### COVID-19 Tabulations: New Cases, Deaths, Tests, and Population Density

5 Slide Series, Volume 85-a June 5, 2020

#### Introduction

- This edition of the 5 Slide Series provides tabulations on key current COVID-19 dynamics cases, deaths, and testing.
  - 51% of the US population lives in a county where the volume of new confirmed cases has increased during the week of May 27 June 3 relative to the prior week.
  - Nationwide, the number of new confirmed cases *grew* by 3% this week compared to the prior week. The number of new deaths this week *decreased* 3% this week relative to the prior week.
  - 5.5% of the US population has been tested for COVID-19 as of June 3. Only two states, Rhode Island and New York, have tested more than 10% of their population to date.
- Last week's edition identified the strong correlation that exists between overall population density and cases per capita. This week, we show that despite this general correlation, many states' population density rankings differ widely from their ranking on COVID cases per capita.
- On the next slide, we also present the weekly trajectory of COVID cases and deaths throughout the past three months.



# The Number of New Cases is Still Immense – In Vicinity of 150,000 Throughout Past Several Weeks

- Notwithstanding that we are still averaging nearly 1,000 COVID deaths *per day*, the death rate has decreased considerably (by more than half) from the peak weeks that occurred during April.
- The number of new tests per week has nearly tripled since early April.
- The increased testing could be causing some of this week's increase in confirmed cases (perhaps without an increase in actual new infections occurring).

		Percent	New	Percent		Percent
		Change vs.	Confirmed	Change vs.		Change vs.
Week	New Tests	<b>Prior Week</b>	Cases	<b>Prior Week</b>	<b>New Deaths</b>	<b>Prior Week</b>
March 11 - March 18	84,278		7,752		120	
March 18 - March 25	362,146	330%	59,715	670%	842	602%
March 25 - April 1	732,806	102%	144,526	142%	3,552	322%
April 1 - April 8	1,046,619	43%	214,406	48%	9,921	179%
April 8 - April 15	1,024,135	-2%	208,707	-3%	15,541	57%
April 15 - April 22	1,233,755	20%	196,708	-6%	15,496	0%
April 22 - April 29	1,529,851	24%	204,070	4%	14,947	-4%
April 29 - May 6	1,760,623	15%	188,892	-7%	13,677	-8%
May 6 - May 13	2,209,594	26%	165,365	-12%	9,921	-27%
May 13 -May 20	2,651,404	20%	160,509	-3%	9,497	-4%
May 20 - May 27	2,544,690	-4%	148,440	-8%	7,087	-25%
May 27 - June 3	3,022,469	19%	153,228	3%	6,878	-3%



# Distribution of US Counties by New Confirmed Cases May 20 – 27 versus May 27 – June 3

- The virus continues to spread extensively 51% of the total US population live in one of the 1,263 counties that reported an increase in new confirmed cases this past week relative to the prior week.
- The counties with a reduction in new cases this week collectively represent a majority of overall confirmed cases (63.8%) and deaths (70.5%) to date.
- In general, new case volume is shrinking in counties that have had a relatively high prevalence of COVID cases to date, but new case volume is growing in counties that haven't been hit as hard during the first months of the pandemic.
- 192 counties are yet to have a confirmed case. However, these counties collectively hold only 0.2% of the US population.

	Counties with No Confirmed Cases Through June 3	New Cases May 20 - 27 than	New Cases May 27 - June 3 than	May 13 - 20 and
Number of Counties	192	1,177	1,263	568
% of All Counties	6.0%	36.8%	39.5%	17.8%
% Total US Population	0.2%	45.0%	51.3%	3.5%
% Cumulative Cases as of June 3	0.0%	63.8%	35.2%	1.0%
% Cumulative Deaths as of June 3	0.0%	70.5%	28.8%	0.7%

### State Table 1 of 3: Alabama through Maine

		Cumulative				Percent Change							
		Confirmed	State Rank,			in New					COVID-19	State Rank,	Deaths as a
	Cumulative	Cases per	Confirmed			Confirmed	Total Number	Percentage of		Cumulative	Deaths per	COVID-19	Percentage of
	Confirmed	•	Cases per	New Confirmed	New Confirmed			_	Positive Tests	COVID-19	100,000	Deaths per	Confirmed
	Cases, as of	Population, as	Capita, as of			June 3 versus		-			Population, as	capita, as of	Cases, as of
State	June 3	of June 3	June 3	May 20 - 27	May 27 - June 3	May 20 - 27	June 3	June 3	of Total Tests	June 3	of June 3	June 3	June 3
Alabama	18,851	384	23	2,980	2,819	-5%	231,594	4.7%	8%	653	13	26	3%
Alaska	516	71	49	15	99	560%	58,182	8.0%	1%	8	1	51	2%
Arizona	22,245	306	32	2,365	4,983	111%	244,525	3.4%	9%	983	14	25	4%
Arkansas	8,067	267	37	1,274	1,790	41%	142,480	4.7%	6%	142	5	43	2%
California	120,407	305	33	15,749	18,533	18%	2,131,294	5.4%	6%	4,422	11	29	4%
Colorado	27,046	470	19	2,006	2,271	13%	194,177	3.4%	14%	1,494	26	15	6%
Connecticut	43,091	1,209	6	2,271	1,803	-21%	276,436	7.8%	16%	3,989	112	3	9%
Delaware	9,712	997	7	902	616	-32%	64,920	6.7%	15%	375	39	12	4%
District of Columbia	9,016	1,278	5	855	610	-29%	49,562	7.0%	18%	473	67	6	5%
Florida	58,756	274	36	5,163	6,130	19%	1,080,913	5.0%	5%	2,565	12	28	4%
Georgia	46,711	440	21	4,551	3,998	-12%	482,712	4.5%	10%	2,092	20	16	4%
Hawaii	643	45	51	1	9	800%	49,508	3.5%	1%	17	1	50	3%
Idaho	2,990	167	44	225	259	15%	48,942	2.7%	6%	83	5	44	3%
Illinois	124,279	981	8	13,899	9,667	-30%	959,175	7.6%	13%	5,665	45	10	5%
Indiana	36,609	544	18	3,256	3,367	3%	277,815	4.1%	13%	2,207	33	13	6%
Iowa	20,376	646	12	2,576	1,930	-25%	164,445	5.2%	12%	574	18	20	3%
Kansas	10,281	353	25	792	828	5%	108,053	3.7%	9%	227	8	38	2%
Kentucky	10,485	235	40	977	1,172	20%	232,199	5.2%	4%	458	10	31	4%
Louisiana	41,244	887	10	3,327	2,550	-23%	402,087	8.6%	10%	2,870	62	7	7%
Maine	2,418	180	42	318	281	-12%	53,009	3.9%	5%	95	7	39	4%

Yellow highlighting denotes the ten states with the highest per capita rates of cases and deaths.

#### State Table 2 of 3: Maryland through Rhode Island

	Cumulative	Cumulative Confirmed Cases per	State Rank, Confirmed			Percent Change in New	Total Number	Percentage of		Cumulative	COVID-19 Deaths per	State Rank, COVID-19	Deaths as a Percentage of
	Confirmed	•		Now Confirmed	New Confirmed			· ·	Positive Tests		•	Deaths per	Confirmed
		Population, as	Capita, as of			June 3 versus	•	-			Population, as	capita, as of	Cases, as of
State	June 3	•	June 3		May 27 - June 3	May 20 - 27	June 3		of Total Tests	-	•	June 3	•
Maryland	55,617	920	o o	6,600	6,575	0%	327,625	5.4%	17%		44	11	5%
Massachusetts	101,592	1,474	3	5,250	7,372	40%	617.761	9.0%	16%	,-	104	11	7%
Michigan	58,990	591	14		3,446	35%	593,549	5.9%	10%	, -	56	Q Q	9%
Minnesota	25,881	459	20		3,407	-29%	265,718	4.7%	10%		19	19	4%
Mississippi	16,322	548	17		2,278	10%	184,747	6.2%	9%		26	14	5%
Missouri	14,020	211	41	1,114	1,396	25%	211,353	3.2%	7%		12	27	6%
Montana	525	49	50	,	44	1,367%	43,448	4.1%	1%		2	49	3%
Nebraska	14,866	769	11		1,890	2%	109,966	5.7%	13%		10	33	1%
Nevada	8,950	291	35		800	-6%	156,255	5.1%	6%		14	24	5%
New Hampshire	4,795	353	26		509	22%	75,739	5.6%	6%		19	18	6%
New Jersey	162,068	1,825	2	6,229	5,440	-13%	837,420	9.4%	19%		134	2	7%
New Mexico	8,140	388	22	914	888	-3%	206,837	9.9%	4%		18	21	5%
New York	371,042	1,907	1	10,154	8,671	-15%	2,229,473	11.5%	17%		156	1	8%
North Carolina	31,013	296	34	4,566	6,226	36%	449,263	4.3%	7%		9	34	3%
North Dakota	2,682	352	27		240	-31%	74,502	9.8%	4%		9	35	3%
Ohio	36,792	315	30		3,353	-16%	426,105	3.6%	9%		20	17	6%
Oklahoma	6,805	172	43	,	576	-17%	208,052	5.3%	3%	,	9	37	5%
Oregon	4,399	104	48		361	52%	136,668	3.2%	3%		4	46	4%
Pennsylvania	77,871	608	13		4,225	-23%	475,391	3.7%	16%		45	9	7%
Rhode Island	15,219	1,437	4	997	866	-13%	162,540	15.3%	9%		70	5	5%

Yellow highlighting denotes the ten states with the highest per capita rates of cases and deaths.

# State Table 3 of 3: South Carolina through Wyoming (including US Territories and Totals)

		Cumulative				Percent Change						_	
		Confirmed	State Rank,			in New					COVID-19	State Rank,	Deaths as a
	Cumulative		Confirmed		N			Percentage of	B	Cumulative	Deaths per	COVID-19	Percentage of
	Confirmed	/	•		New Confirmed		· ·		Positive Tests		100,000	Deaths per	Confirmed
Chaha	•	Population, as	Capita, as of		•	June 3 versus	•		~		Population, as	capita, as of	Cases, as of
State	June 3		June 3	•	May 27 - June 3	May 20 - 27			of Total Tests	June 3		June 3	June 3
South Carolina	12,651	246	38	,	2,028	40%	222,925	4.3%	6%	518	10	32	4%
South Dakota	5,162	584	15		452	-15%	48,662	5.5%	11%	62	7	40	1%
Tennessee	25,024	366	24	,	3,654	29%	470,779	6.9%	5%	386	6	42	2%
Texas	69,546	240	39		10,441	51%	1,006,768	3.5%	7%	1,766	6	41	3%
Utah	10,558	329	29	993	1,848	86%	223,981	7.0%	5%	117	4	47	1%
Vermont	990	159	45	27	19	-30%	37,195	6.0%	3%	55	9	36	6%
Virginia	46,905	550	16	7,341	6,656	-9%	342,387	4.0%	14%	1,428	17	22	3%
Washington	23,500	309	31	1,701	1,935	14%	368,799	4.8%	6%	1,145	15	23	5%
West Virginia	2,077	116	47	332	178	-46%	103,768	5.8%	2%	78	4	45	4%
Wisconsin	19,614	337	28	2,991	3,049	2%	299,111	5.1%	6%	618	11	30	3%
Wyoming	915	158	46	73	55	-25%	26,628	4.6%	3%	17	3	48	2%
50 States and DC	1,848,274	562		147,856	152,593	3%	18,195,443	5.5%	10%	107,362	33		6%
Territories													
American Samoa	-	-		-	-	0%	174	0.3%	0%	-	-		0%
Guam	1,146	680		6	6	0%	6,727	4.0%	3%	6	4		1%
Northern Mariana Islands	24	42		1	2	100%	6,557	11.4%	0%	2	3		8%
Puerto Rico	4,023	133		531	626	18%	4,023	0.1%	100%	140	5		3%
Virgin Islands	70	67		=	1	0%	2,026	1.9%	3%	6	6		9%
Territories Subtotal	5,263	154		538	635	18%	19,507	0.6%	22%	154	17		3%
United States and Territories	1,853,537	558		148,394	153,228	3%	18,214,950	5.5%	10%	107,516	32		6%

# Comparing States' Population Density with COVID Case Prevalence

States Ranked Far **Higher** in COVID Cases Per 100,000 Population than on Population Density

	COVID State Ra	
State	State Rank, Population per Square Mile	State Rank, COVID Cases per 100,000 Population
Nebraska	44	11
South Dakota	47	15
Iowa	37	12
North Dakota	48	23
New Mexico	46	22
Colorado	38	19
Kansas	42	25
Louisiana	26	9
Mississippi	34	17

States Ranked Far **Lower** in COVID Cases Per 100,000 Population than on Population Density

	COVID State Rankings as o				
State	State Rank, Population per Square Mile	State Rank, COVID Cases per 100,000 Population			
Hawaii	14	51			
Florida	9	34			
California	12	33			
North Carolina	15	36			
South Carolina	20	39			
Ohio	11	28			
West Virginia	30	47			
Texas	25	40			

### State Level Findings

- 26 states reported more new cases this week (May 27 June 3) versus the previous week. These states collectively account for 60% of the population, 38% of cases, and 31% of all deaths that have been reported in the United States to date.
- New York State has the highest number of confirmed cases and deaths per capita, and the 5 boroughs of New York City have surpassed 200,000 confirmed cases. New York and New Jersey are approaching having 2% of their overall populations being confirmed cases. Nationwide, 0.56% of the US population has been confirmed as having COVID-19 as of June 3.
- Only 5.5% of the entire US population has been tested as of June 3. Rhode Island and New York (15.5% and 11.5% respectively) are the only two states that have tested more than 10% of their residents.



### 5 Slide Series Overview

Our 5 Slide Series is a monthly publication whereby we briefly discuss/address a selected topic outside the confines of our client engagements. We have developed a variety of datasets to support our 5 Slide Series and client projects.

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