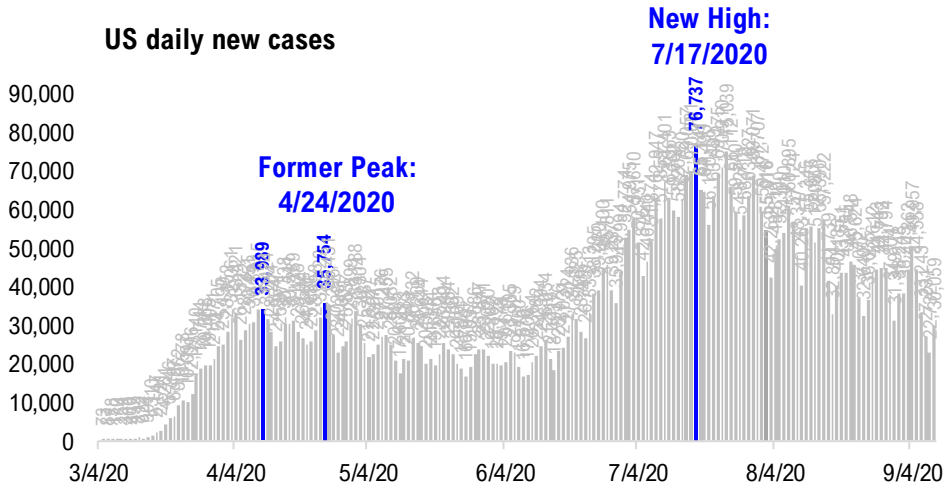


FSInsight Daily COVID-19 Chartbook

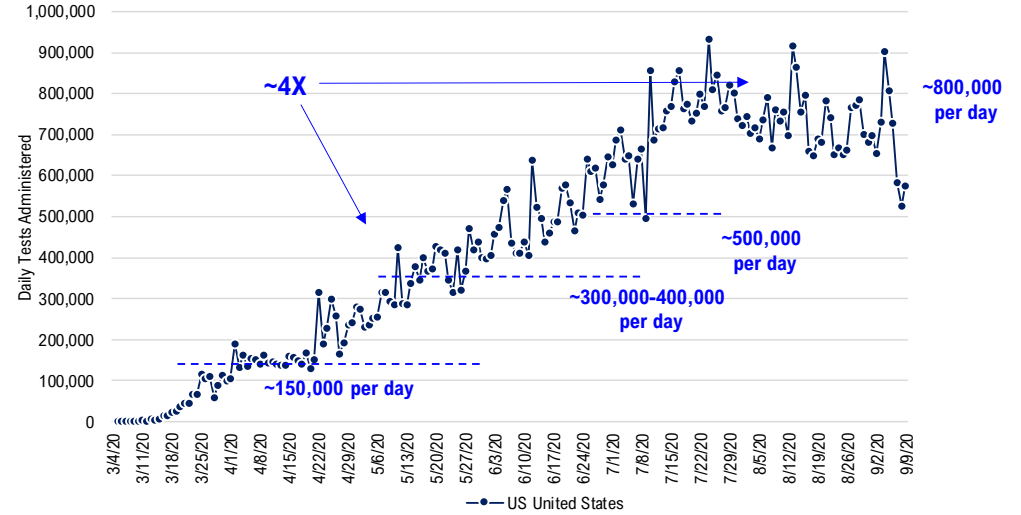


#1: USA COVID-19 Situation at a Glance...

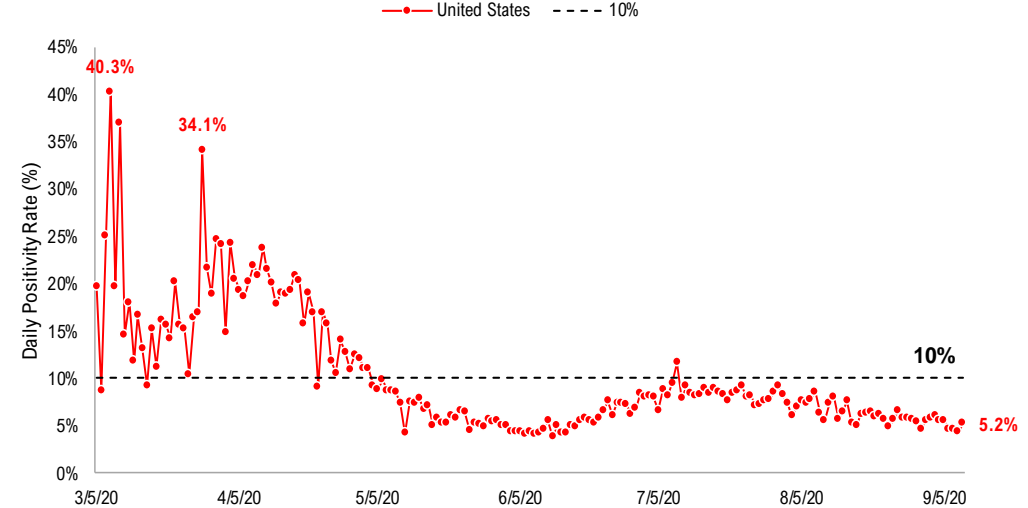
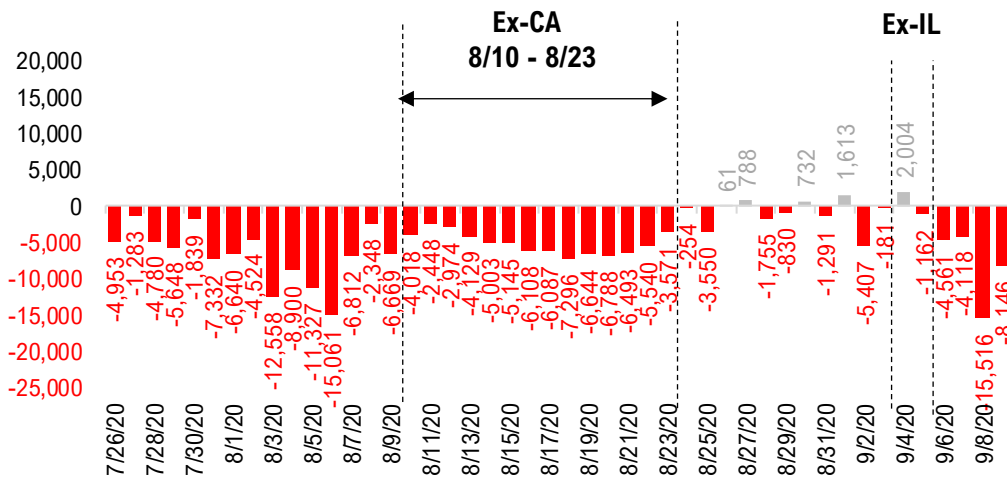
US daily new cases



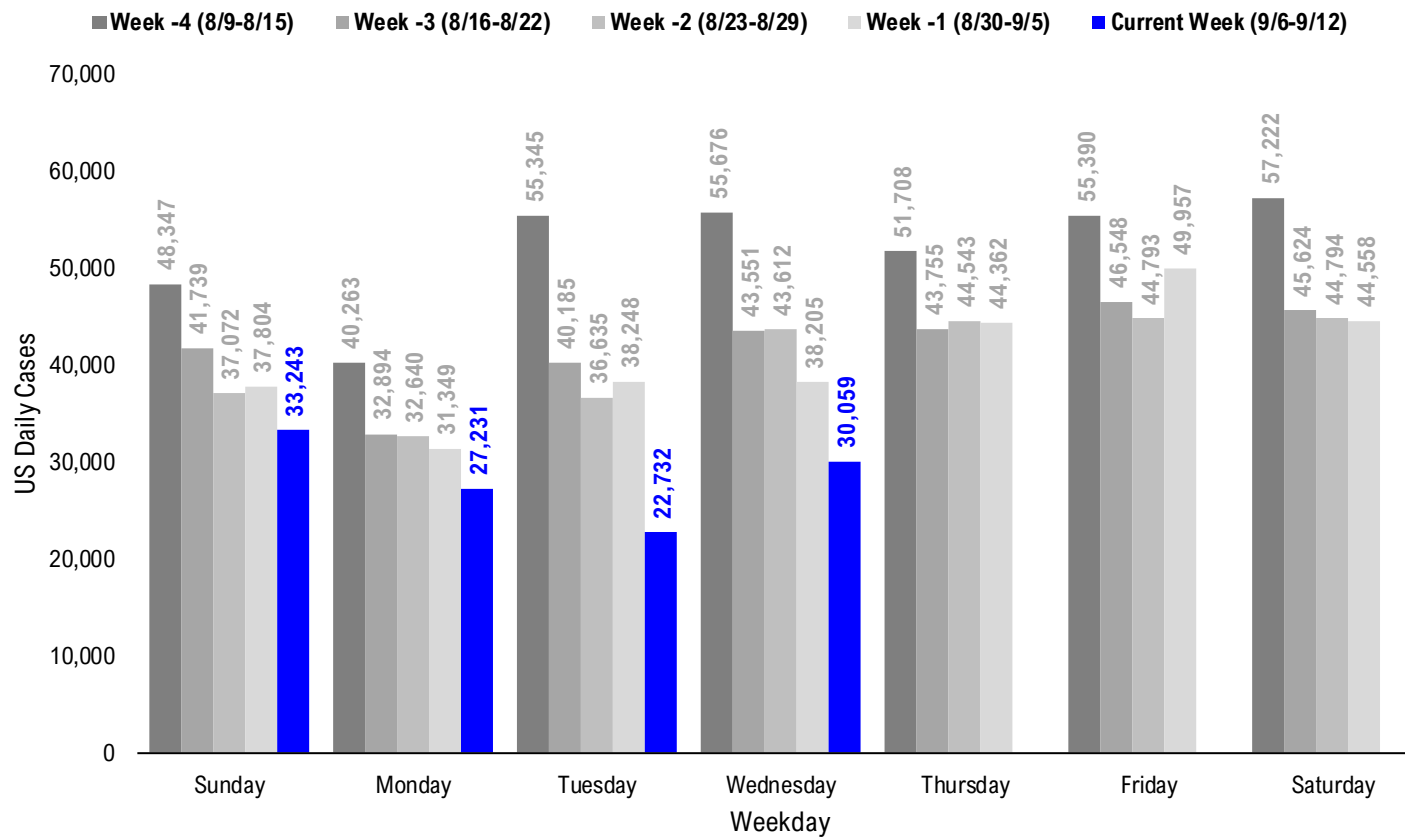
USA total COVID-19 tests administered



US daily new cases rolling 7D delta



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



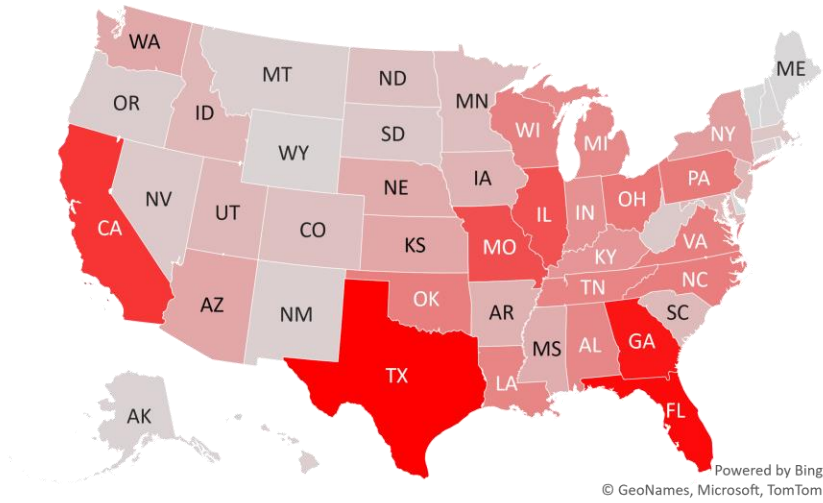
#3: USA State COVID-19 Situation at a Glance...

		Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	9/9/20	7D Delta	9/9/20	7D Delta	# Days		% Decline in Daily Cases	
United States		100%	30,059	-8,146	81	-28	54		-63%	
States:										
1	Texas	8.7%	4,285	+128	89	-33	54		-78%	
2	Florida	6.5%	2,056	-346	89	-34	58		-85%	
3	Georgia	3.2%	1,937	+21	128	-49	46		-68%	
4	California	11.9%	1,616	-2,639	62	-40	47		-79%	
5	Missouri	1.8%	1,362	-96	165	-28	41		-47%	
6	Illinois	3.8%	1,337	-791	108	-31	3		-58%	
7	Ohio	3.5%	973	-184	69	-31	40		-48%	
8	Pennsylvania	3.9%	931	+115	51	-3	152		-64%	
9	North Carolina	3.2%	897	-232	84	-57	53		-61%	
10	Virginia	2.6%	882	-45	92	-17	31		-44%	
11	Oklahoma	1.2%	876	+157	196	+19	43		-37%	
12	Wisconsin	1.8%	857	+312	123	+20	3		-36%	
13	Tennessee	2.1%	833	-669	120	-110	43		-70%	
14	Louisiana	1.4%	821	-135	99	-42	50		-83%	
15	Alabama	1.5%	811	+188	143	-61	46		-67%	
16	Michigan	3.0%	783	+259	79	+23	138		-35%	
17	Indiana	2.0%	705	-154	83	-37	31		-49%	
18	Kentucky	1.3%	658	-148	90	-56	26		-52%	
19	New York	5.9%	576	-132	28	-8	152		-95%	
20	Kansas	0.9%	496	-832	251	-80	14		-29%	
21	Arizona	2.2%	496	-24	35	-20	69		-94%	
22	Washington	2.3%	464	+160	51	+5	56		-62%	
23	Nebraska	0.6%	440	+19	178	+14	130		-33%	
24	Mississippi	0.9%	426	-355	103	-86	41		-80%	
25	Arkansas	0.9%	385	-230	114	-25	46		-62%	
26	Iowa	1.0%	364	-362	128	-75	12		-67%	
27	Maryland	1.8%	336	-120	80	-4	111		-61%	
28	Idaho	0.5%	329	+33	120	-29	54		-68%	

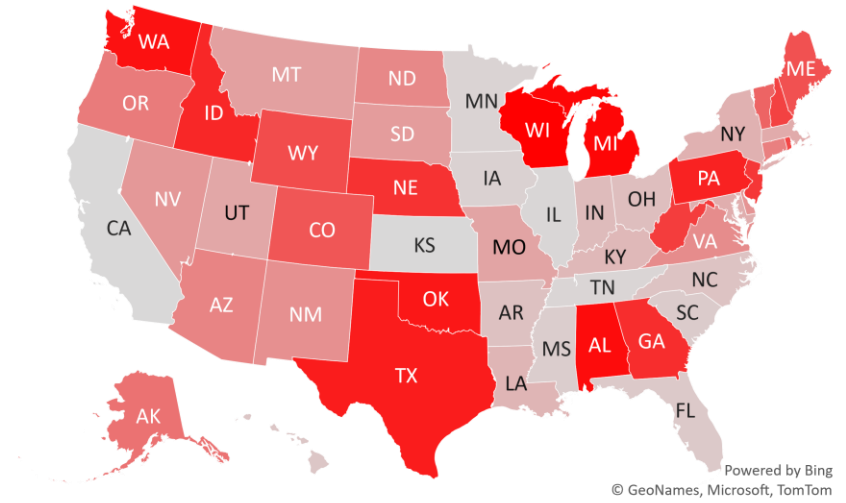
		Sorted Daily Cases			Daily Cases (3D avg) per 1mm residents		Since Peak		% Decline in Daily Cases	
		% US Pop	9/9/20	7D Delta	9/9/20	7D Delta	# Days		% Decline in Daily Cases	
United States		100%	30,059	-8,146	81	-28	54		-63%	
States:										
29	New Jersey	2.7%	323	+18	35	-2	157		-92%	
30	Utah	1.0%	314	-105	105	+5	53		-59%	
31	South Carolina	1.6%	305	-352	82	-59	59		-79%	
32	Minnesota	1.7%	260	-470	76	-36	11		-58%	
33	Colorado	1.7%	246	+2	37	-9	136		-70%	
34	North Dakota	0.2%	238	-29	210	-38	4		-55%	
35	Massachusetts	2.1%	181	-112	28	-18	137		-94%	
36	South Dakota	0.3%	168	-86	174	-83	10		-59%	
37	Nevada	0.9%	154	-85	70	-34	53		-84%	
38	West Virginia	0.5%	147	+12	74	-25	4		-39%	
39	Oregon	1.3%	116	-13	34	-8	39		-61%	
40	Hawaii	0.4%	100	-239	63	-90	11		-69%	
41	Connecticut	1.1%	89	-13	47	-10	140		-89%	
42	New Mexico	0.6%	87	-65	26	-27	42		-85%	
43	Montana	0.3%	87	-96	64	-46	5		-60%	
44	Rhode Island	0.3%	84	+8	49	-6	137		-88%	
45	Alaska	0.2%	63	-3	60	-3	38		-67%	
46	Wyoming	0.2%	48	+3	69	+16	133		-32%	
47	Guam	0.0%	45	-2	175	-121	13		-73%	
48	District of Columbia	0.2%	25	-3	51	-5	129		-84%	
49	New Hampshire	0.4%	23	+11	17	+4	130		-81%	
50	Maine	0.4%	21	+2	13	-1	110		-75%	
51	Vermont	0.2%	2	-1	4	-7	157		-95%	
52	Puerto Rico	1.0%	1	-357	54	-20	22		-60%	
53	U.S. Virgin Islands	0.0%	0	-4	31	-12	19		-93%	
54	Northern Mariana Islands	0.0%	0	+0	6	+0	159		-83%	
55	Delaware	0.3%	0	-65	91	+20	134		-73%	
56	American Samoa	0.0%	0	+0	0	+0	-		-	

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

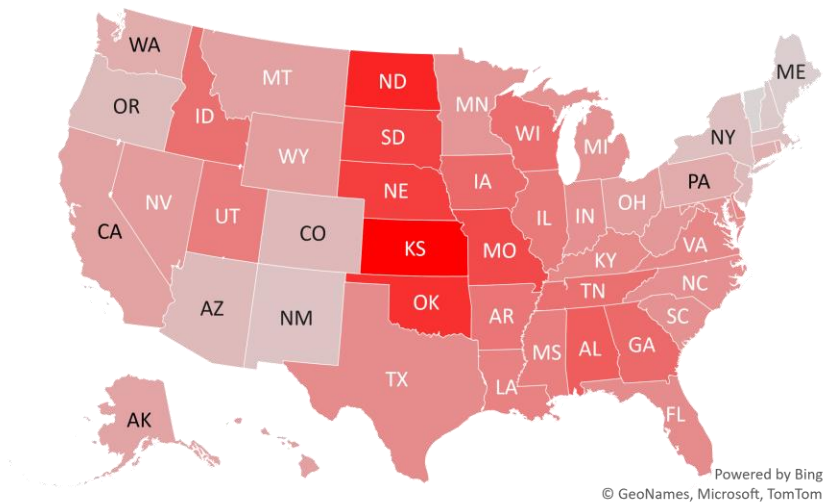
Daily Case Increases



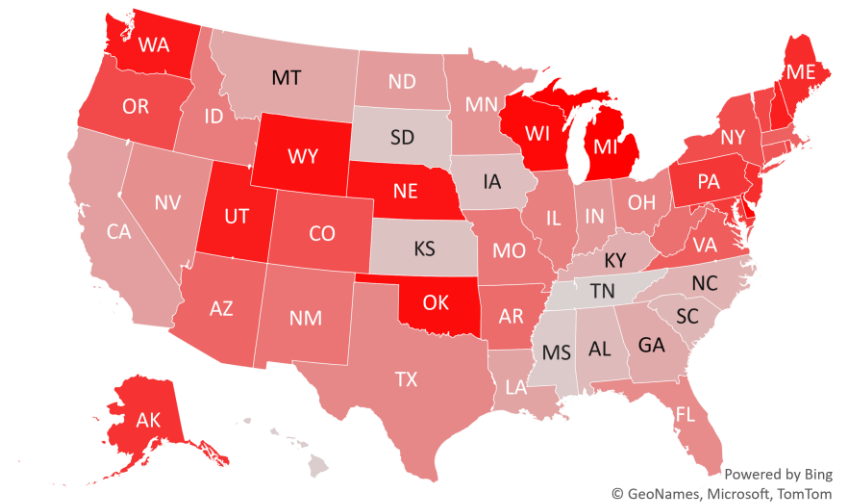
7D Delta in Daily New Cases



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



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



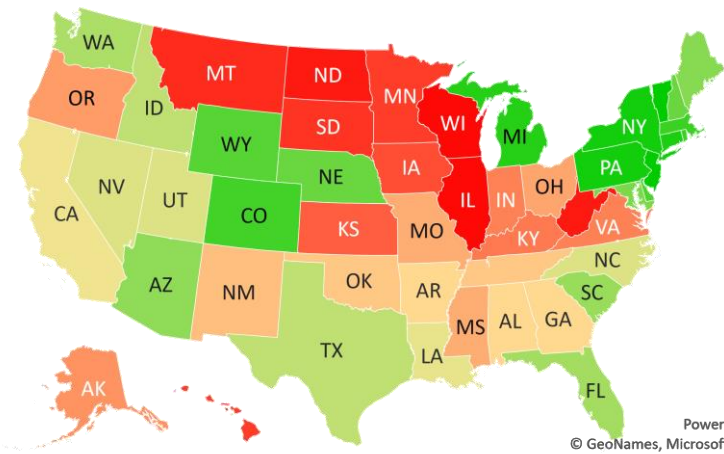
#5: # of Days since Daily Case Peaked by States...

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

	Sorted			
	Peak Date	9/9/20	% off the Peak	% US Pop
United States	7/17/20	54	-63%	100%
States:				
Northern Mariana Island	4/3/20	159	-83%	0.0%
Vermont	4/5/20	157	-95%	0.2%
New Jersey	4/5/20	157	-92%	2.7%
Pennsylvania	4/10/20	152	-64%	3.9%
New York	4/10/20	152	-95%	5.9%
Connecticut	4/22/20	140	-89%	1.1%
Michigan	4/24/20	138	-35%	3.0%
Rhode Island	4/25/20	137	-88%	0.3%
Massachusetts	4/25/20	137	-94%	2.1%
Colorado	4/26/20	136	-70%	1.7%
Delaware	4/28/20	134	-73%	0.3%
Wyoming	4/29/20	133	-32%	0.2%
New Hampshire	5/2/20	130	-81%	0.4%
Nebraska	5/2/20	130	-33%	0.6%
District of Columbia	5/3/20	129	-84%	0.2%
Maryland	5/21/20	111	-61%	1.8%
Maine	5/22/20	110	-75%	0.4%
Arizona	7/2/20	69	-94%	2.2%
South Carolina	7/12/20	59	-79%	1.6%
Florida	7/13/20	58	-85%	6.5%
Washington	7/15/20	56	-62%	2.3%
Texas	7/17/20	54	-78%	8.7%
Idaho	7/17/20	54	-68%	0.5%
Utah	7/18/20	53	-59%	1.0%
Nevada	7/18/20	53	-84%	0.9%
North Carolina	7/18/20	53	-61%	3.2%
Louisiana	7/21/20	50	-83%	1.4%
California	7/24/20	47	-79%	11.9%

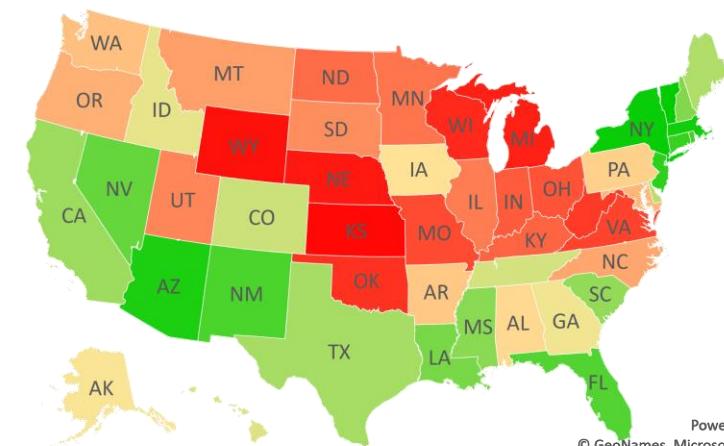
	Sorted			
	Peak Date	9/9/20	% off the Peak	% US Pop
United States	7/17/20	54	-63%	100%
States:				
Georgia	7/25/20	46	-68%	3.2%
Arkansas	7/25/20	46	-62%	0.9%
Alabama	7/25/20	46	-67%	1.5%
Tennessee	7/28/20	43	-70%	2.1%
Oklahoma	7/28/20	43	-37%	1.2%
New Mexico	7/29/20	42	-85%	0.6%
Mississippi	7/30/20	41	-80%	0.9%
Missouri	7/30/20	41	-47%	1.8%
Ohio	7/31/20	40	-48%	3.5%
Oregon	8/1/20	39	-61%	1.3%
Alaska	8/2/20	38	-67%	0.2%
Virginia	8/9/20	31	-44%	2.6%
Indiana	8/9/20	31	-49%	2.0%
Kentucky	8/14/20	26	-52%	1.3%
Puerto Rico	8/18/20	22	-60%	1.0%
U.S. Virgin Islands	8/21/20	19	-93%	0.0%
Kansas	8/26/20	14	-29%	0.9%
Guam	8/27/20	13	-73%	0.0%
Iowa	8/28/20	12	-67%	1.0%
Minnesota	8/29/20	11	-58%	1.7%
Hawaii	8/29/20	11	-69%	0.4%
South Dakota	8/30/20	10	-59%	0.3%
Montana	9/4/20	5	-60%	0.3%
West Virginia	9/5/20	4	-39%	0.5%
North Dakota	9/5/20	4	-55%	0.2%
Wisconsin	9/6/20	3	-36%	1.8%
Illinois	9/6/20	3	-58%	3.8%

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

Delaware didn't report on Wed. due to reporting system maintenance...

	9/2/20	9/7/20	9/8/20	9/9/20	
United States	38,205	27,231	22,732	30,059	+7,327
States:					
Texas	4,157	2,057	1,416	4,285	<--higher
Florida	2,402	1,838	1,823	2,056	
Georgia	1,916	608	1,543	1,937	<--higher
California	4,255	3,091	2,676	1,616	
Missouri	1,458	906	773	1,362	<--higher
Illinois	2,128	1,381	1,392	1,337	
Ohio	1,157	778	656	973	<--higher
Pennsylvania	816	547	496	931	
North Carolina	1,129	1,018	716	897	
Virginia	927	645	836	882	
Oklahoma	719	613	833	876	
Wisconsin	545	567	717	857	
Tennessee	1,502	983	645	833	
Louisiana	956	309	256	821	<--higher
Alabama	623	659	633	811	<--higher
Michigan	524	1,156	441	783	
Indiana	859	590	386	705	
Kentucky	806	290	255	658	<--higher
New York	708	520	557	576	
Kansas	1,328	1,694	0	496	
Arizona	520	198	81	496	<--higher
Washington	304	399	310	464	
Nebraska	421	89	502	440	
Mississippi	781	242	249	426	<--higher
Arkansas	615	350	294	385	
Iowa	726	393	455	364	
Maryland	456	764	356	336	
Idaho	296	74	240	329	<--higher

Sorted

7D Ago Last 3-day Trend

Delaware didn't report on Wed. due to reporting system maintenance...

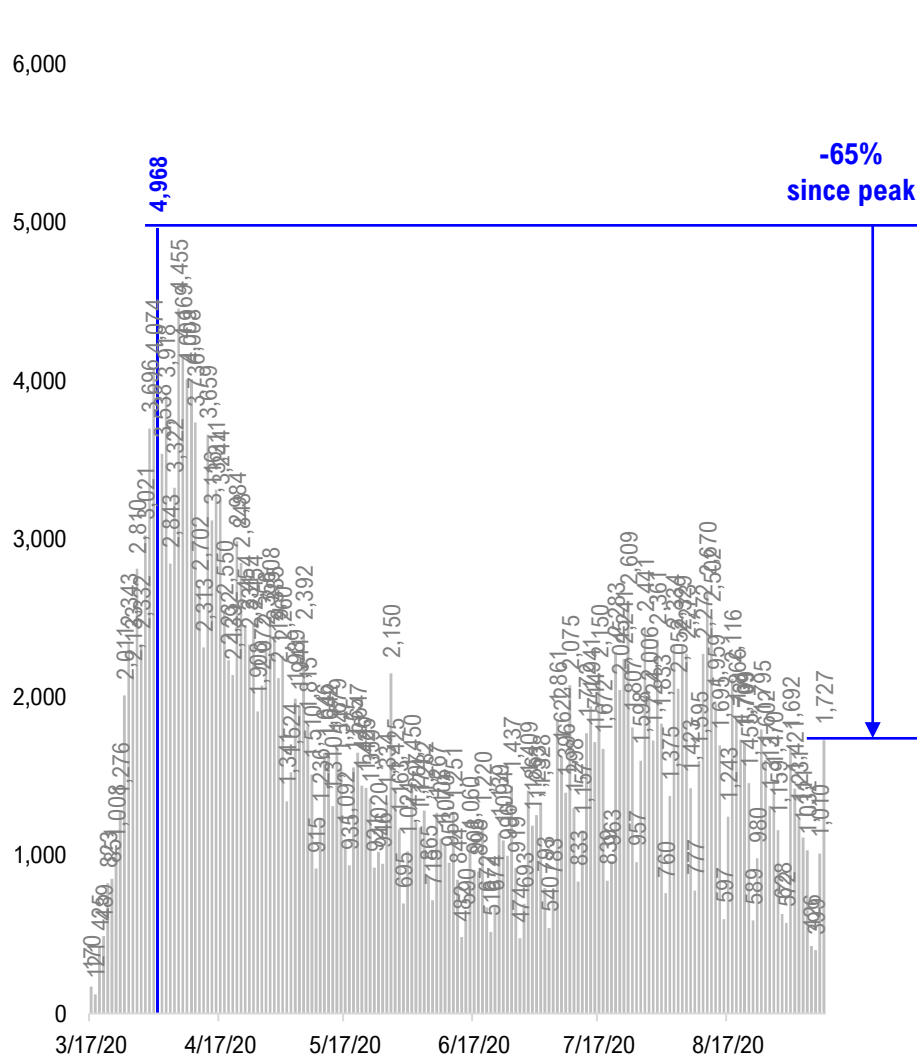
	9/2/20	9/7/20	9/8/20	9/9/20	
United States	38,205	27,231	22,732	30,059	+7,327
States:					
New Jersey	305	332	277	323	
Utah	419	373	326	314	
South Carolina	657	655	301	305	
Minnesota	730	638	383	260	
Colorado	244	213	187	246	
North Dakota	267	170	71	238	<--higher
Massachusetts	293	229	171	181	
South Dakota	254	191	103	168	
Nevada	239	357	137	154	
West Virginia	135	163	86	147	
Oregon	129	146	165	116	
Hawaii	339	105	64	100	
Connecticut	102	0	417	89	
New Mexico	152	37	37	87	<--higher
Montana	183	52	65	87	<--higher
Rhode Island	76	53	20	84	<--higher
Alaska	66	33	35	63	<--higher
Wyoming	45	0	71	48	
Guam	47	0	42	45	
District of Columbia	28	36	47	25	
New Hampshire	12	29	18	23	
Maine	19	19	12	21	
Vermont	3	3	3	2	
Puerto Rico	358	423	96	1	
U.S. Virgin Islands	4	9	1	0	
Northern Mariana Islands	0	0	1	0	
Delaware	65	206	59	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)

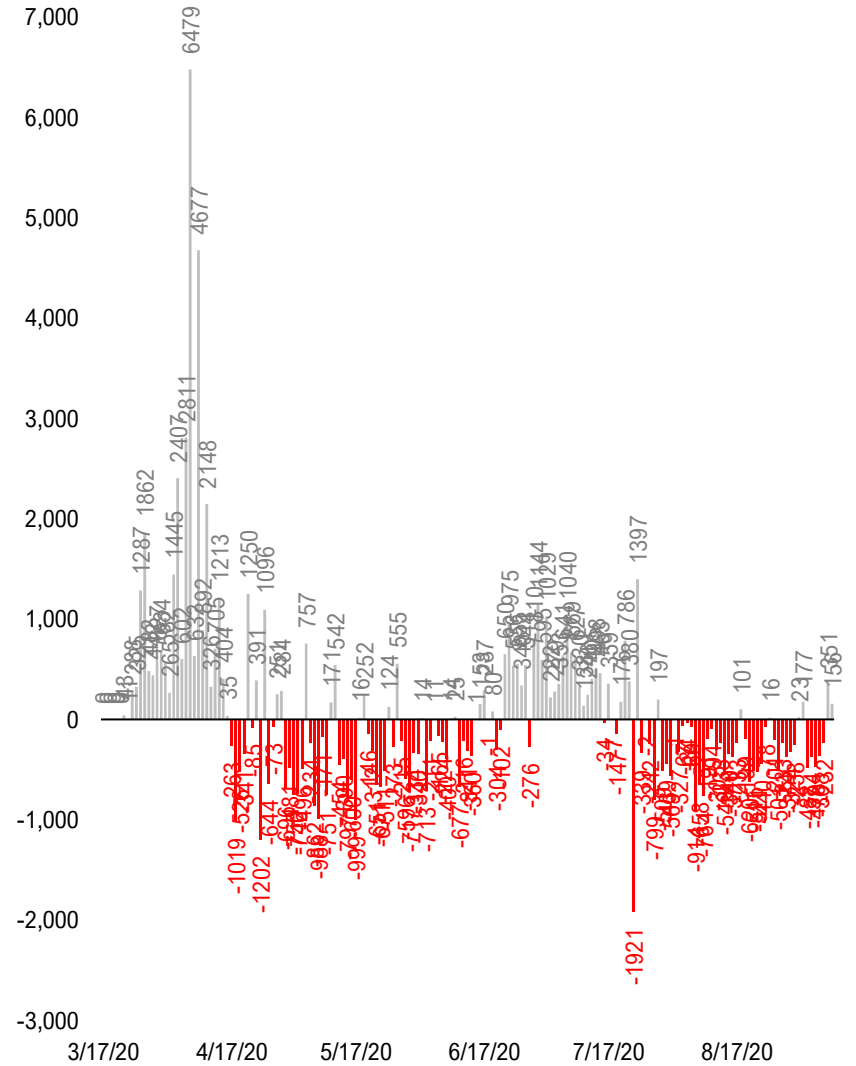
US Gross Hospitalizations

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



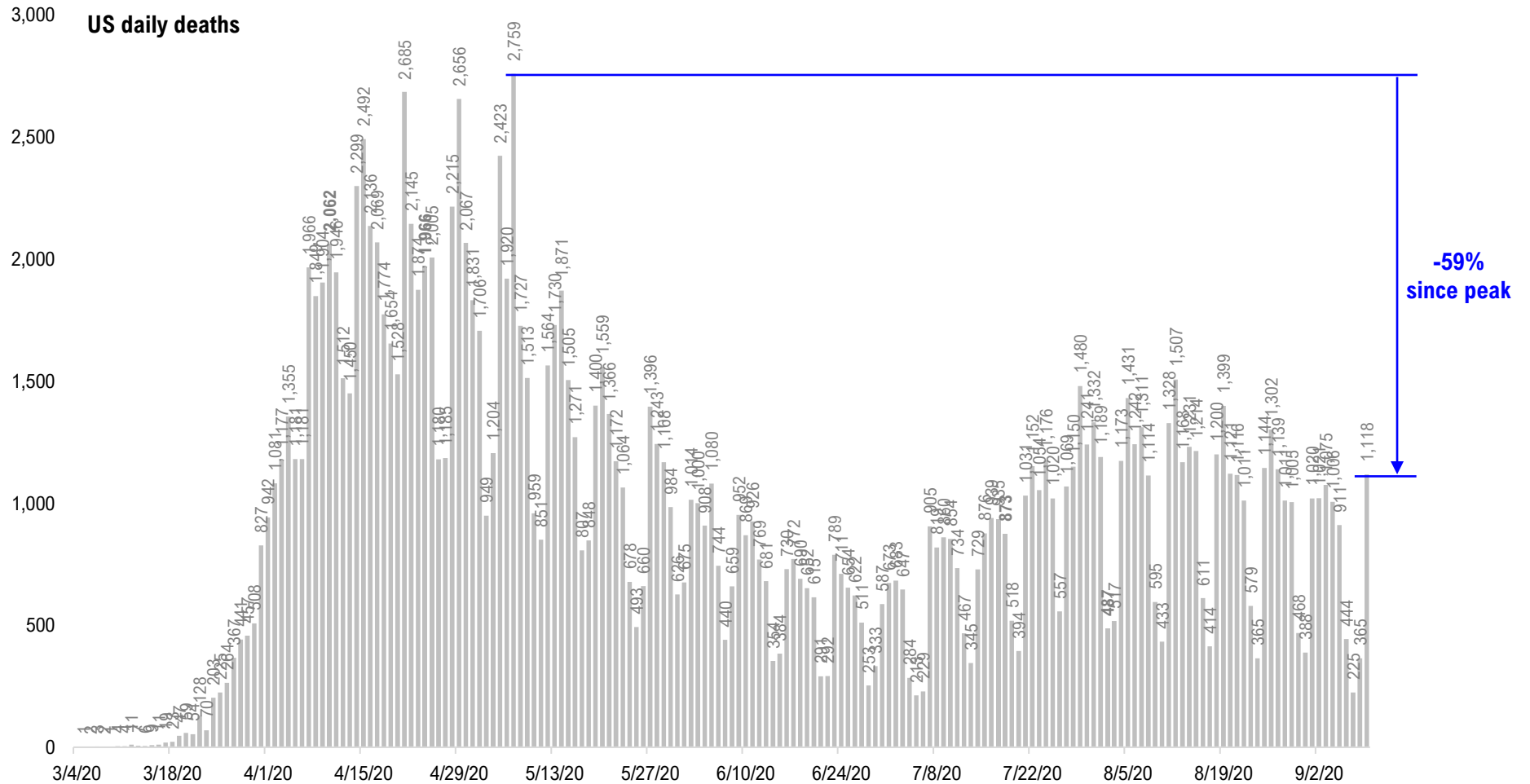
US Net Hospitalizations

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



#8: US Daily New Fatalities...

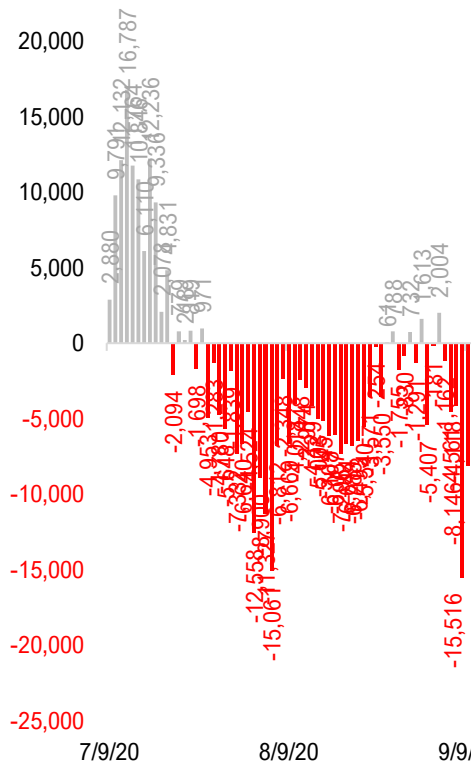
US daily COVID-19 Fatalities



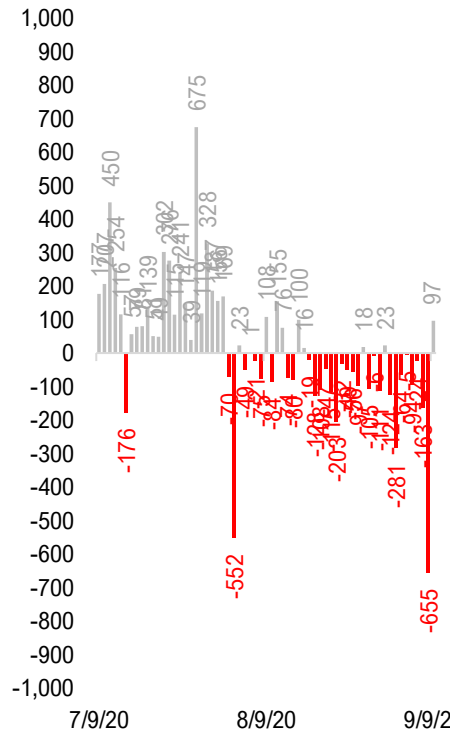
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

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

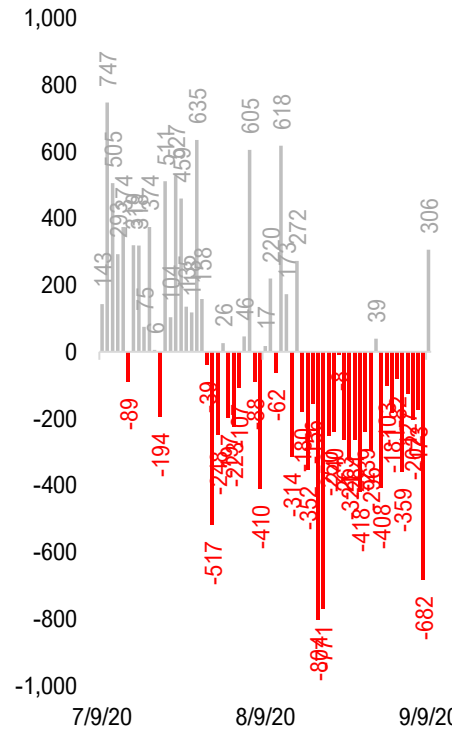
Daily New Cases
(8/10-8/23 ex-CA; 9/4-9/5 ex-IL)



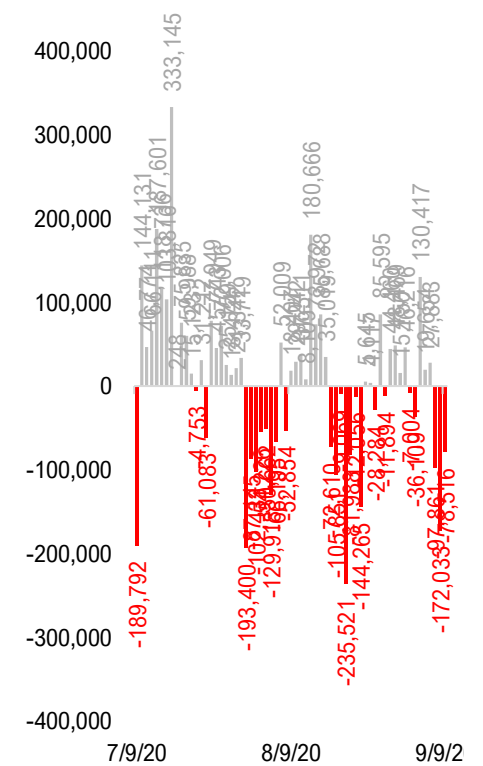
Daily Deaths



Daily New Gross hospitalization
(aggregate of 33 states)

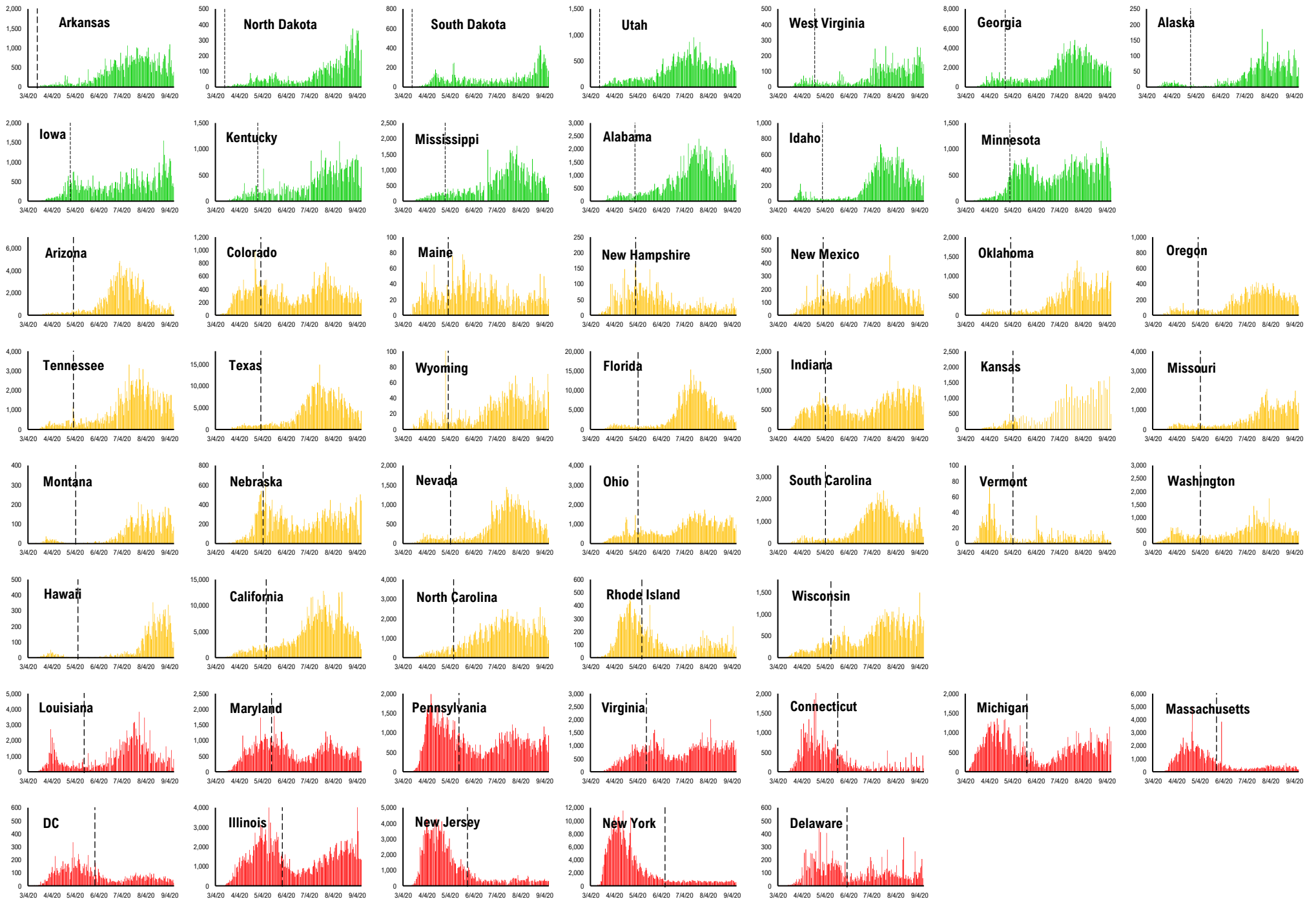


Daily Tests

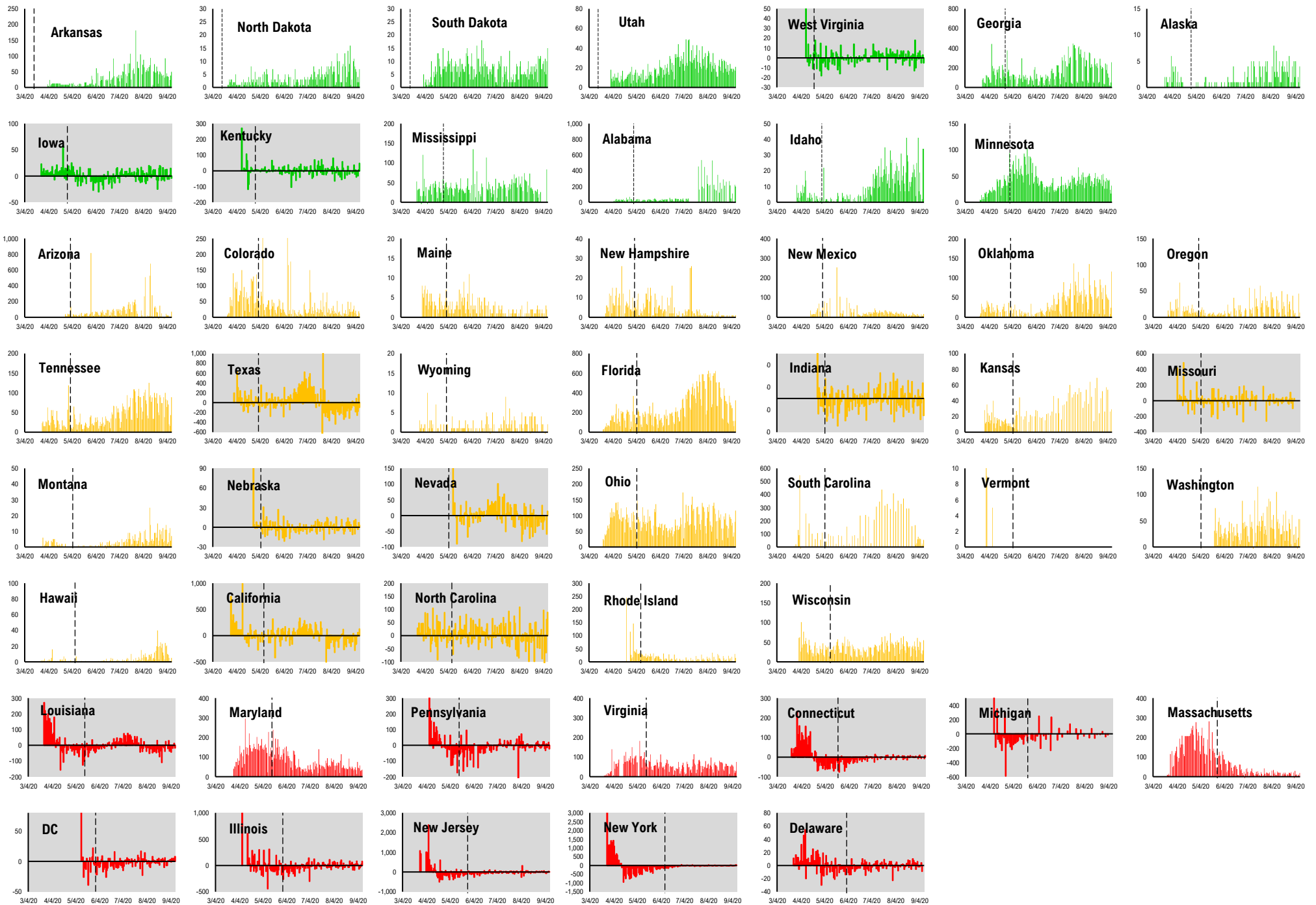


* Ignored California between 8/10 and 8/23, due to its data glitch caused 300,000-case backlog
Source: Fundstrat, COVID-19 Tracking Project, State Department of Health

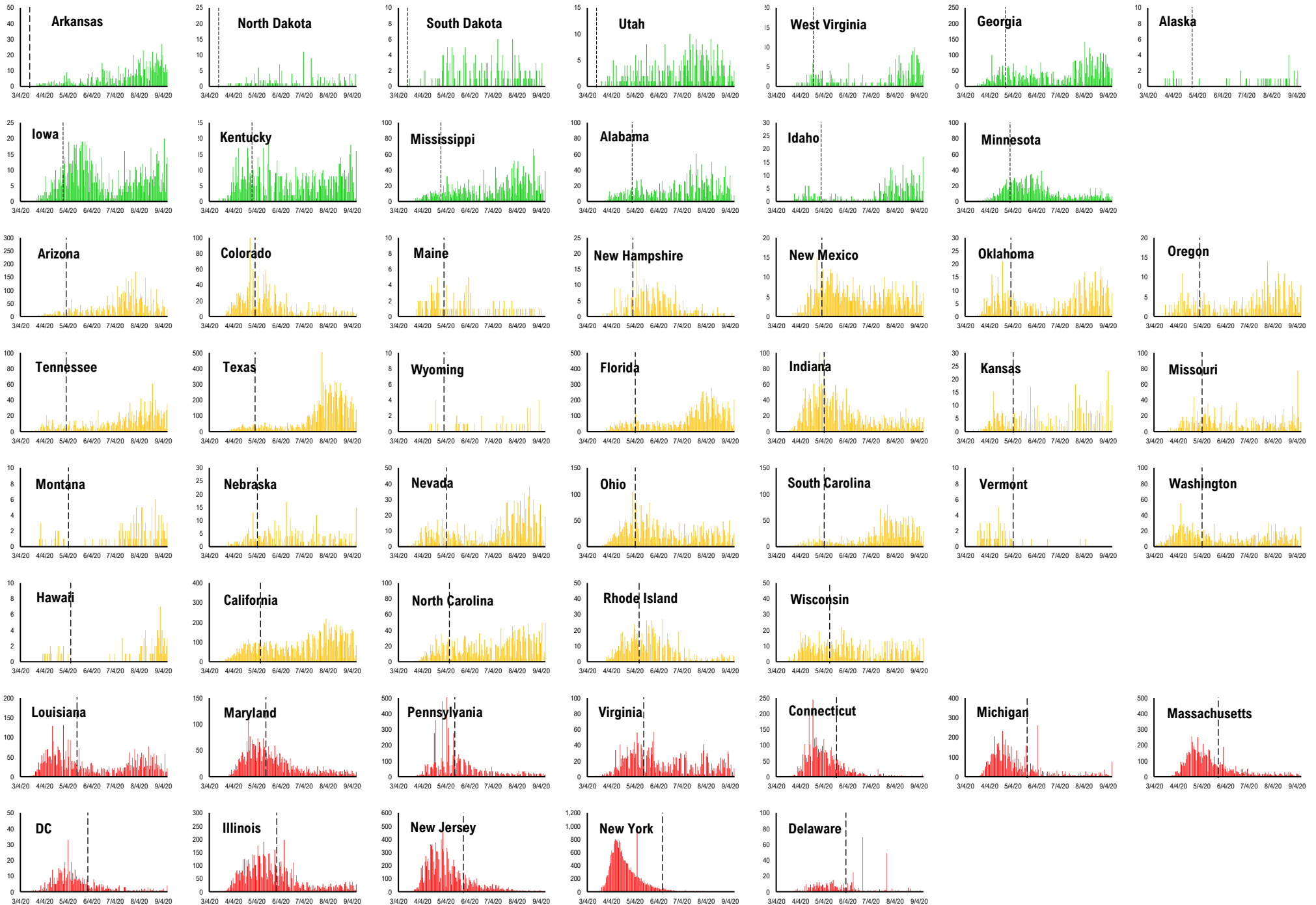
#10: Daily New Cases by States... (sorted by "open" date)



#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

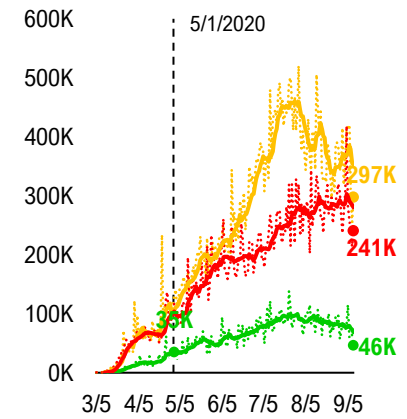
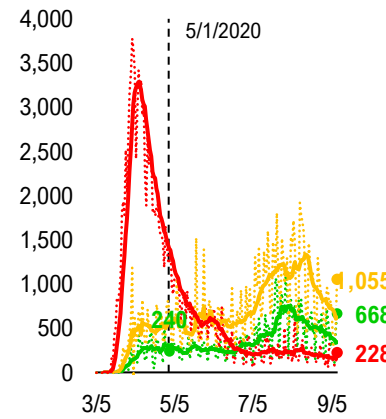
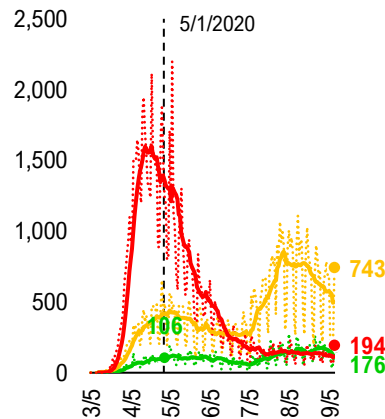
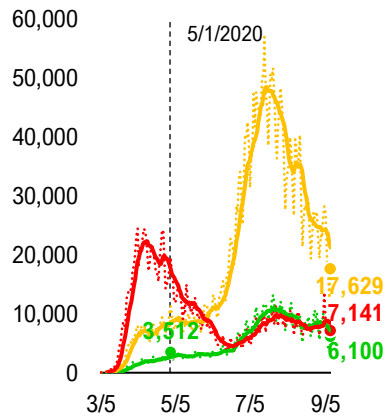
Daily Deaths

Daily Hospitalization

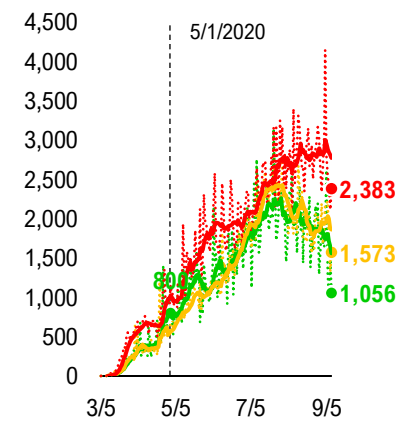
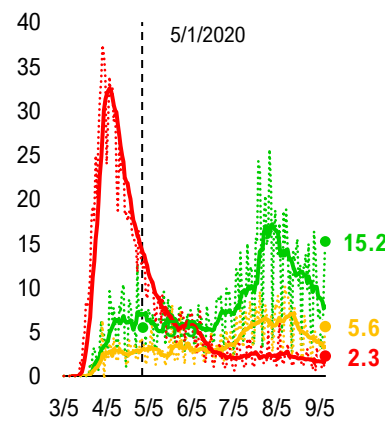
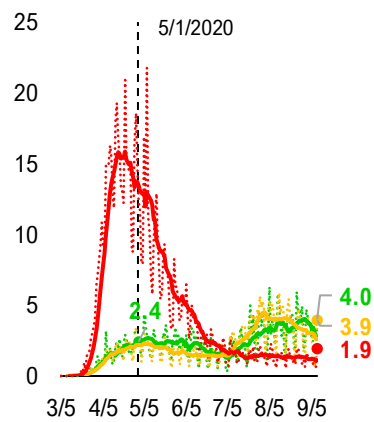
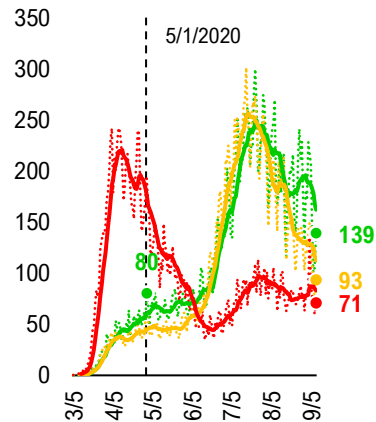
Daily Testing

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

Composite Daily Aggregate

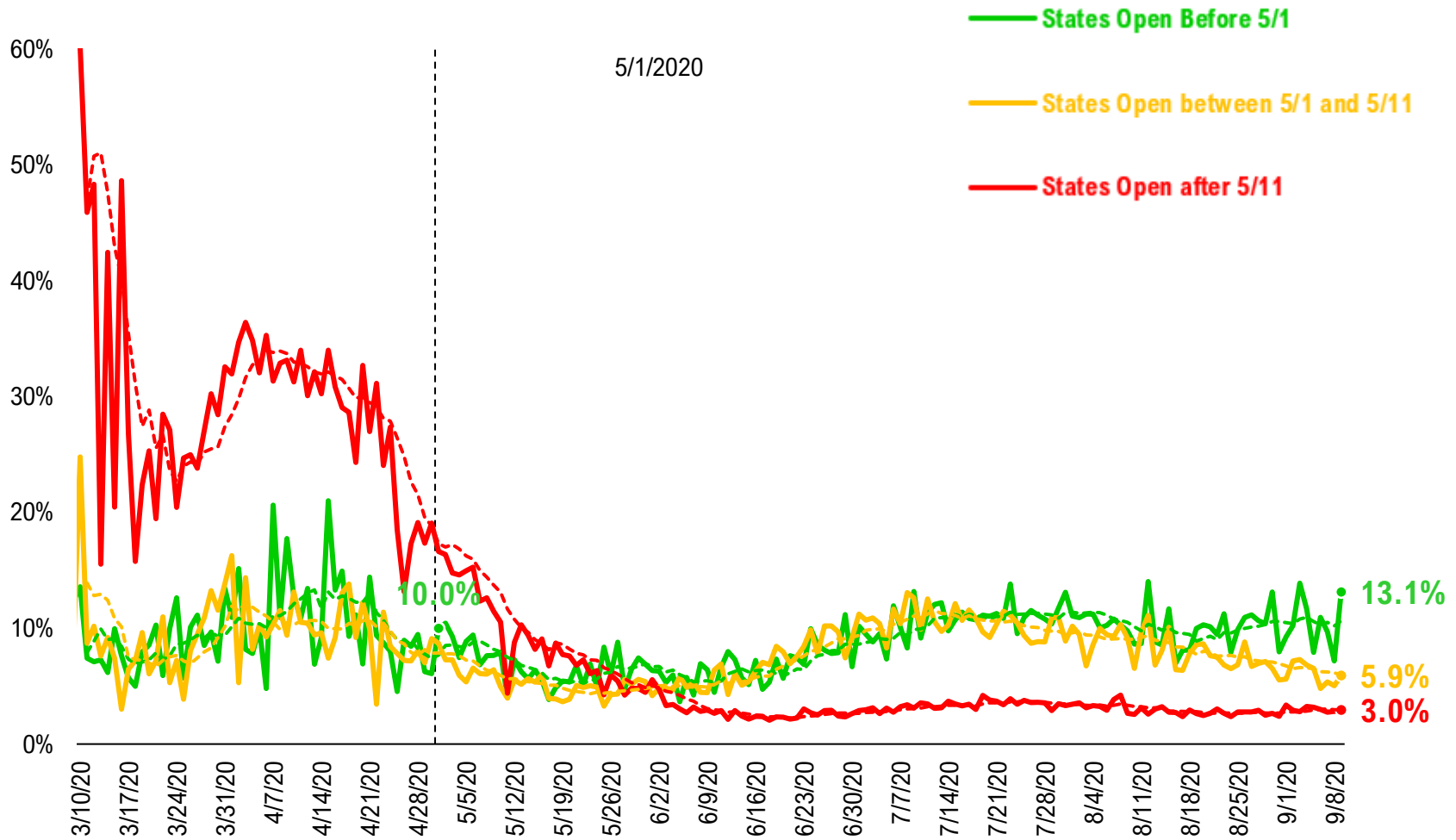


Composite Daily Aggregate Per 1mm Pop

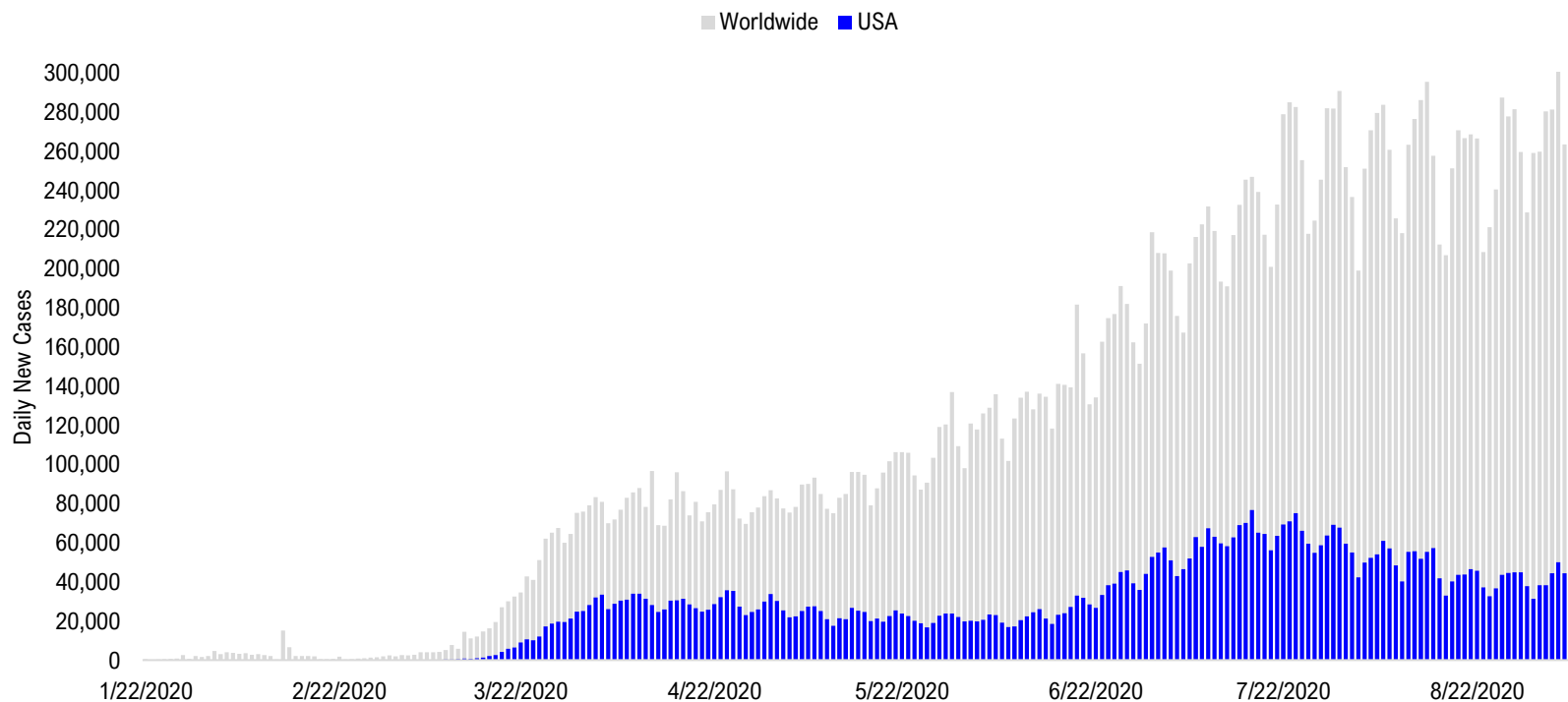


#14: State COVID-19 Daily Positivity Rate by Reopen Date...

Composite Daily Positivity Rate



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



4/24/2020	5/8/2020	5/22/2020	6/5/2020	6/19/2020	7/3/2020	7/17/2020	7/31/2020	8/14/2020	8/28/2020	9/8/2020
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 88,255	Pakistan + India + Bangladesh 87,879
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 82,644	Latin America 44,200
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 44,796	Europe 42,887
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 35,826	US + Canada 28,473
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 9,999	Asia ex- India+Pakistan 7,950
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 8,468	Africa 7,447

Disclosures

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