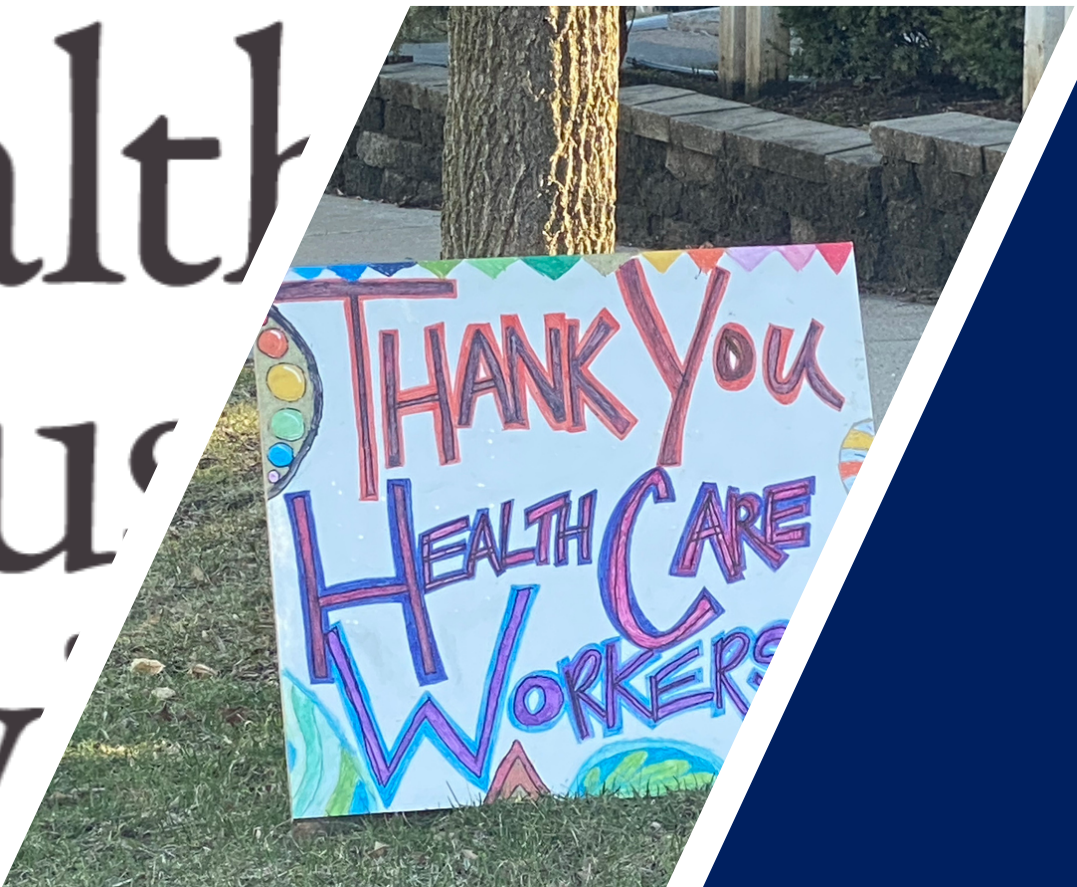




Health
Industry
Adv



Issue # 176

Friday, October 2, 2020

COVID-19 Report

Highlights

- Each week, we observe the **new infection rates for thirty-three metro areas that are home to major universities**
 - **Twenty-seven of these thirty-three metro areas experienced new daily infection rates higher than the national average**
 - **Twice as many of these areas, however, experienced significant declines in rates this week compared to last, as had experienced significant increases in rates**
 - For the past seven-day period, the metro areas home to the University of Alabama and Texas Tech University experienced the highest new infection rates per capita; These areas also reported significant week-over-week increases in this rate
 - The metro area home to Penn State University experienced the next highest rate; this rate did not change significantly week-over-week
 - Four metro areas in the Tar Heel State - homes to Duke, North Carolina, North Carolina State and Wake Forest - experienced the lowest infection rates for the past seven days
- Testing in the U.S.
 - Test volume and test-positive % yesterday and for the past week were in line with recent experience
 - **For the last seven days, twenty-eight states met or outperformed both the CDC-target test-positive rate and the Harvard scientist-target for test volume - including most of the heavily-populated states; Florida is the notable exception to this**
 - **Eight states, including Florida underperformed on both targets**
 - **The states with the highest current infection rates - North and South Dakota and Wisconsin - also have the highest test-positive rates; Each, however, are above the target test volume**
- New Cases and Infection Rates in the U.S.
 - **We still aren't yet seeing consistent momentum (positive or negative) in new case or infection rates for the country as a whole**
 - The new infection rate has been stable for the past three days
 - It further seems that **the plateau in this rate which occurred from August 25- September 6 has been matched by a comparable plateau from September 18-present; the intervening period appears to have been impact by reporting issues around the Labor Day holiday**
 - **Still, during the past two weeks, there have been more days in which new cases were higher than the same-day-prior-week, than days which new cases were lower than the prior week**
 - **The U.S. is now in the third period of concentrated high-infection spread:**
 - The initial concentration was centered in the Northeast, in March/April
 - The second was in the South and West, in June/July
 - The current one is mostly in the Upper Midwest, and is in less heavily-populated states
 - **Only one state, Louisiana, experienced high infection rates during two of these periods; in that case, however, different parishes were hard-hit during each period**
 - **Because this third high-infection period is concentrated in less-heavily populated states, its impact on the U.S. overall infection rate is tempered**
- Deaths with the Coronavirus
 - On a 7-day average basis, deaths reported per day yesterday were lower than any time since July 10
 - Only once since July 2 were there fewer reported deaths on a Thursday than there were yesterday

Metro Areas Home to Major Universities:

Of the 33 major areas in our sample, 27 are experiencing infection rates* higher than the national average

Areas home to the University of Alabama and Texas Tech University had the highest infection rates last week; these rates also increased significantly v. the prior week

Twice as many areas experienced significant declining rates as experienced significantly increased rates

* 7-day average

Metro Areas With Major Universities: New Daily Infections / 1M Population

7-Day Average, As of October 1

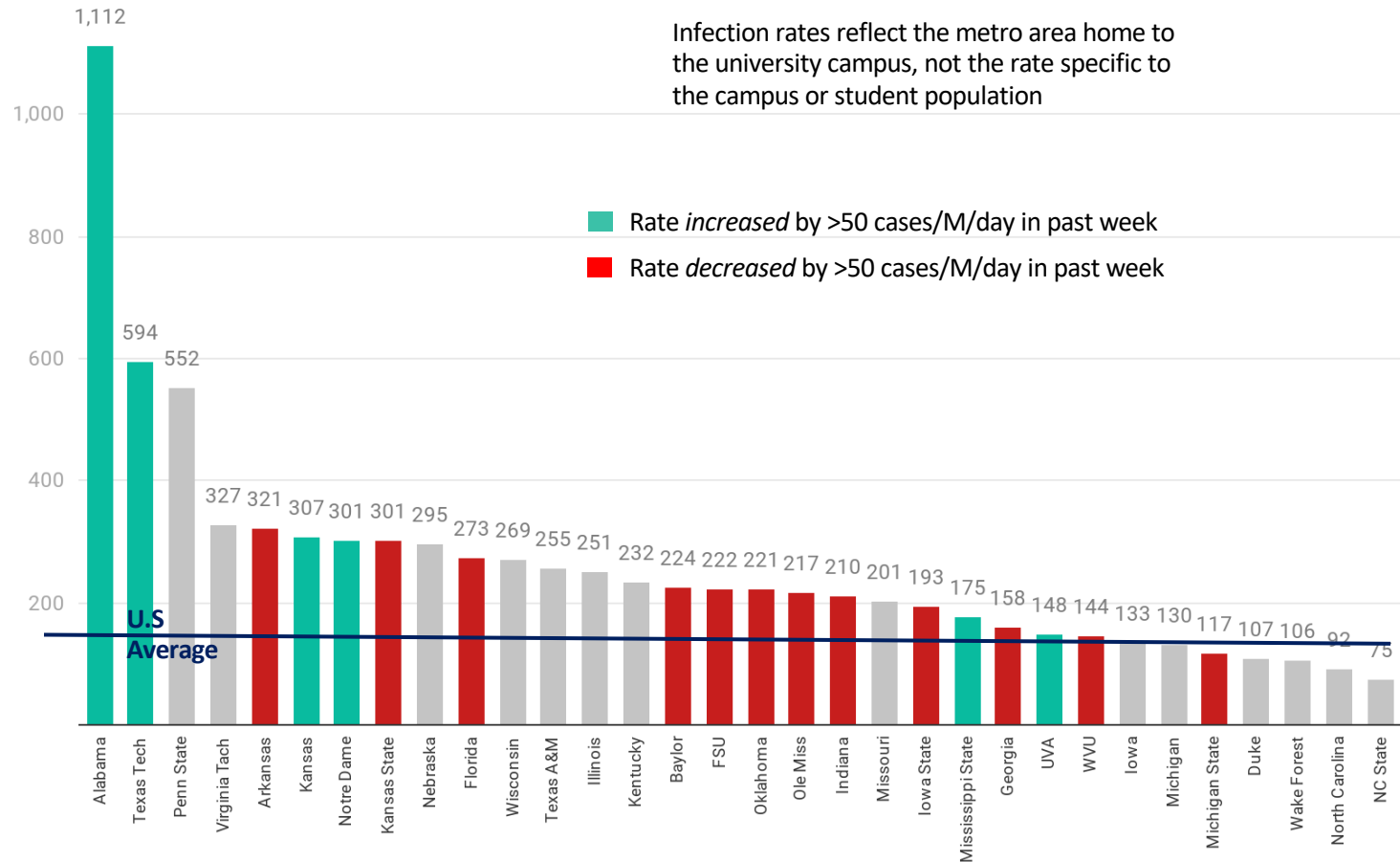


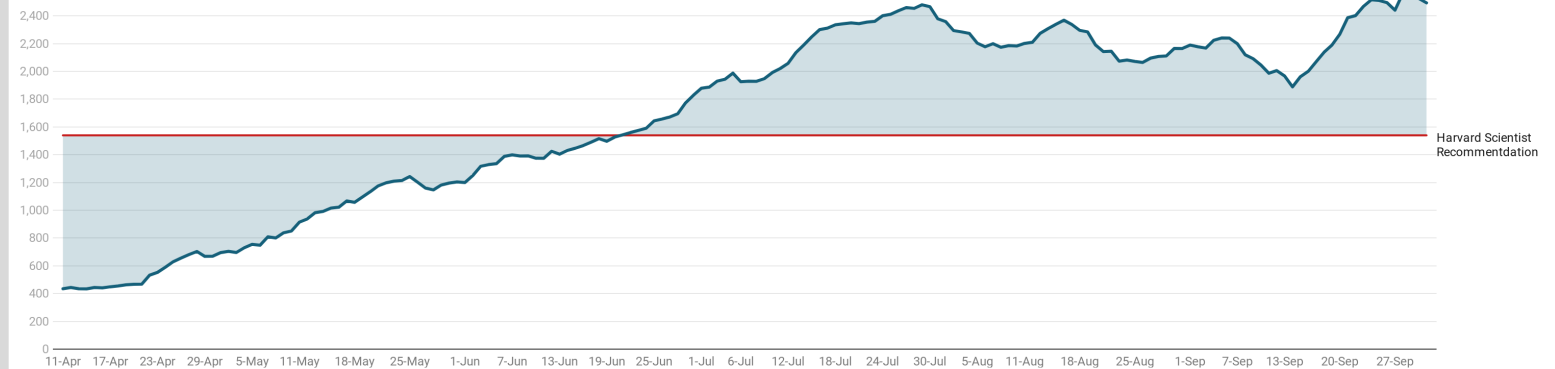
Chart: Health Industry Advisor LLC • Created with Datawrapper

The 7-day average testing volume dropped yesterday, for the second consecutive day; Tests are slightly down week-over-week (<1%)

Yesterday's 7-day average test-positive rate was slightly above the WHO guideline of 5%

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of October 1

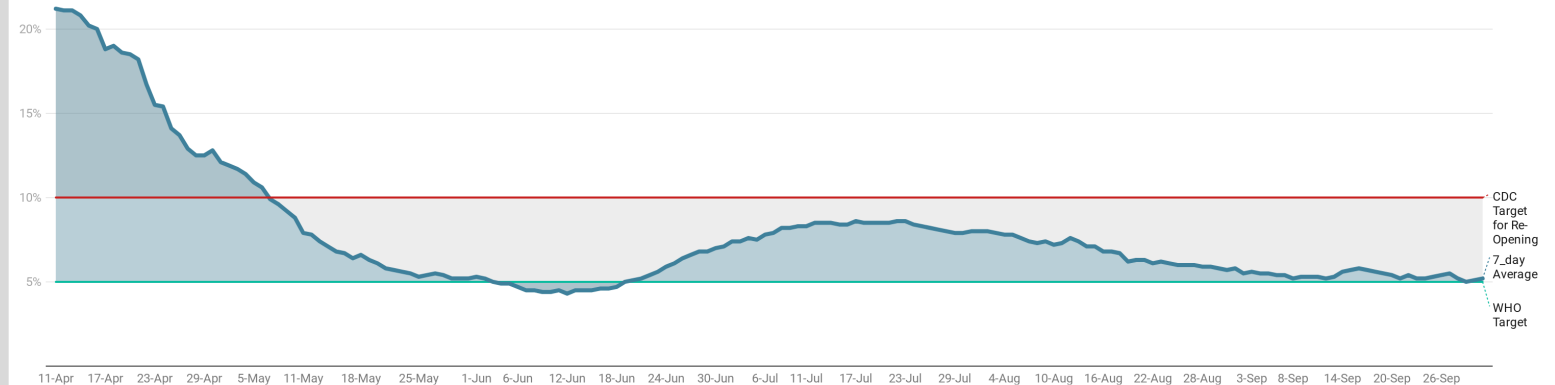


Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Test-Positive Rate - United States

Trailing 7-Day Moving Average, As of October 1



Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

The desired position on this chart is the upper left quadrant – which is where most large states reside – except Florida

The least-desirable is the lower right

Note that the three states (ND, SD & WI) with the highest new infection rates are also too far right on this chart

Testing Volume v. Test-Positive %

7-Day Average, As of October 1

CDC Target for Re-Opening

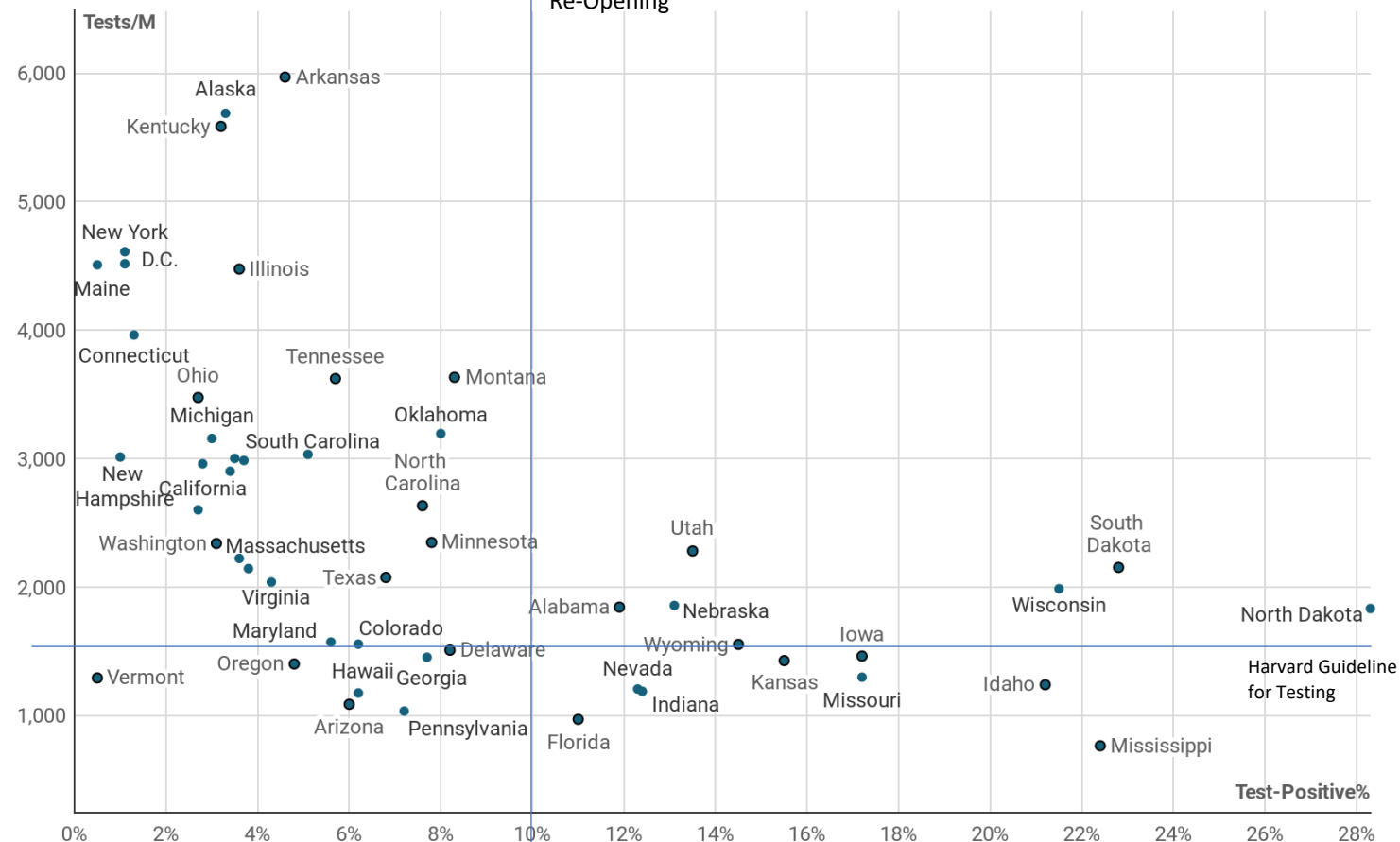


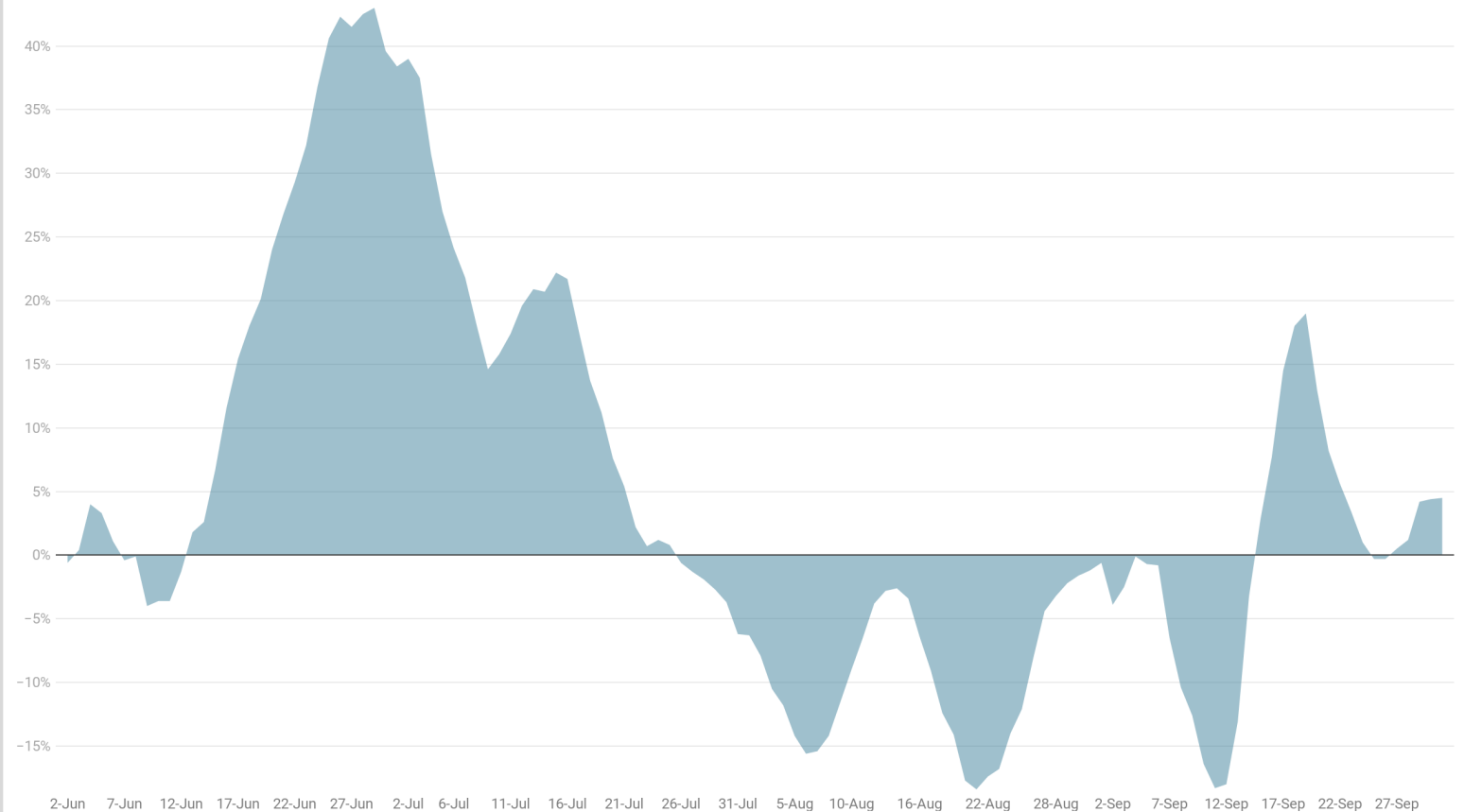
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Following a seven-week period of decline, new cases began increasing on a week-over-week basis on September 15

Yesterday, this rate was up 4.5% on a week-over-week basis

Week-Over-Week Change In New Cases

Through October 1



Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

New cases on Thursday were modestly higher than each of the past four Wednesdays

These new case totals remain markedly lower than on Wednesdays in July and the first ½ of August

New Daily Cases

Through October 1

Thursdays Highlighted

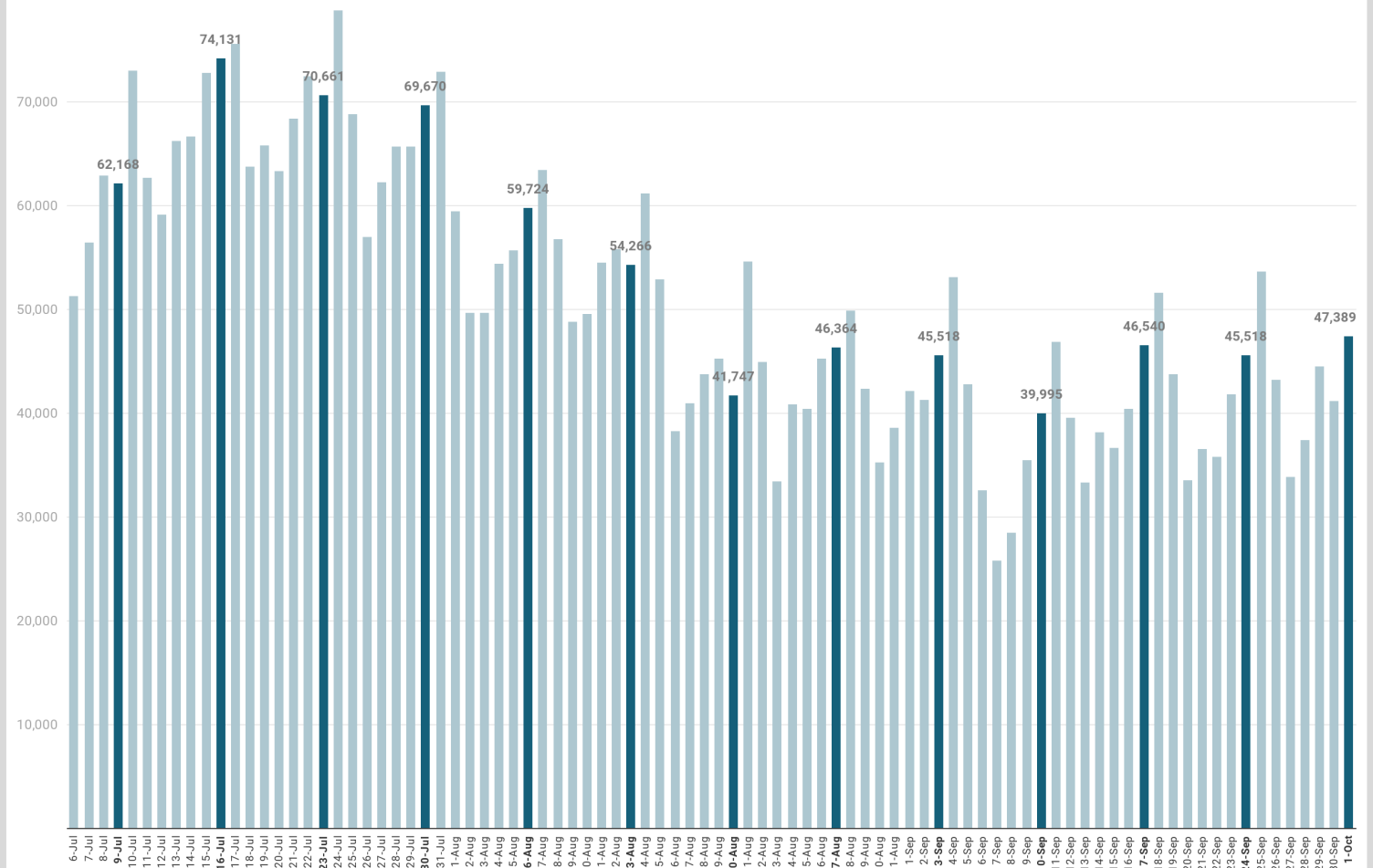


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

Yesterday represented the 4th time in five days that new cases were higher than the same day during the previous week

In the past two weeks, there have been more days in which new cases are higher than the same-day, prior-week, than days when it has been lower

Also, the largest changes have been increased cases v. decreased cases

Change in New Daily Cases v. Same Day Week Earlier - U.S.

Most Recent Two Weeks

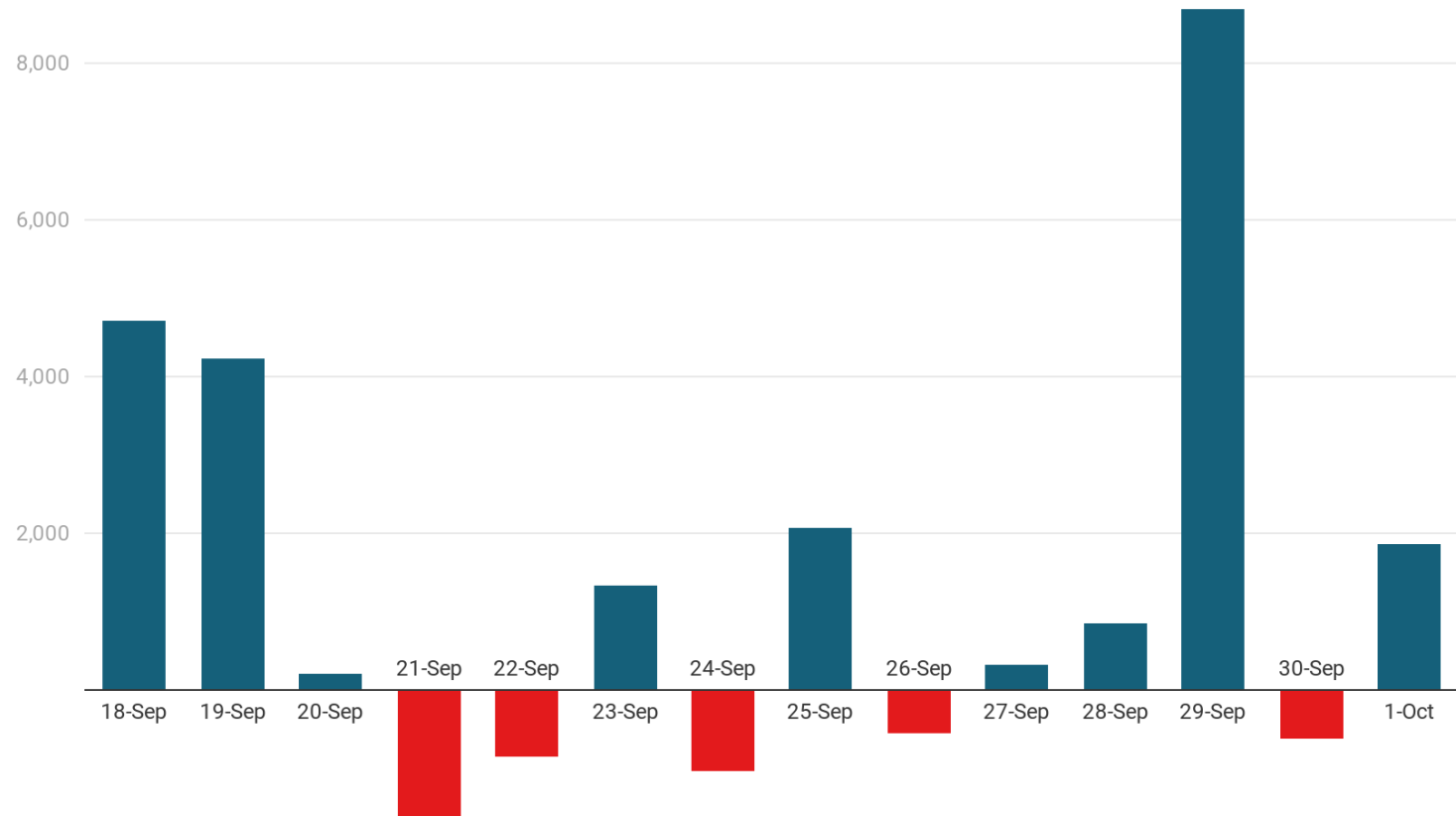


Chart: Health Industry Advisor LLC • Created with Datawrapper

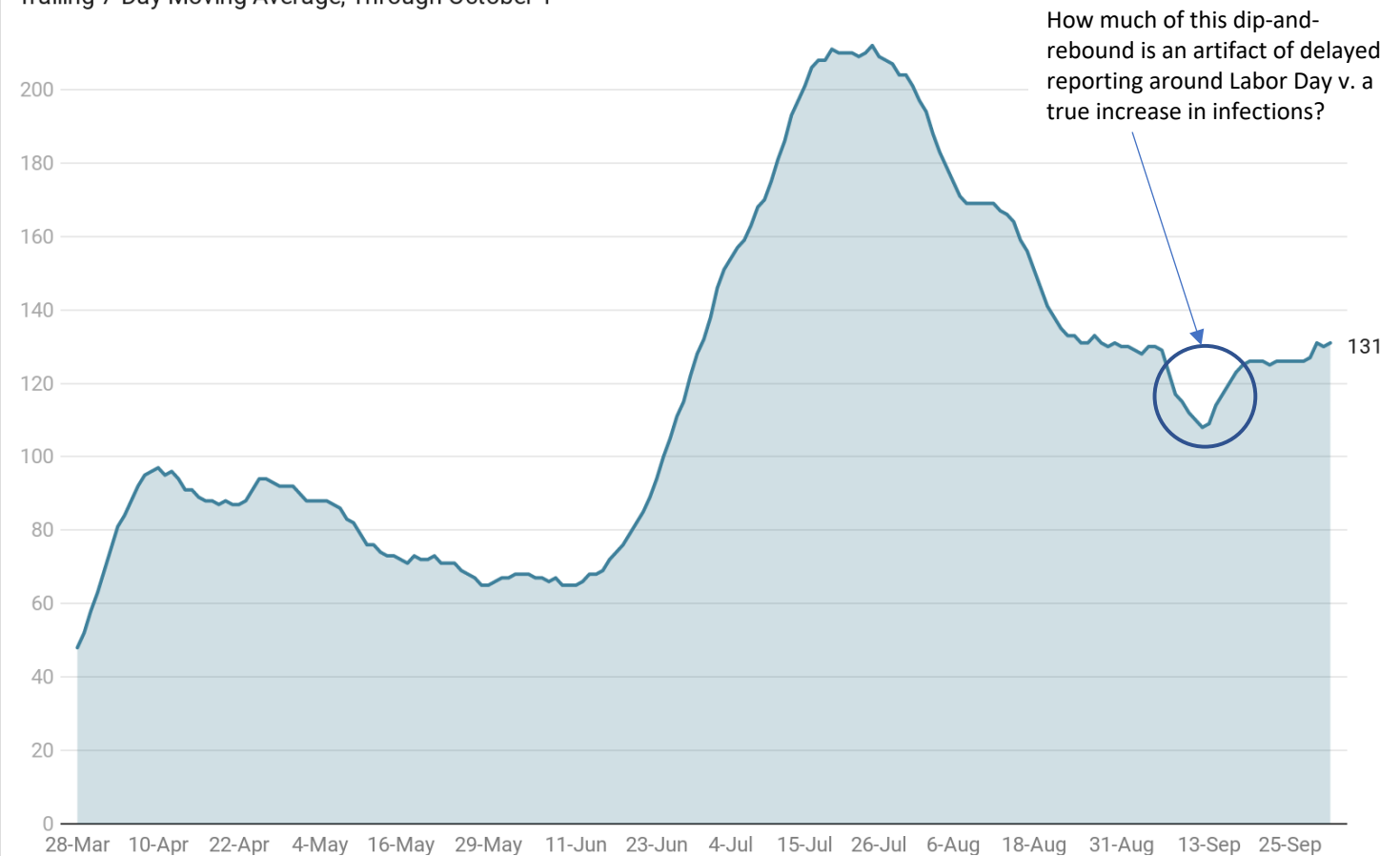
The new infection rate per capita* has been stable for three days – at the same level it stabilized at from August 25 – September 2

New infections per capita in the U.S. bottomed-out on September 12 – this is likely due to the impact of Labor Day reporting issues

* - 7-day moving average basis

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through October 1



Health Industry Advisor LLC analysis

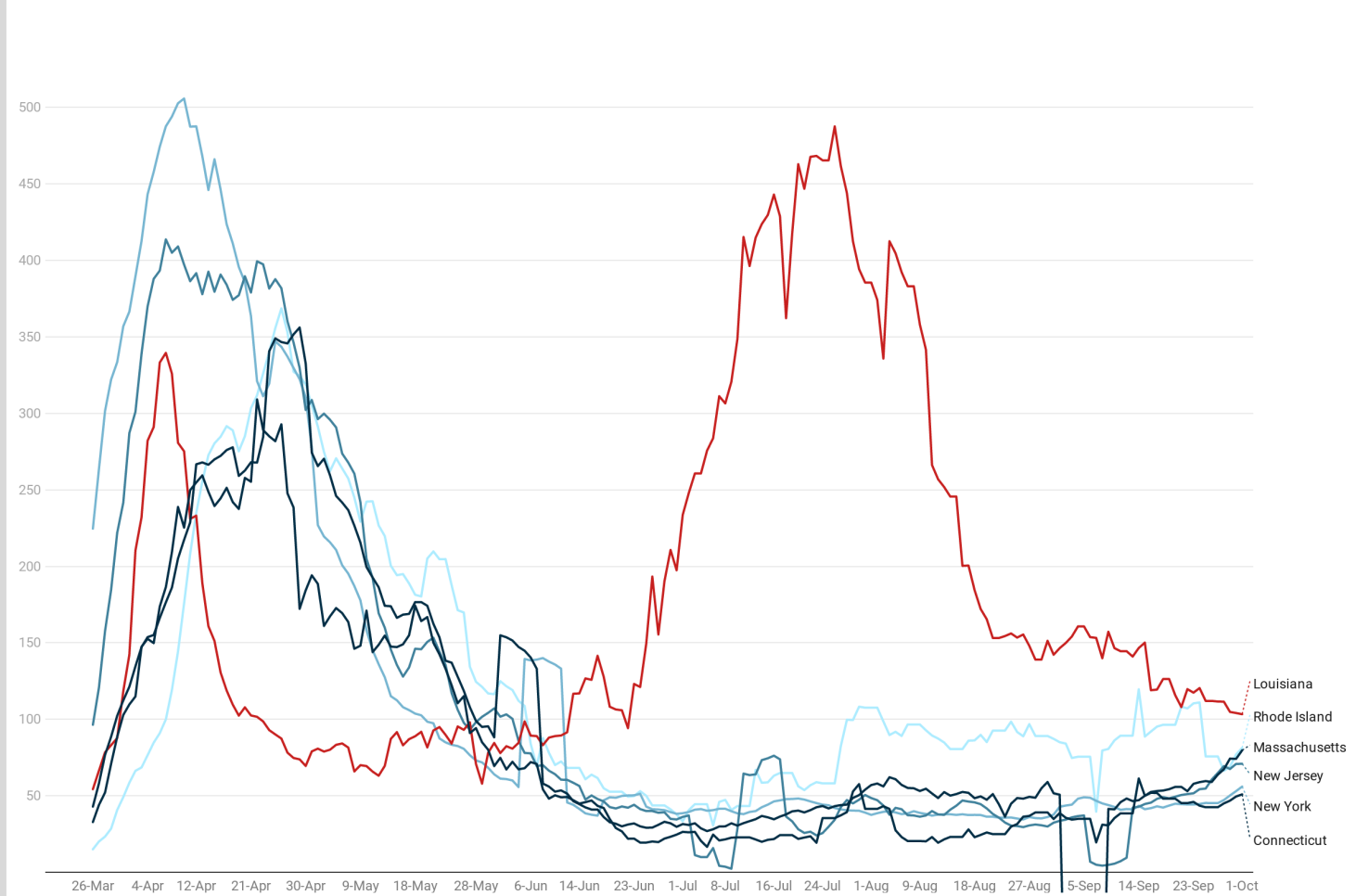
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Stats hit hardest by the virus in March/April are mostly in the Northeast

Except for Louisiana, these states experienced relatively low infection rates since

New Infections / Million - States Hit Hard* in March/April

7_day Moving Average



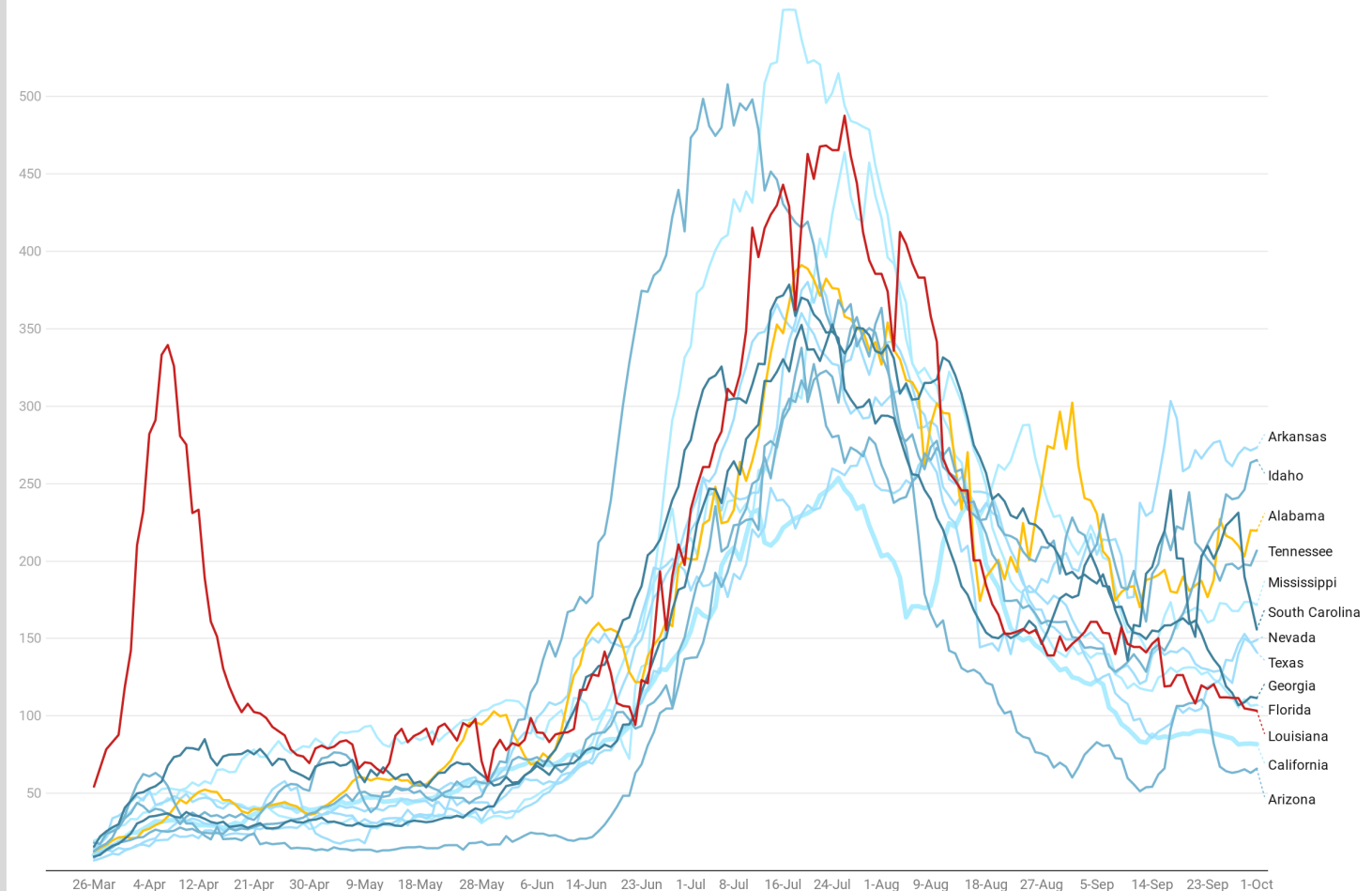
* New Daily Infections/M > 300
Created with Datawrapper

The states hit hardest in July/August were all in the South or West

In Louisiana, the only state hard-hit in both March/April and June/July, it was different parishes that were hardest-hit during the two periods

New Infections / Million - States Hit Hard* in June/July

7-day Moving Average

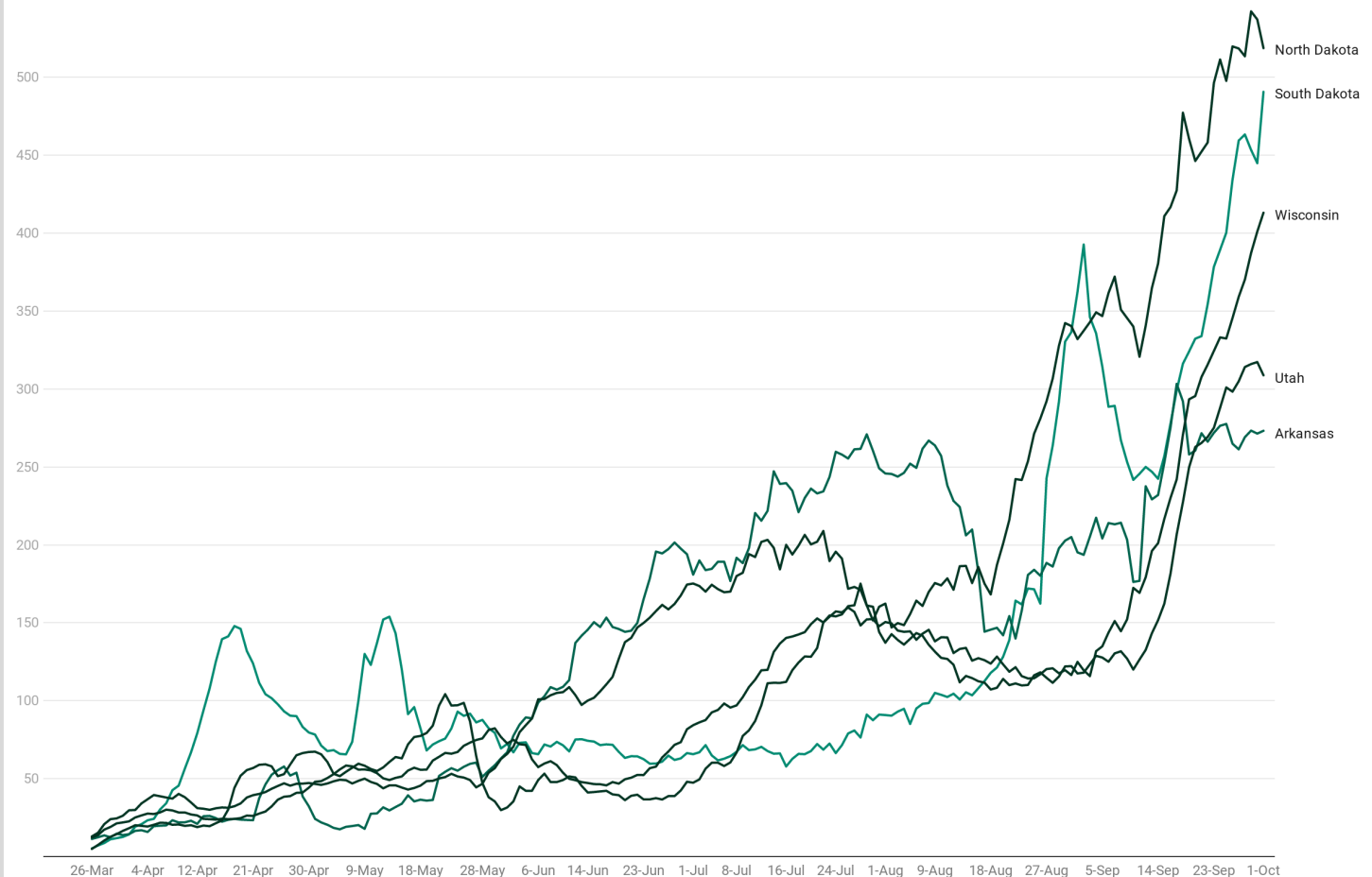


* New Daily Infections/M > 300
Created with Datawrapper

The states currently hardest-hit by the infection spread are mostly in the Upper Midwest and are generally not heavily-populated

New Infections / Million - States Hit Hard* in September

7-day Moving Average



* New Daily Infections/M > 300
Created with Datawrapper

The 7-day average deaths per day declined yesterday; it is now at its lowest point since July 10

Deaths Reported With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of October 1



Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Except for September 17, there fewer deaths reported yesterday than on any other Thursday since July 2

Newly Reported Deaths

Through October 1

Thursdays Highlighted

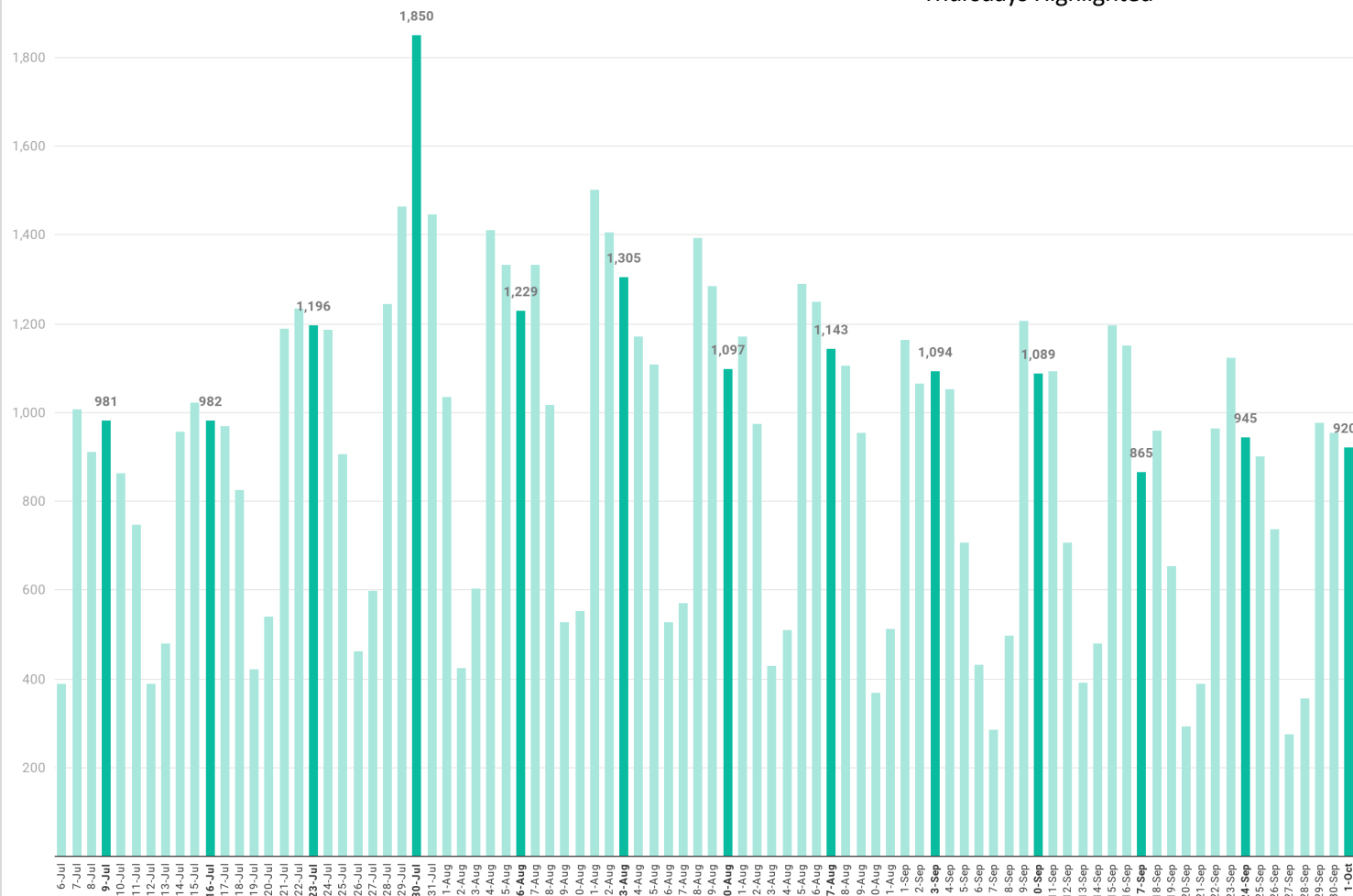


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

There were fewer deaths reported yesterday than last Wednesday

This marked the 11th time in the past two weeks that deaths were lower than the same-day, prior-week

Change in Newly Reported Deaths v. Same Day Week Earlier - U.S.

Most Recent Two Weeks



Chart: Health Industry Advisor LLC • Created with Datawrapper

Data Sources

The following data sources are accessed on a daily or weekly basis:

- The Atlantic's Covid Tracking Project: <https://covidtracking.com>
- Worldometers.info: <https://www.worldometers.info/coronavirus/>
- Centers for Disease Control, National, Regional, and State Level Outpatient Illness and Viral Surveillance
<https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>
- Centers for Disease Control, COVID-19 Laboratory-Confirmed Hospitalizations
https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- Centers for Disease Control, COVID Data Tracker <https://www.cdc.gov/covid-data-tracker/index.html#mobility>
- Institute for Health Metrics and Evaluation, COVID-19 estimate downloads
<http://www.healthdata.org/covid/data-downloads>
- New York Times, Covid-19 data <https://github.com/nytimes/covid-19-data>
- COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University
<https://github.com/CSSEGISandData/COVID-19>
- COVID-19 Projections Using Machine Learning, <https://covid19-projections.com>