



## COVID-19 UPDATE: Daily cases 7D delta slowed last 2 days (weekend effect) but WIINSU still surges. College cases falling!

THIS MESSAGE IS BEING SENT SOLELY TO CLIENTS OF FS INSIGHT

### STRATEGY: Big week ahead

This upcoming week is a biggie. Equity markets have struggled with equilibrium (stability) in the past few weeks because of the upcoming 2020 Presidential elections coupled with surging COVID-19 cases (wave 3 here, wave 2 Europe). The UK announced lockdowns Sunday, so it looks like policymakers in Europe are pursuing the same strategy. Let's hope it works long term--in the short term, this will certainly cause cases to hit a wall.

In the US, polls continue to show a sizable lead for Biden, even greater than Clinton in 2016. So, prediction models based upon polls are pointing to a "blue wave" and betting markets show similar odds. But at the same time, one cannot wonder if polls are accurately capturing what voters will actually do. I think the best example of this is the wide disparity between the passionate and massive crowds for Trump rallies compared to the "socially distant" rallies for Biden.

But the more relevant issue for markets is how markets might react to variant outcomes. Because Biden is expected to win, this is what I view as the base case:

<u>Scenario</u>	<u>Markets</u>
- BASE CASE Biden wins decisively.	Post-election rally
- SURPRISE Trump wins decisively.	Bigger post-election rally
- CONTESTED a few weeks contested	Focus will be on Senate. Muted rally

I don't know how to assign the probabilities, because I don't think polls are reliable. Why would markets rally stronger under Trump?

- fiscal stimulus timeline faster
- capital gains tax off the table
- tax cuts coming, and income tax increase off the table
- specter of increased regulation off the table
- Biden might be viewed as "owning" the more liberal left elements of the party, thus, less risk of the US shifting left

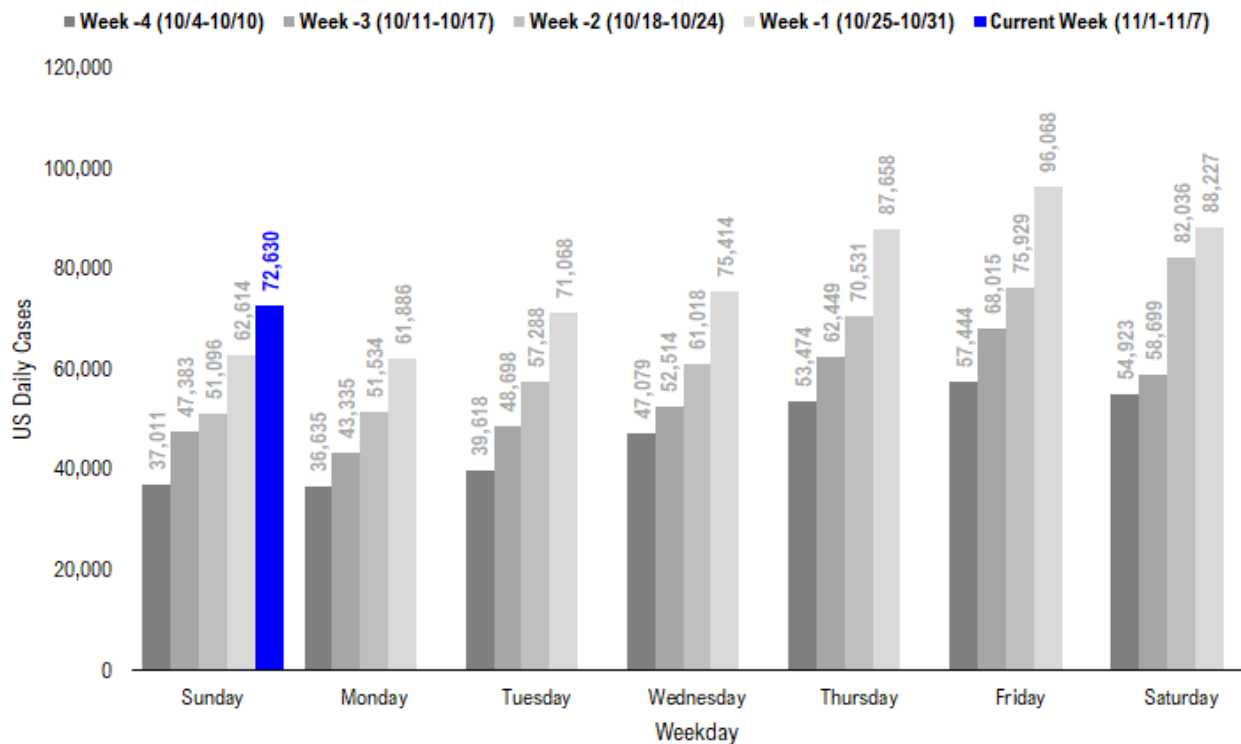
So for these reasons, we think a surprise Trump victory likely is the strongest risk-on. But these are just guesses.

The news on COVID-19 over the weekend was actually positive on balance. Europe is taking action to stem the surge = good. And in the US, COVID-19 cases have been "cooling off" the

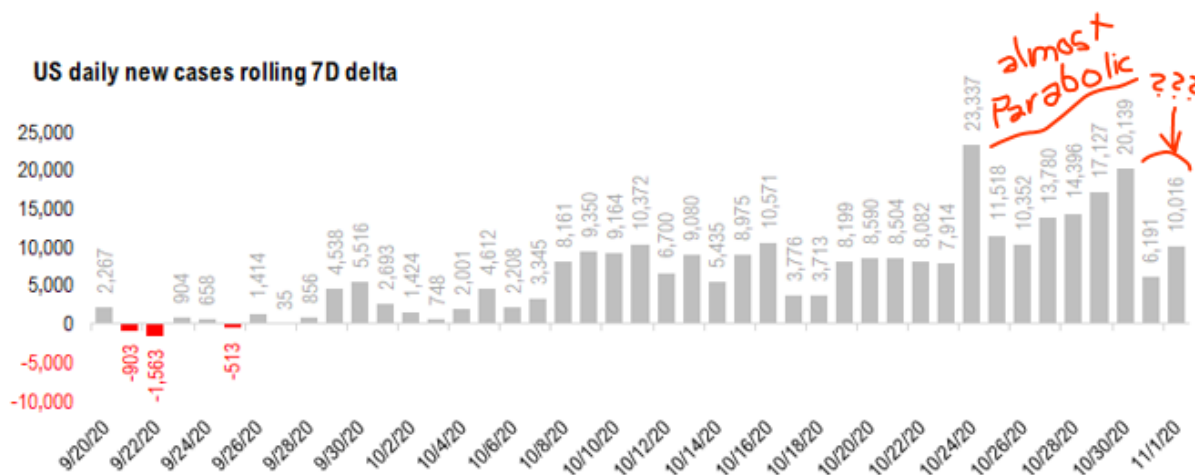
last two days. Cases Sunday came in at 72,630 which is up +10,016 vs 7D ago. The pace of increases in the past two days is way down from last week.

- last week, it looked semi-parabolic
- last two days, it looks a lot better
- is this the weekend effect?

- But wave 3 is centered in 6 states, WY, IL, ID, ND, SD, UT, or WIINSU, accounting for 60% of daily case increase. These 6 states are not cooling off.

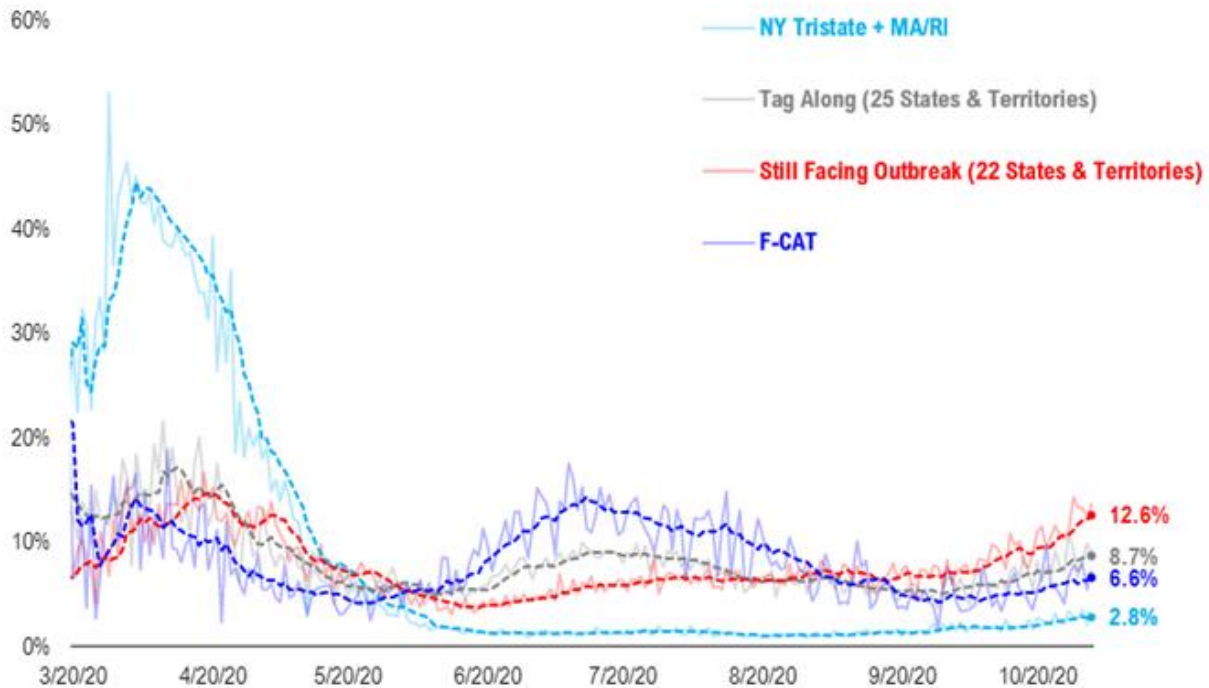


Source: COVID-19 Tracking Project and Fundstrat



Source: COVID-19 Tracking and Fundstrat

And while US overall positivity rates are creeping up, we can see this rise is really due to those 22 states in wave 3. Positivity there is well above 12% and nearly matching F-CAT (FL, CA, AZ, TX) at its peak. So, we still are waiting for panic from WIINSU and US policymakers.



Source: COVID-19 Tracking Project and Fundstrat

In Point #2, we also discuss IHME current forecast for US COVID-19. A forecast for US infections is just below:

- IHME sees US infections peaking in mid-Feb at ~300k/day
- this matches US wave 1
- 57% of infections "detected" as confirmed cases, which implies daily cases 170,000 by mid-Feb
- Europe currently >250,000 per day, so the US will peak well below Europe

## Daily infections and testing

Trend

Compare

Map

Estimated infections are the number of people we estimate are infected with COVID-...

Estimated infections

Confirmed infections

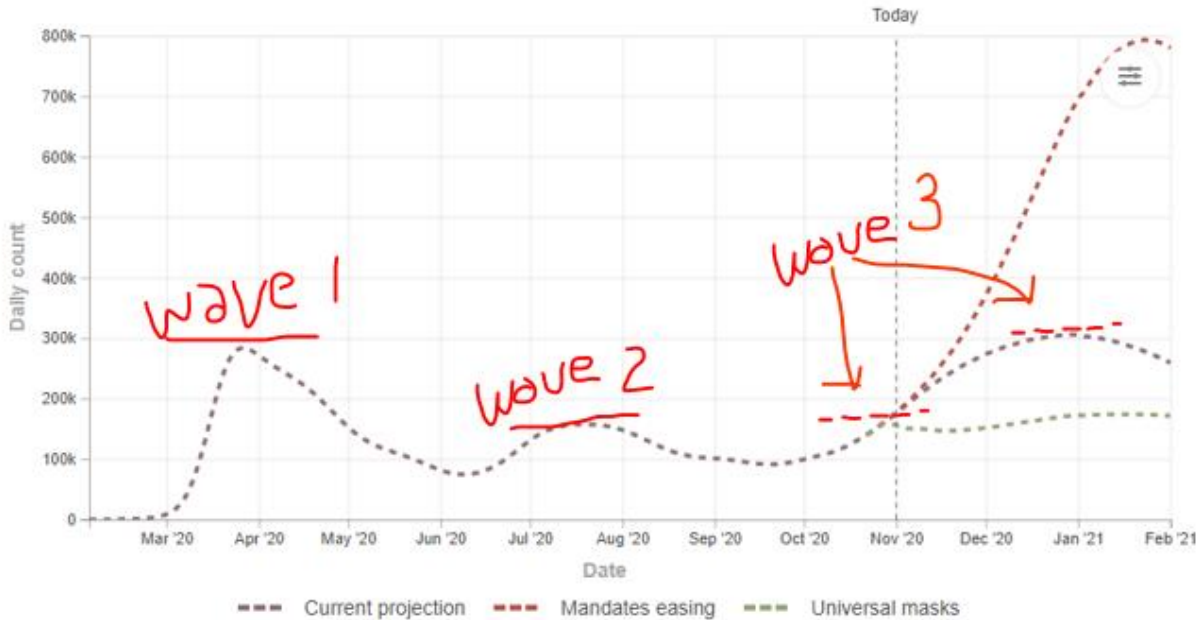
Tests

Scenario

Projection

Easing

Masks

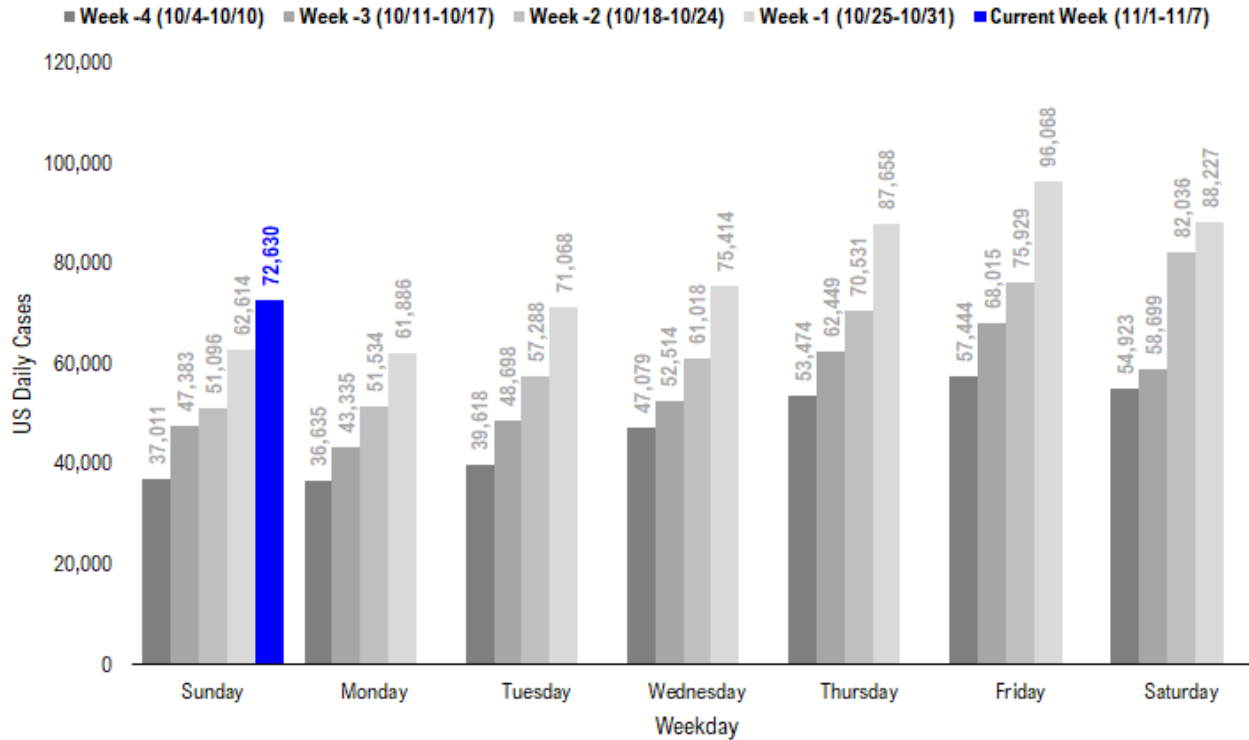


Source: IHME

### POINT 1: Daily cases 72,630, +10,016 vs 7D ago -- Nice break vs last week trend

The latest COVID-19 daily cases came in at 72,630, up +10,016 vs 7D ago. This is a huge number, but it is actually an improvement in trend:

- Daily cases are rising but at a slower pace the last two days
- is this the weekend effect?
- or are states beginning to take action to stem case growth?

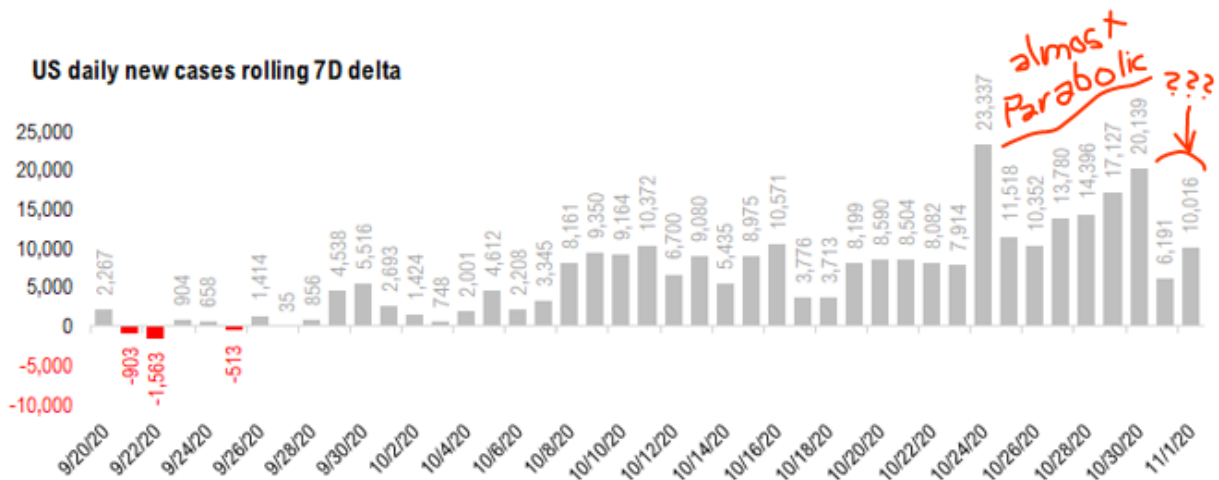


Source: COVID-19 Tracking Project and Fundstrat

**7D delta cooled off in the last two days... the weekend effect?**

Again, the daily change vs 7D ago, in our view, is the leading indicator as it is what influences the 7D moving average.

- Daily cases are rising vs 7D ago,
- last week, it looked semi-parabolic
- last two days, it looks a lot better
- is this the weekend effect?



Source: COVID-19 Tracking and Fundstrat

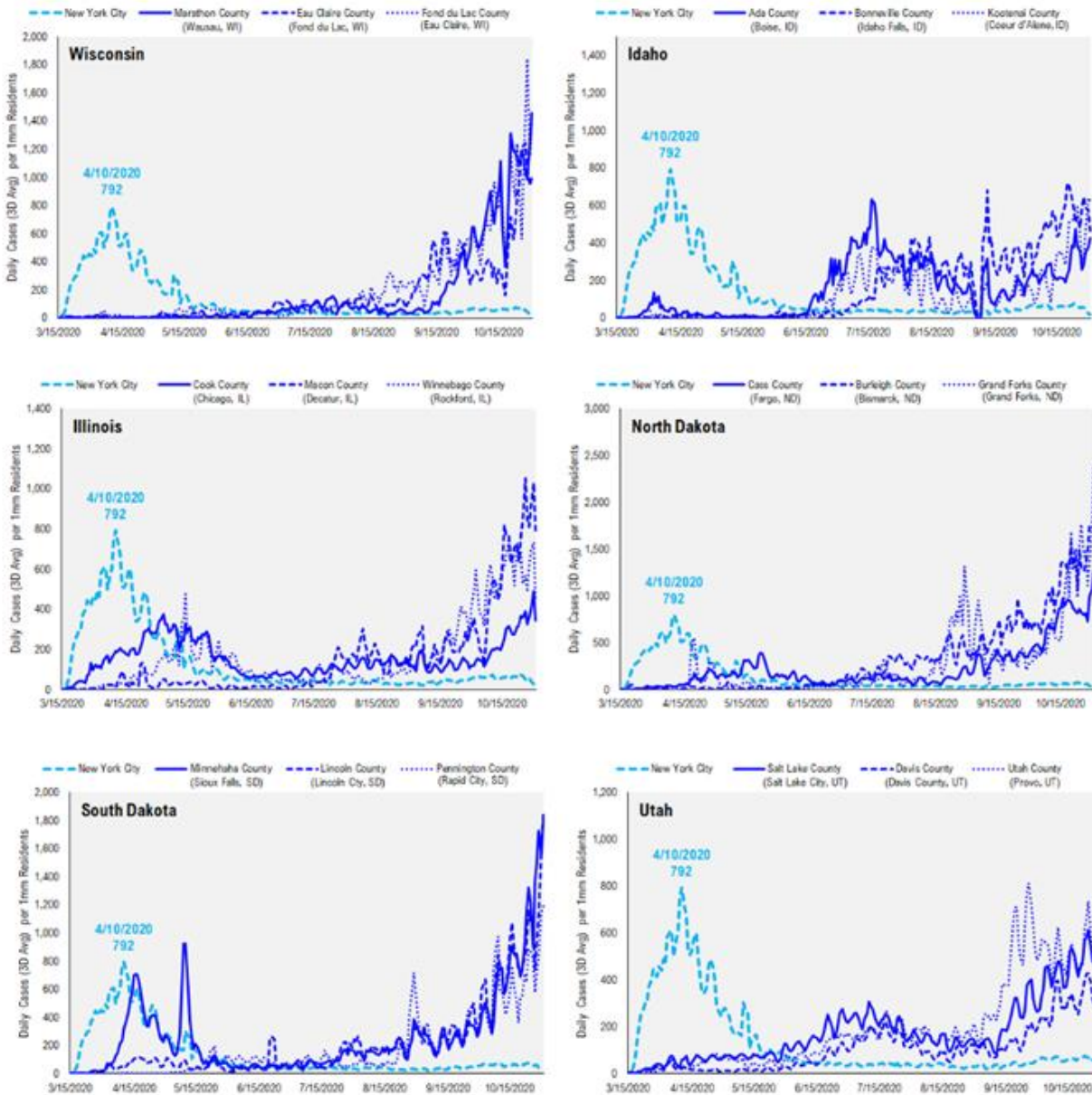
**Wave 3 centered in WY, IL, ID, ND, SD, UT, or WIINSU -- still surging...**

As we highlighted last week, 6 states account for ~60% of new cases. These are:

WY  
IL  
ID  
ND  
SD  
UT  
or WIINSU

And below show the 3 counties in each state where COVID-19 is surging the most. As you can see, these 6 states have not yet contained COVID-19. So, we think this remains a key set of states to watch.

- when WIINSU states peak
- we can better assess if this marks the peak of wave 3
- but Winter is coming, so things could keep getting worse



Source: Johns Hopkins and Fundstrat



**6 states with largest 7D delta in daily cases**

Illinois	6,980 vs 4,062 (-7D)	+2,918
Florida	4,865 vs 2,385	+2,480
Iowa	2,212 vs 1,143	+1,069
Ohio	3,303 vs 2,309	+994
Colorado	2,560 vs 1,689	+871
New York	2,255 vs 1,632	+623
<b>Total</b>		<b>+8,955</b>

**6 states with largest 7D delta in daily cases**

Tennessee	754 vs 3,500 (-7D)	-2,746
California	4,529 vs 5,219	-690
Puerto Rico	403 vs 665	-262
Alabama	854 vs 1,079	-225
Alaska	348 vs 523	-175
Nevada	716 vs 891	-175
<b>Total</b>		<b>-4,273</b>

Source: COVID-19 Tracking and Fundstrat



**Daily Case Increases (by State) (11/01)**

% total new cases (state cases/ total US cases)  
% total US pop (state population/ total US population)

	<i>Sorted</i>				
	7D Ago		Last 3-day Trend		
	10/25/20	10/30/20	10/31/20	11/1/20	vs 7D ago
United States	62,614	96,068	88,227	72,630	+10,016
<b>States:</b>					
1 Illinois	4,062	8,489	7,899	6,980	<-higher
2 Florida	2,385	5,592	2,331	4,865	<-higher
3 California	5,219	4,014	5,087	4,529	
4 Texas	3,793	5,933	6,845	4,111	
5 Wisconsin	3,626	5,096	5,278	3,493	
6 Ohio	2,309	3,845	2,915	3,303	<-higher
7 Indiana	2,153	3,163	3,465	2,750	<-higher
8 Colorado	1,689	2,412	2,924	2,560	<-higher
9 Missouri	2,043	2,507	2,986	2,349	
10 New York	1,632	2,255	2,049	2,255	<-higher
11 Iowa	1,143	2,203	2,570	2,212	<-higher
12 Minnesota	1,680	3,154	3,007	2,200	<-higher
13 North Carolina	1,807	2,809	2,805	2,057	
14 Pennsylvania	1,666	2,641	2,510	1,909	
15 Utah	1,765	2,292	1,724	1,854	
16 New Jersey	1,129	1,976	1,363	1,743	<-higher
17 Arizona	1,391	1,565	1,901	1,527	
18 Kentucky	974	1,937	1,977	1,423	<-higher
19 Oklahoma	1,051	1,302	1,267	1,349	<-higher
20 South Carolina	1,327	785	932	1,336	
21 South Dakota	1,062	1,559	1,433	1,332	<-higher
22 Virginia	999	1,456	1,551	1,202	<-higher
23 Georgia	1,318	1,377	2,565	1,192	
24 Massachusetts	1,077	1,582	1,430	1,131	
25 North Dakota	845	1,353	1,433	1,127	<-higher
26 Nebraska	705	1,605	1,495	1,087	<-higher
27 Louisiana	974	434	0	1,064	
28 Maryland	792	927	967	864	
29 Alabama	1,079	1,347	1,699	854	
30 Washington	649	1,016	928	814	<-higher
31 Arkansas	667	817	1,077	757	
32 Tennessee	3,500	2,608	1,184	754	
33 New Mexico	823	1,005	581	742	
34 Nevada	891	1,232	977	716	
35 Montana	738	1,063	885	694	
36 Oregon	362	596	532	508	<-higher
37 Idaho	650	1,064	798	480	
38 Wyoming	236	521	270	425	<-higher
39 West Virginia	194	524	470	423	<-higher
40 Puerto Rico	665	574	285	403	
41 Alaska	523	381	437	348	
42 Mississippi	228	749	824	340	<-higher
43 Delaware	114	198	200	175	<-higher
44 New Hampshire	90	116	200	130	<-higher
45 District of Columbia	61	70	122	103	<-higher
46 Hawaii	120	92	68	83	
47 Maine	64	103	98	47	
48 Vermont	29	14	24	17	
49 Guam	41	79	53	9	
50 Northern Mariana Islands	0	0	0	4	
51 U.S. Virgin Islands	0	9	14	0	
52 Rhode Island	274	562	0	0	
53 Michigan	0	3,168	3,792	0	
54 Kansas	0	3,136	0	0	
55 Connecticut	0	761	0	0	
56 American Samoa	0	0	0	0	

Source: COVID-19 Tracking and Fundstrat

**POINT 2: Wave 3, per IHME, peaks mid-Feb 2021 with infections (not cases) peaking at 300k, matching wave 1 peak**

With US daily confirmed cases moving to all-time highs, we thought it worthwhile to revisit the trend in infections. Recall, "confirmed cases" are infections that have been detected due to testing:

- infections are COVID-19 positive
- cases are infections confirmed, primarily via PCR tests
- testing has increased, so % of infections detected are higher in wave 2 and wave 3

Since PCR testing is only testing for active cases, and antibody tests have not been done for the entire US or for recovered patients, there is no real way to quantify true infections. But the IHME model has been fairly accurate, led by Dr. Chris Murray, and we have found their infection models quite useful.

***IHME model sees 175,000 infections per day in current wave 3 versus 300,000 in wave 1***

The IHME model currently estimates US daily infections are about 150,000 per day, charted below:

- wave 1 peaked at 300,000 per day
  - wave 2 peaked at 175,000 per day
  - wave 3 surging but similar to wave 2 so far
- 
- IHME forecasts wave 3 to peak mid-February 2021
  - IHME forecasts wave 3 to peak at 300,000 per day

## Daily infections and testing

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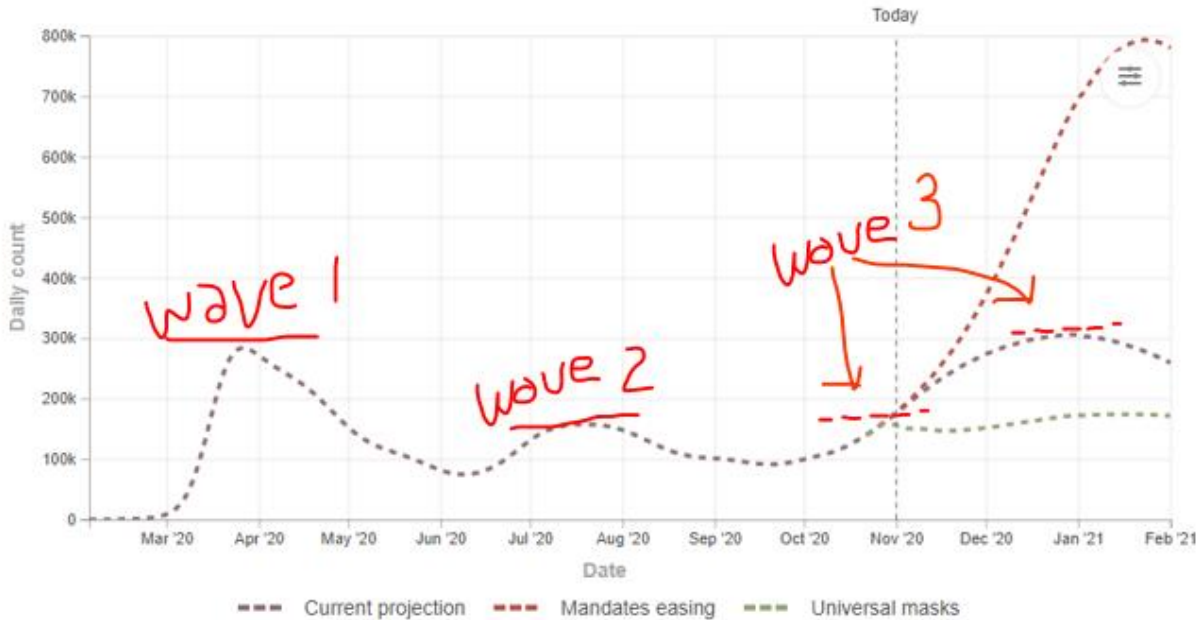
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Source: IHME

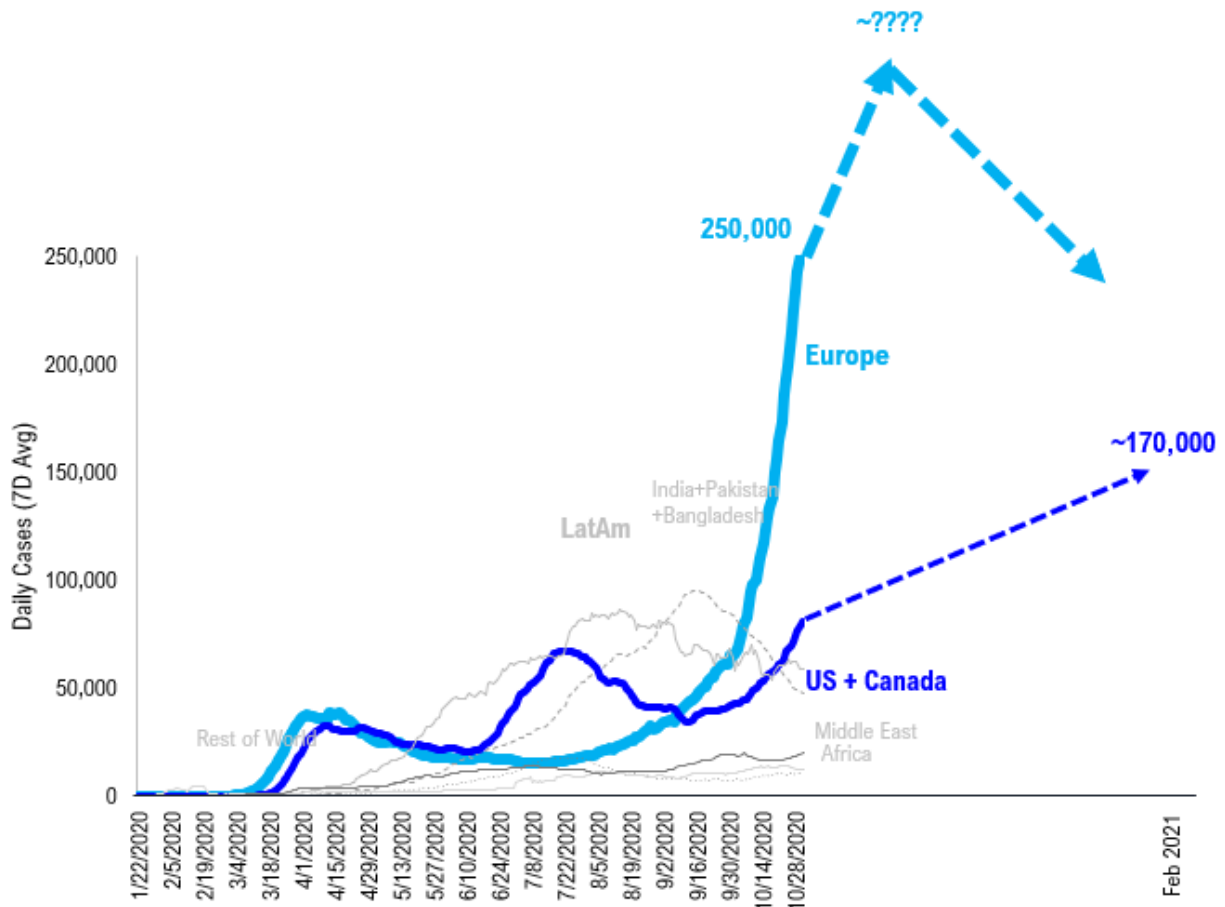
***IHME model implies the US is detecting ~57% of infections, thus, peak cases is 175,000 per day by mid-Feb...***

So, if we used the IHME model as a proxy, the US testing effort is capturing about 57% of COVID-19 infections. The math is simple:

- 175,000 estimated daily infections
- 100,000 confirmed cases (detected)
- 57%

And if US infections peak at 300,000 by mid-Feb 2021, this implies about 170,000 detected/confirmed cases. In other words, expect daily cases to be surging for sometime. To put some context on this, we compare US cases vs Europe, using data from Johns Hopkins:

- Europe currently seeing >250,000 cases per day
- US is set to peak below that figure by mid-Feb



Source: Johns Hopkins, IHME and Fundstrat

***IHME forecast the wave 3 mortality to be similar to wave 1... which seems somewhat less clear, given wave 1 impact nursing homes so severely***

As for mortality, IHME forecast for daily deaths is below. Here is what we find interesting:

- wave 1 daily deaths peaked at ~2,500 per day
- wave 3 daily deaths forecast peak ~2,500 per day
- wave 1 and wave 3 infections peak at the same level
- wave 1 and wave 3 deaths peak at the same level
- wave 1 deaths were higher due to nursing home fatalities ~50% of deaths

Is IHME forecasting another wave hitting nursing homes? Maybe. Perhaps their model suggests that COVID-19 works through the population until hitting nursing homes, resulting in a surge of deaths.

## Daily deaths

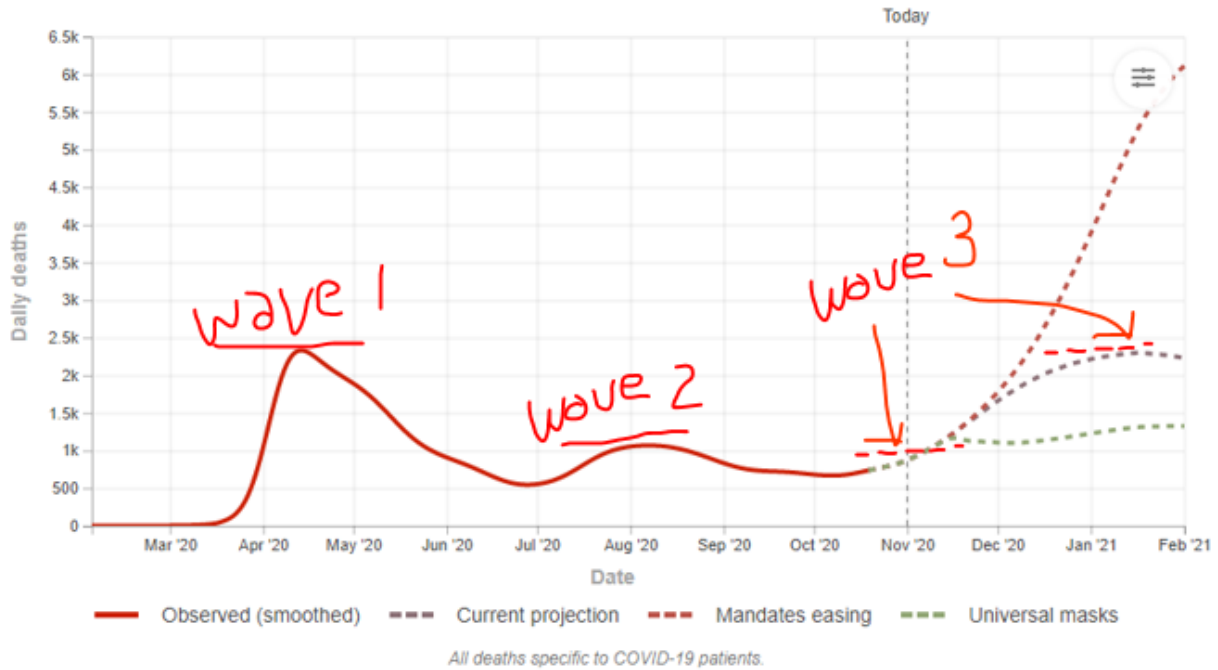
Trend

Compare

Map

Daily deaths is the best indicator of the progression of the pandemic, although there i...

Scenario Projection Easing Masks



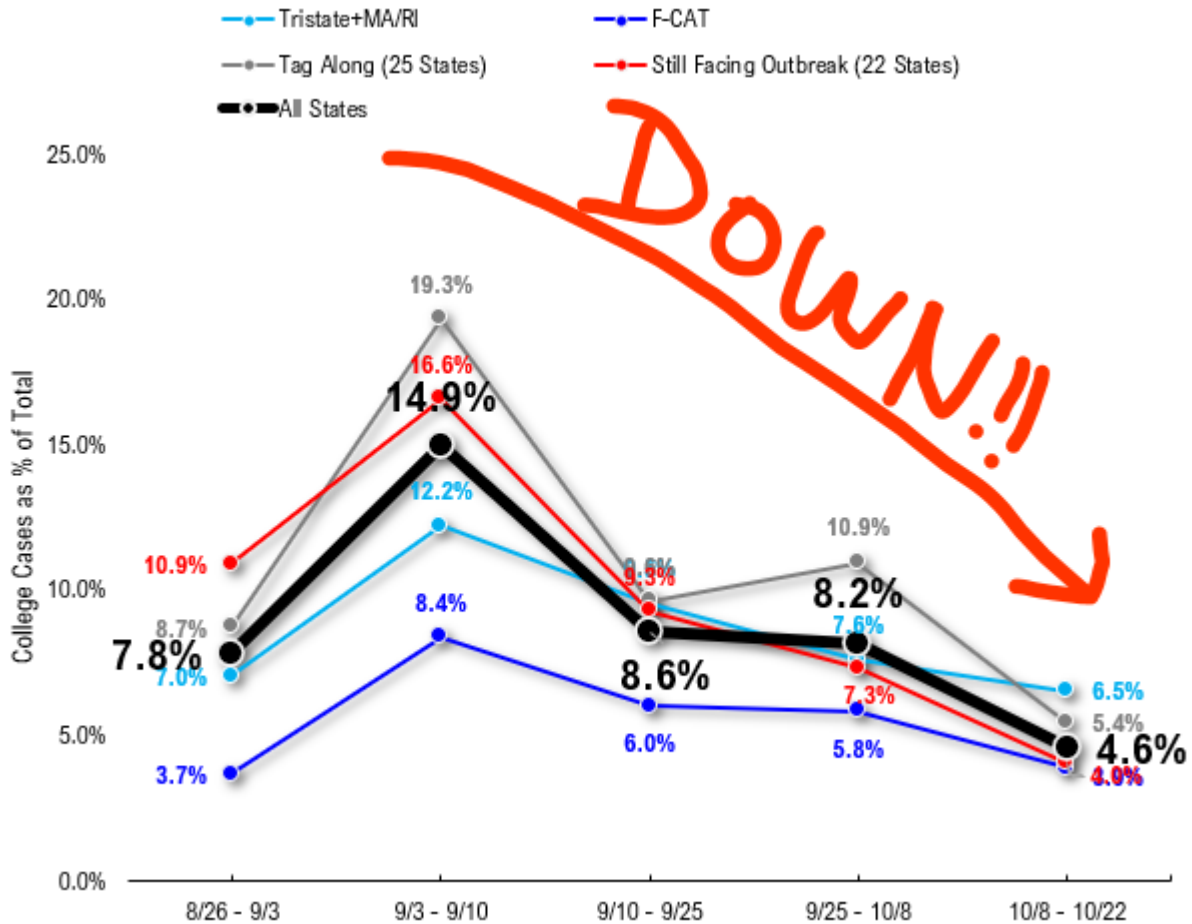
Source: IHME

**POINT 3: College cases down 50% in 6 weeks, now ~4.5% of cases vs 8% 14D ago and 15% 6 weeks ago**

The last time we wrote about COVID-19 cases in colleges (in early October), our takeaway had been that university systems had done a pretty good job of keeping case velocity (daily cases) below that of the surrounding communities. And in fact, the positivity rates were shockingly low.

Our data science team, led by tireless Ken, has updated the college data, including the data from the NY Times. Based on the latest set of data, colleges/university share of daily cases is now ~4.5% of US cases. This figure has steadily declined in the past 6 weeks:

- 6 weeks ago ~15%
- 2 weeks ago ~8%
- now ~4.5%



Source: NY Times and Fundstrat

Colleges were perceived as quite risky, given young people tend to be more cavalier about COVID-19. Yet, few have been hospitalized and the actual number of cases is actually slowing, particularly as a share of US overall cases. So, fears about COVID-19 in colleges have proven unwarranted, akin to airline travel, casinos and other activities. We remember those headlines in September, blaming colleges for COVID-19 and predictions of a massive outbreak.

- as an aside, colleges that went 100% remote might arguably have worse COVID-19 statistics, since students are exposed to their local community
- and educational quality is obviously much worse for those forced to remote learn



EDUCATION

# 'Astonishingly risky': COVID-19 cases at colleges are fueling the nation's hottest outbreaks

Chris Quintana and Mike Stucka USA TODAY  
Published 5:00 a.m. ET Sep. 11, 2020 | Updated 2:14 p.m. ET Sep. 11, 2020



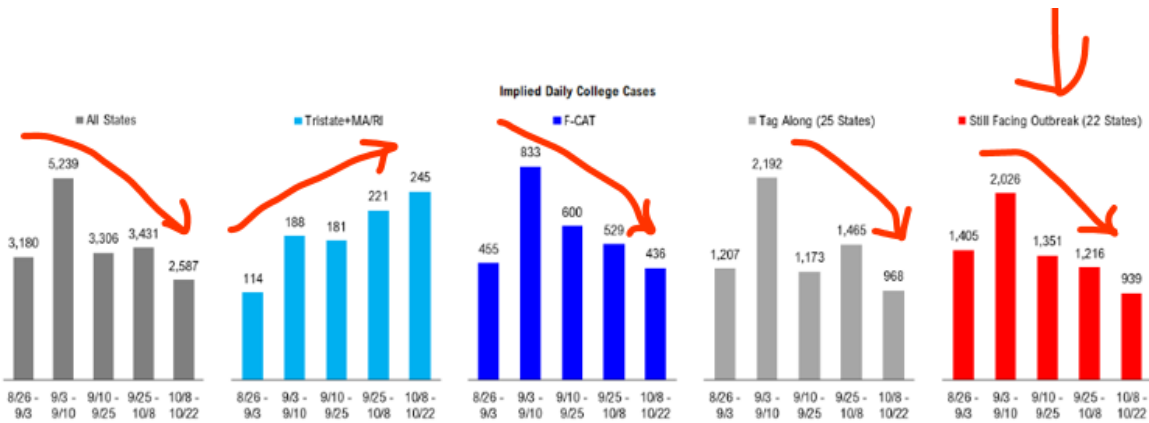
College students returning to campus could drive surges of COVID cases

Source: USA Today

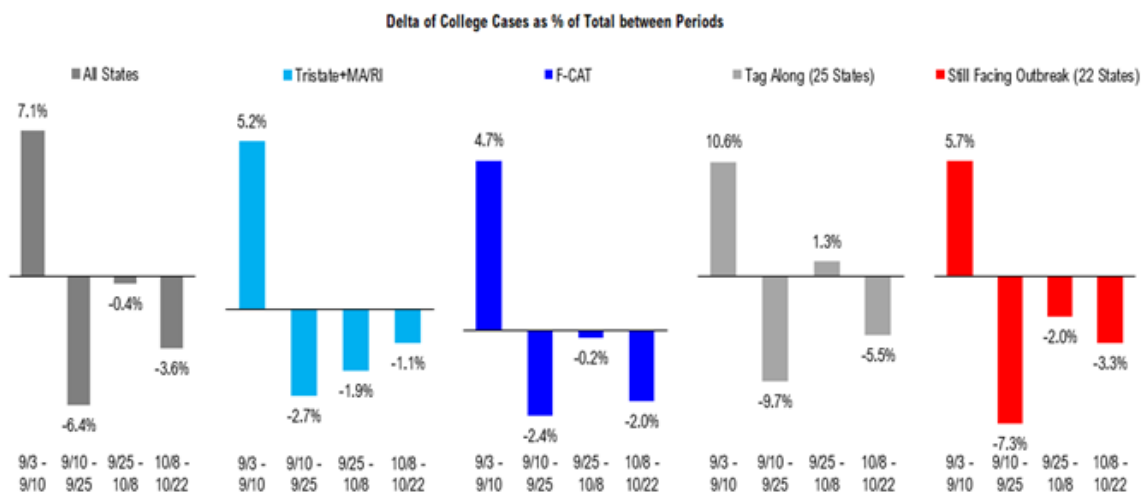
In total numbers, colleges account for about 2,600 cases per day, which is way below the share of daily cases in the US in early September. And notably, take a look at the right, in the 22 states leading the US surge in cases:

- implied daily college cases are actually falling
- while that region is leading the breakout of cases across the US





Source: NY Times and Fundstrat



Source: NY Times and Fundstrat

**Why are colleges seeing fewer COVID-19 cases?**

There are really three potential avenues to explain why colleges are seeing a far better outcome in COVID-19 compared to the rest of the US:

- College administrators are enforcing protocols better than the local communities = probably true
- College students are more compliant, given risks of being expelled or censured = probably true
- College students are more immune to COVID-19 by being younger or healthier = probably not true

This facet of COVID-19 has not been widely covered in the media. I personally have not seen a single article about this. In fact, look at the top 10 results of my Google search "why colleges are handling COVID better than USA"

- not a single result is saying this is the case
- the 9th result is an article about massive outbreaks in colleges

Google

why colleges are handling covid better than usa

[All](#)
[News](#)
[Images](#)
[Shopping](#)
[Videos](#)
[More](#)
[Settings](#)
[Tools](#)

About 5,690,000,000 results (0.62 seconds)

**Did you mean: why colleges are handling covid better than us**

www.nytimes.com › us › covid-college-cases-tracker

**Tracking the Coronavirus at U.S. Colleges and Universities ...**  
Oct 22, 2020 — Thousands of new **coronavirus** cases continue to emerge on **college** campuses. A New York Times survey of **more than 1,700** American ...  
You've visited this page 5 times. Last visit: 10/12/20

www.washingtonpost.com › education › 2020/09/20

**Why some colleges and universities do better than others in ...**  
Sep 20, 2020 — Some plans to teach in person failed after the **coronavirus** surged. ... The **college** sent **more than** half its students home this month after ... beds nearby to **handle** any surge in cases, and enough dorm or hotel rooms ... all of **us** to take stock of how committed we are to staying together in our residential mode.

www.nature.com › news feature

**Millions of students are returning to US universities in a vast ...**  
Aug 17, 2020 — Despite **COVID-19** infections running rampant in many states, nearly 1000 academic ... Besides **dealing with** tearful parents and finding sheets to fit ... **More than** in many other countries, **universities** in the **United States** have ...

www.insidehighered.com › news › 2020/10/27 › live-u...

**Live Updates: Latest News on Coronavirus and Higher ...**  
5 days ago — Political Divide Over **Colleges'** Fall Reopenings Oct. 27, 5:20 p.m. The American ... President Harvey Stenger said, "All of **us** at Binghamton can be proud of ... But **more than** 1,000 left within weeks, fearing **COVID-19** and opting for ... **University** of Michigan resident assistants have accepted a **deal with** the ...

www.ncsl.org › research › higher-education-responses-t...

**Higher Education Responses to Coronavirus (COVID-19)**  
To access the NCSL **COVID-19**: Education Bill Tracking Database, visit this page. ... **More than** a dozen **schools** have announced plans to shift to pass/fail grading ... there were **more than** 1 million international students studying in the **U.S.** in ...

www.usnews.com › News › Education News

**Colleges, Universities Continue Battling Major COVID-19 Spikes**  
Sep 14, 2020 — A **University** of Maryland student is tested for **COVID-19** by a nursing student at ... It's also requiring **more than** 2,200 students living in two different ... which really led **us** to take action," Chancellor Rebecca Blank said in an ...

www.mckinsey.com › public-sector › our-insights › cor...

**Coronavirus and the campus: How can US higher education ...**  
Mar 30, 2020 — Although most students have gone home, **colleges** and **universities** still have ... decisions can help—and is **better** done sooner rather **than** later. ... and possibly **dealing with** loss, shock, isolation, and difficult family situations

www.reuters.com › article › us-health-coronavirus-usa

**More U.S. colleges see spike in COVID-19 cases after classes ...**  
Aug 25, 2020 — More **U.S. colleges** were grappling with high numbers of students testing ... The **University** of Alabama on Monday reported **more than** 550 ... Alabama is not alone in scrambling to **deal with** **COVID-19** college outbreaks.

www.cdc.gov › community › colleges-universities › co...

**Considerations for Institutions of Higher Education | CDC**  
The **US** Centers for Disease Control and Prevention (CDC) will update these considerations as ... The risk of **COVID-19** spread increases in IHE non-residential (i.e., ... trainings, and TA for **schools**, including IHEs, and their community partners. ... For **more** information on communal spaces in student or faculty housing (e.g., ...

Source: Google

***If you are wondering which college has the biggest COVID-19, it is in the Pacific Northwest...***

The chart below shows implied daily cases, sorted highest to lowest, and at the moment, the college leading the US in daily cases is Washington State University, located in Pullman Washington.

The surge in this college happened within the last two weeks.

- The number of cases until 10/8/2020 was zero
- but since 10/3, the college has seen >1,300 cases

Large schools like Penn State and University of Florida are seeing large numbers of cases, ~50 per day, but this is down 50% to 70% from just a few weeks ago.

	College Name	State	City	Total Cases			Implied Daily New Cases		10/8 - 10/22
				9/25/2020	10/8/2020	10/22/2020	9/10 - 9/25	9/25 - 10/8	
1	Washington State University	Washington	Pullman	263	263	1,349	0	0	78
2	Penn State University	Pennsylvania	State College	1,381	2,682	3,456	71	100	55
3	University of Florida	Florida	Gainesville	792	2,908	3,634	33	163	52
4	Arizona State University	Arizona	Tempe	1,701	1,821	2,369	25	9	39
5	Rowan University	New Jersey	Glassboro	197	207	611	9	1	29
6	Troy University	Alabama	Troy	141	160	547	2	1	28
7	Miami University Oxford	Ohio	Oxford	1,392	1,805	2,189	37	32	27
8	Purdue University	Indiana	West Lafayette	646	1,008	1,376	22	28	26
9	Ohio University	Ohio	Athens	146	173	519	8	2	25
10	University of Central Florida	Florida	Orlando	1,021	1,210	1,544	13	15	24
11	Clemson University	South Carolina	Clemson	2,524	3,770	4,082	116	96	22
12	Brigham Young University	Utah	Provo	1,217	1,801	2,106	58	45	22
13	University of Texas at El Paso	Texas	El Paso	144	197	497	3	4	21
14	Ohio State University	Ohio	Columbus	2,678	3,051	3,350	77	29	21
15	University of Utah	Utah	Salt Lake City	414	694	972	9	22	20
16	University of Oregon	Oregon	Eugene	59	208	470	0	11	19
17	SUNY Cortland	New York	Cortland	75	225	484	5	12	19
18	Monmouth University	New Jersey	West Long Brai	7	90	347	0	6	18
19	Texas Tech University	Texas	Lubbock	1,481	1,768	2,020	31	22	18
20	University of Tampa	Florida	Tampa	220	315	559	13	7	17
21	University of Nebraska-Lincoln	Nebraska	Lincoln	737	782	1,008	16	3	16
22	University of Wyoming	Wyoming	Laramie	160	456	678	5	23	16
23	Indiana University Bloomington	Indiana	Bloomington	1,956	2,917	3,139	111	74	16
24	University of Wisconsin-Madison	Wisconsin	Madison	2,775	3,041	3,258	112	20	16
25	University of Alabama at Birmingham	Alabama	Birmingham	1,239	1,353	1,562	9	9	15
26	University of Rhode Island	Rhode Island	Kingston	63	192	396	3	10	15
27	Appalachian State University	North Carolina	Boone	461	863	1,067	10	31	15
28	University of North Carolina at Charlotte	North Carolina	Charlotte	166	217	418	7	4	14
29	University of Virginia	Virginia	Charlottesville	566	844	1,043	30	21	14
30	Virginia Tech	Virginia	Blacksburg	850	1,115	1,310	17	20	14

Source: NY Times and Fundstrat

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