



Central Iowa COVID19 Update

Monday, July 5, 2021



Aperio

Statistical Consulting

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Quick Stats¹

	Polk County	Iowa
Percent of population with 1 dose*	4.4%	3%
Percent of population with 2 doses*	52%	48%
7d Lab Test Positivity	2.3%	2.5%
14d Lab Test Positivity	1.9%	2.3%
Total cases per 100,000 the last 7d	13	20
Total cases per 100,000 the last 14d	23	38
Average daily cases the last 7d	9	91
Average 7-day new cases per 100,000	2	3

*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.

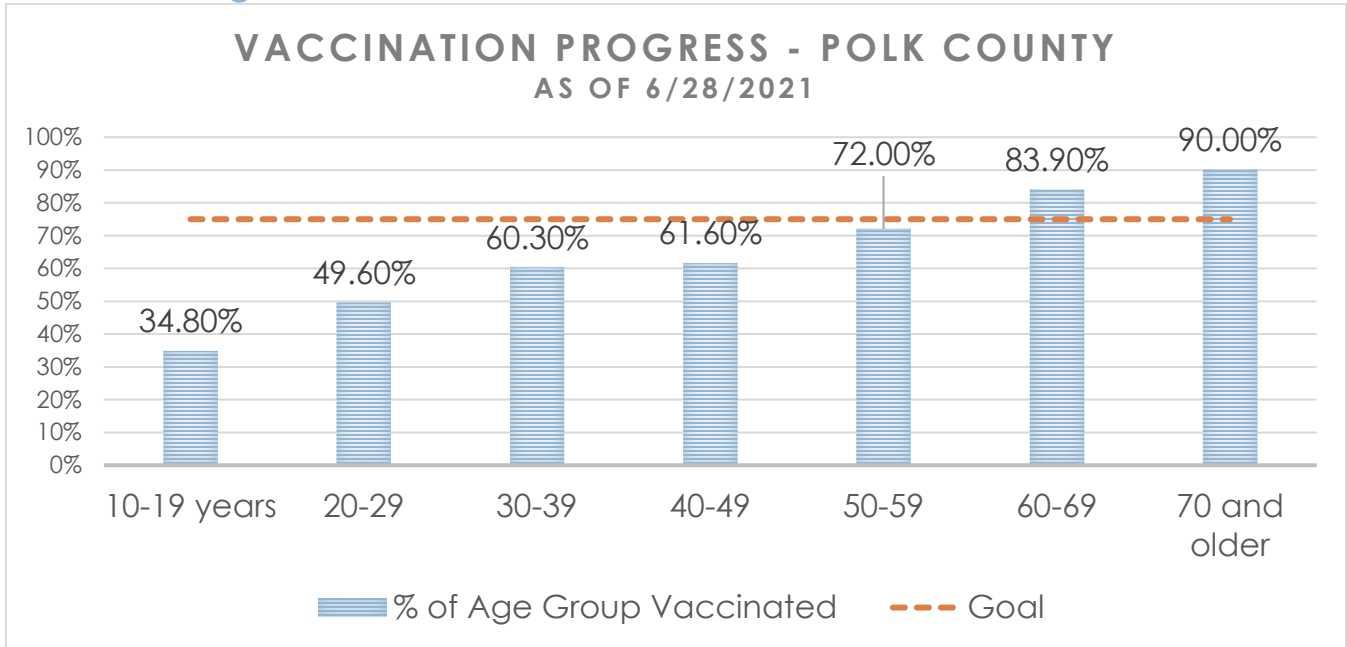
Population of Iowa used is 3.155 million. Averages and percent positivity are subject to change with retrospectively refreshed data.

Critical Points, Media, and Research

- Polk County and Iowa are trending up, but only slightly. Increases in activity are due to the Delta variant, which is highly prevalent in the mid-west.
- Hospitalizations remain very low. The state is administering about 1700 doses per day. This rate is too low to reach herd immunity before the end of the year; however, Polk County is outpacing the state.
- Vaccination with 2 doses of BNT162b2 induces humoral immune responses similar to those of patients critically ill with COVID-19 and greater than those of patients with less severe illness or who are asymptomatic. [COMPARATIVE IMMUNOGENICITY OF BNT162b2 mRNA VACCINE WITH NATURAL COVID-19 INFECTION](#)
- By mid-October 2020, counties that adopted the July mask mandate (n = 15) in Kansas experienced significantly lower rates of COVID-19 cases, hospitalizations, and deaths compared with those that did not (n = 68). Through December 4, cases were 20.33 (95% CI -26.54 to -14.12) per day lower in mask counties. Similar patterns were seen for hospitalizations and deaths. [Association of Mask Mandates and COVID-19 Case Rates, Hospitalizations, and Deaths in Kansas | Law and Medicine | JAMA Network Open](#)
- [Association of the COVID-19 Pandemic With Estimated Life Expectancy by Race/Ethnicity in the United States, 2020 | Health Disparities | JAMA Network Open](#)
- [Immunogenicity and reactogenicity of BNT162b2 booster in ChAdOx1-S-primed participants \(CombiVacS\): a multicentre, open-label, randomised, controlled, phase 2 trial - The Lancet](#)
- [The differential importation risks of COVID-19 from inbound travellers and the feasibility of targeted travel controls: A case study in Hong Kong - The Lancet Regional Health](#)
- [Assessing the Association Between Social Gatherings and COVID-19 Risk Using Birthdays | Public Health | JAMA Internal Medicine | JAMA Network](#)
- [Risk of SARS-CoV-2 Transmission from Patients with Undiagnosed Covid-19 to Roommates in a Large Academic Medical Center | Clinical Infectious Diseases | Oxford Academic \(oup.com\)](#)
- [Fauci: More than 99% of people who died from COVID-19 in June were not vaccinated](#)
- [125 Church Campers in Texas Test Positive for COVID-19](#)



Vaccine Progress

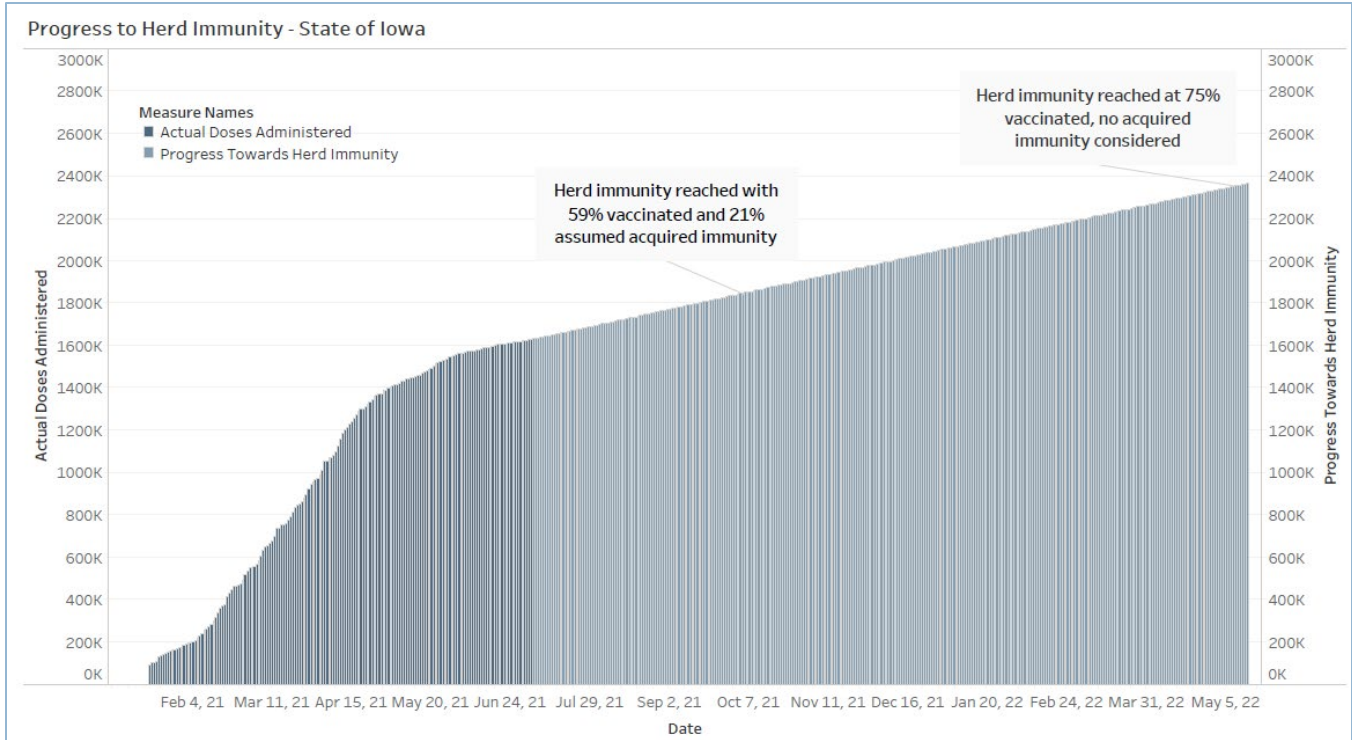


Number of Doses Administered (by date of report)	Initiated Vaccination (1st dose/No Janssen)	Completed Vaccination (2nd dose/Janssen)	Total Polk Co Residents Partially/Fully Vaccinated	Total Population of Polk County (all ages)
492,214	19,397 (5%)	242,672 (50%)	262,069 (54%)	490,121

Age Group	Vaccinated	% Age Group Vaccinated	Estimated Census Population*
10-19 years	21,667	8.30%	34.80%
20-29	34,262	13.10%	49.60%
30-39	42,216	16.10%	60.30%
40-49	40,232	15.40%	61.60%
50-59	42,985	16.40%	72.00%
60-69	41,357	15.80%	83.90%
70 and older	39,350	15.00%	90.00%
Total	262,069		62.50%

*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, Missou...

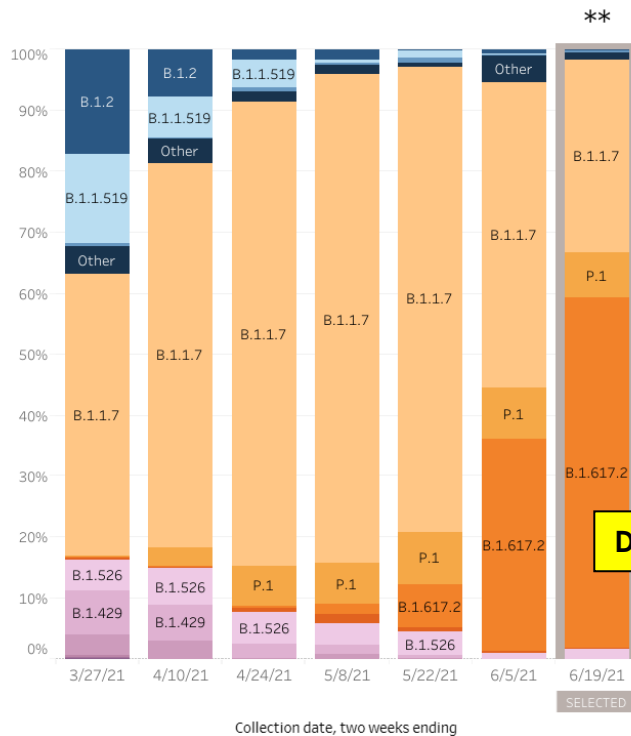
Nowcast On
 Nowcast Off

Two weeks ending

6/19/2021

HHS Region 7: 3/14/2021 – 6/19/2021

HHS Region 7: 6/6/2021 – 6/19/2021 NOWCAST



Region 7 - Iowa, Kansas, Missouri, and Nebraska

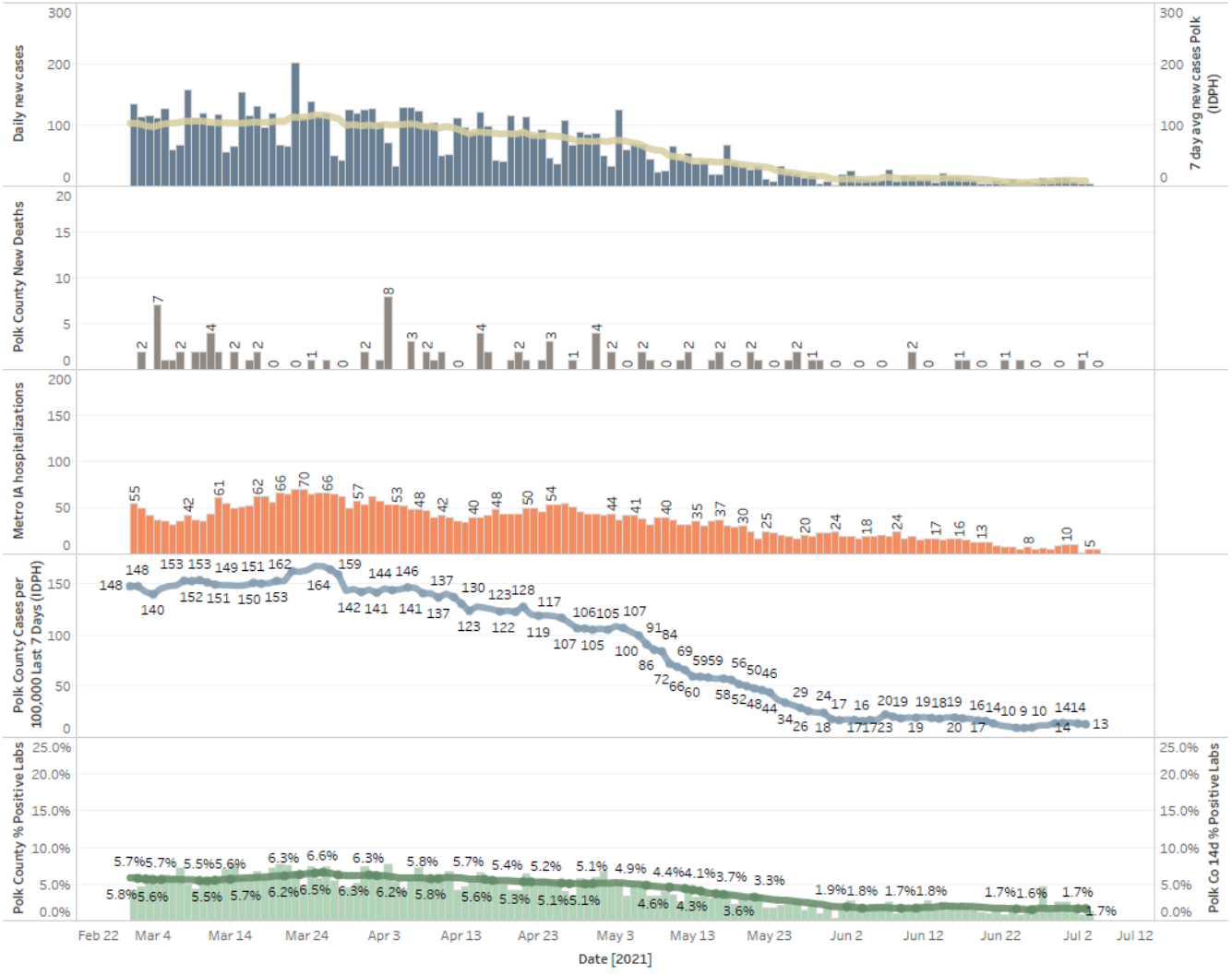
	Lineage	Type	%Total	95%PI
Most common lineages #	B.1.617.2	VOC	57.5%	40.0-76.0%
	B.1.1.7	VOC	31.6%	16.0-52.0%
	P.1	VOC	7.5%	0.0-20.0%
	B.1.526	VOI	1.6%	0.0-8.0%
	B.1		0.3%	0.0-4.0%
Additional VOI/VOC lineages #	B.1.1.519		0.2%	0.0-4.0%
	B.1.2		0.0%	0.0-4.0%
	B.1.351	VOC	0.2%	0.0-4.0%
	B.1.429	VOI	0.0%	0.0-4.0%
	B.1.427	VOI	0.0%	0.0-4.0%
	B.1.617.1	VOI	0.0%	0.0-4.0%
	B.1.525	VOI	0.0%	0.0-4.0%
Other*	Other		1.1%	0.0-8.0%

* 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.

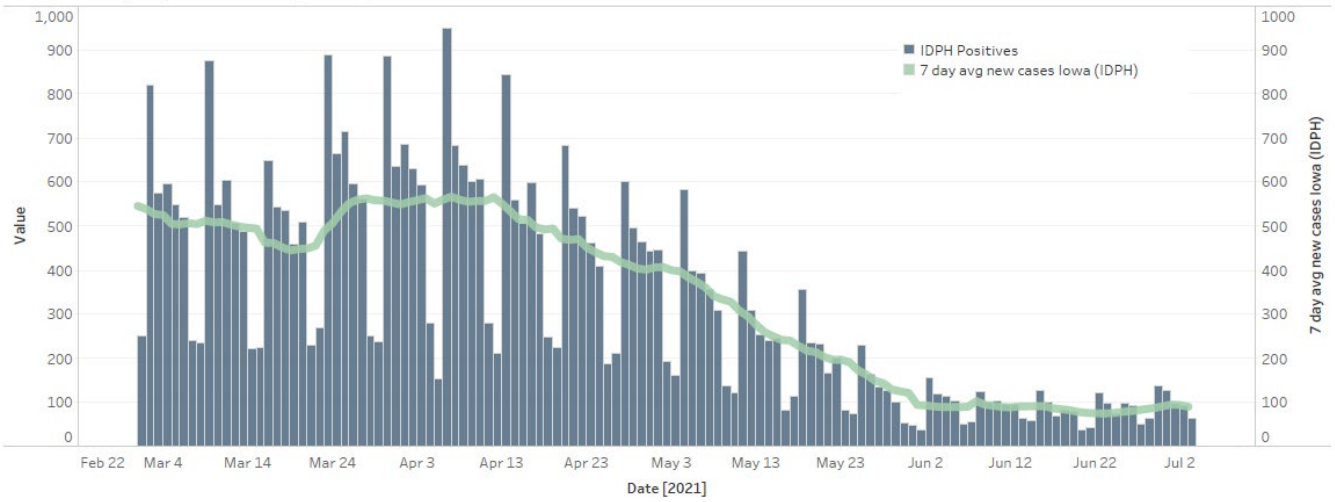
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Polk County Activity View - Since Jan 1 2021 through Predictive



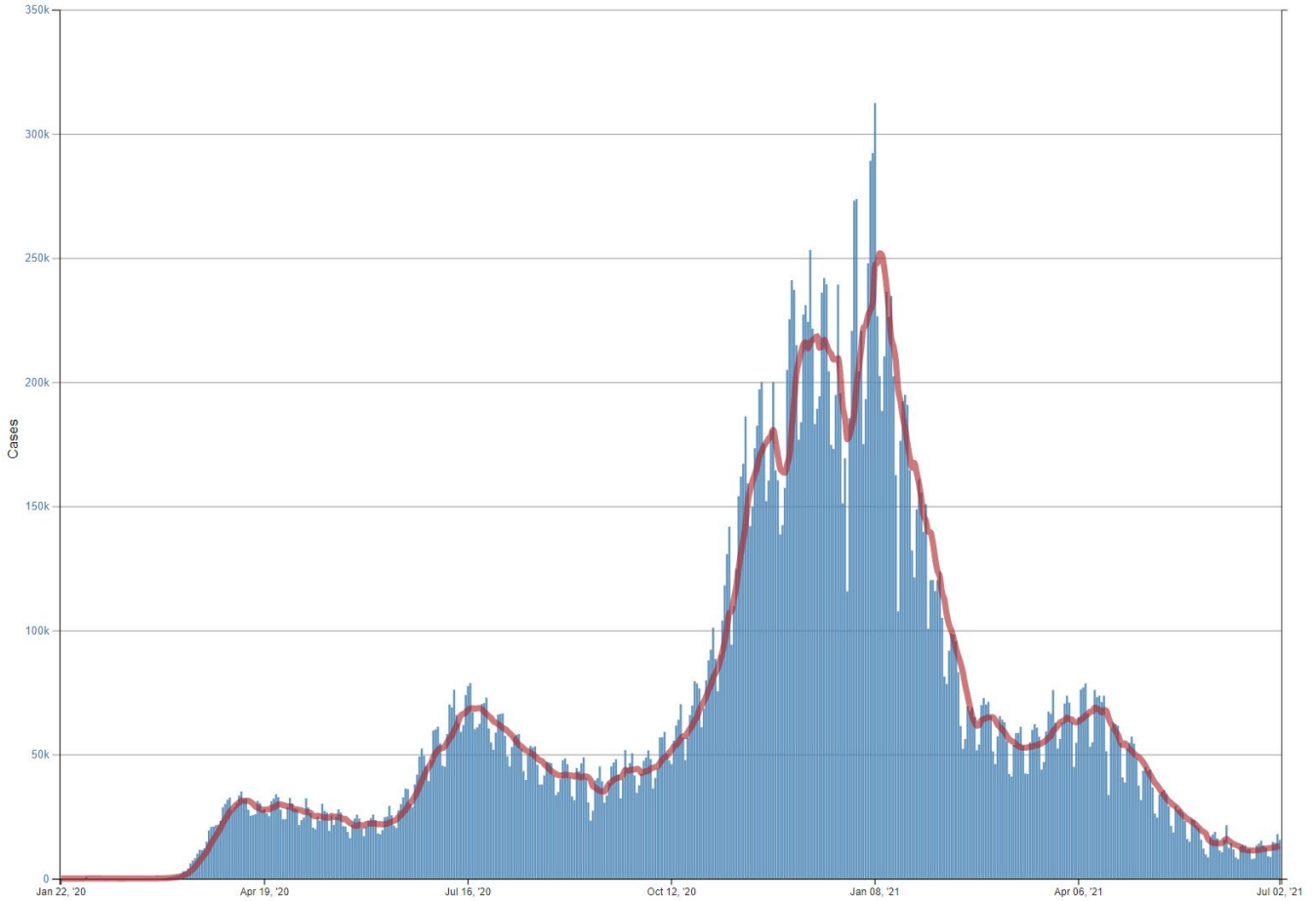
Iowa Cases by Day and 7d Moving Average



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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	11,797	4	+5%	16,981	5	-3%	193.7	0.06	47%
Arkansas ›	515	17	+121%	348	12	+42%	3.3	0.11	34%
Missouri ›	958	16	+45%	958	16	+24%	10.6	0.17	39%
Florida ›	2,241	10	+63%	2,101	10	+13%	30.4	0.14	46%
Nevada ›	319	10	+15%	402	13	+46%	3.9	0.13	42%
Wyoming ›	49	9	-12%	39	7	-5%	1.0	0.17	35%
Utah ›	272	8	-7%	216	7	+29%	1.9	0.06	37%
U.S. Virgin Islands	8	8	-15%	4	4	+44%	0	—	33%
Arizona ›	493	7	+16%	515	7	+3%	9.4	0.13	43%
Colorado ›	377	7	-11%	336	6	-15%	6.1	0.11	52%
Louisiana ›	300	6	-6%	256	5	-1%	4.1	0.09	35%