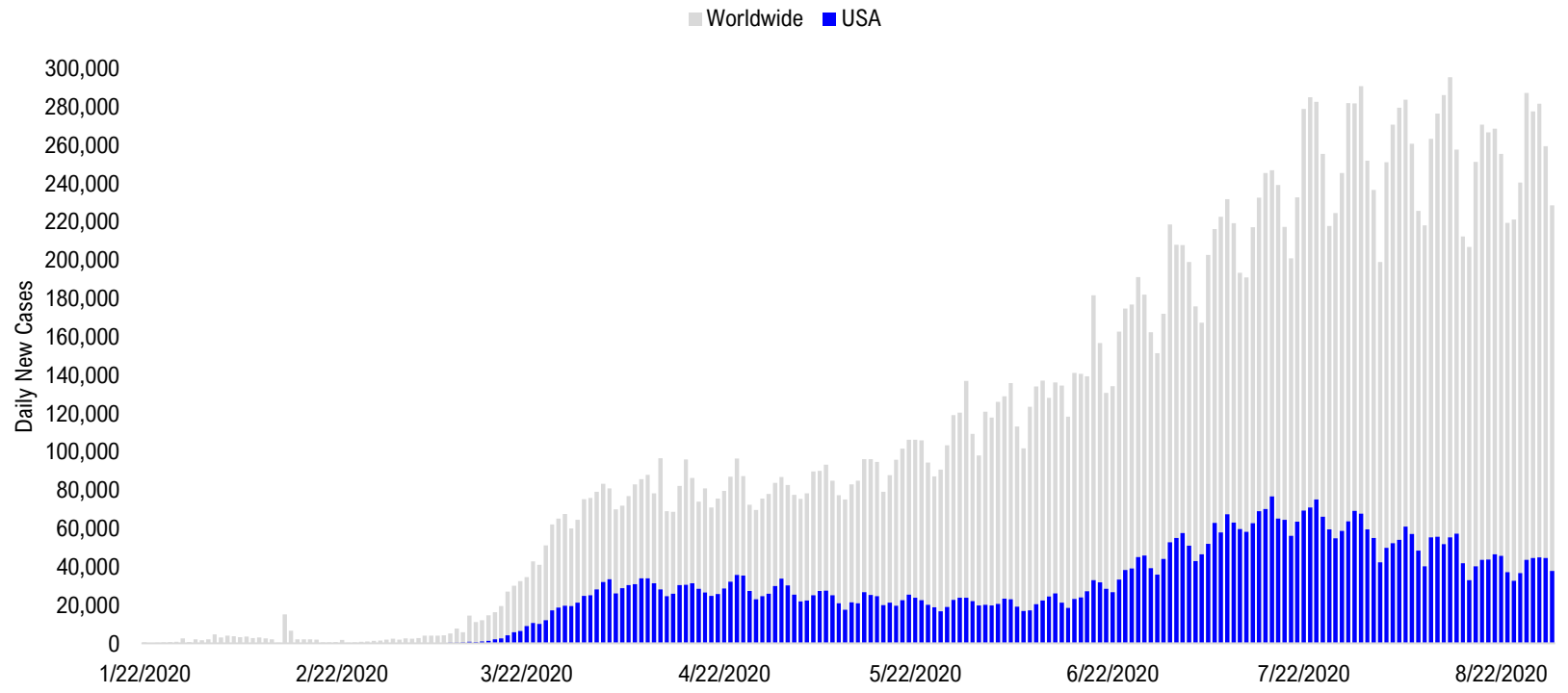


# #14: State COVID-19 Daily Positivity Rate by Reopen Date...

## Composite Daily Positivity Rate



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



4/17/2020	5/1/2020	5/15/2020	5/29/2020	6/12/2020	6/26/2020	7/10/2020	7/24/2020	8/7/2020	8/21/2020	8/30/2020
Europe 40,652	US + Canada 31,572	US + Canada 25,443	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	Pakistan + India + Bangladesh 80,327
US + Canada 32,649	Europe 25,405	Latin America 25,394	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	Latin America 75,149
Latin America 6,026	Latin America 13,595	Europe 22,177	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 56,150	US + Canada 45,030	US + Canada 42,742
Asia ex- India+Pakistan 2,264	Pakistan + India + Bangladesh 3,762	Pakistan + India + Bangladesh 6,133	Pakistan + India + Bangladesh 12,032	Europe 18,149	Europe 17,889	Africa 17,127	Africa 20,063	Europe 23,878	Europe 32,513	Europe 29,079
Pakistan + India + Bangladesh 1,649	Asia ex- India+Pakistan 2,022	Africa 2,942	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 9,954
Africa 1,176	Africa 1,926	Asia ex- India+Pakistan 2,033	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 8,313



# Disclosures

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