



Central Iowa COVID19 Update

Monday, July 19, 2021



Statistical Consulting

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Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose*	4.2%	3%
Percent of population with 2 doses*	52.4%	46.2%
7d Lab Test Positivity	4.4%	2.1%
14d Lab Test Positivity	3.3%	3.6%
Total cases per 100,000 the last 7d	23	31
Total cases per 100,000 the last 14d	38	50
Average daily cases the last 7d	16	141
Average 7-day new cases per 100,000	2	5

*Percent of entire population vaccinated to represent progress to herd immunity.

All data are sourced from <https://coronavirus.iowa.gov/pages/case-counts> with previous days refreshed daily. When recent data are unavailable, data from <https://github.com/nytimes/covid-19-data> may be used. Population of Polk County used is 490,161.

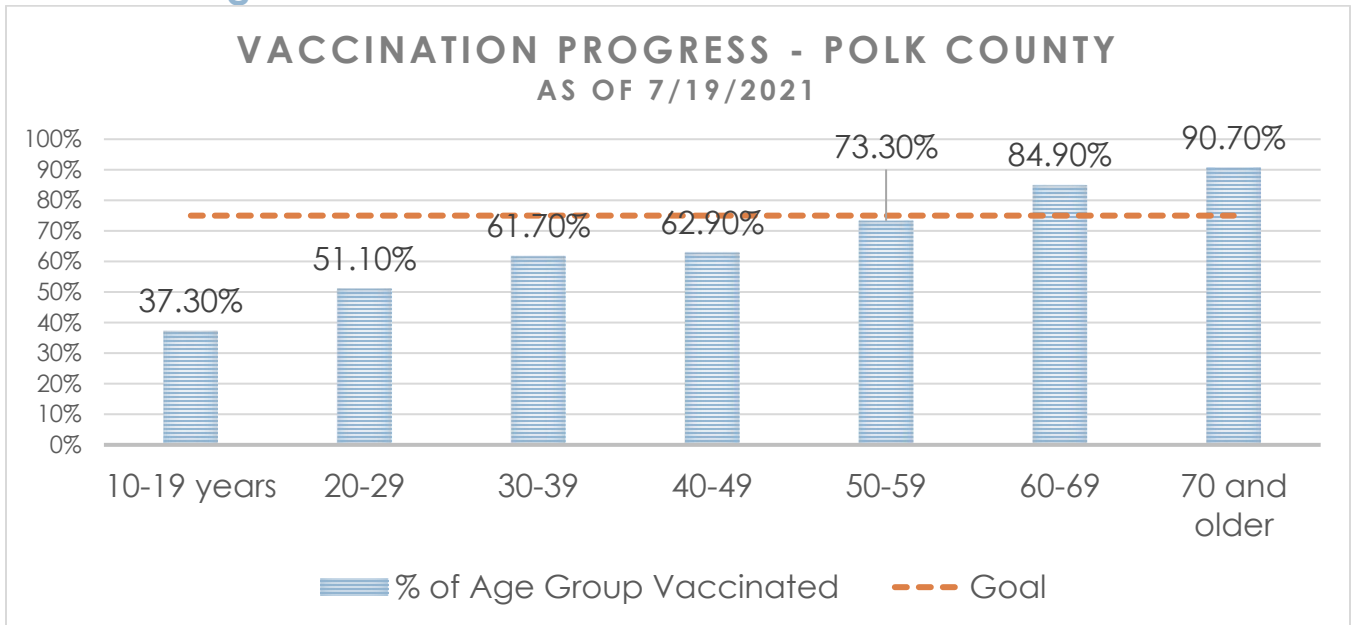
Population of Iowa used is 3.155 million. Averages and percent positivity are subject to change with retrospectively refreshed data.

Critical Points, Media, and Research

- In the last 14 days, the US has experienced a 198% increase in COVID-19 activity largely driven by the Delta variant and unvaccinated individuals. A similar surge was recently experienced in the UK and cases are rising in many other countries.
- [Covid in the U.S.: Latest Map and Case Count - The New York Times](#)
- Iowa recently changed case reporting to weekly and despite this change is experiencing a 58% increase in cases over the last 14 days. The predictive trend for Polk County is less severe than the state. Hospitalizations in the metro have stabilized for now.
- Multiple studies are showing vaccine efficacy (for US-approved vaccines) against the Delta variant; however, the Lambda variant present in South America threatens vaccine stability.
- [Effectiveness of SARS-CoV-2 mRNA Vaccines for Preventing Covid-19 Hospitalizations in the United States](#). During March–May 2021, SARS-CoV-2 mRNA vaccines were highly effective for preventing Covid-19 hospitalizations among US adults. SARS-CoV-2 vaccination was beneficial for patients with immunosuppression, but effectiveness was lower in the immunosuppressed population.
- [Effectiveness of COVID-19 vaccines against variants of concern, Canada](#). Our findings suggest that even a single dose of these 3 vaccine products provide good to excellent protection against symptomatic infection and severe outcomes caused by the 4 currently circulating variants of concern, and that 2 doses are likely to provide even higher protection.
- [Breakthrough SARS-CoV-2 Infections in Prison after Vaccination](#). Among 2,380 vaccinated individuals in the Rhode Island prison system, breakthrough infections were rare, and all cases were asymptomatic.
- [Reduced sensitivity of SARS-CoV-2 variant Delta to antibody neutralization](#)
- [SARS-CoV-2 Lambda Variant Remains Susceptible to Neutralization by mRNA Vaccine-elicited Antibodies and Convalescent Serum](#)
- [Deaths & Hospitalizations Averted by Rapid US Vaccination Rollout | Commonwealth Fund](#)
- [Vaccine Mandate At Indiana University Upheld By Federal Judge](#)
- [COVID vaccines work. Why is L.A. mask mandate necessary? - Los Angeles Times \(latimes.com\)](#)



Vaccine Progress

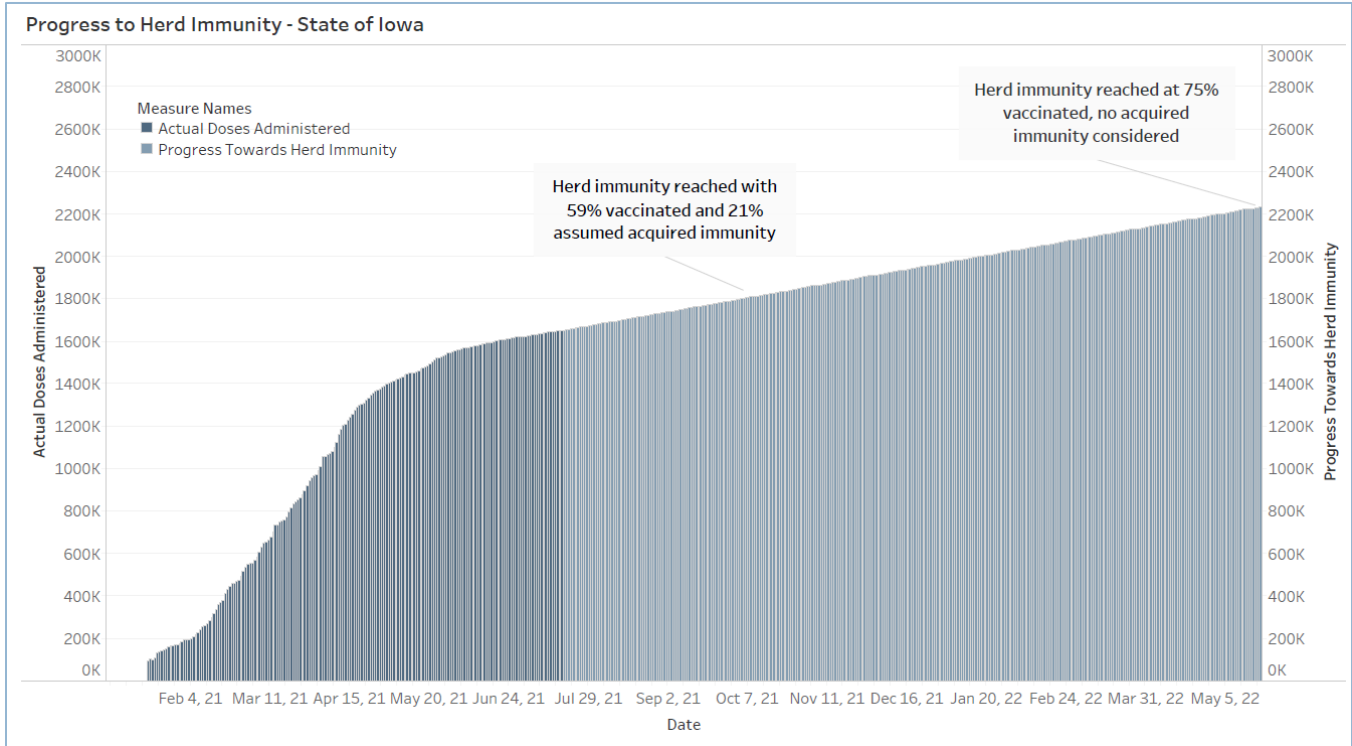


Number of Doses Administered (by date of report)	Initiated Vaccination (1st dose/No Janssen)	Completed Vaccination (2nd dose/Janssen)	Total Polk Co Residents Partially/Fully Vaccinated	Total Population of Polk County (all ages)
505,884	17,182	250,953	268,135	505,884

Age Group	Vaccinated	% Age Group Vaccinated	Estimated Census Population*
10-19 years	23,218	37.30%	62,295
20-29	35,296	51.10%	69,065
30-39	43,210	61.70%	69,982
40-49	41,132	62.90%	65,361
50-59	43,769	73.30%	59,727
60-69	41,833	84.90%	49,269
70 and older	39,677	90.70%	43,742
Total	268,135	63.90%	419,441

*U.S Census Bureau Polk County (2019 1yr estimate). Census predetermined age data includes non-eligible ages 10 and 11 years old.

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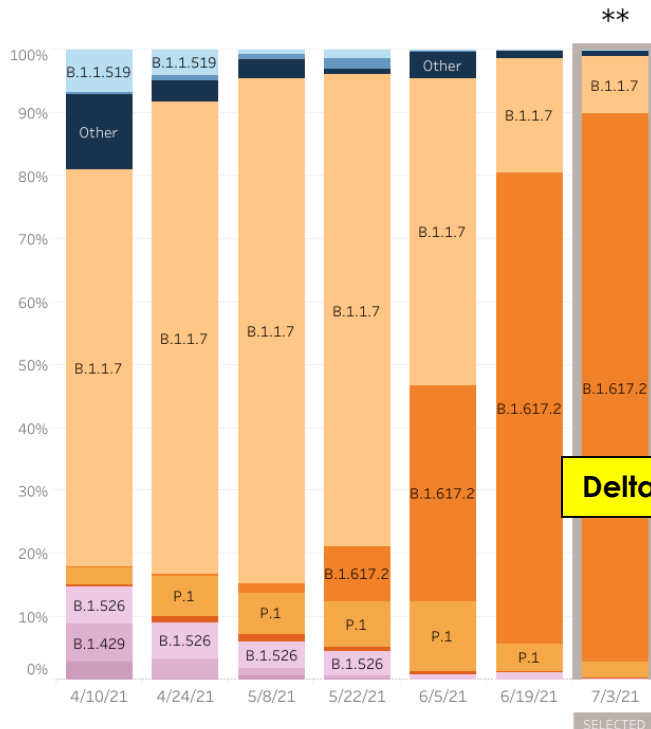


Variant Prevalence

Use the controls to focus on a specific region and/or 2-week interval

HHS Region: Region 7 - Iowa, Kansas, Missouri... ● Nowcast On ○ Nowcast Off Two weeks ending: 7/3/2021

HHS Region 7: 3/28/2021 – 7/3/2021 **HHS Region 7: 6/20/2021 – 7/3/2021 NOWCAST**

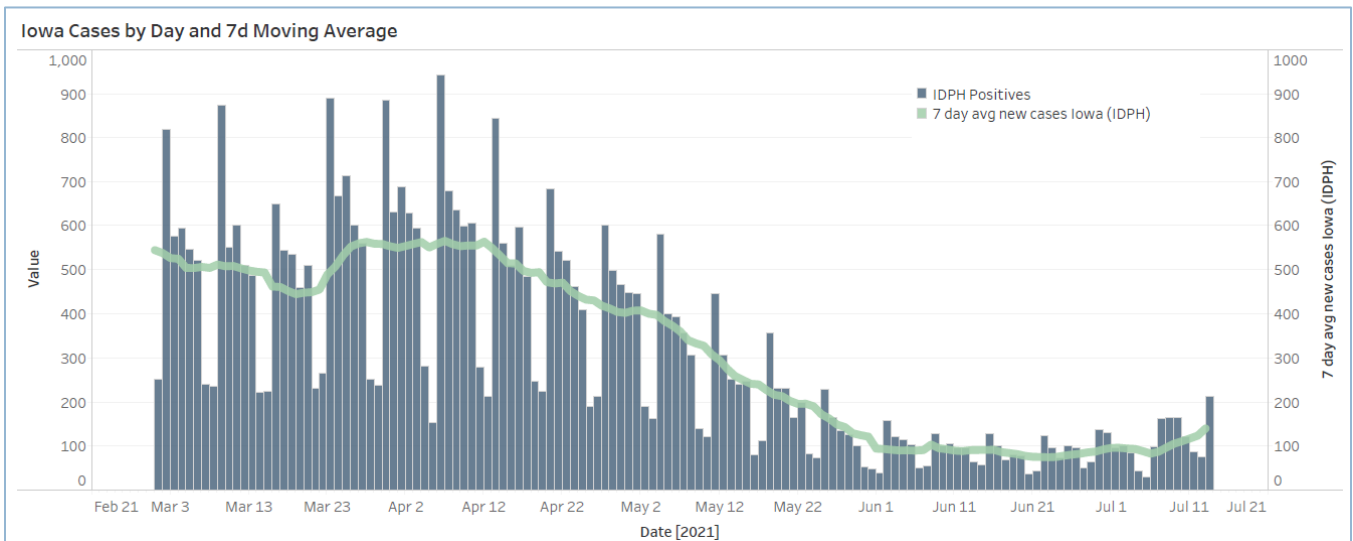
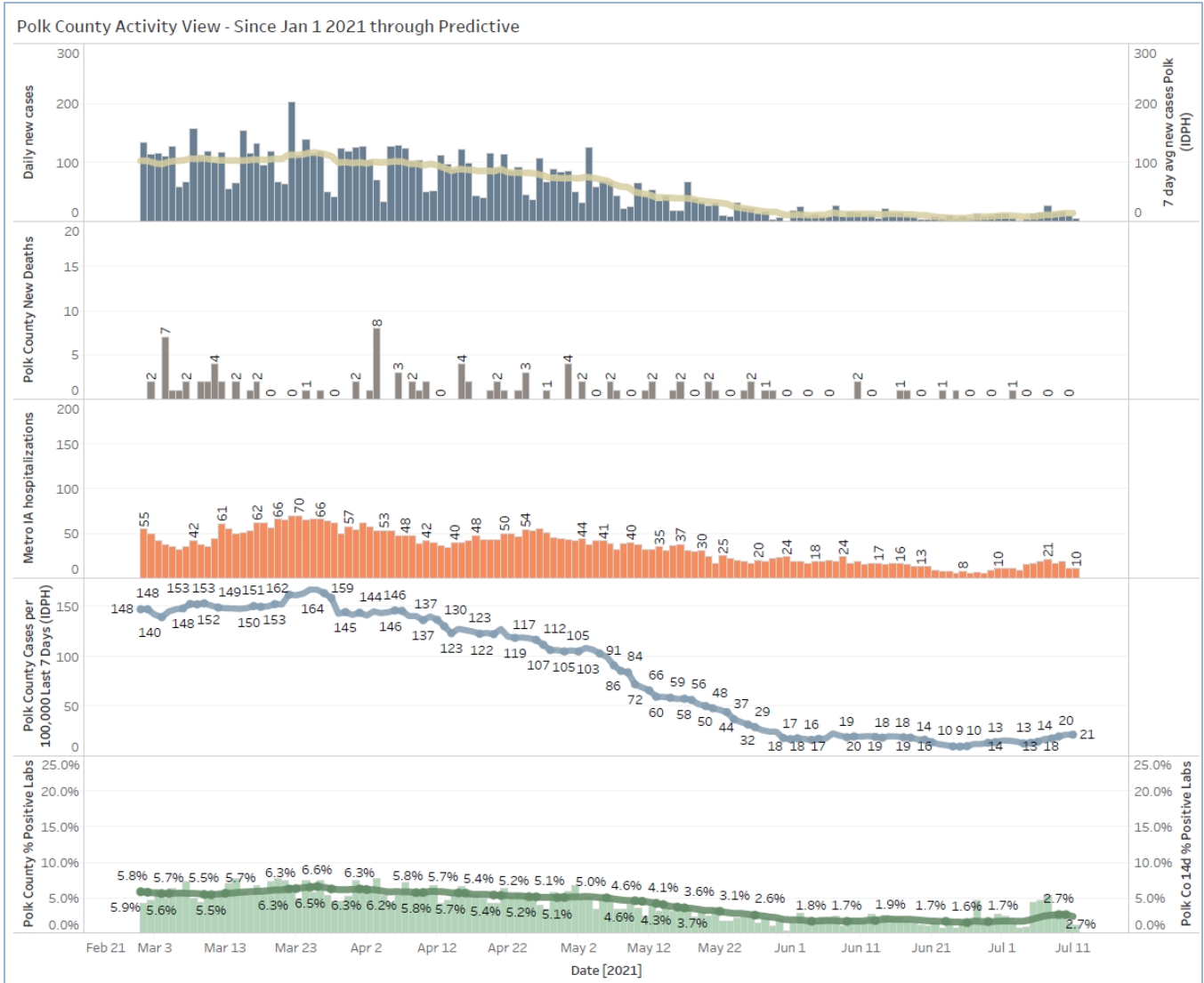


Region 7 - Iowa, Kansas, Missouri, and Nebraska

	Lineage	Type	%Total	95%PI
Most common lineages #	B.1.617.2	Delta	VOC	87.0% 72.4-96.6%
	B.1.1.7	Alpha	VOC	9.2% 0.0-20.7%
	P.1	Gamma	VOC	2.4% 0.0-10.3%
	B.1			0.2% 0.0-3.4%
Additional VOI/VOC lineages #	B.1.1.519			0.0% 0.0-3.4%
	B.1.526	Iota	VOI	0.4% 0.0-3.4%
	B.1.351	Beta	VOC	0.0% 0.0-3.4%
	B.1.429	Epsilon	VOI	0.0% 0.0-3.4%
	B.1.427	Epsilon	VOI	0.0% 0.0-3.4%
	B.1.617.1	Kappa	VOI	0.0% 0.0-3.4%
	B.1.525	Eta	VOI	0.0% 0.0-3.4%
Other*	Other			0.8% 0.0-6.9%

* Other represents >200 additional lineages, which are each circulating at <1% of viruses
 ** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
 # Sublineages of P.1 and B.1.351 (P.1.1, P.1.2, B.1.351.2, B.1.351.3) are aggregated with the parent lineage and included in parent lineage's proportion. AY.1 and AY.2 are aggregated with B.1.617.2.

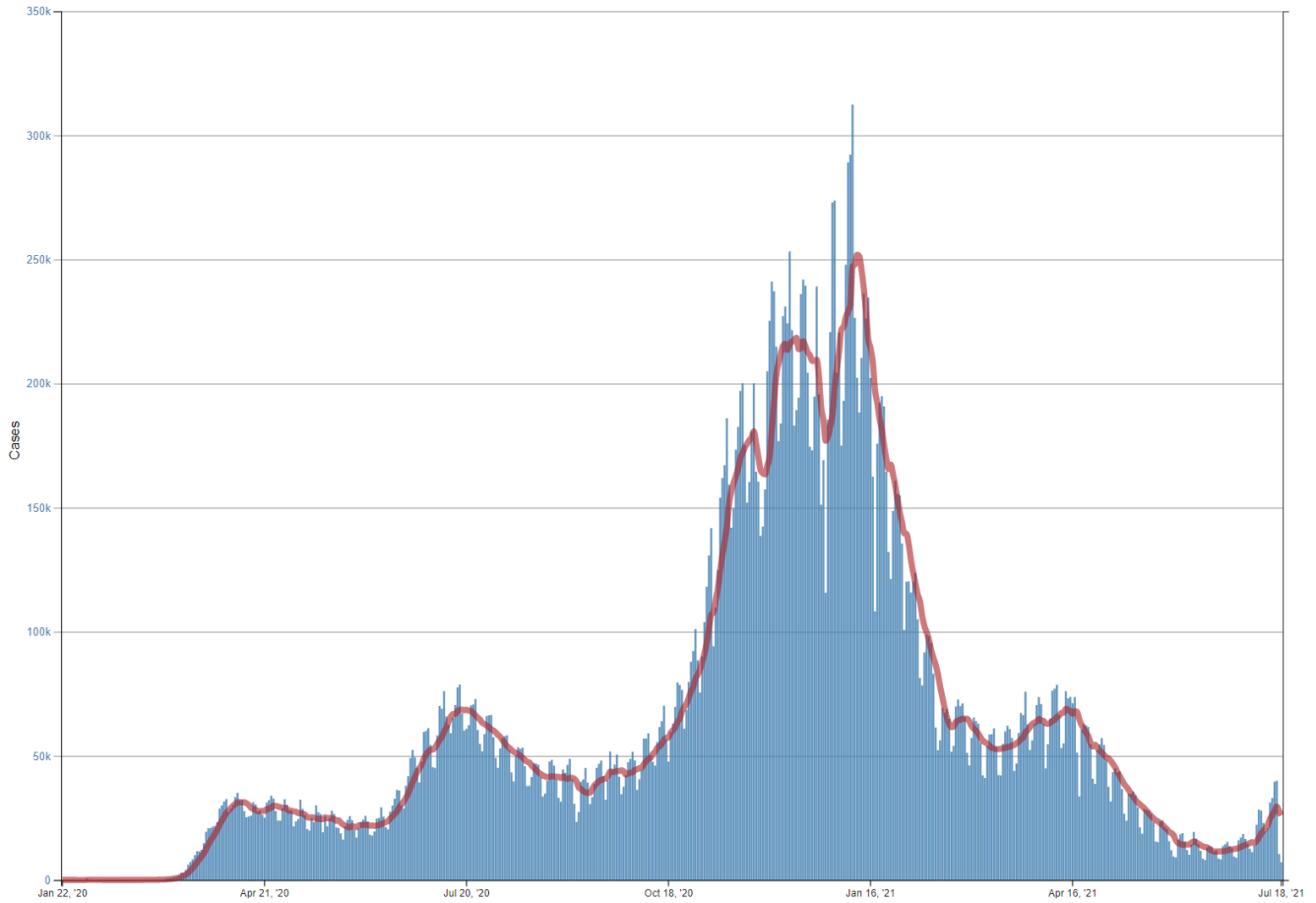
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Daily Trends in Number of COVID-19 Cases in the United States Reported to CDC



	CASES DAILY AVG.	PER 100,000	14-DAY CHANGE	HOSPITALIZED DAILY AVG.	PER 100,000	14-DAY CHANGE	DEATHS DAILY AVG.	PER 100,000	FULLY VACCINATED
United States	35,035	11	+198%	24,291	7	+43%	323.9	0.10	49%
Arkansas >	1,094	36	+112%	676	22	+87%	7.4	0.25	35%
Missouri >	2,103	34	+120%	1,450	24	+48%	14.1	0.23	40%
Louisiana >	1,426	31	+376%	546	12	+101%	7.4	0.16	36%
Florida >	6,493	30	+190%	3,970	18	+85%	34.0	0.16	48%
Nevada >	774	25	+143%	812	26	+84%	4.4	0.14	43%
Utah >	664	21	+144%	277	9	+25%	2.4	0.08	44%
U.S. Virgin Islands	22	21	+173%	13	12	+190%	0	—	34%
Mississippi >	611	21	+308%	382	13	+99%	3.9	0.13	34%
Alaska >	141	19	+413%	61	8	+237%	0	—	45%
Oklahoma >	691	17	+387%	442	11	+106%	1.6	0.04	40%