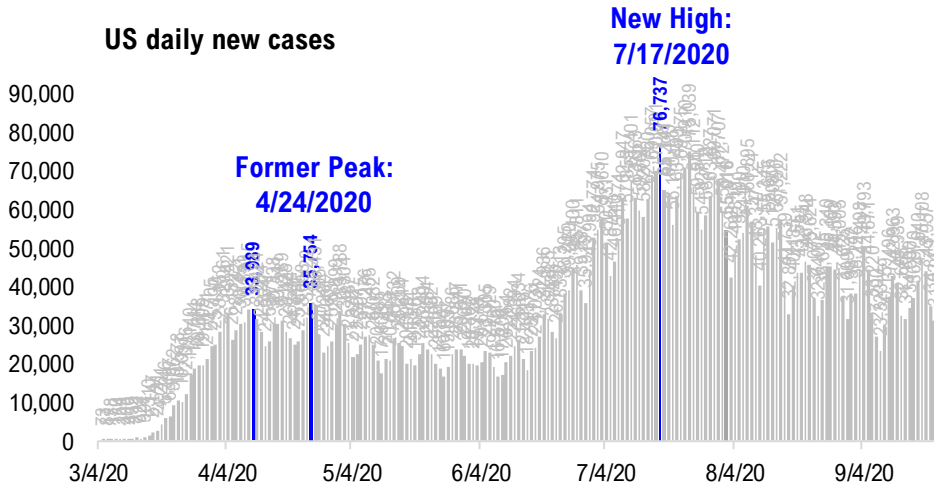


FSInsight Daily COVID-19 Chartbook

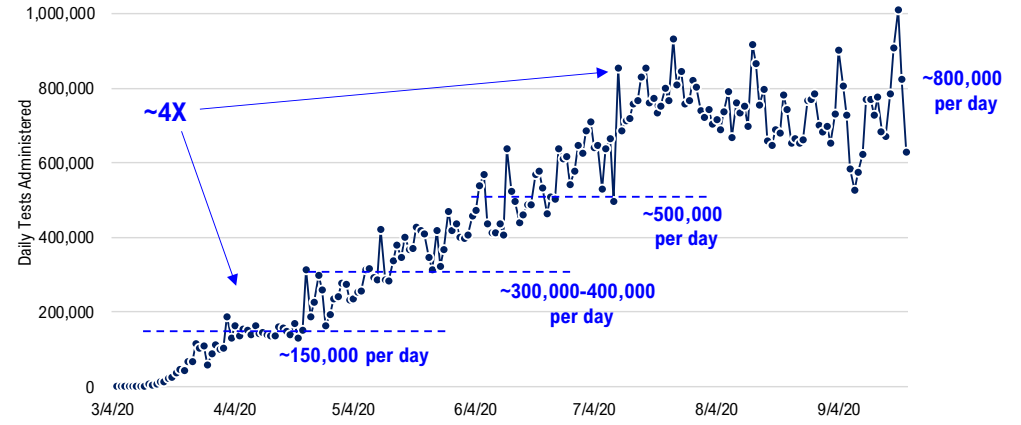


#1: USA COVID-19 Situation at a Glance...

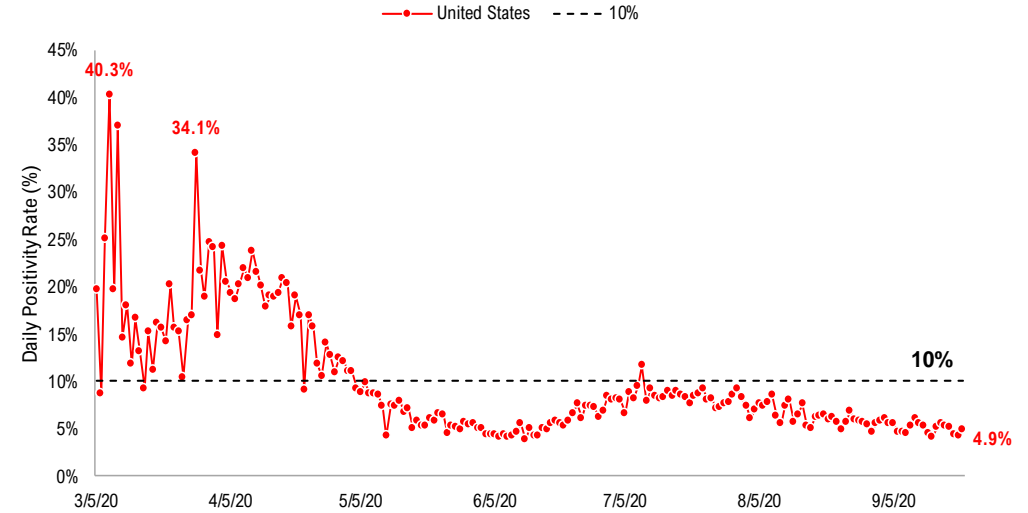
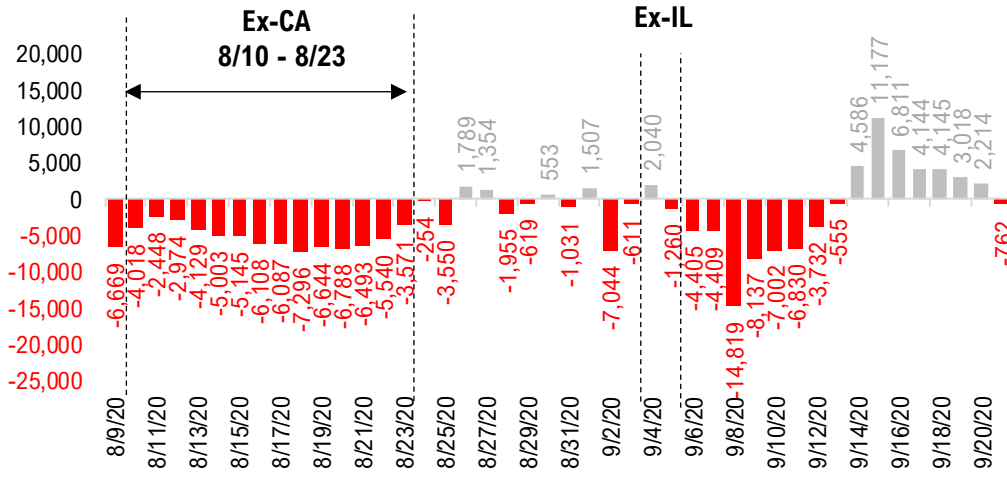
US daily new cases



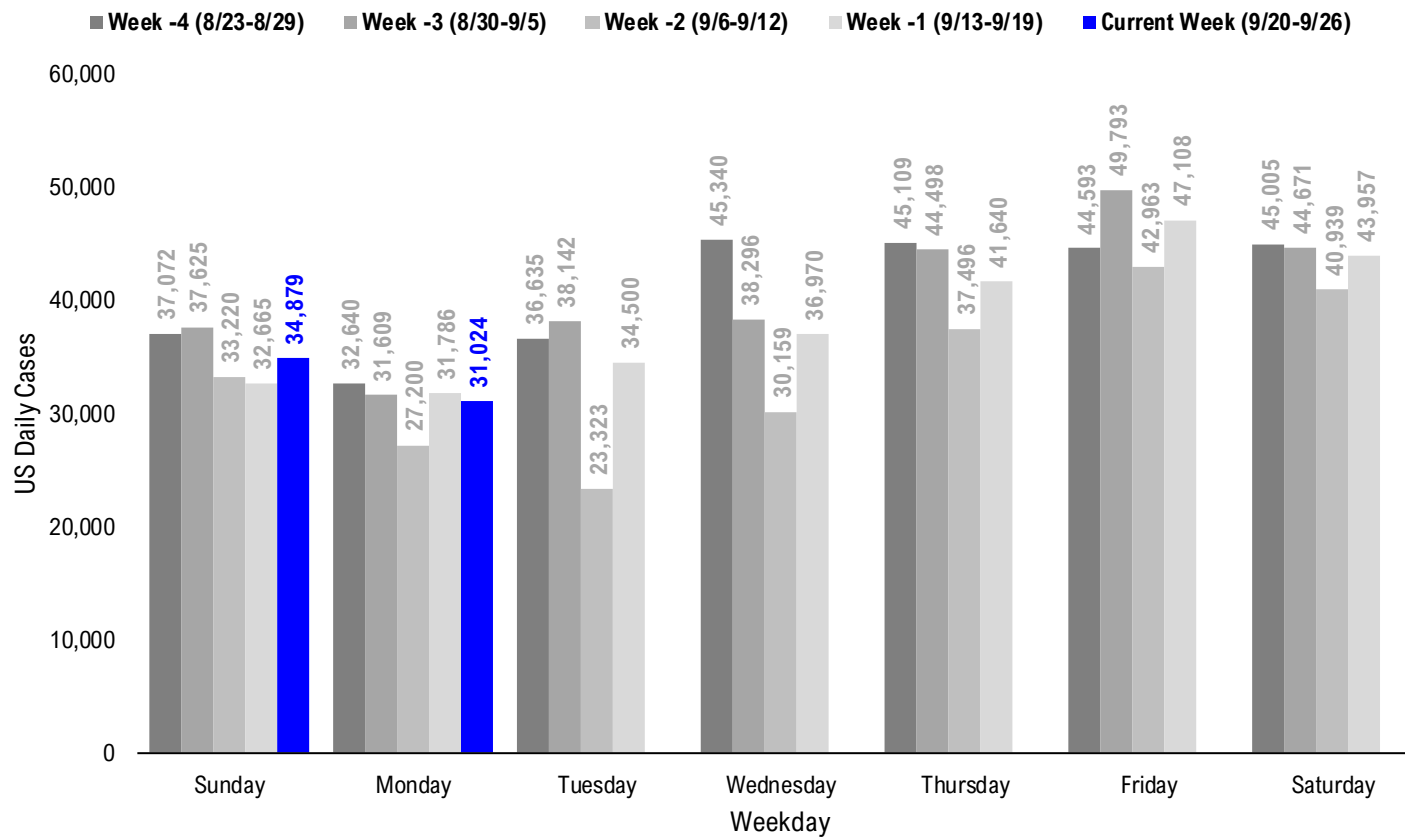
USA total COVID-19 tests administered



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
	% US Pop	9/21/20	7D Delta	9/21/20	7D Delta	# Days	
United States	100%	31,024	-762	112	+5	66	-49%

States:

1	California	11.9%	3,294	+439	100	+2	59	-66%
2	Texas	8.7%	1,742	-812	85	-10	66	-79%
3	Florida	6.5%	1,685	-51	121	+7	70	-80%
4	Kansas	0.9%	1,674	+161	192	+18	26	-46%
5	Michigan	3.0%	1,536	+448	67	+8	150	-45%
6	Illinois	3.8%	1,477	+104	142	+12	15	-45%
7	Missouri	1.8%	1,463	+131	227	-40	53	-28%
8	Wisconsin	1.8%	1,271	+500	299	+87	2	-24%
9	Georgia	3.2%	1,184	+161	144	+1	58	-64%
10	Oklahoma	1.2%	1,101	+232	281	+64	55	-10%
11	Minnesota	1.7%	925	+287	185	+53	1	-5%
12	Tennessee	2.1%	895	-1,555	191	-25	55	-53%
13	Ohio	3.5%	856	-223	73	-17	52	-45%
14	Alabama	1.5%	818	+114	198	+11	58	-54%
15	North Carolina	3.2%	800	-45	107	-4	65	-50%
16	Iowa	1.0%	660	+274	225	+41	24	-42%
17	Virginia	2.6%	627	-130	95	-19	43	-42%
18	Utah	1.0%	622	+59	272	+89	1	-16%
19	Arkansas	0.9%	596	+197	215	+45	58	-29%
20	New York	5.9%	573	-10	41	+5	164	-92%
21	Colorado	1.7%	542	+167	95	+26	148	-24%
22	Indiana	2.0%	522	-214	116	-34	8	-34%
23	Connecticut	1.1%	497	-72	46	-7	152	-89%
24	South Carolina	1.6%	416	-174	117	-20	71	-70%
25	Maryland	1.8%	412	-124	83	-23	123	-60%
26	Idaho	0.5%	410	+157	176	+67	66	-54%
27	New Jersey	2.7%	392	+58	49	+8	169	-89%
28	Kentucky	1.3%	375	+38	133	+16	38	-29%

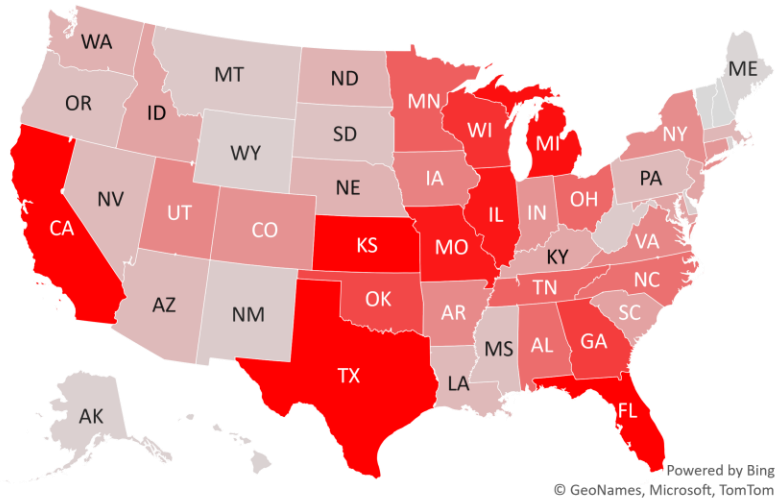
	Sorted Daily Cases		Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases
	% US Pop	9/21/20	7D Delta	9/21/20	7D Delta	# Days	
United States	100%	31,024	-762	112	+5	66	-49%

States:

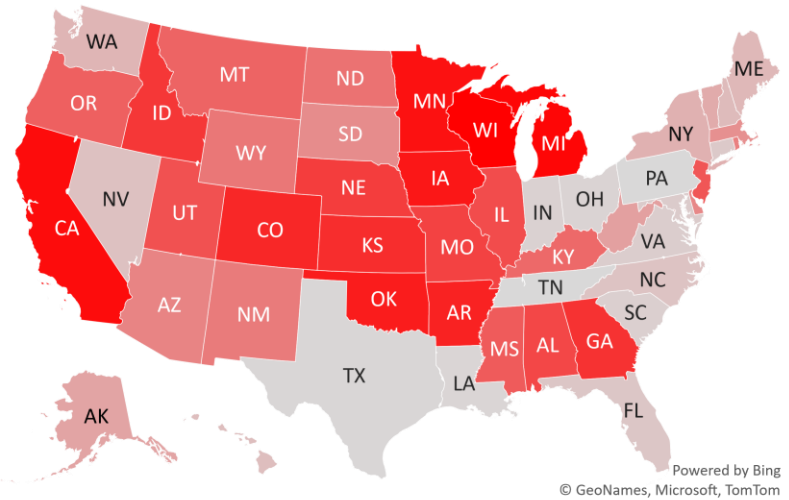
29	Washington	2.3%	300	-12	55	+5	68	-60%
30	Nebraska	0.6%	286	+139	200	+115	142	-25%
31	North Dakota	0.2%	286	+32	444	-58	2	-20%
32	Massachusetts	2.1%	256	+2	59	+6	149	-88%
33	Louisiana	1.4%	243	-249	85	-43	62	-85%
34	Puerto Rico	1.0%	242	+34	125	+60	2	-23%
35	Pennsylvania	3.9%	234	-948	55	-1	164	-61%
36	Arizona	2.2%	233	+20	60	+5	81	-90%
37	Nevada	0.9%	232	-45	102	-7	65	-77%
38	Oregon	1.3%	194	+47	52	+3	51	-40%
39	Mississippi	0.9%	192	+48	126	+31	53	-76%
40	South Dakota	0.3%	173	+10	299	+41	2	-31%
41	Montana	0.3%	130	+44	174	+74	2	-24%
42	West Virginia	0.5%	117	-4	91	-29	9	-32%
43	New Mexico	0.6%	104	+23	53	+9	54	-70%
44	Delaware	0.3%	101	+13	103	-58	146	-70%
45	Wyoming	0.2%	73	+27	113	+40	3	-36%
46	Alaska	0.2%	70	-5	113	+4	50	-38%
47	Hawaii	0.4%	56	-23	57	-18	23	-72%
48	Rhode Island	0.3%	52	+20	98	+27	149	-76%
49	Guam	0.0%	30	-6	147	+18	25	-78%
50	Maine	0.4%	27	-13	25	-2	122	-51%
51	District of Columbia	0.2%	23	-7	60	-1	141	-82%
52	Vermont	0.2%	4	-7	7	-7	169	-93%
53	Northern Mariana Islands	0.0%	1	+0	41	+29	0	0%
54	U.S. Virgin Islands	0.0%	0	-1	84	+22	31	-80%
55	New Hampshire	0.4%	0	-18	21	-2	142	-77%
56	American Samoa	0.0%	0	+0	0	+0	-	-

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

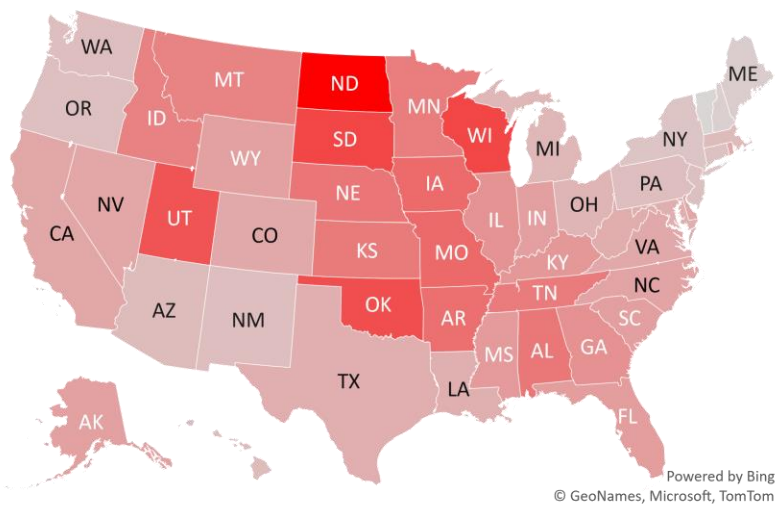
Daily Case Increases



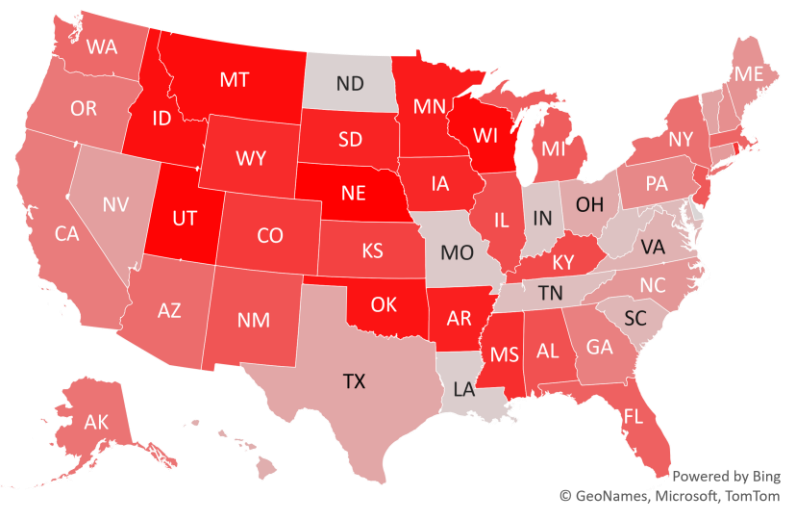
7D Delta in Daily New Cases



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



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



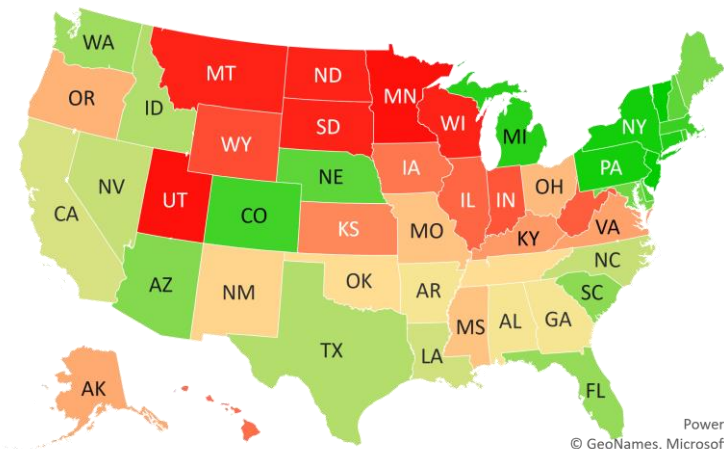
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 9/21)

	Sorted			
	Peak Date	9/21/20	% off the Peak	% US Pop
United States	7/17/20	66	-49%	100%
States:				
Vermont	4/5/20	169	-93%	0.2%
New Jersey	4/5/20	169	-89%	2.7%
Pennsylvania	4/10/20	164	-61%	3.9%
New York	4/10/20	164	-92%	5.9%
Connecticut	4/22/20	152	-89%	1.1%
Michigan	4/24/20	150	-45%	3.0%
Rhode Island	4/25/20	149	-76%	0.3%
Massachusetts	4/25/20	149	-88%	2.1%
Colorado	4/26/20	148	-24%	1.7%
Delaware	4/28/20	146	-70%	0.3%
New Hampshire	5/2/20	142	-77%	0.4%
Nebraska	5/2/20	142	-25%	0.6%
District of Columbia	5/3/20	141	-82%	0.2%
Maryland	5/21/20	123	-60%	1.8%
Maine	5/22/20	122	-51%	0.4%
Arizona	7/2/20	81	-90%	2.2%
South Carolina	7/12/20	71	-70%	1.6%
Florida	7/13/20	70	-80%	6.5%
Washington	7/15/20	68	-60%	2.3%
Texas	7/17/20	66	-79%	8.7%
Idaho	7/17/20	66	-54%	0.5%
Nevada	7/18/20	65	-77%	0.9%
North Carolina	7/18/20	65	-50%	3.2%
Louisiana	7/21/20	62	-85%	1.4%
California	7/24/20	59	-66%	11.9%
Georgia	7/25/20	58	-64%	3.2%
Arkansas	7/25/20	58	-29%	0.9%
Alabama	7/25/20	58	-54%	1.5%

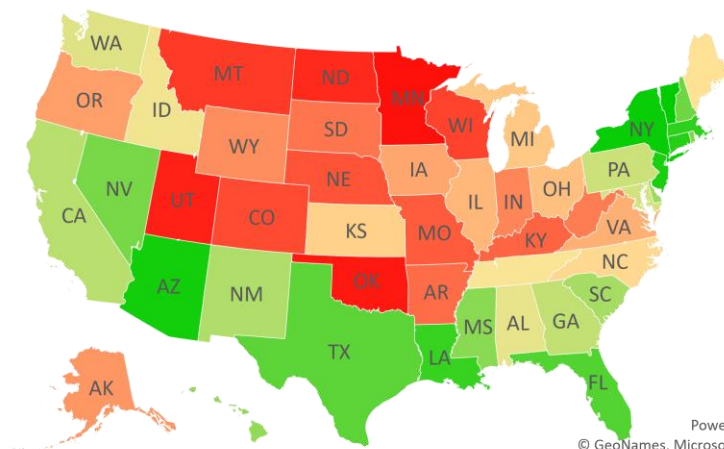
	Sorted			
	Peak Date	9/21/20	% off the Peak	% US Pop
United States	7/17/20	66	-49%	100%
States:				
Tennessee	7/28/20	55	-53%	2.1%
Oklahoma	7/28/20	55	-10%	1.2%
New Mexico	7/29/20	54	-70%	0.6%
Mississippi	7/30/20	53	-76%	0.9%
Missouri	7/30/20	53	-28%	1.8%
Ohio	7/31/20	52	-45%	3.5%
Oregon	8/1/20	51	-40%	1.3%
Alaska	8/2/20	50	-38%	0.2%
Virginia	8/9/20	43	-42%	2.6%
Kentucky	8/14/20	38	-29%	1.3%
U.S. Virgin Islands	8/21/20	31	-80%	0.0%
Kansas	8/26/20	26	-46%	0.9%
Guam	8/27/20	25	-78%	0.0%
Iowa	8/28/20	24	-42%	1.0%
Hawaii	8/29/20	23	-72%	0.4%
Illinois	9/6/20	15	-45%	3.8%
West Virginia	9/12/20	9	-32%	0.5%
Indiana	9/13/20	8	-34%	2.0%
Wyoming	9/18/20	3	-36%	0.2%
Wisconsin	9/19/20	2	-24%	1.8%
South Dakota	9/19/20	2	-31%	0.3%
Puerto Rico	9/19/20	2	-23%	1.0%
North Dakota	9/19/20	2	-20%	0.2%
Montana	9/19/20	2	-24%	0.3%
Utah	9/20/20	1	-16%	1.0%
Minnesota	9/20/20	1	-5%	1.7%
Northern Mariana Island	9/21/20	0	0%	0.0%

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)

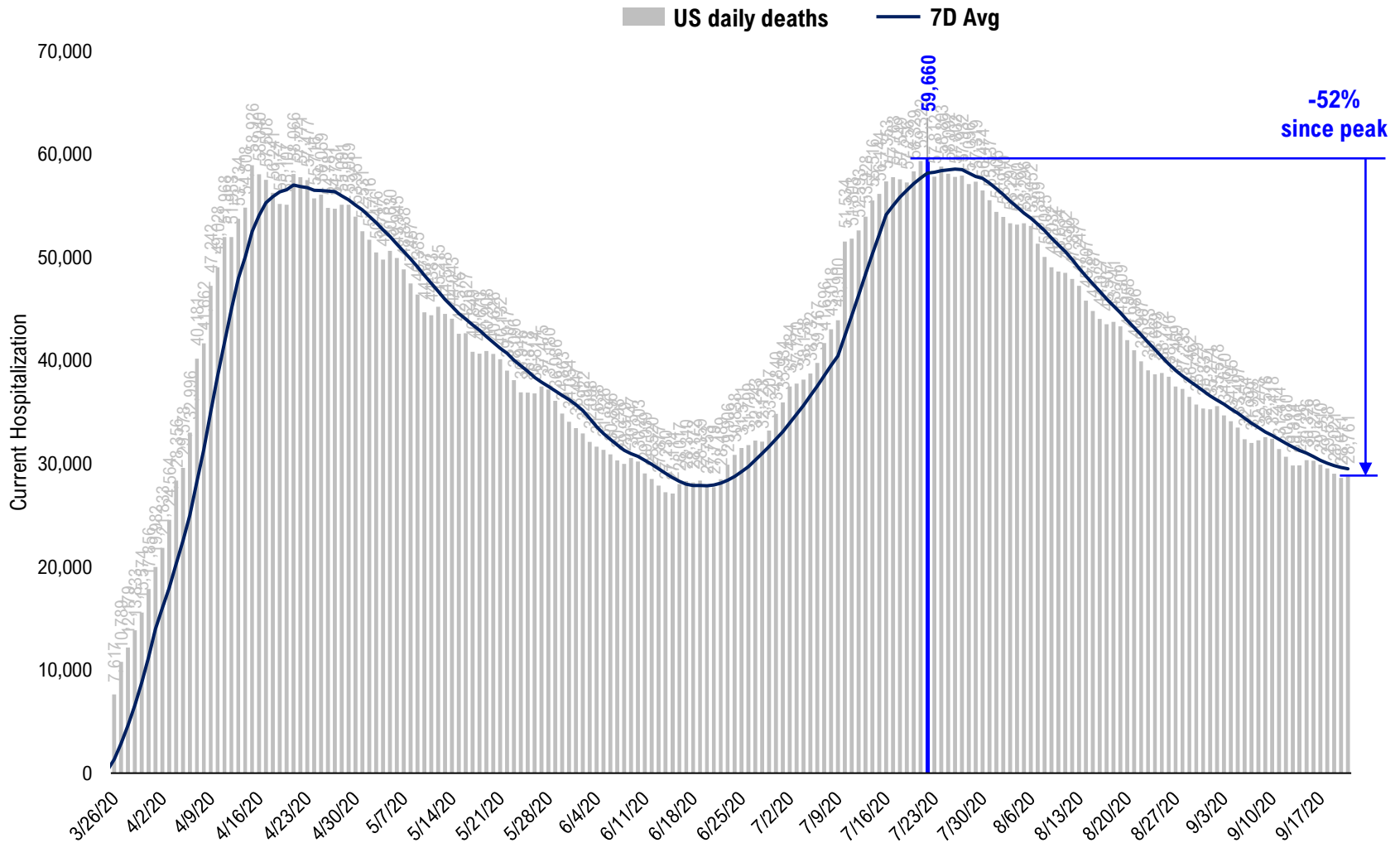
	Sorted				
	7D Ago	Last 3-day Trend			
	9/14/20	9/19/20	9/20/20	9/21/20	vs 7D ago
United States	31,786	43,957	34,879	31,024	-762
States:					
California	2,855	4,304	4,265	3,294	
Texas	2,554	3,433	2,241	1,742	
Florida	1,736	3,573	2,521	1,685	
Kansas	1,513	0	0	1,674	
Michigan	1,088	483	0	1,536	<--higher
Illinois	1,373	2,529	1,402	1,477	
Missouri	1,332	1,387	1,328	1,463	
Wisconsin	771	2,283	1,665	1,271	<--higher
Georgia	1,023	2,284	1,134	1,184	
Oklahoma	869	1,237	1,003	1,101	<--higher
Minnesota	638	914	1,296	925	<--higher
Tennessee	2,450	942	2,075	895	
Ohio	1,079	951	762	856	
Alabama	704	1,301	798	818	
North Carolina	845	1,229	1,333	800	
Iowa	386	847	621	660	<--higher
Virginia	757	953	856	627	
Utah	563	1,077	920	622	
Arkansas	399	803	549	596	<--higher
New York	583	986	862	573	
Colorado	375	606	501	542	<--higher
Indiana	736	1,076	746	522	
Connecticut	569	0	0	497	
South Carolina	590	922	468	416	
Maryland	536	682	412	412	
Idaho	253	288	244	410	<--higher
New Jersey	334	461	453	392	
Kentucky	337	978	436	375	

	Sorted				
	7D Ago	Last 3-day Trend			
	9/14/20	9/19/20	9/20/20	9/21/20	vs 7D ago
United States	31,786	43,957	34,879	31,024	-762
States:					
Washington	312	597	349	300	
Nebraska	147	466	410	286	<--higher
North Dakota	254	377	351	286	
Massachusetts	254	599	359	256	
Louisiana	492	0	936	243	
Puerto Rico	208	694	262	242	
Pennsylvania	1,182	1,162	733	234	
Arizona	213	609	467	233	
Nevada	277	323	385	232	
Oregon	147	257	202	194	<--higher
Mississippi	144	655	277	192	<--higher
South Dakota	163	369	252	173	
Montana	86	292	136	130	<--higher
West Virginia	121	191	180	117	
New Mexico	81	162	67	104	<--higher
Delaware	88	83	117	101	
Wyoming	46	33	91	73	<--higher
Alaska	75	85	93	70	
Hawaii	79	110	77	56	
Rhode Island	32	178	82	52	<--higher
Guam	36	43	0	30	
Maine	40	30	44	27	
District of Columbia	30	50	53	23	
Vermont	11	4	5	4	
Northern Mariana Islands	1	0	6	1	
U.S. Virgin Islands	1	0	27	0	
New Hampshire	18	59	27	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...

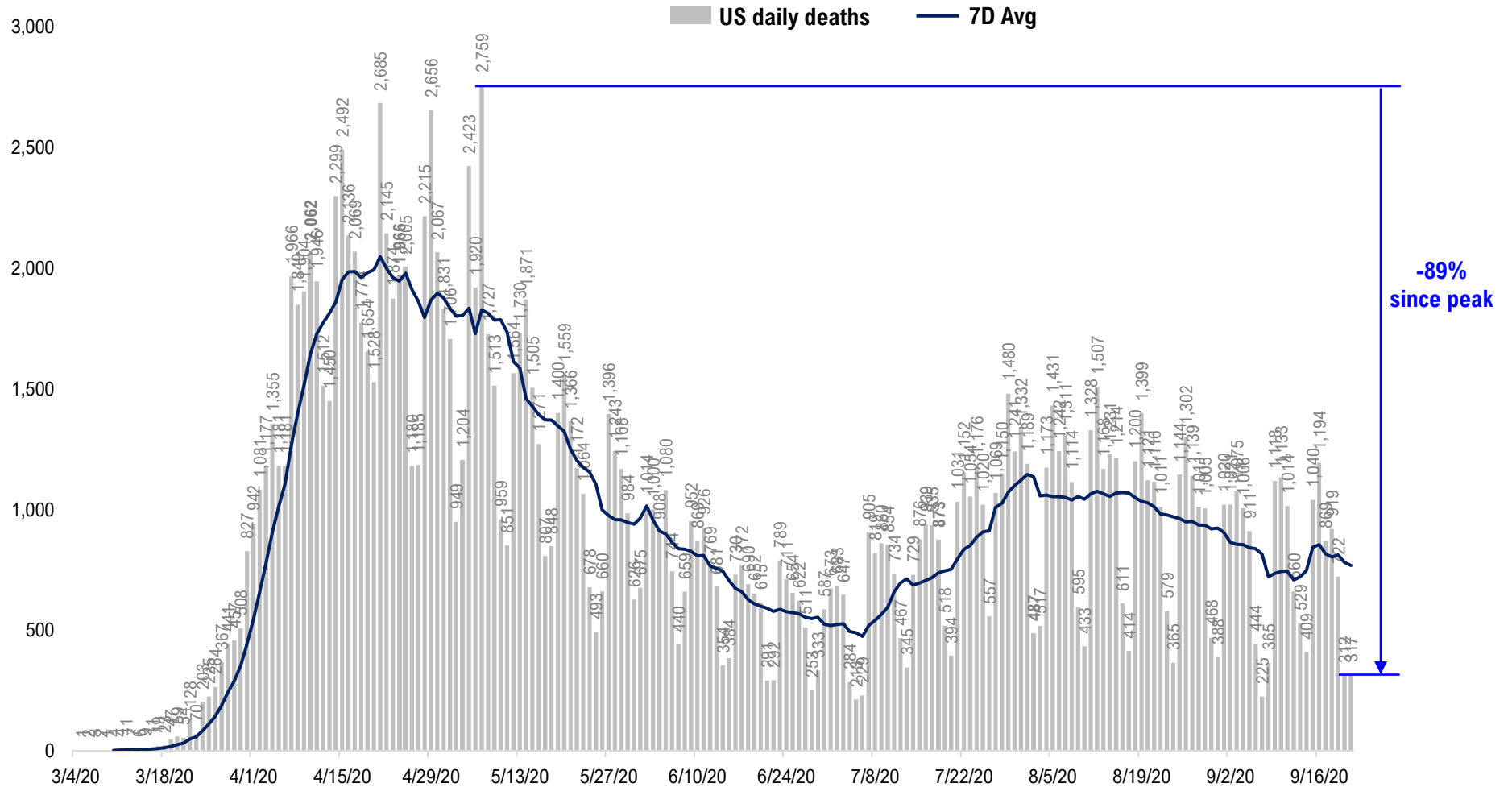
US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)



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

#8: US Daily New Fatalities...

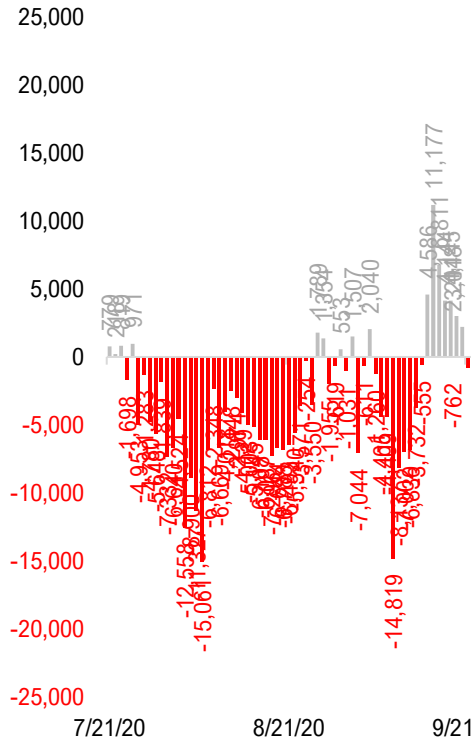
US daily COVID-19 Fatalities



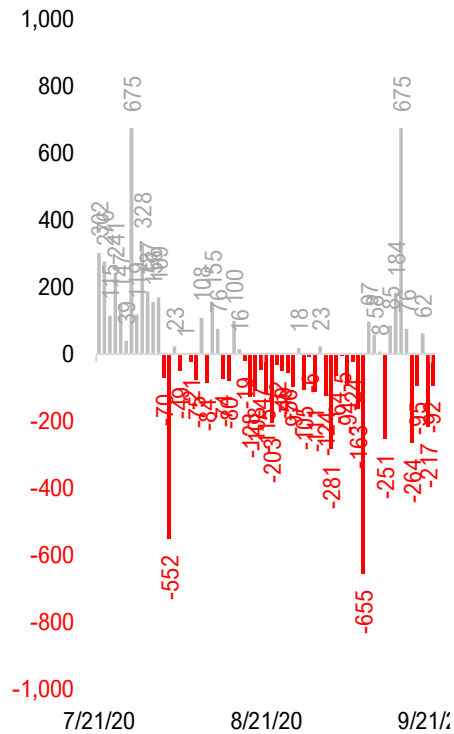
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

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

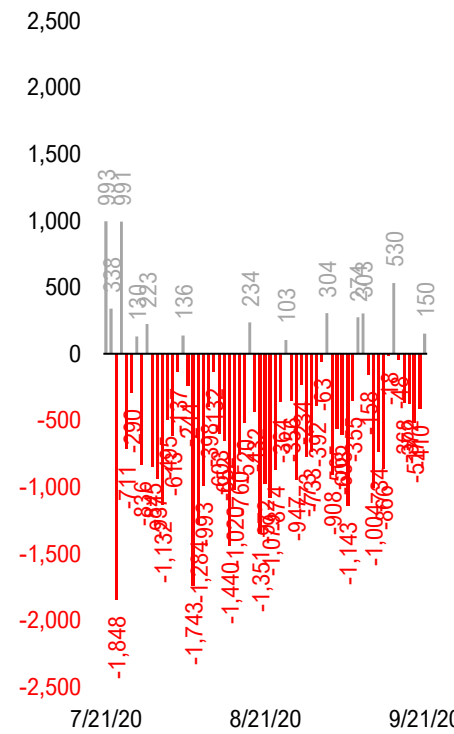
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



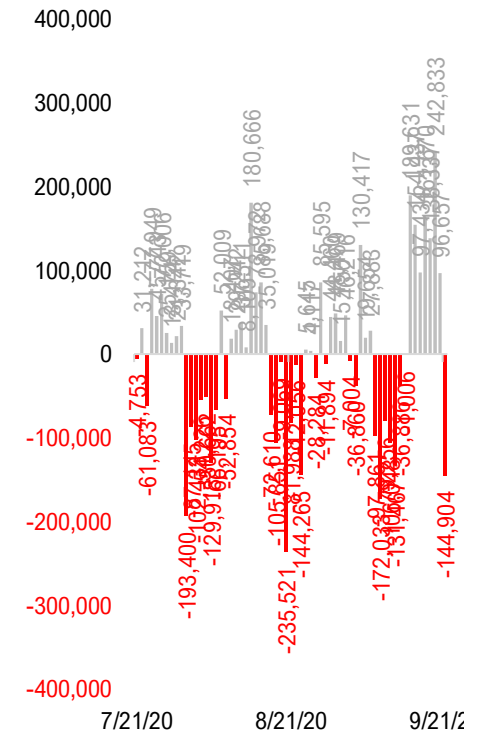
Daily Deaths



Daily Net Hospitalization
(Red = more discharge than admission)

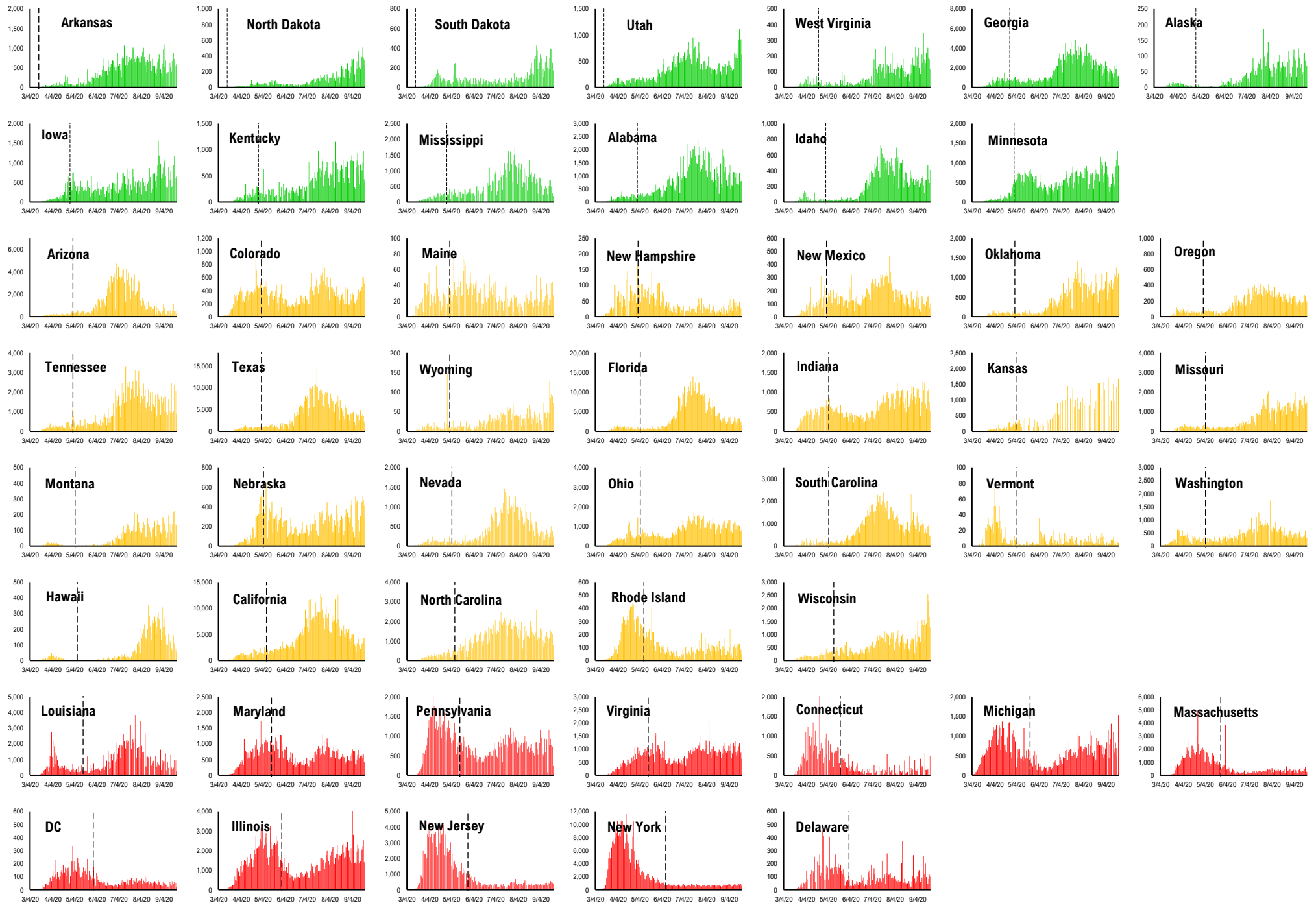


Daily Tests

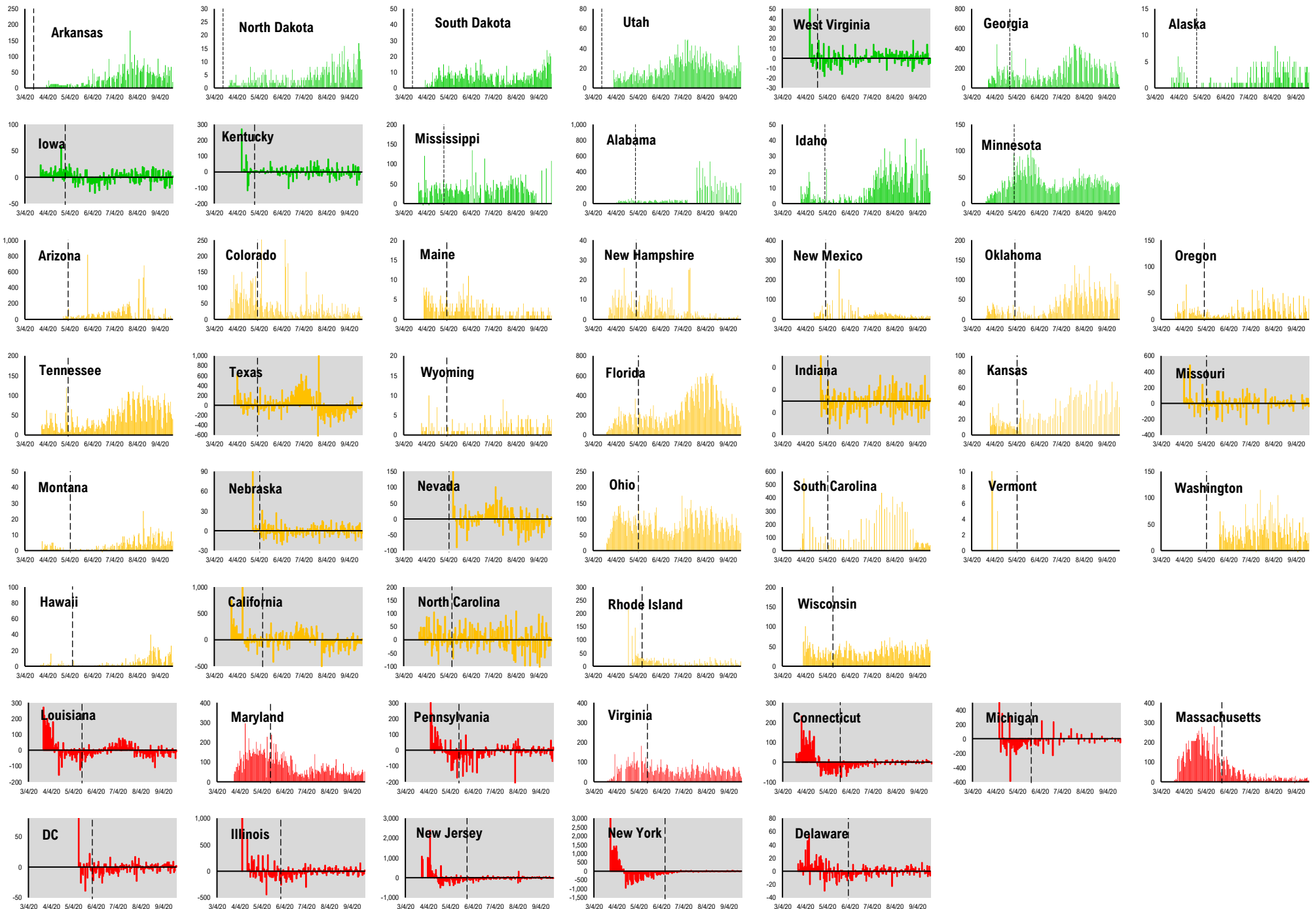


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

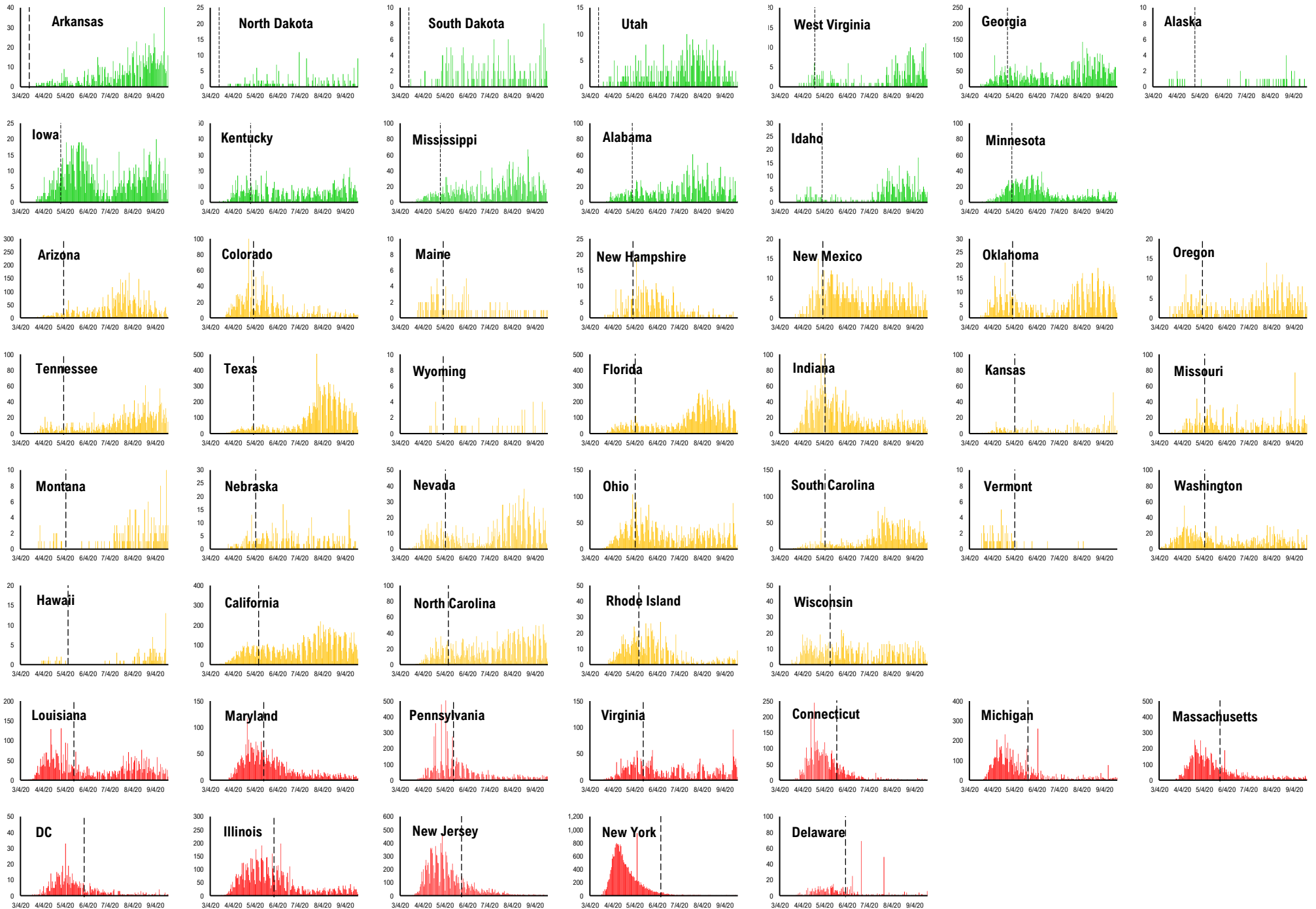
#10: Daily New Cases by States... (sorted by "open" date)



#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...

Daily Cases

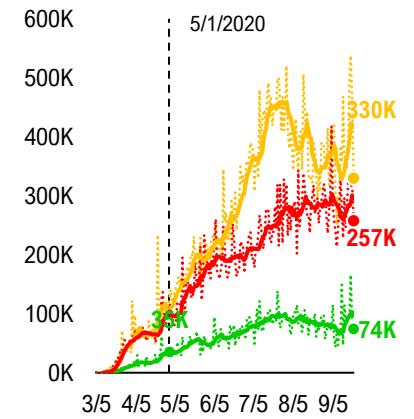
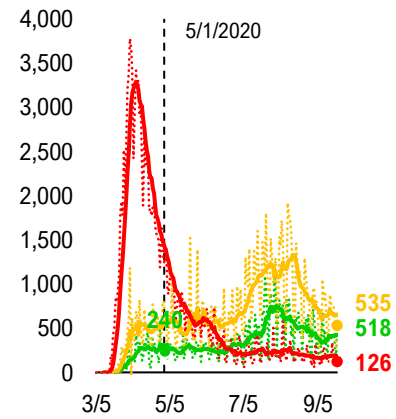
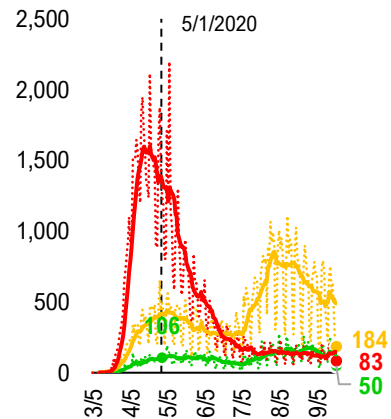
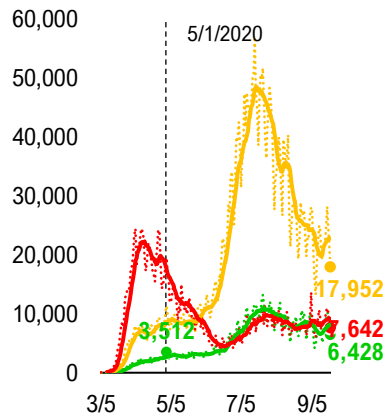
Daily Deaths

Daily Hospitalization

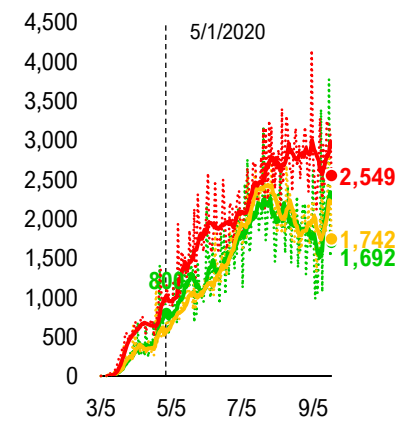
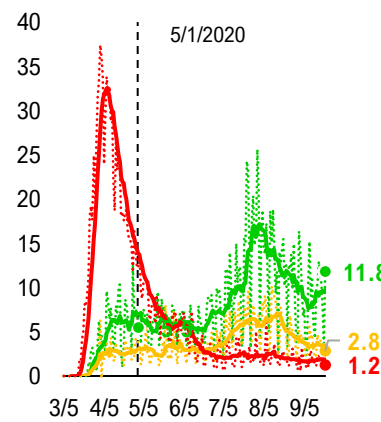
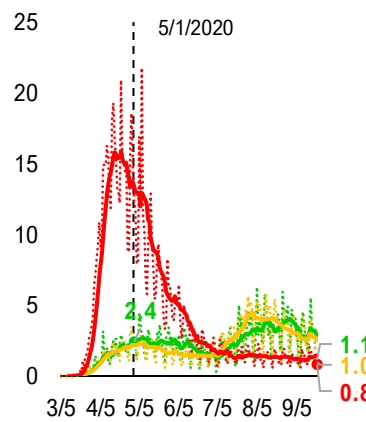
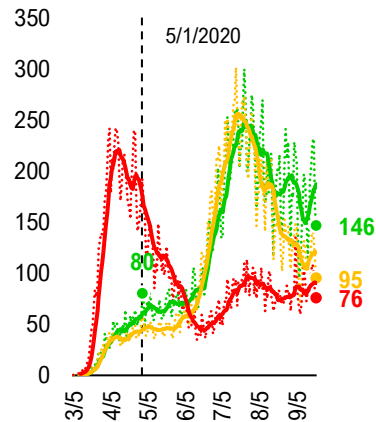
Daily Testing

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

Composite Daily Aggregate

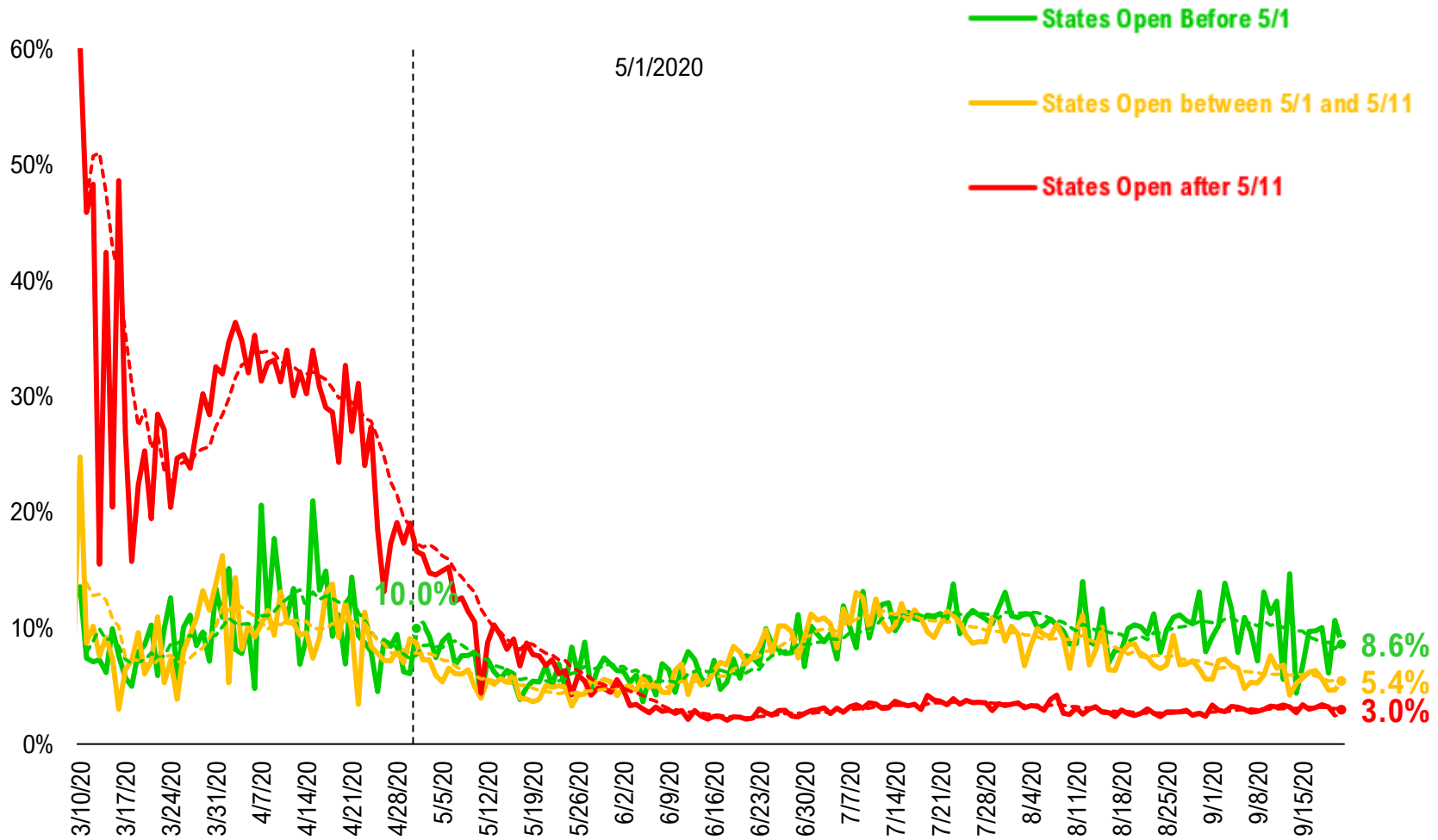


Composite Daily Aggregate Per 1mm Pop

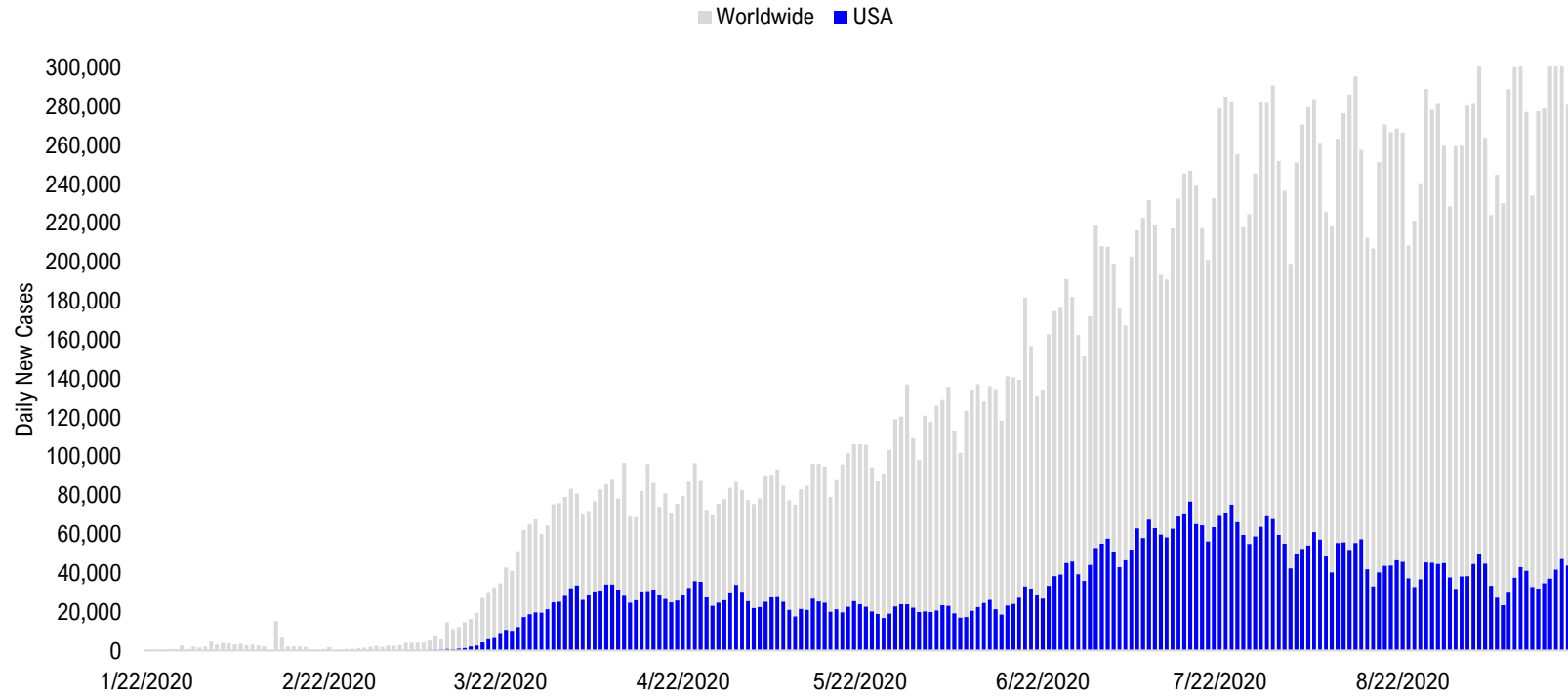


#14: State COVID-19 Daily Positivity Rate by Reopen Date...

Composite Daily Positivity Rate



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



5/8/2020	5/22/2020	6/5/2020	6/19/2020	7/3/2020	7/17/2020	7/31/2020	8/14/2020	8/28/2020	9/11/2020	9/20/2020
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 88,255	Pakistan + India + Bangladesh 98,888	Pakistan + India + Bangladesh 93,158
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 82,644	Latin America 83,501	Latin America 66,632
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 45,494	Europe 47,368	US + Canada 42,852
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 35,826	US + Canada 37,512	Europe 42,233
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 9,999	Asia ex- India+Pakistan 10,612	Asia ex- India+Pakistan 11,146
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 8,468	Africa 8,309	Africa 8,403

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