

# COVID-19 Statistical Review

Our Daily Update on the Data and the Trends

Today's Analysis: Data from August 10, 2020

On Sunday, cases rose largely from a curious increase in California, perhaps a weekend measurement anomaly. Deaths were down modestly.

Note that the drop-down for the original U.S. run-up in cases had a pause at about the same time after peaking as we are seeing now. There may be in for several more disappointing days before the fall starts again.

In case you haven't read the excellent piece I forwarded yesterday, here is a summary of what it said about measurement.

First, a 'case' or 'infection' is simply the presence of the virus in a saliva sample from a person. It is not evidence of sickness, any more than the presence of the many potentially troubling microbes that humans carry around without showing symptoms. Certainly, some small percentage of cases become COVID sicknesses. Currently, .6% of active cases have produced serious sickness. So if you see a headline like the one from CNN today, "97,000 children test positive for Coronavirus." it equates to only 778 hospitalizations – if kids have the same propensities as the general population which we know they do not. They are less likely to get really sick.

Second, a 'death' is the presence of the coronavirus in a person who just died, or a recent death of someone who had tested positive to the virus. It may or may not mean that COVID was the prime cause of death. We know that two-thirds of victims have had some kind of other serious health condition. Many would have died regardless of their infection. In March, the most recent month for which we have stats, total deaths from all causes were up 4% or roughly 10,000. If that increment continued, then the total would be about 55,000 extra deaths by now. So, the 166,000 deaths attributed to COVID-19 could be inflated by a significant margin.

Third, the majority of tests have been on people showing some signs of infection. That means the current stats on infections very significantly understate the spread of the virus. Such a fact sounds ominous until one realizes that coronaviruses usually spread widely. There are 600 million colds a year in the U.S. Practically everyone gets a version of that coronavirus every year. It is no coincidence that modern pandemics are mainly flu-based pandemics given the easy spread of flu bugs. What's missing in the media coverage is the normality of such contagions and proper quantification of the lethality of this version. Even if one believes the death statistics, their frequency is not the 3.2% death rate for the U.S. in the official statistics. It is .2%, if one believes that the true rate of infection is 25% of the population. Such a statistic does two things: It shows that the lethality of this year's special flu is in the normal range for flus, not something that justifies a national crisis. Second, it demonstrates the futility of quarantining and social distancing. If one out of four people you see are infected, how can you avoid being infected? You probably already are, or are one of the lucky 75% of American who are immune. If one in four people get infected, how effective can social distancing be?

These conclusions I add: The hard fact to accept is that your chance of serious illness or death is primarily a



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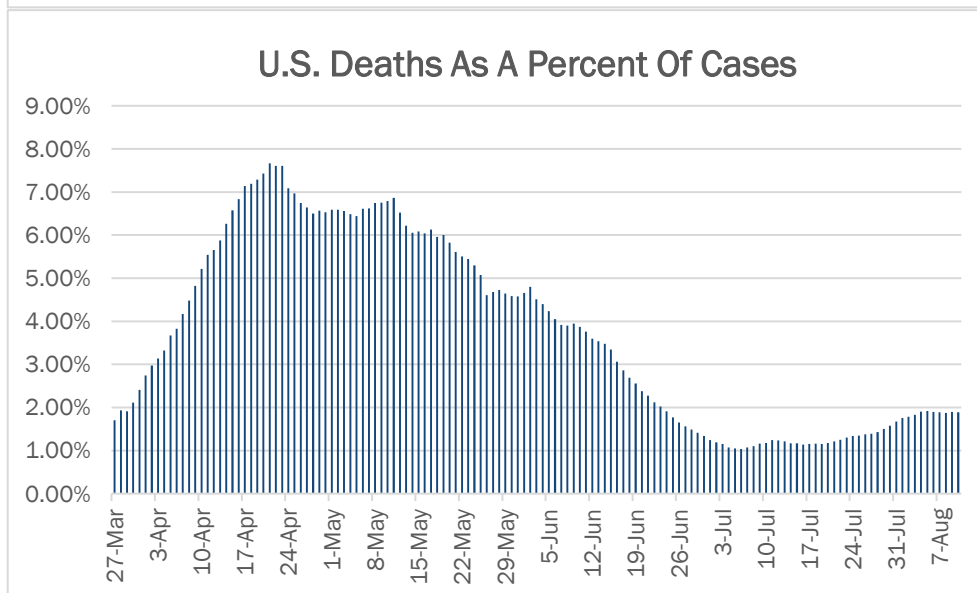
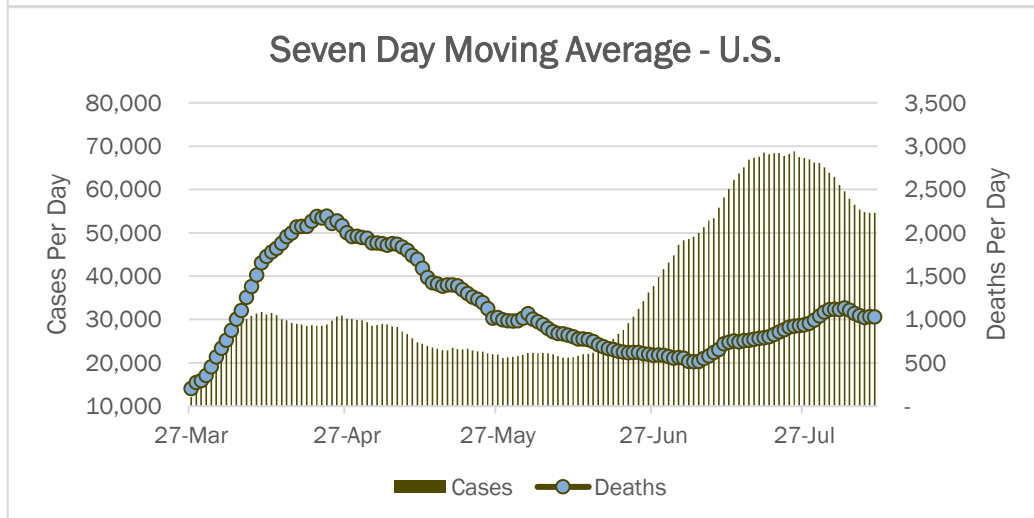
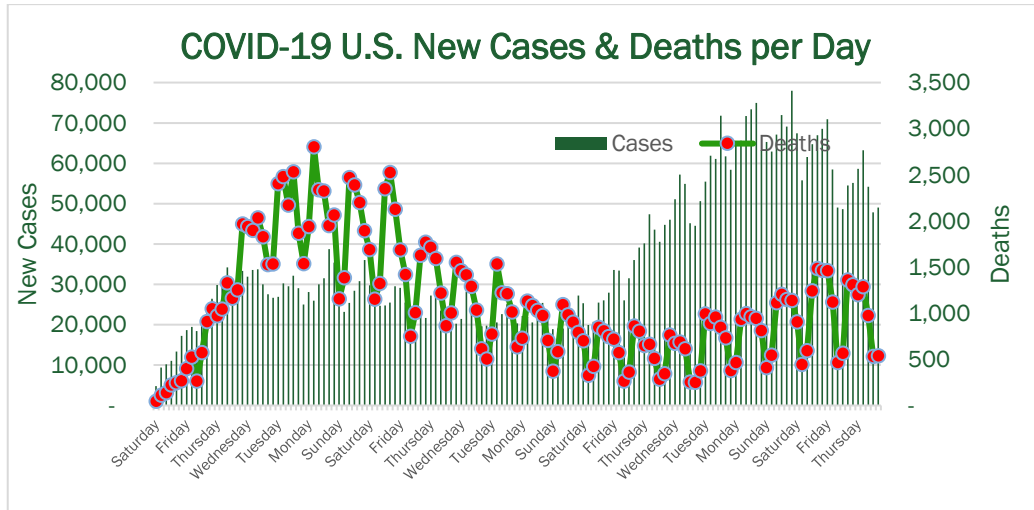
*function of two things, your existing health and the luck of your genes. Knowing that one can understand how the medical, political, and media communities continue to ignore what the statistics (and research) are shouting at them. The message is that they can do nothing to keep you from getting sick, except possibly delay when you get sick. These are institutions that are founded on the premise of solutions. When powerless, they get desperate and double down on the only things they know, distancing. The irony is that they have excelled at doing the one thing they can do: treat the sick. Even using the flawed current statistics, the death rate in the U.S. has fallen from a peak of 7.5% to just under 2% now. Put differently: for the task of evaluating the threat and crafting policy, their grade is F-. For the task of handling treatment grade A. Unfortunately, the F- grade applies to a monumental blunder.*

**Industrials Research Analysis**

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**Exhibit 1**



Source: Worldometer.com, Transport Futures, & Broughton Capital

## Exhibit 2

Country	Status	Cases	Deaths	Death Rate	Pop per case	Pop per death	Daly Max Cases	New Cases Latest Day	Daily Max Deaths	New Deaths Latest Day	Change In New Case Count Latest Day	Change In New Case Count From Week Before	Change in New Death Count Latest Day	Change in New Death Count From Week Ago
China	Recovery	84,668	4,634	5.5%	16,949	333,333	6,000	49	150	-	26	6	0	0
S. Korea	Recovery	14,626	305	2.1%	3,509	166,667	851	28	9	-	(8)	5	-1	0
Italy	Recovery	250,825	35,209	14.0%	241	1,718	6,557	259	919	4	(204)	100	2	-8
Iran	Falling	328,844	18,616	5.7%	256	4,525	3,186	2,132	235	189	112	(466)	26	-26
Germany	Recovery	218,500	9,265	4.2%	384	9,009	6,933	1,219	333	5	834	361	5	-1
France	Recovery?	202,775	30,340	15.0%	322	2,151	9,678	785	1,809	14	785	229	14	-8
UK	Recovery	311,641	46,526	14.9%	218	1,460	8,681	816	980	21	(246)	(112)	13	12
Norway	Recovery	9,684	256	2.6%	560	21,277	399	46	16	-	7	(20)	0	-1
Netherlands	Recovery?	59,194	6,157	10.4%	290	2,786	1,316	630	234	-	53	258	0	0
Sweden	Recovery?	82,972	5,766	6.9%	122	1,751	2,214	-	185	5	-	(43)	5	0
USA	Falling	5,250,695	166,163	3.2%	63	1,992	61,690	49,049	2,804	540	1,200	427	6	-28
Spain	Recovery	370,060	28,576	7.7%	126	1,637	8,271	2,873	961	73	2,873	(171)	73	64
Switzerland	Recovery	36,708	1,987	5.4%	236	4,367	1,321	105	75	1	(47)	39	1	1
Belgium	Recovery?	74,152	9,872	13.3%	156	1,175	2,454	751	496	2	134	304	-2	2
Denmark	Recovery?	14,815	620	4.2%	391	9,346	390	373	15	3	373	166	3	2
Austria	Recovery	22,106	723	3.3%	408	12,500	1,321	73	30	2	(41)	(8)	2	2
Canada	Recovery	120,132	8,987	7.5%	314	4,202	1,920	681	207	6	451	534	1	4
Ireland	Recovery	26,768	1,772	6.6%	-	2,793	1,515	56	57	-	(12)	10	0	0
Portugal	Recovery	52,825	1,759	3.3%	193	5,780	1,516	157	37	3	26	51	-3	3
Australia	Recovery	21,407	314	1.5%	1,193	83,333	534	323	8	19	(63)	(72)	2	6
Brazil	Falling	3,057,470	101,857	3.3%	70	2,088	70,869	21,888	1,554	721	(325)	3,900	128	149
Malaysia	Recovery	9,094	125	1.4%	3,559	250,000	235	11	8	-	(2)	9	0	0
Mexico	Falling	480,278	52,298	10.9%	269	2,469	8,458	4,376	60	292	(2,119)	(477)	-403	18
Singapore	Recovery	55,292	27	0.0%	106	200,000	1,426	188	2	-	13	(38)	0	0
North America	Falling	5,851,105	227,448	3.9%	85	2,190	86,966	54,106	2,974	838	(468)	484	(396)	(6)
Western Europe	Recovery	1,733,025	178,828	10.3%	232	2,249	35,453	8,143	4,442	133	4,535	1,164	113	68
Other	Falling	12,653,687	331,590	2.6%	543	20,730	203,346	146,445	3,155	3,337	(14,958)	7,734	(207)	(120)
World	Falling	20,237,817	737,866	3.6%	385	10,560	288,363	208,694	7,960	4,308	(10,891)	9,382	(490)	(58)

Source: Worldometer.com, Transport Futures, & Broughton Capital

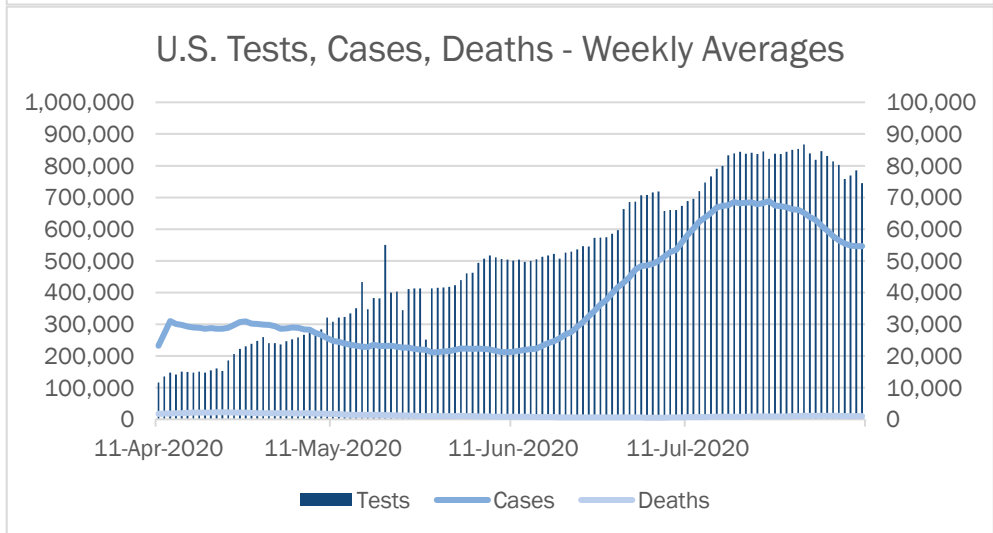
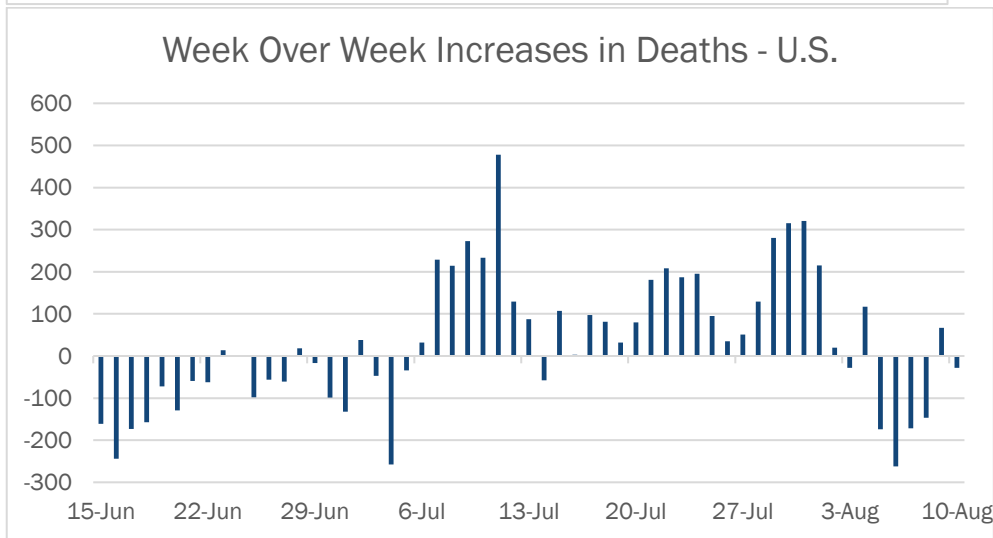
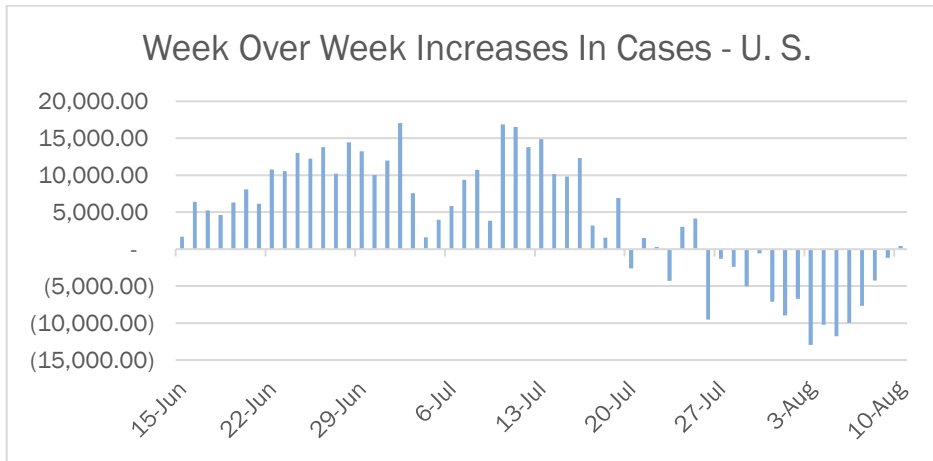
### Exhibit 3A

	Hot Spot Group	Total Cases	Max New Cases/Day Since 21 April	New Cases Latest Day	Change in New Cases/Day	Change In Cases/Day Since Week Ago	Change In Cases/Day Since Max	Total Deaths	Max New Deaths/Day Since 21 April	New Deaths Latest Day	Change In New Deaths/Day	Change In Deaths/Day Since Week Ago	Change In Deaths/Day Since Max	Cases/Million	Population
USA Total	NA	5,250,711	78,009	49,065	1,216	443	-37%	166,163	2,804	540	5	(28)	-81%	15,863	331,004,361
Hot-Spot Group 1	1	1,214,545	21,922	4,170	(1,349)	(631)	-81%	79,463	1,830	62	(32)	(7)	-97%	18,348	67,002,431
Hot-Spot Group 2	2	2,557,807	50,036	29,229	136	2,484	-42%	44,070	1,043	365	30	(14)	-65%	19,418	131,632,800
Hot-Spot Group 3	3	879,100	13,735	9,986	3,077	(711)	-27%	28,195	477	71	6	(13)	-85%	13,195	67,059,786
Rest of States	4	599,259	8,624	5,680	(648)	(699)	-34%	14,435	272	42	1	6	-85%	8,472	71,140,342
New York	1	451,025	10,868	593	(11)	(102)	-95%	32,847	764	7	(2)	(4)	-99%	23,185	19,453,968
New Jersey	1	190,775	4,160	472	280	54	-89%	15,955	458	10	7	2	-98%	21,478	8,882,395
Massachusetts	1	121,315	4,946	275	(54)	76	-94%	8,741	252	6	(8)	(4)	-98%	17,601	6,892,405
California	2	573,658	12,137	10,637	3,801	4,293	-12%	10,465	197	85	18	(24)	-57%	14,518	39,511,060
Pennsylvania	1	124,269	3,096	957	311	58	-69%	7,400	294	4	2	(3)	-99%	9,707	12,801,381
Illinois	3	196,699	4,014	1,319	(63)	21	-67%	7,846	191	1	(4)	(8)	-99%	15,523	12,671,873
Michigan	3	97,306	1,350	580	45	(33)	-57%	6,526	232	6	6	(4)	-97%	9,743	9,987,209
Florida	2	536,961	15,300	4,155	(2,074)	(597)	-73%	8,282	256	96	19	23	-63%	25,001	21,477,832
Louisiana	1	131,961	3,840	562	(2,091)	(537)	-85%	4,288	126	25	(31)	8	-80%	28,386	4,648,783
Texas	2	518,193	12,235	5,890	87	(1,107)	-52%	8,706	322	87	(16)	(27)	-73%	17,871	28,995,746
Connecticut	1	50,567	2,109	247	247	(5)	-88%	4,444	125	3	3	(2)	-98%	14,183	3,565,242
Georgia	2	219,025	4,813	2,429	(740)	171	-50%	4,229	82	30	17	28	-63%	20,629	10,617,138
Maryland	1	96,258	1,730	755	(167)	(115)	-56%	3,591	77	6	(2)	(2)	-92%	15,922	6,045,713
Ohio	3	101,756	1,720	904	35	(62)	-47%	3,675	138	5	4	(4)	-96%	8,705	11,689,615
Washington	3	65,453	1,209	883	410	(202)	-27%	1,701	32	9	9	(2)	-72%	8,595	7,615,063
Indiana	4	74,992	1,239	664	(377)	88	-46%	3,044	119	3	(2)	(2)	-97%	11,139	6,732,546
Colorado	4	51,039	994	379	43	127	-62%	1,863	122	5	4	5	-96%	8,863	5,758,981
Virginia	4	100,749	2,015	663	(234)	(661)	-67%	2,327	43	1	(3)	1	-98%	11,804	8,535,562
Tennessee	2	123,914	3,140	1,202	(925)	193	-62%	1,233	42	10	2	(9)	-76%	18,145	6,829,015
North Carolina	2	137,382	2,588	1,164	(2)	183	-55%	2,192	44	-	(9)	(14)	-100%	13,099	10,487,897
Missouri	3	60,656	1,712	1,682	1,014	89	-2%	1,405	31	8	(2)	7	-74%	9,883	6,137,553
Rhode Island	1	19,934	443	196	196	(28)	-56%	1,015	27	1	1	(2)	-96%	18,817	1,059,367
Alabama	2	103,020	2,143	1,686	525	469	-21%	1,797	47	29	16	23	-38%	21,011	4,903,192
Arizona	2	187,523	4,877	600	(216)	(430)	-88%	4,154	172	4	(9)	(10)	-98%	25,763	7,278,621
Mississippi	3	67,649	1,775	476	(51)	(96)	-73%	1,912	52	16	(6)	8	-69%	22,730	2,976,189

Exhibit 3B.

	Hot Spot Group	Total Cases	Max New Cases/Day Since 21 April	New Cases Latest Day	Change in New Cases/Day	Change In Cases/Day Since Week Ago	Change In Cases/Day Since Max	Total Deaths	Max New Deaths/Day Since 21 April	New Deaths Latest Day	Change In New Deaths/Day	Change In Deaths/Day Since Week Ago	Change In Deaths/Day Since Max	Cases/Million	Population
Wisconsin	3	61,061	1,165	507	(114)	103	-56%	998	20	-	(2)	(1)	-100%	10,487	5,822,701
South Carolina	2	101,159	2,374	724	(251)	(439)	-70%	2,049	80	18	(6)	2	-78%	19,647	5,148,707
Nevada	2	56,972	1,447	742	(69)	(252)	-49%	963	29	6	(2)	(6)	-79%	18,496	3,080,195
Iowa	4	49,080	894	241	(312)	(40)	-73%	934	21	3	(2)	(5)	-86%	15,556	3,155,131
Utah	3	44,390	954	263	(113)	(91)	-72%	345	10	9	8	6	-10%	13,846	3,205,934
Kentucky	4	35,254	977	272	(132)	(51)	-72%	775	17	2	1	-	-88%	7,891	4,467,477
District Of Columbia	1	12,807	335	54	(46)	15	-84%	591	19	0	(1)	-	-100%	18,147	705,739
Delaware	1	15,634	458	59	(14)	(47)	-87%	591	69	0	(1)	-	-100%	16,055	973,792
Oklahoma	4	43,963	1,714	397	(89)	20	-77%	605	21	2	2	1	-90%	11,110	3,956,946
Minnesota	4	61,516	903	618	(179)	5	-32%	1,701	39	3	(6)	1	-92%	10,908	5,639,743
Kansas	4	31,977	1,080	885	768	(85)	-18%	387	13	6	5	-	-54%	10,976	2,913,351
New Mexico	4	22,444	460	129	(71)	15	-72%	690	12	5	1	4	-58%	10,704	2,096,906
Oregon	4	21,488	429	216	(46)	(53)	-50%	357	14	1	-	(1)	-93%	5,095	4,218,066
Arkansas	3	50,028	1,061	645	73	(142)	-39%	555	20	11	2	-	-45%	16,578	3,017,747
Idaho	4	25,100	727	429	253	98	-41%	239	13	2	-	(1)	-85%	14,045	1,787,063
South Dakota	4	9,663	239	58	(70)	(7)	-76%	146	5	0	-	-	-100%	10,923	884,627
Nebraska	4	28,696	641	264	(64)	10	-59%	348	21	3	3	3	-86%	14,835	1,934,391
New Hampshire	4	6,840	164	9	(4)	(17)	-95%	419	19	0	-	-	-100%	5,030	1,359,843
West Virginia	4	7,754	262	60	(71)	(59)	-77%	141	8	2	(6)	2	-75%	4,327	1,792,229
Maine	4	4,049	76	7	(9)	(5)	-91%	125	5	0	-	(1)	-100%	3,012	1,344,330
Vermont	4	1,462	17	3	(2)	2	-82%	58	3	0	-	-	-100%	2,343	624,007
North Dakota	4	7,713	181	117	29	(8)	-35%	113	6	1	1	1	-83%	10,121	762,045
Hawaii	4	3,638	231	140	(12)	(66)	-39%	34	3	3	3	3	0%	2,569	1,415,828
Wyoming	4	3,050	69	-	(37)	(40)	-100%	28	4	0	-	(1)	-100%	5,270	578,769
Montana	4	5,017	201	65	2	25	-68%	75	5	0	-	(3)	-100%	4,694	1,068,733
Alaska	4	3,775	112	64	(34)	3	-43%	26	2	0	-	(1)	-100%	5,160	731,588
Other	3	134,102	4,588	2,727	1,841	(298)	-41%	3,232	186	6	(9)	(15)	-97%	15,863	8,241,190

**Exhibit 3C**



*Source: Worldometer.com, Transport Futures, & Broughton Capital*

### ***A note about data and our approach:***

As we have noted before, the 'new case' numbers are influenced by the number of tests. Since the rate of testing varies between entities, varies over time, and is dependent on the completeness of collection, the data on new cases can be misleading at times. However, counting them is simple. Does the test show positive? It is not so simple with deaths, where there is considerable interpretation as to whether COVID-19 was the causal factor. Take the case of a desperately ill person already in hospice care. When that person dies, if he or she has contracted COVID-19, that death is attributed to the contagion, even though death was near anyway. Moreover, some jurisdictions are counting a person dying with 'possible' COVID-19 infection as a COVID-19 death. In addition, there is also the same problem with completeness of counting as with the case statistics.

Recent revisions have slightly increased the number of new cases reported and widened the gap between our projection and the actual data. This process has lowered our confidence in our prediction of the quarantines being lifted quickly. In all of our analysis, we try to point out other factors that may bias the data or those who are reporting the data; and, in the interest of transparency, we strive to admit any bias we harbor. We acknowledge one of our biases - we suspect that there are deaths, classified as caused by Covid-19, in which Covid-19 was only coincidental. Call it our bias about someone else's bias - the potential of increased government and insurance funding, as well as other resources, may incentivize hospitals to report more of the deaths experienced in their facilities as Covid-19 caused.

**We continue to find the scarcity of factual data being reported about the Covid-19 Virus alarming. Even more distressing is the scarcity of statistically-based trend analysis. There are many models based largely on assumption, with little of the kind of evidence-based analysis you will find in this report.**

1. From within the health care industry, those with intimate working knowledge of patients and the evolution of the cases overall, are for some reason, not producing any statistical forecasts or even conducting simple mathematical trend analysis. We will give the benefit of the doubt, since we know they are busy treating patients, and perhaps the kind of work we love to do, just isn't on their priority list.
2. We claim no special insights into the virology or contagion or appropriate medical treatment protocols. We do, however, understand the basic principles of applying critical thinking, conducting a bit of evidence scrutiny, and then using some old-fashioned mathematical reasoning. We use data science techniques to produce trend analysis that is free from emotion, as well as to construct forecasts which have statistical significance. This analysis should allow our readers a chance to improve their awareness, embolden their patience (and we could all use a little more patience, right now), and set realistic expectations for the coming days, weeks, and months.



## Important Disclosures

Broughton Capital, LLC is an independent, privately held, deep-data driven quantamental economics balanced with fundamental equity research, firm. Headquartered in St. Louis, with personnel in Boston, Dallas, Chicago, Nashville and Philadelphia, we travel the globe to meet with companies, their customers and vendors, and clients, as we strive to be the single best resource for transportation data and understanding the trends driving the future of the commercial transportation of goods. The material contained herein is based upon sources we believe to be reliable, but is not guaranteed to be accurate or complete. It is published for informational purposes only and should not be construed as an offer, or the solicitation of an offer to buy or sell any security. Opinions expressed are solely those of the author and subject to change as new data becomes available.

### We are “The Independent Variable.” Why? Two reasons:

1. As is true in a mathematical equation, **the independent variable drives the value, changes the value of the dependent variables.** Knowing the independent variable, allows you to solve for the value of not only the dependent variables but the value of the overall equation. We know that through good fundamental research, high quality data, and years of industry experience, we can literally change the value of an equity, a company’s access to capital (debt and equity), ability to merge or acquire, and even a management team or their behavior. We know that if we do our job well, we become the ‘Independent Variable’ in a company’s future.
2. **We are Independent.** We do not work for a large commercial bank. We are not beholden to lending relationships, or our firm’s investment holdings, or even worse – our firm’s investment bankers. While we pride ourselves on being independent from emotion and influence, we are aware of, and guarded against falling victim to, the cognitive biases inherent in the human brain. We are dependent on math and the power of back tested multivariable analysis, especially when balanced with wisdom of experience from those who have made decades of mistakes. **We are Variable.** Over the last several decades, we have been everything from strongly positive about to strongly negative about almost every single equity in the transportation universe. We have built our reputation upon having an opinion, and being clear about that opinion (i.e., no one ever finishes a conversation with us and says, “I wonder what they really think?”). We know that our opinions and outlooks may be everything from slightly flawed to completely wrong. As a result, we consider it our professional duty to change our opinions and outlooks as the statistics, data, or evidence warrant.

Transportation stocks have the reputation for predicting the overall market #dowtransporttheory because the underlying goods flow is heartbeat of the economy. That goods flow becomes increased (or decreased) levels of asset utilization for asset intensive transportation companies, which becomes increased (or decreased) levels of financial returns, which becomes stock price. We believe that the stock price performance of transportation companies is only symptomatic of the underlying goods flow.