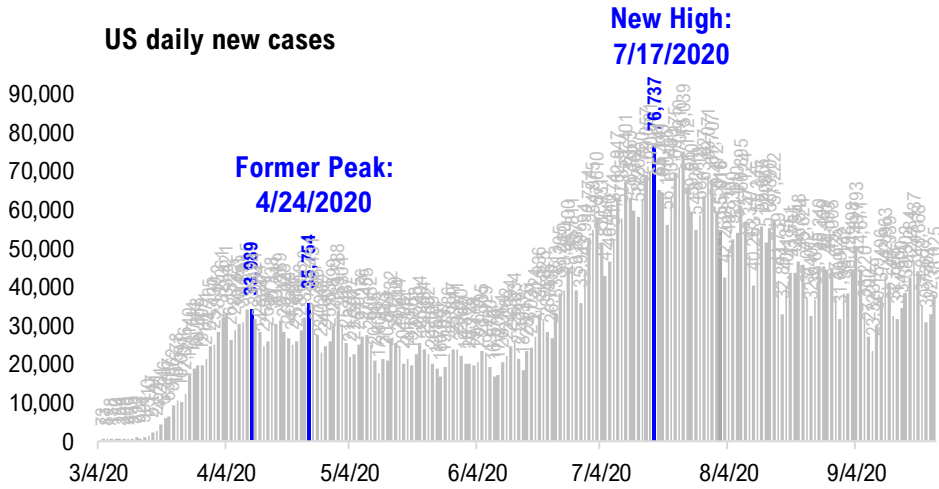


FSInsight Daily COVID-19 Chartbook

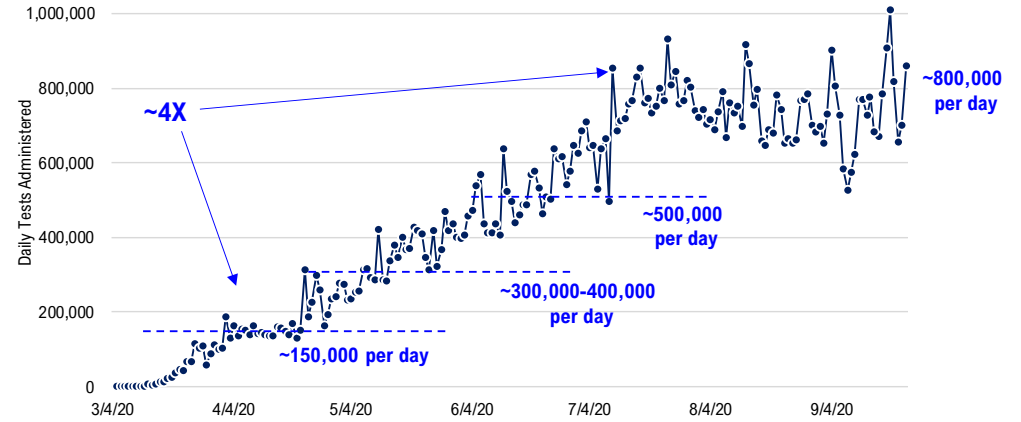


#1: USA COVID-19 Situation at a Glance...

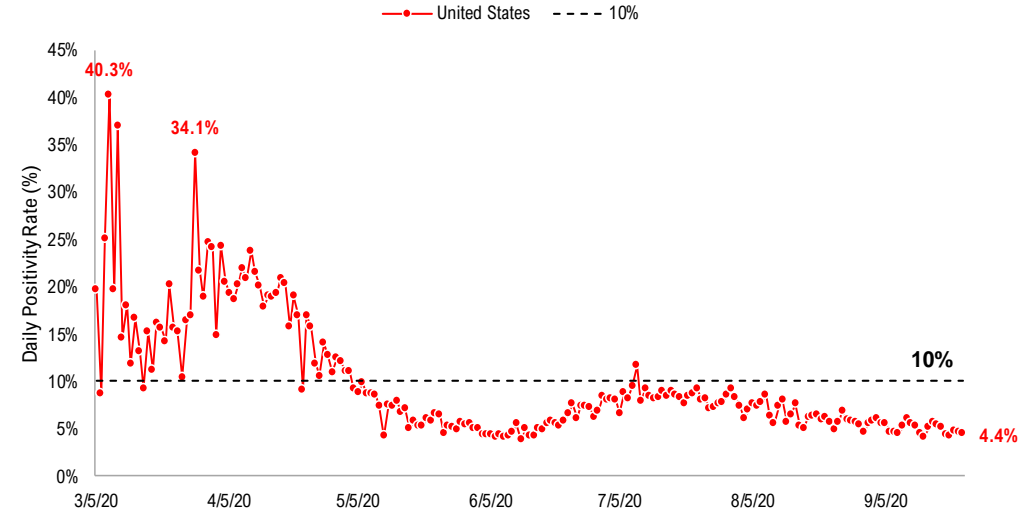
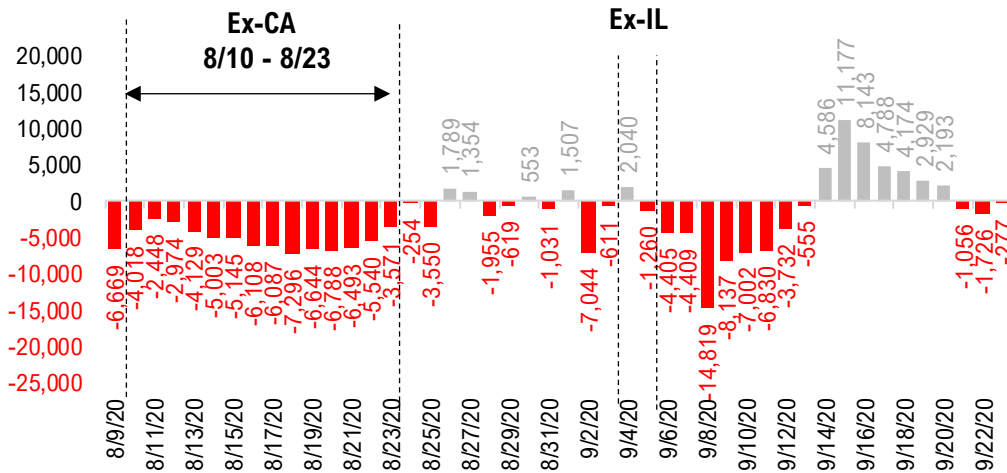
US daily new cases



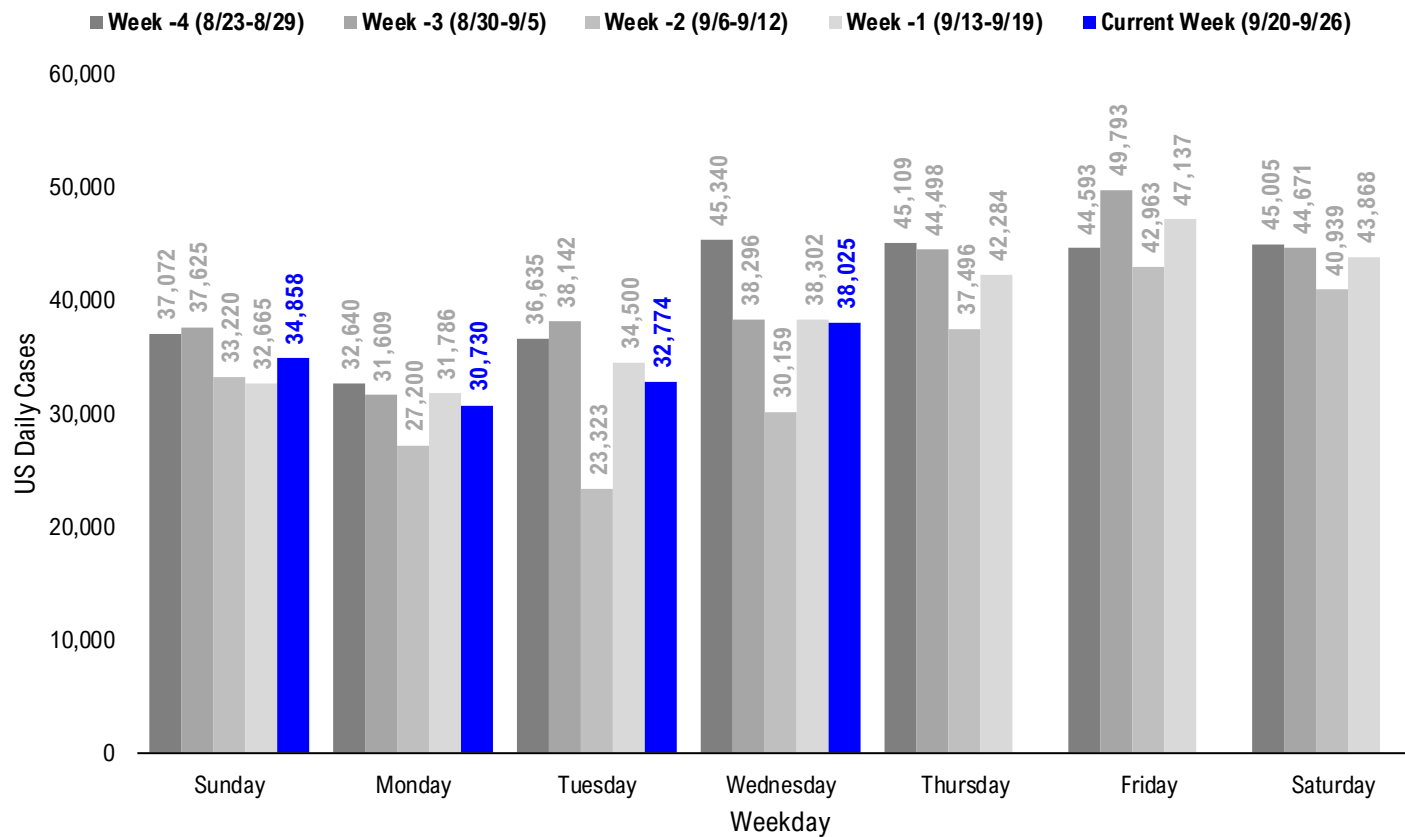
USA total COVID-19 tests administered



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	9/23/20	7D Delta	9/23/20	7D Delta	# Days	Cases	
United States	100%	38,025	-277	103	-3	68	-53%	

States:

1	California	11.9%	3,146	+196	77	+9	61	-74%
2	Texas	8.7%	2,977	-432	100	-24	68	-76%
3	Florida	6.5%	2,590	+235	105	-7	72	-82%
4	Illinois	3.8%	1,848	-93	128	+2	17	-50%
5	Wisconsin	1.8%	1,762	+354	269	+67	4	-31%
6	Missouri	1.8%	1,580	+389	223	+14	55	-29%
7	Tennessee	2.1%	1,561	-295	156	-101	57	-61%
8	Georgia	3.2%	1,457	-766	111	-38	60	-73%
9	Kansas	0.9%	1,267	+296	337	+52	28	-5%
10	Oklahoma	1.2%	1,089	+119	283	+36	57	-9%
11	Iowa	1.0%	1,036	+233	237	+69	26	-39%
12	North Carolina	3.2%	952	-185	93	-5	67	-56%
13	Ohio	3.5%	903	-130	70	-19	54	-48%
14	Pennsylvania	3.9%	898	+122	51	-30	166	-64%
15	Utah	1.0%	877	+130	223	+29	3	-31%
16	Arkansas	0.9%	874	+268	216	+30	60	-28%
17	Kentucky	1.3%	786	+22	147	+12	40	-21%
18	Indiana	2.0%	711	+131	91	-9	10	-49%
19	Michigan	3.0%	705	+25	92	+14	152	-25%
20	Minnesota	1.7%	678	+216	123	+34	3	-37%
21	South Carolina	1.6%	666	-1,237	120	-90	73	-69%
22	New York	5.9%	665	+13	34	-0	166	-94%
23	Washington	2.3%	645	+298	28	-15	70	-79%
24	Colorado	1.7%	616	+29	105	+26	150	-17%
25	Virginia	2.6%	580	-265	81	-18	45	-51%
26	Alabama	1.5%	569	-358	149	-10	60	-65%
27	Mississippi	0.9%	552	-159	135	-17	55	-74%
28	Massachusetts	2.1%	543	+237	47	+5	151	-91%

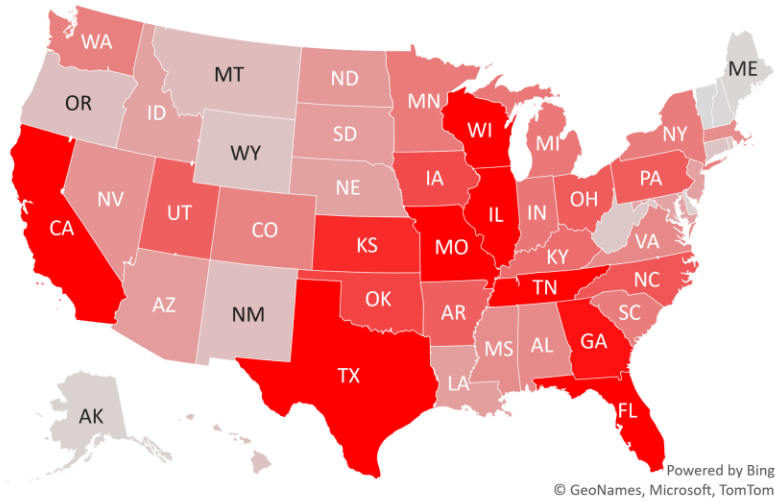
	Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases
	% US Pop	9/23/20	7D Delta	9/23/20	7D Delta	# Days	Cases	
United States	100%	38,025	-277	103	-3	68	-53%	

States:

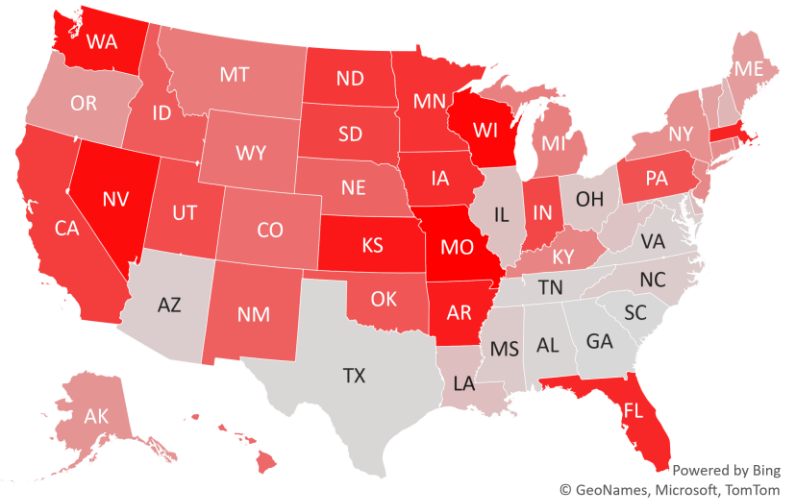
29	Nevada	0.9%	509	+301	109	+32	67	-75%
30	North Dakota	0.2%	473	+204	447	+117	4	-20%
31	South Dakota	0.3%	445	+148	353	+107	4	-19%
32	Arizona	2.2%	438	-257	58	-6	83	-90%
33	Louisiana	1.4%	431	-77	102	+4	64	-82%
34	New Jersey	2.7%	408	+20	46	+3	171	-90%
35	Nebraska	0.6%	397	+69	170	+35	144	-36%
36	Idaho	0.5%	396	+113	234	+82	68	-38%
37	Maryland	1.8%	385	-258	63	-35	125	-70%
38	Montana	0.3%	212	+25	191	+63	4	-16%
39	New Mexico	0.6%	197	+79	65	+20	56	-63%
40	Oregon	1.3%	190	+2	55	+15	53	-36%
41	Hawaii	0.4%	168	+67	67	+9	25	-67%
42	Connecticut	1.1%	155	+20	74	-5	154	-83%
43	Wyoming	0.2%	153	+25	172	+45	5	-4%
44	Rhode Island	0.3%	133	+25	93	+12	151	-77%
45	West Virginia	0.5%	120	-100	84	-9	11	-37%
46	Delaware	0.3%	69	-28	90	-41	148	-74%
47	Alaska	0.2%	54	+5	77	+1	52	-58%
48	Guam	0.0%	45	-2	237	-8	27	-64%
49	Puerto Rico	1.0%	40	-6	39	-12	4	-76%
50	District of Columbia	0.2%	29	-27	45	-26	143	-86%
51	Maine	0.4%	25	+2	23	+3	124	-56%
52	New Hampshire	0.4%	17	-15	15	-6	144	-84%
53	U.S. Virgin Islands	0.0%	2	-5	28	-9	33	-93%
54	Vermont	0.2%	1	+0	4	-6	171	-96%
55	Northern Mariana Islands	0.0%	0	+0	6	+0	1	-86%
56	American Samoa	0.0%	0	+0	0	+0	-	-

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

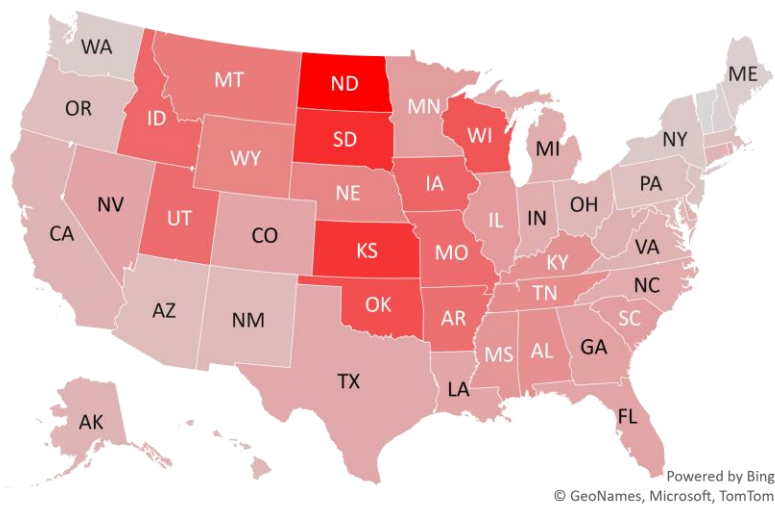
Daily Case Increases



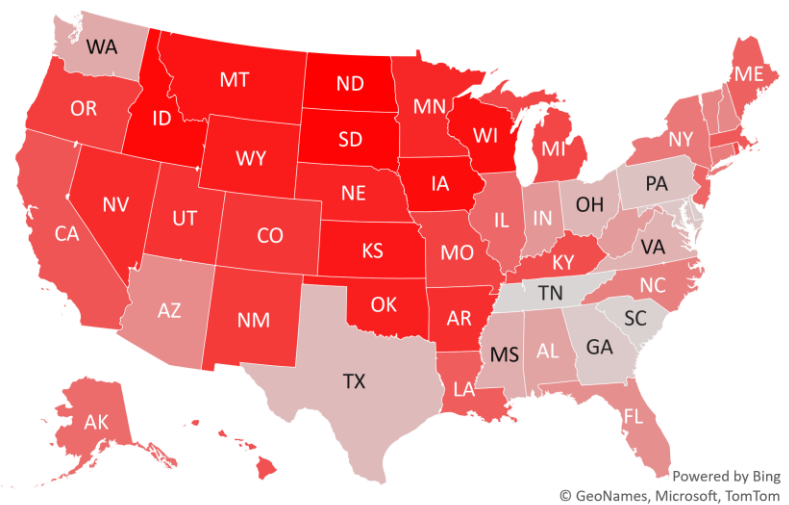
7D Delta in Daily New Cases



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



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



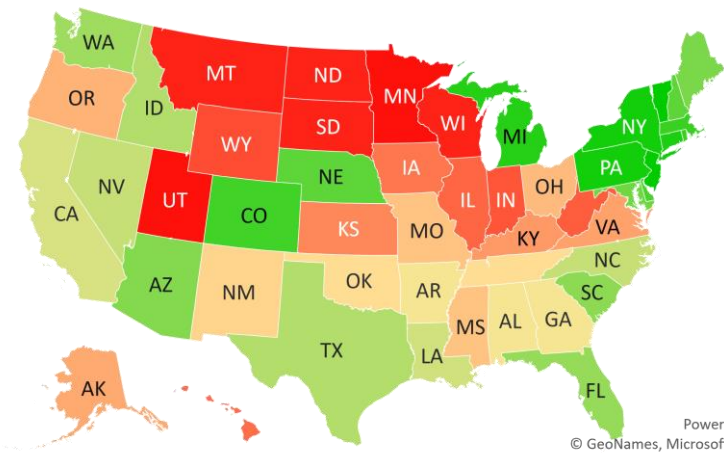
#5: # of Days since Daily Case Peaked by States...

Days since Daily Cases (3D Avg) Peak (as of 9/23)

	Sorted			
	Peak Date	9/23/20	% off the Peak	% US Pop
United States	7/17/20	68	-53%	100%
States:				
Vermont	4/5/20	171	-96%	0.2%
New Jersey	4/5/20	171	-90%	2.7%
Pennsylvania	4/10/20	166	-64%	3.9%
New York	4/10/20	166	-94%	5.9%
Connecticut	4/22/20	154	-83%	1.1%
Michigan	4/24/20	152	-25%	3.0%
Rhode Island	4/25/20	151	-77%	0.3%
Massachusetts	4/25/20	151	-91%	2.1%
Colorado	4/26/20	150	-17%	1.7%
Delaware	4/28/20	148	-74%	0.3%
New Hampshire	5/2/20	144	-84%	0.4%
Nebraska	5/2/20	144	-36%	0.6%
District of Columbia	5/3/20	143	-86%	0.2%
Maryland	5/21/20	125	-70%	1.8%
Maine	5/22/20	124	-56%	0.4%
Arizona	7/2/20	83	-90%	2.2%
South Carolina	7/12/20	73	-69%	1.6%
Florida	7/13/20	72	-82%	6.5%
Washington	7/15/20	70	-79%	2.3%
Texas	7/17/20	68	-76%	8.7%
Idaho	7/17/20	68	-38%	0.5%
Nevada	7/18/20	67	-75%	0.9%
North Carolina	7/18/20	67	-56%	3.2%
Louisiana	7/21/20	64	-82%	1.4%
California	7/24/20	61	-74%	11.9%
Georgia	7/25/20	60	-73%	3.2%
Arkansas	7/25/20	60	-28%	0.9%
Alabama	7/25/20	60	-65%	1.5%

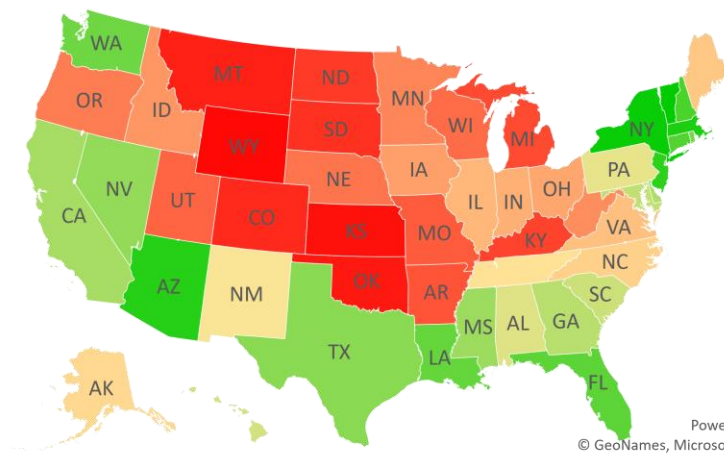
	Sorted			
	Peak Date	9/23/20	% off the Peak	% US Pop
United States	7/17/20	68	-53%	100%
States:				
Tennessee	7/28/20	57	-61%	2.1%
Oklahoma	7/28/20	57	-9%	1.2%
New Mexico	7/29/20	56	-63%	0.6%
Mississippi	7/30/20	55	-74%	0.9%
Missouri	7/30/20	55	-29%	1.8%
Ohio	7/31/20	54	-48%	3.5%
Oregon	8/1/20	53	-36%	1.3%
Alaska	8/2/20	52	-58%	0.2%
Virginia	8/9/20	45	-51%	2.6%
Kentucky	8/14/20	40	-21%	1.3%
U.S. Virgin Islands	8/21/20	33	-93%	0.0%
Kansas	8/26/20	28	-5%	0.9%
Guam	8/27/20	27	-64%	0.0%
Iowa	8/28/20	26	-39%	1.0%
Hawaii	8/29/20	25	-67%	0.4%
Illinois	9/6/20	17	-50%	3.8%
West Virginia	9/12/20	11	-37%	0.5%
Indiana	9/13/20	10	-49%	2.0%
Wyoming	9/18/20	5	-4%	0.2%
Wisconsin	9/19/20	4	-31%	1.8%
South Dakota	9/19/20	4	-19%	0.3%
Puerto Rico	9/19/20	4	-76%	1.0%
North Dakota	9/19/20	4	-20%	0.2%
Montana	9/19/20	4	-16%	0.3%
Utah	9/20/20	3	-31%	1.0%
Minnesota	9/20/20	3	-37%	1.7%
Northern Mariana Island	9/22/20	1	-86%	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

WA data represent the new cases over the past 3 days...

	9/16/20	9/21/20	9/22/20	9/23/20	vs 7D ago
United States	38,302	30,730	32,774	38,025	-277
States:					
California	2,950	3,294	2,630	3,146	
Texas	3,409	1,742	3,964	2,977	
Florida	2,355	1,685	2,470	2,590	
Illinois	1,941	1,477	1,531	1,848	
Wisconsin	1,408	1,271	1,672	1,762	<--higher
Missouri	1,191	1,463	1,059	1,580	<--higher
Tennessee	1,856	895	739	1,561	
Georgia	2,223	1,184	882	1,457	
Kansas	971	1,674	0	1,267	<--higher
Oklahoma	970	1,101	1,164	1,089	
Iowa	803	660	548	1,036	<--higher
North Carolina	1,137	800	1,168	952	
Ohio	1,033	856	685	903	
Pennsylvania	776	234	834	898	
Utah	747	622	650	877	
Arkansas	606	596	486	874	<--higher
Kentucky	764	375	814	786	
Indiana	580	522	599	711	<--higher
Michigan	680	1,536	504	705	
Minnesota	462	925	480	678	<--higher
South Carolina	1,903	417	769	666	
New York	652	573	754	665	
Washington	347	0	0	645	
Colorado	587	542	654	616	
Virginia	845	627	872	580	
Alabama	927	818	804	569	
Mississippi	711	192	465	552	
Massachusetts	306	256	173	543	<--higher

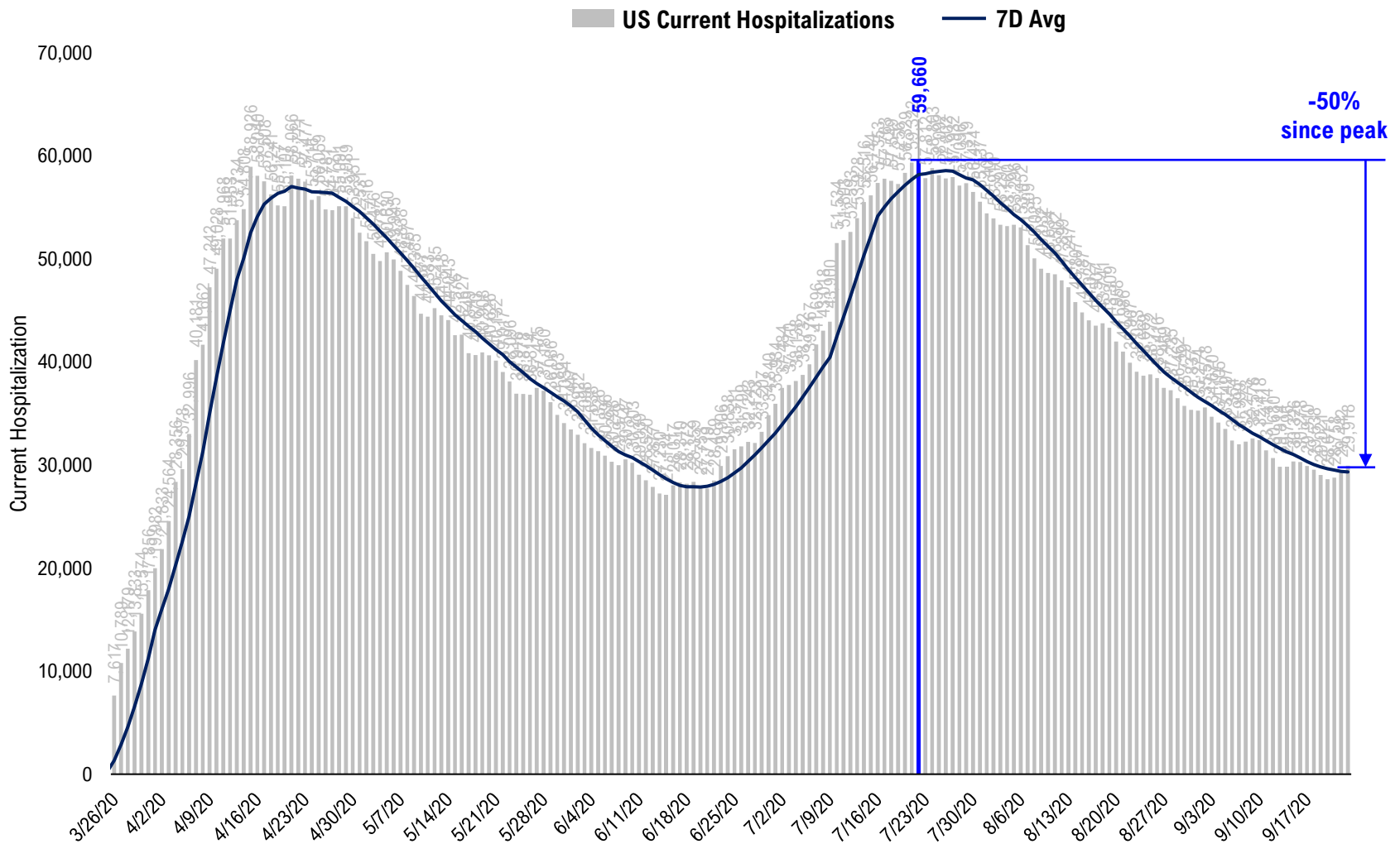
Sorted
7D Ago Last 3-day Trend

WA data represent the new cases over the past 3 days...

	9/16/20	9/21/20	9/22/20	9/23/20	vs 7D ago
United States	38,302	30,730	32,774	38,025	-277
States:					
Nevada	208	232	262	509	<--higher
North Dakota	269	286	264	473	<--higher
South Dakota	297	173	320	445	<--higher
Arizona	695	233	595	438	
Louisiana	508	243	752	431	
New Jersey	388	392	426	408	
Nebraska	328	286	305	397	<--higher
Idaho	283	410	446	396	<--higher
Maryland	643	412	344	385	
Montana	187	130	271	212	
New Mexico	118	104	107	197	<--higher
Oregon	188	194	318	190	
Hawaii	101	56	62	168	<--higher
Connecticut	135	497	136	155	
Wyoming	128	73	72	153	
Rhode Island	108	52	112	133	<--higher
West Virginia	220	117	213	120	
Delaware	97	101	94	69	
Alaska	49	70	44	54	
Guam	47	30	43	45	
Puerto Rico	46	242	88	40	
District of Columbia	56	23	43	29	
Maine	23	27	40	25	
New Hampshire	32	5	38	17	
U.S. Virgin Islands	7	0	7	2	
Vermont	1	4	2	1	
Northern Mariana Islands	0	1	0	0	
American Samoa	0	0	0	0	

#7: US Daily Hospitalizations...

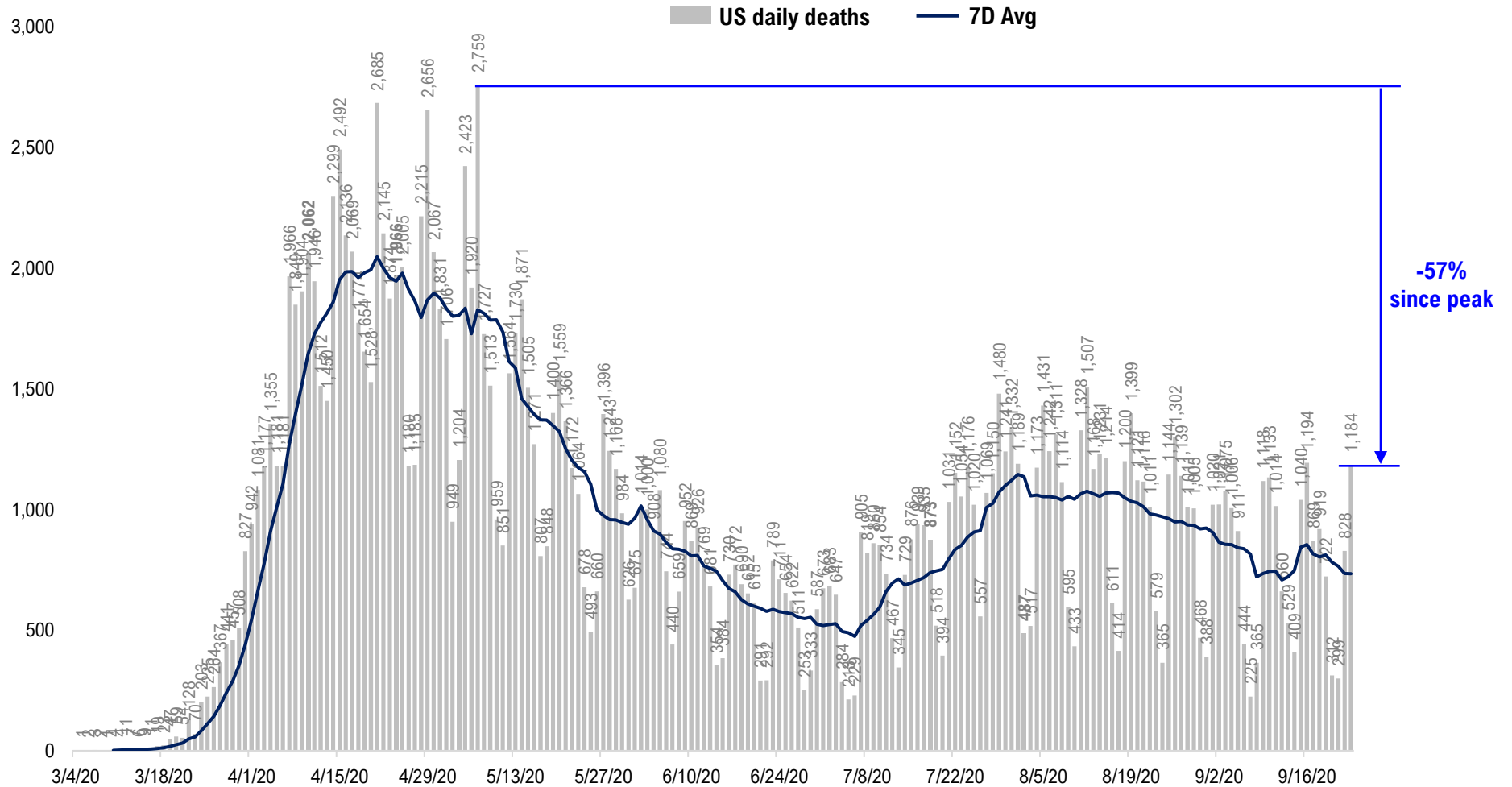
US Net Hospitalizations (aggregate of 50 states + Washington, D.C.)



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

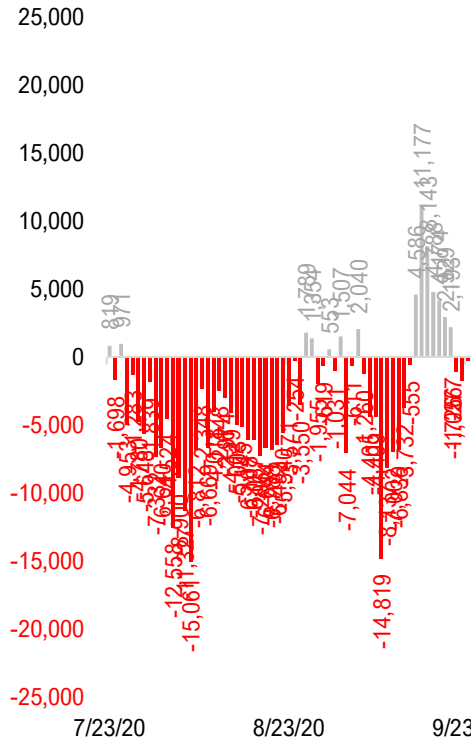
#8: US Daily New Fatalities...

US daily COVID-19 Fatalities

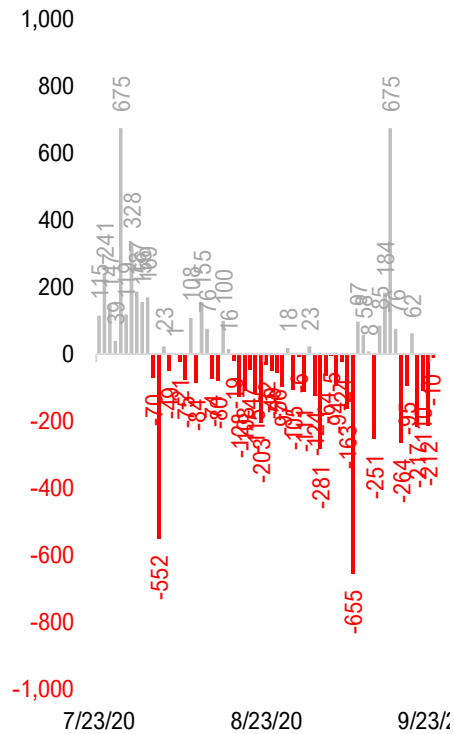


#9: Rolling 7-Day Change in the Key Metrics... (Past 8 Weeks)

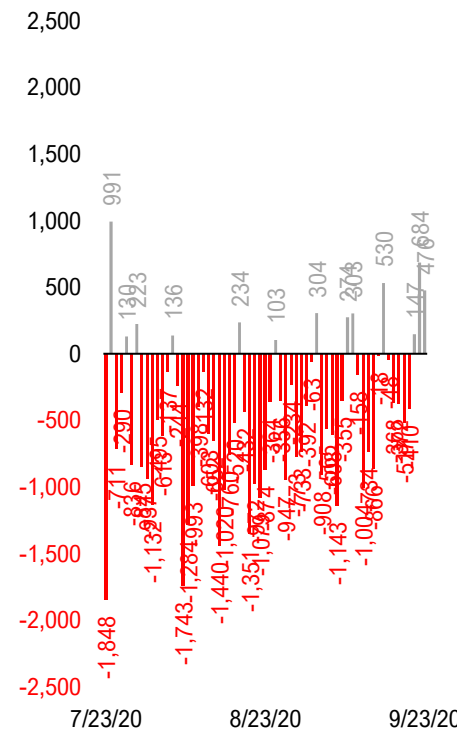
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



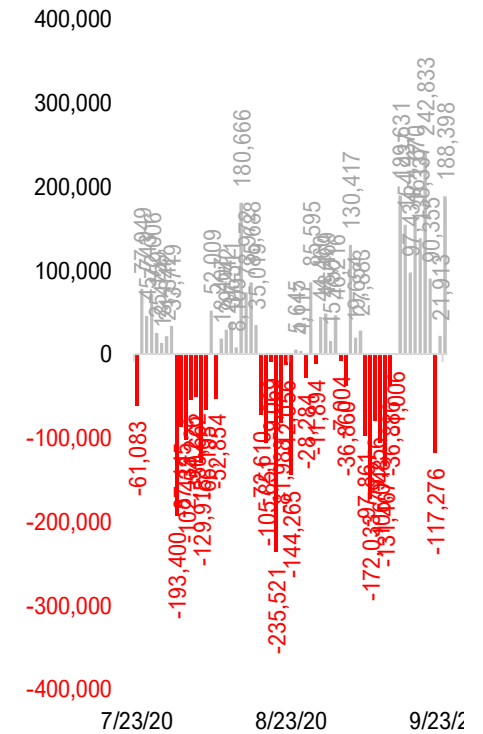
Daily Deaths



Daily Net Hospitalization
(Red = more discharge than admission)

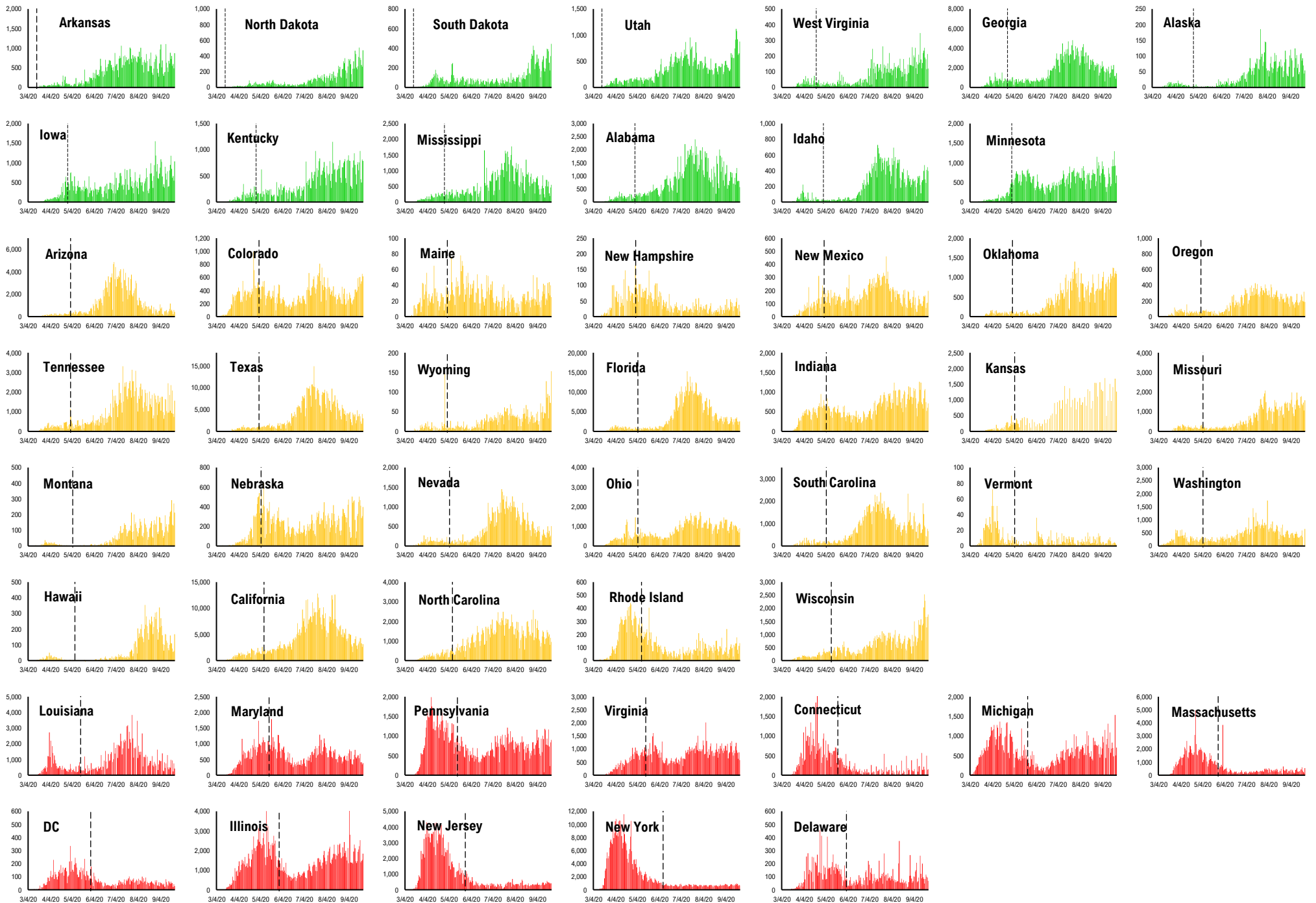


Daily Tests

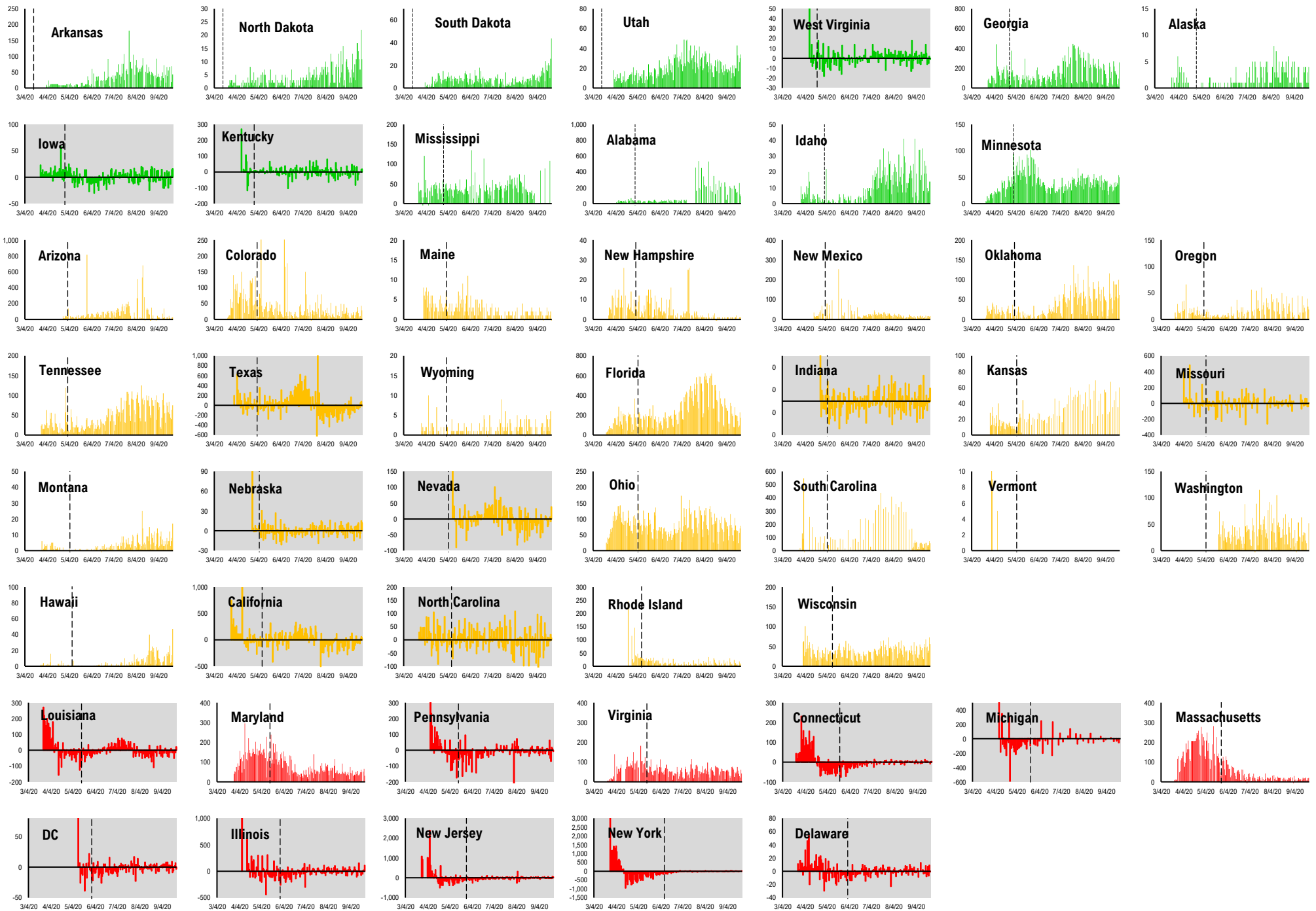


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

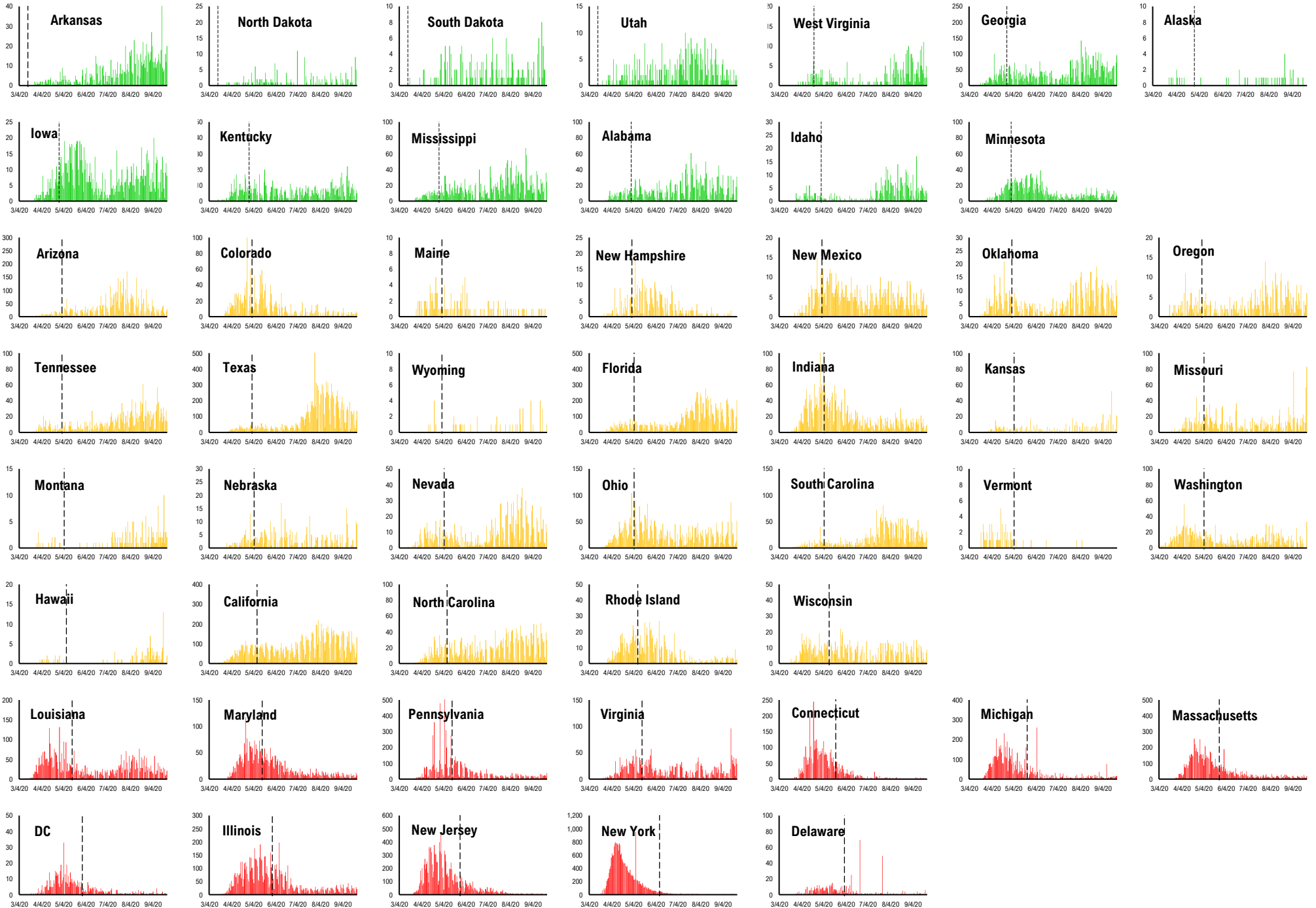
#10: Daily New Cases by States... (sorted by "open" date)



#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

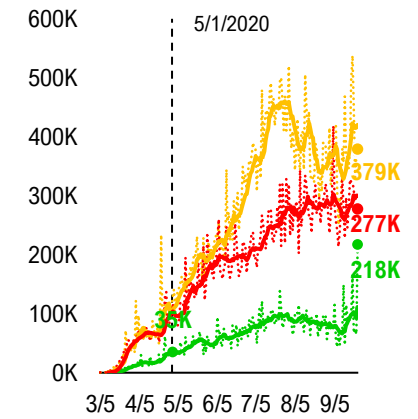
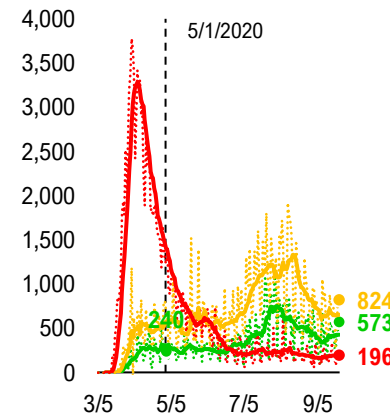
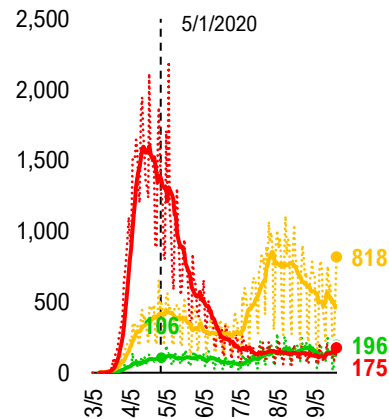
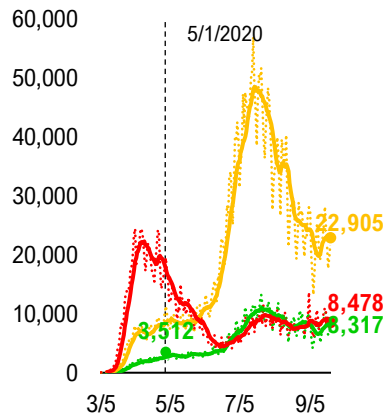
Daily Deaths

Daily Hospitalization

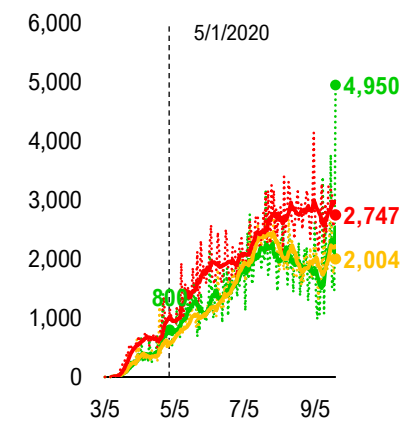
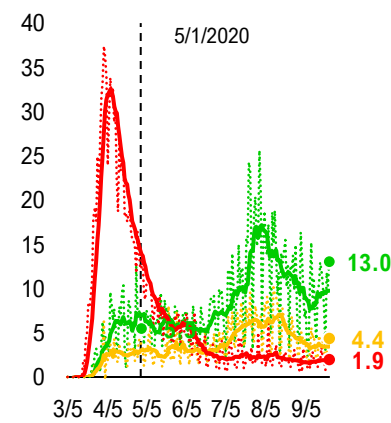
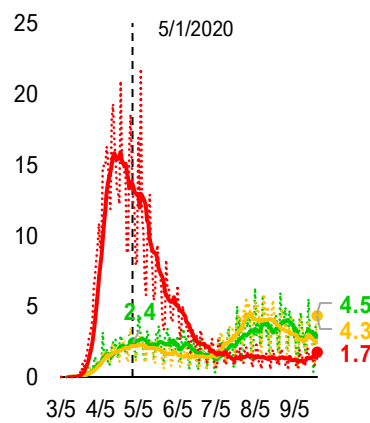
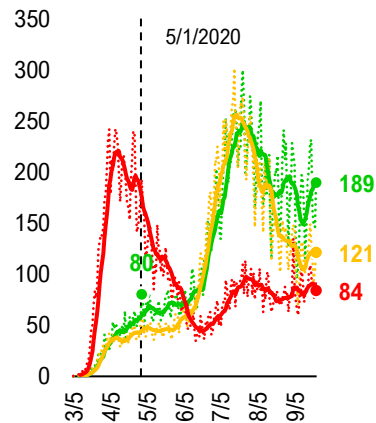
Daily Testing

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

Composite Daily Aggregate

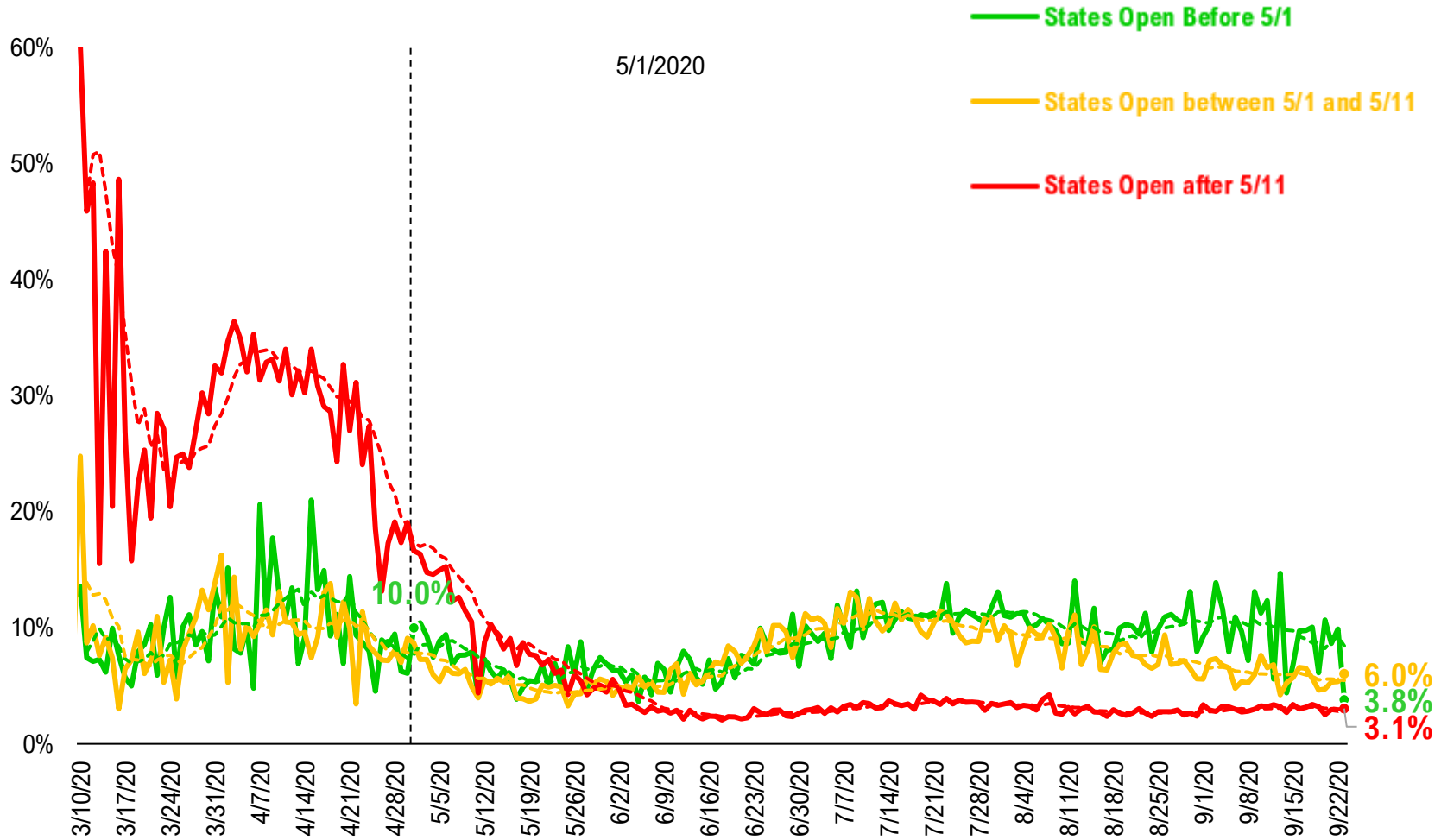


Composite Daily Aggregate Per 1mm Pop

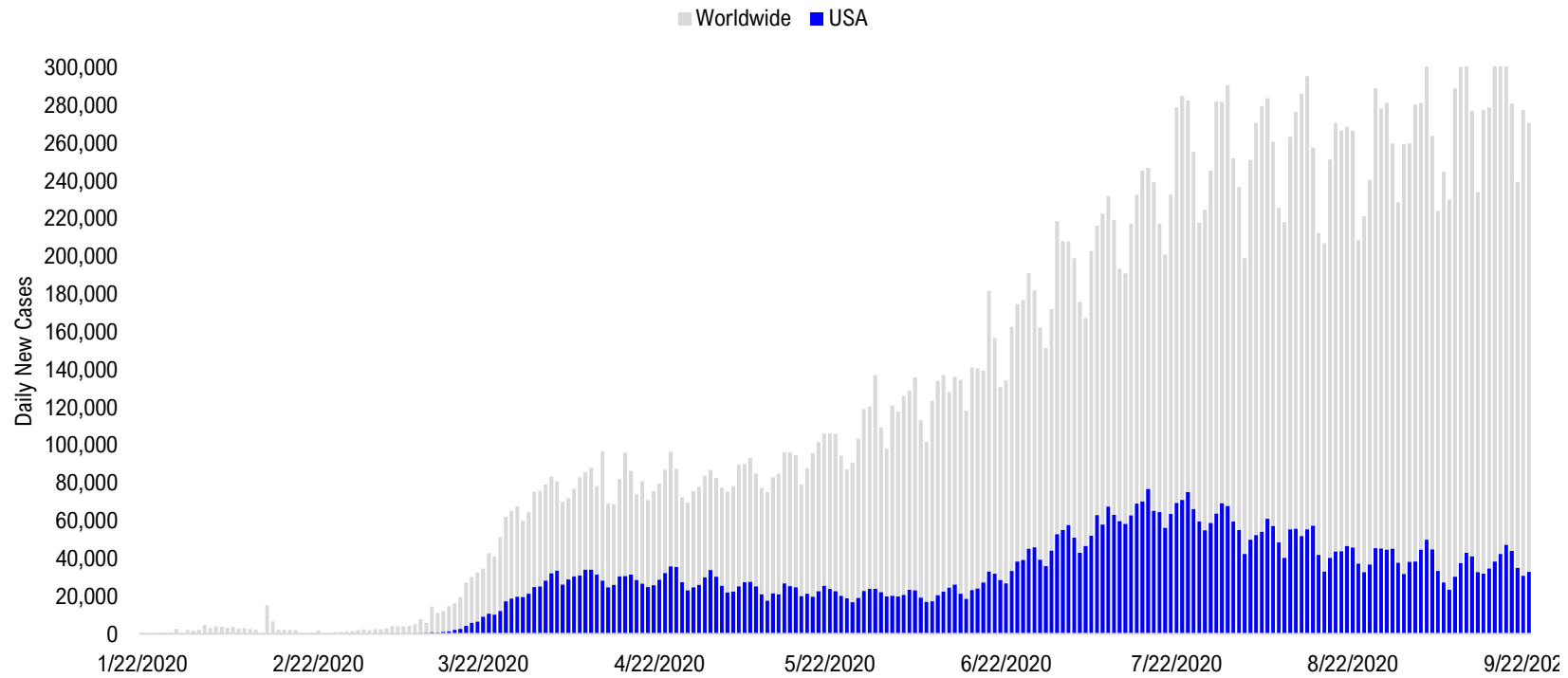


#14: State COVID-19 Daily Positivity Rate by Reopen Date...

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	9/22/2020
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 81,227
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	Europe 59,292
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	Latin America 54,451
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	US + Canada 34,204
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 10,037
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 7,131

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Analyst Industry/Sector Views

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.

Neutral (N): The analyst expects the performance of his or her industry/sector coverage universe over the next 6-18 months to be in line with the relevant broad market benchmark, being the S&P 500 for North America.

Negative (-): The analyst expects his or her industry coverage universe over the next 6-18 months to underperform vs. the relevant broad market benchmark, being the S&P 500 for North America.

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