

# Covid-19 Testing, Vaccination, and Mitigation Townhall



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**JulieAnne  
Williamson**

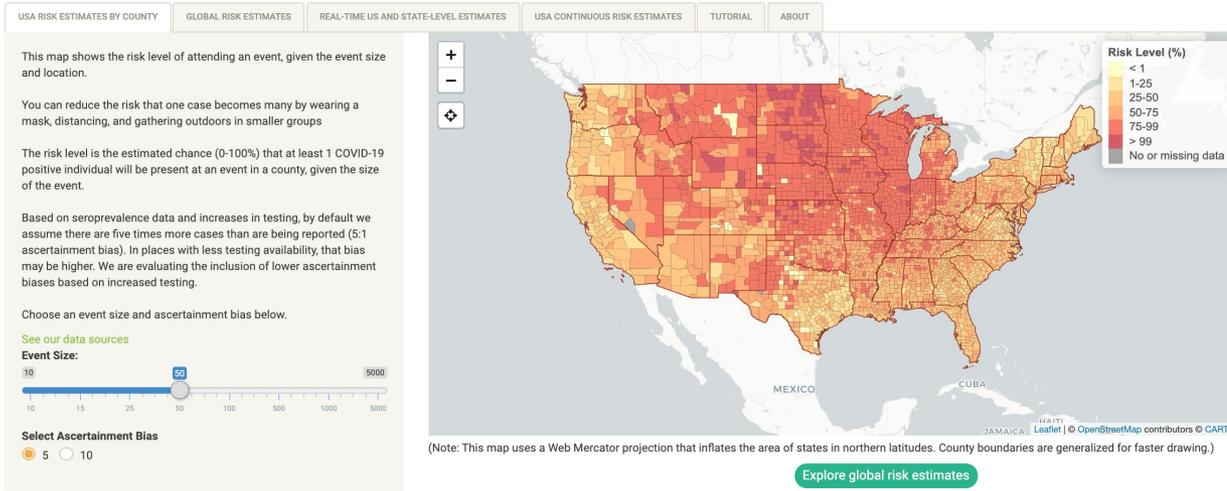
Executive Director of  
Sustainability and Building  
Operations  
Team Lead for Campus  
Surveillance Testing  
Operations





Science Art Wonder 2021 – Artist: Mary Wang (GT), Scientist: Dr. Stephen Beckett (GT) – Covid19 Event Risk Assessment Dashboard [covid19risk.biosci.gatech.edu](https://covid19risk.biosci.gatech.edu) – Chande et al. Nature Human Behavior (2020) – Co-led by J.S.Weitz (GT) and C.Andris (GT)

# COVID-19 Event Risk Assessment Planning Tool



From GT  
Townhall

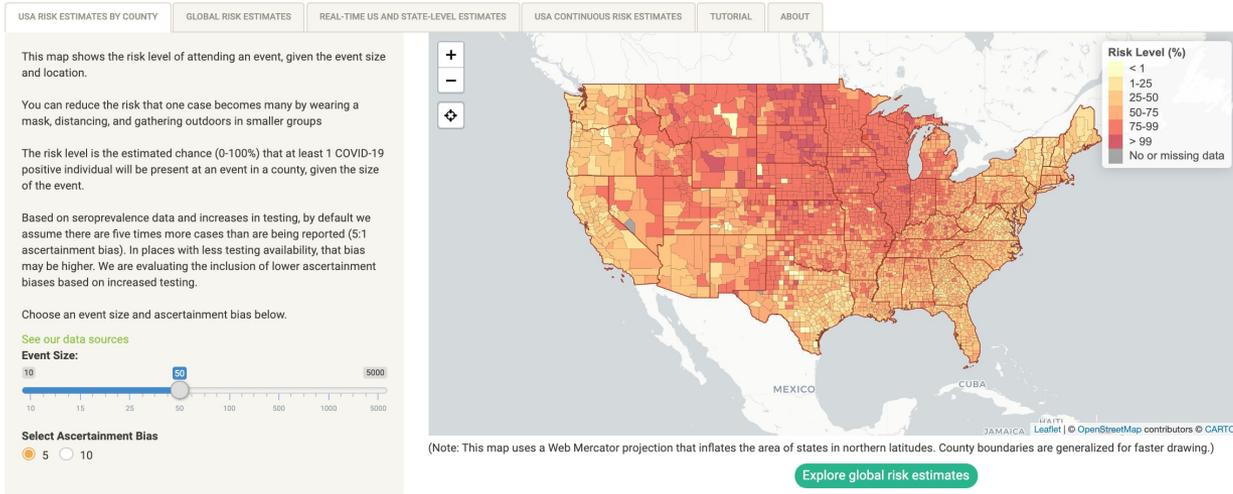
Nov. 16, 2020

Website: <https://covid19risk.biosci.gatech.edu>

Jointly developed by Prof. Weitz & Prof. Clio Andris; CoD & CoC, GT

Paper: Chande et al., Nature Human Behaviour (2020)

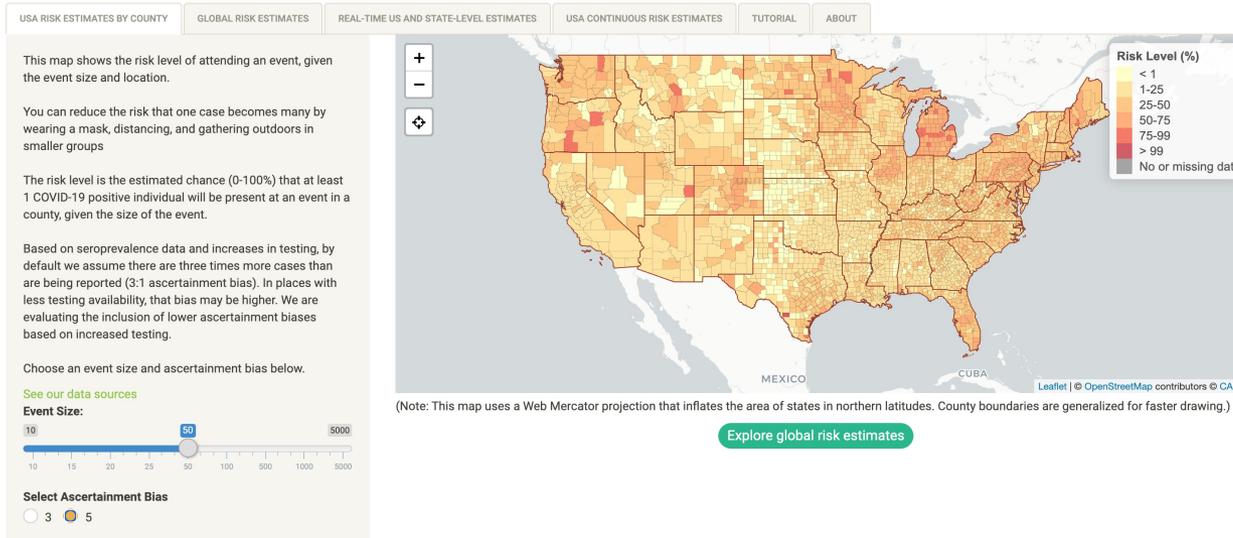
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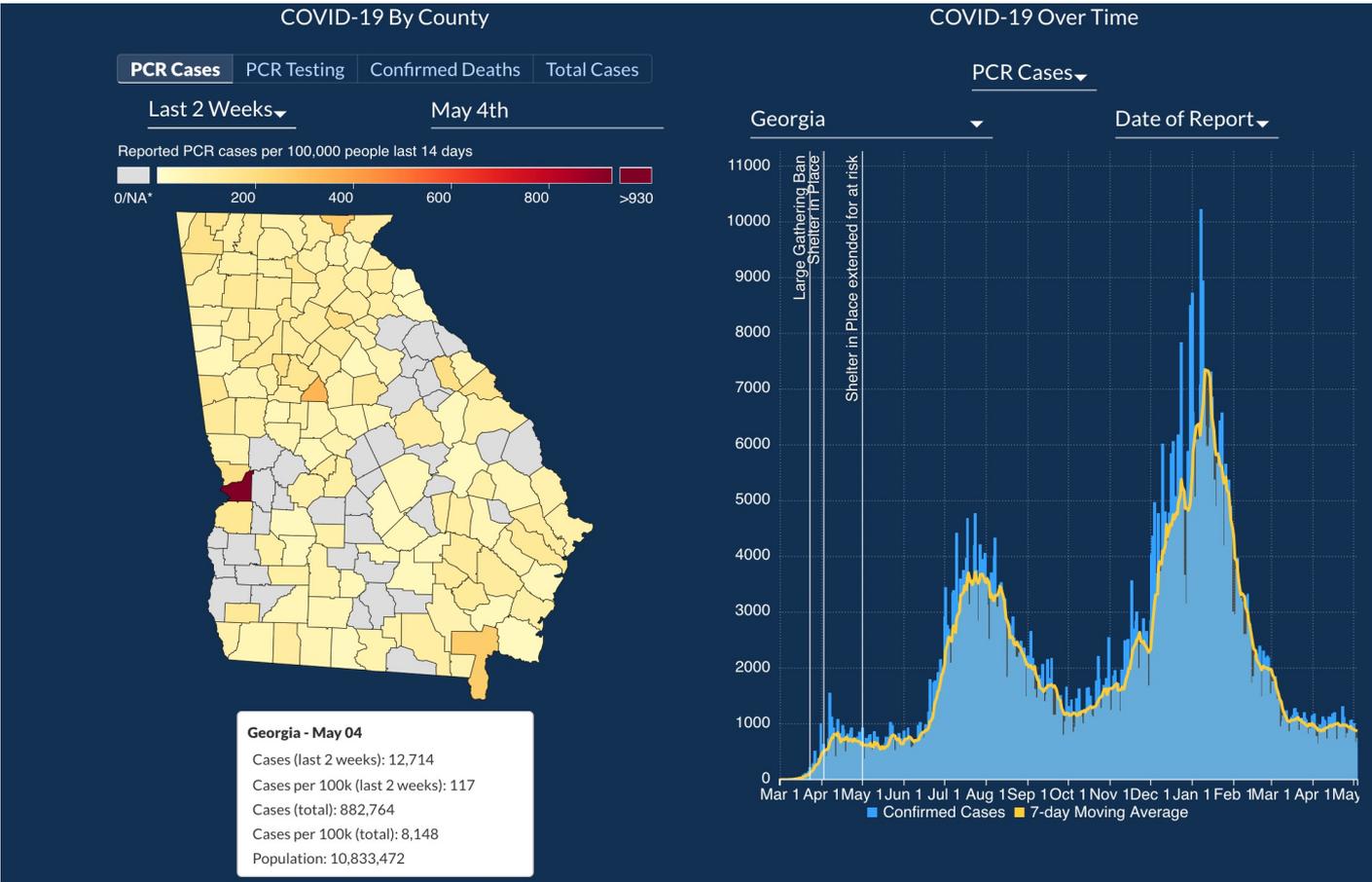
Now:

May 5, 2021

Website: <https://covid19risk.biosci.gatech.edu>

Jointly developed by Prof. Weitz & Prof. Clio Andris; CoD & CoC, GT

Paper: Chande et al., Nature Human Behaviour (2020)



Source: GA DPH

# Estimated COVID-19 Infections, Symptomatic Illnesses, and Hospitalizations—United States

CDC estimates that from February 2020–March 2021:

How CDC Estimates COVID-19 Infections, Symptomatic Illnesses and Hospitalizations

Limitations

1 in 1.8 (95% UI\* 1.7 – 2.1) COVID-19 hospitalizations were reported

1 in 3.9 (95% UI\* 3.5 – 4.4) COVID-19 symptomatic illnesses were reported

1 in 4.3 (95% UI\* 3.7 – 5.0) total COVID-19 infections were reported

These estimates suggest that during that period, there were approximately:

114.6 Million  
Estimated Total Infections

97.1 Million  
Estimated Symptomatic Illnesses

5.6 Million  
Estimated Hospitalizations

Through March 2021, ~30M reported cases, yet CDC estimates, ~115M actual infections (a 4x ascertainment bias).

*Takeaway: due to insufficient testing and asymptomatic cases, \*majority\* of cases have not been documented.*

# A Moment of Thanks

## The Surveillance Team

7

**This work depends on a team of more than 30 individuals, all supported by the **Office of the President and Parker Petit IBB:****



Mike Shannon

**GTRI Leaders**

Mike Farrell



Anton Bryksin

**IBB Core Directors**

Dalia Gulick



JulieAnne  
Williamson

**Logistics**

Alex Ortiz



Emily Ryan

**CLIA Director**

**IT Lead**  
Brian Liu



LAB: Jessica Lin, German Khunteev, Naima Djeddar, Katie Ferguson, Chase Morey, several TBN

OTHER: Communications, Legal, Housing, Administration (Andrés Garcia, Chaouki Abdallah, Frank Neville)

## Staff Awards

### One Giant Leap Award

#### Testing Site Operations

Dale Allgood, Alfred Blue, Tokiki Brown,  
Anton Bryksin, Jenny Cotton, Greg  
Gibson, Sheree Gibson, Benjamin Holton,  
Jamison Keller, Brian Liu, True Merrill,  
Alex Ortiz, Miles Paca, Mike Shannon,  
Nicholas Speller, Sara Warner, Joshua  
Weitz, JulieAnne Williamson

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## Testing benchmarks:

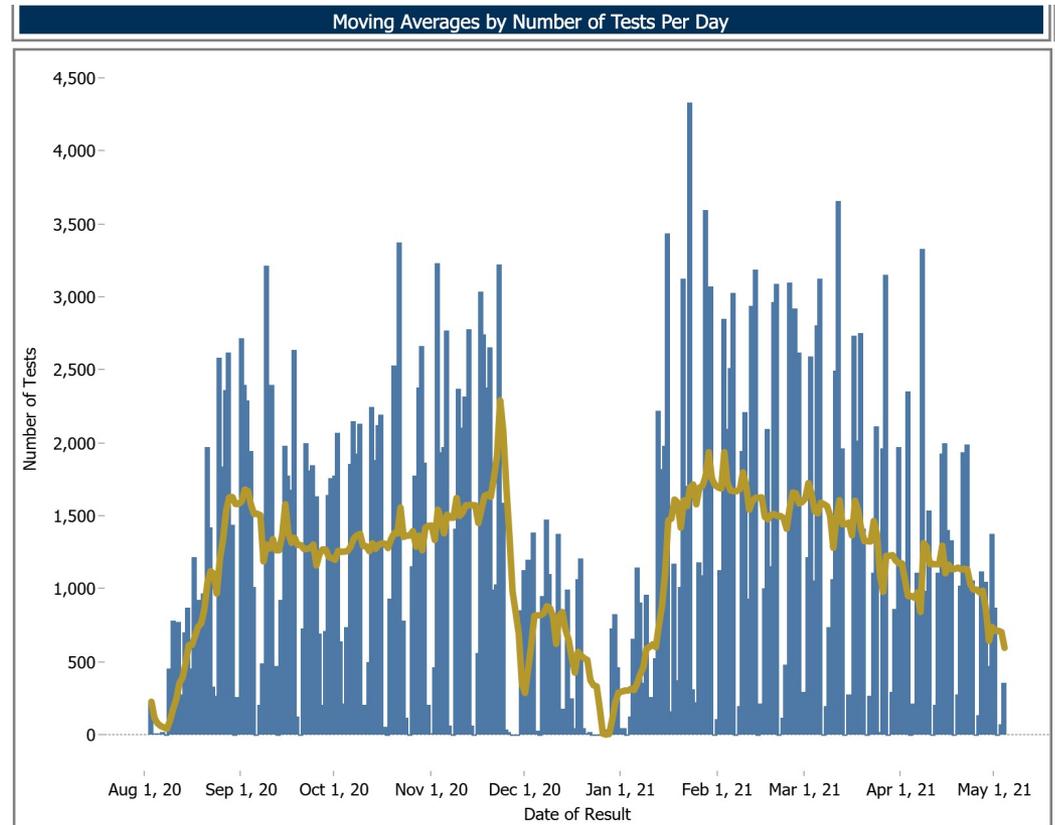
Over 320,000 surveillance tests  
Typically 1,700-2,200/day  
Rate sustained in bulk of Fall/Spring

Supplemented by:

- Symptomatic testing
- Vault kits
- Contact tracing & support
- Mask wearing
- Distancing/online teaching

& now... vaccinations!

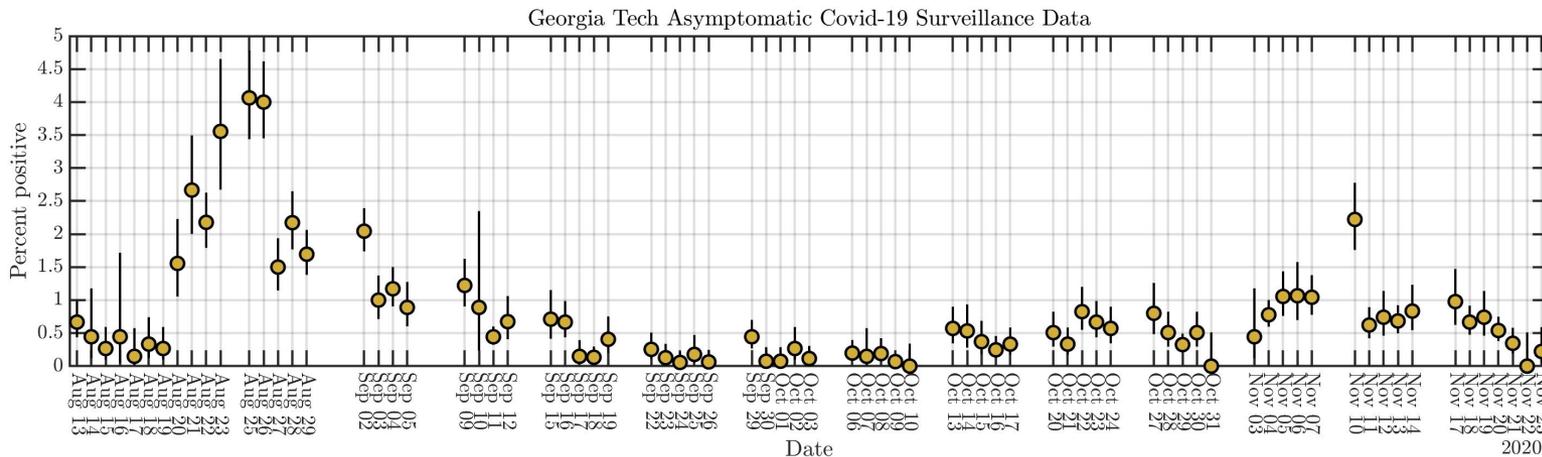
Coordinated response to reduce  
ongoing transmission risk.



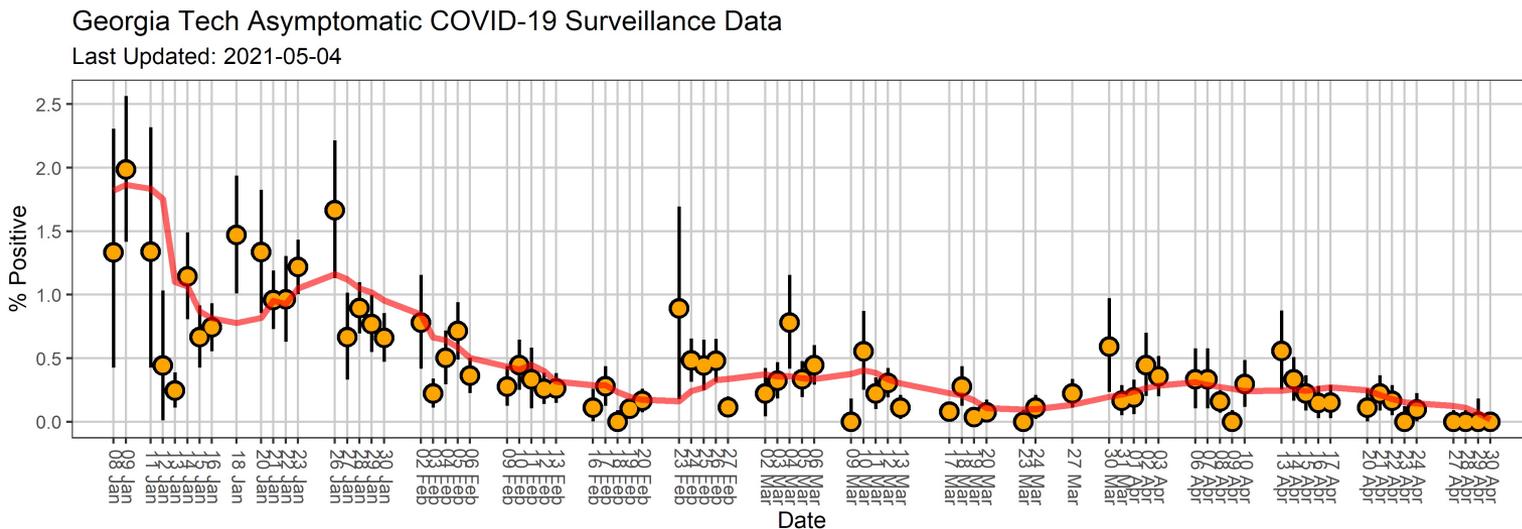
**What Have We Learned?**



**Fall 2020  
Median 0.5%**



**Spring 2021  
Median 0.3%**





# Lessons Learned

- On 3 occasions, the surveillance program along with social distancing and masks prevented an outbreak (Fall return 2020; Halloween 2020; Spring return 2021)
- In the Fall around 12% of the campus community was infected at some point, in the Spring just 5% (majority of identified cases were via asymptomatic surveillance).
- Fall was largely seeded in Residence Halls and Greek Houses, Spring more diffusely from off campus, but all three peaks in Aug, Nov and Jan were associated with interstate travel and higher rates of on-campus gatherings.
- Comfort with testing was remarkable: for Jan and Feb, we averaged ~2,000 per day
- Campus probably has fewer than 10 cases currently, which may well be the new steady state.
- Don't get complacent, we need to stay there.
- For grad students and researchers – campus procedures as well as investment in testing/vaccination make it easier/safer than ever to return to campus.



# Variant Strains

- Starting in March, the CLIA lab directed by Anton Bryksin began sequencing most positives in order to trace the appearance of variants of concern.
- To date, 149 samples have been sequenced, 70 of which are B.1.1.7, the “UK Variant”.
- It first appeared as 1 of 30 samples in Late February, was half the samples by mid-March, and 80% in early April.
- There have also been a few cases of the South African variant of concern.
- This data shows just how quickly a virulent strain can spread in a campus community.

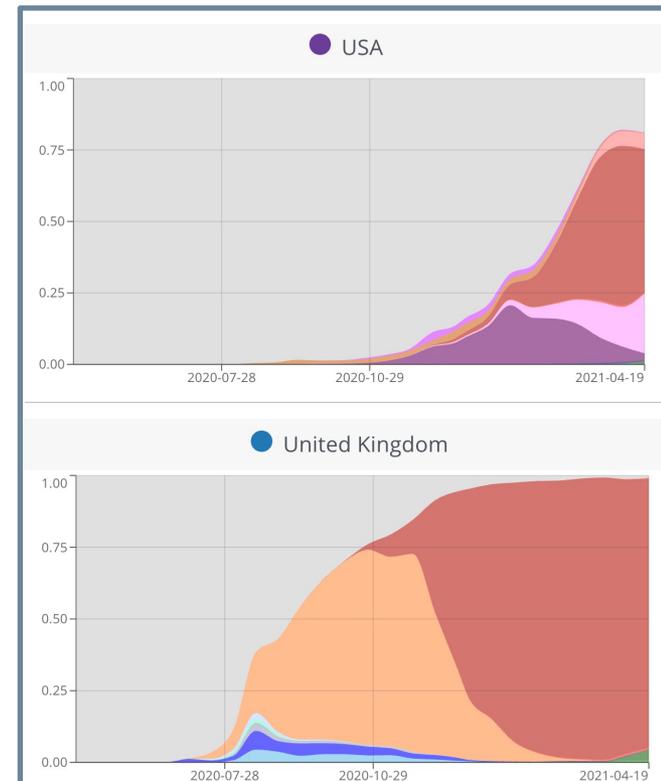
Anton Bryksin



Katie Ferguson



Lava Rishishwar



*Context: nextstrain.org variant tracking reveals B.1.1.7 variant has become the dominant US strain (presently, ~60%, following on UK and global trends).*

*At present, B.1.1.7 is followed by a NY state variant of concern.*



# Summer and Fall

The surveillance program will continue, potentially at a reduced level (focusing on sentinel surveillance more so than a primary form of mitigation).

There will be a risk of some seeding from off campus, but if >80% are vaccinated, the chance of outbreaks is significantly reduced, albeit constantly susceptible to reseeding into the non-immunized sectors of our community.

The best ways to protect yourself is to vaccinate and use common sense.

Low incidence may be expected for rest of year – that depends on vaccination rates.

Masking regulations may gradually relax, but without a mandate, prudence says that they are still required indoors (for now), and in social gatherings.

New virulent or highly pathogenic variants could cause recurrence, in which case the program will reboot.

Increasing reasons to return to campus work sooner rather than later.

Looking forward to a reasonably normal Fall semester.



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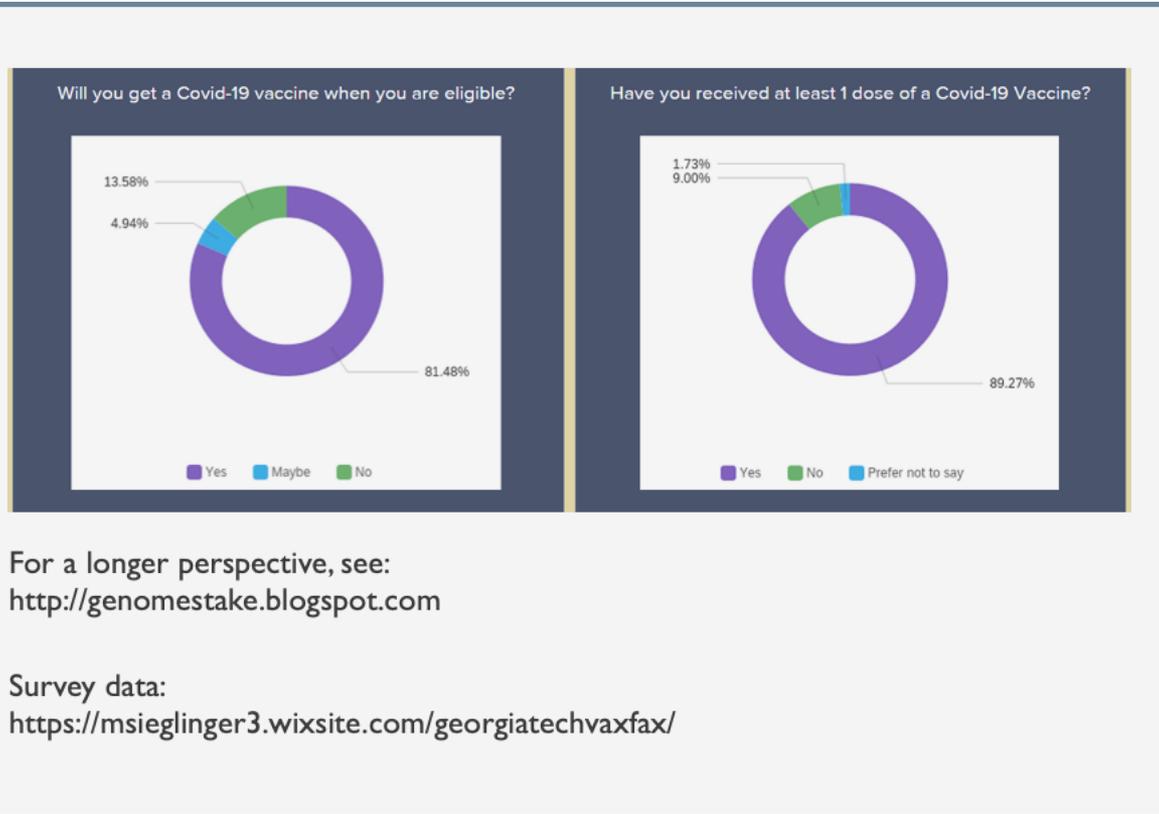
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# Vaccination - Results

## Total Doses of Vaccine

Administered by Georgia Tech

**29,482**

Received by Georgia Tech

**36,536**

## Unique Individuals Vaccinated at Georgia Tech

**16,382**

## Unique Individuals Completed Dose 1 and 2 Series at Georgia Tech

**13,100**

## Discussion Points:

Results of current vaccine effort

Plans for vaccine administration during  
summer

Addressing vaccine hesitancy

# Testing - Summer Schedule May 10 – Aug 6

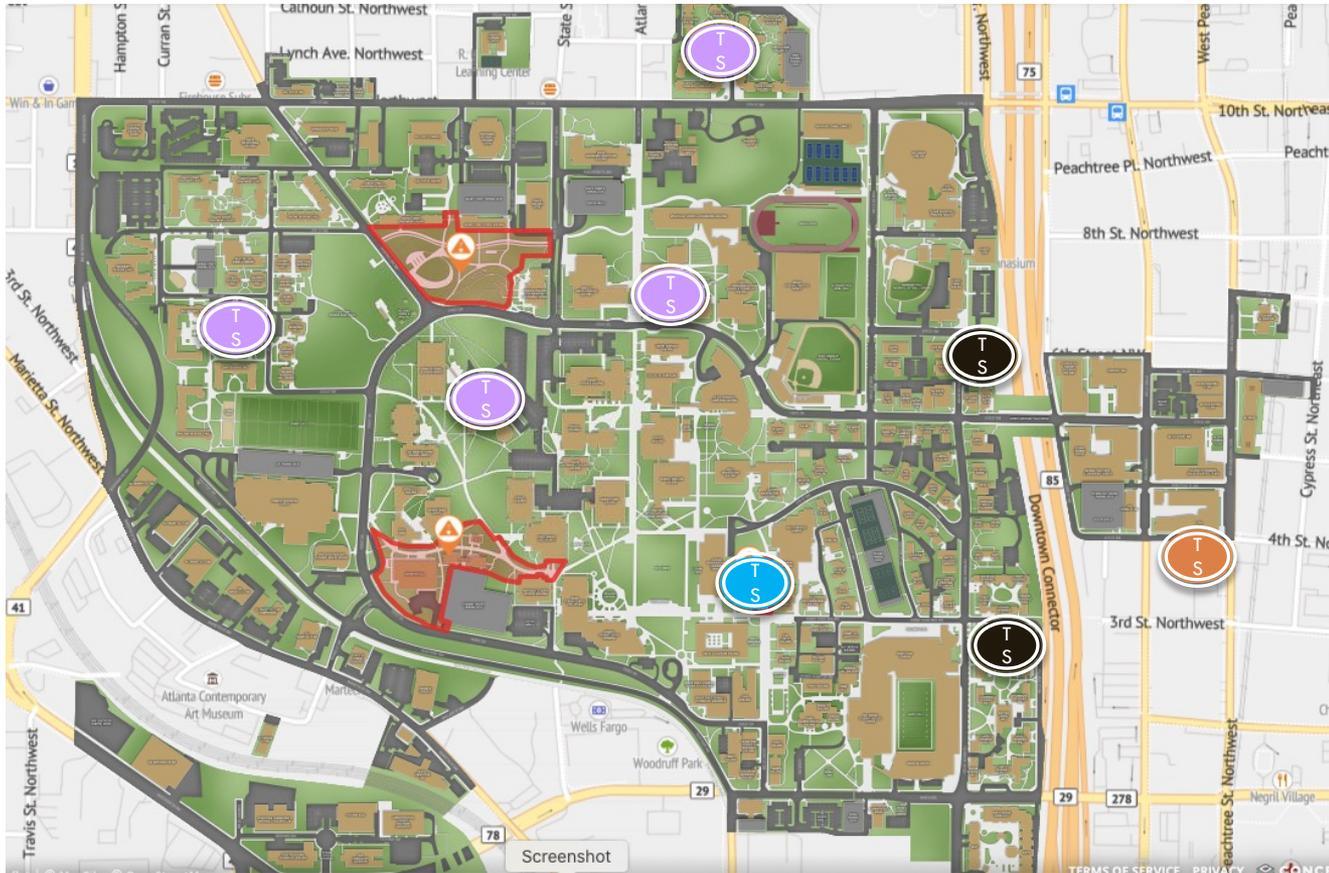


	Monday	Tuesday	Wednesday	Thursday	Friday	# of Staff
Price Gilbert	9-5	9-5	9-5	9-5	9-5	4
GT Connector	Closed	Closed	Closed	Closed	Closed	
Couch Building	Closed	Closed	9-5	9-5	Closed	4
Spring street	9-5	9-5	9-5	9-7	9-5	4
Ferst center	Closed	Closed				
North Ave			Closed	Closed		
10th& home					9-5	3
IBB		9-5	Closed			
Love Building	9-5					

## Reduce from 6 to 3 teams

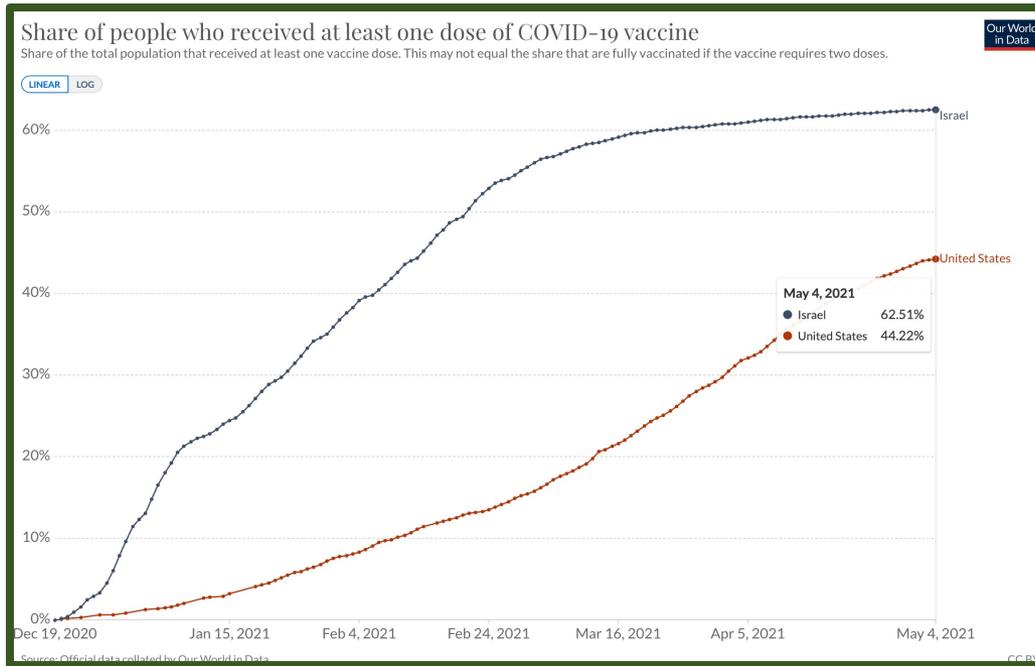
- Close GT Connector
- Reduce Couch to 2 days serviced by mobile team
- Reduce mobile sites to 1 team
  - Move Love to Monday
  - Close Ferst Center
  - Reduce IBB by one day
  - Close North Ave
- End late close hours at Price Gilbert

# Target locations – Modified Sites

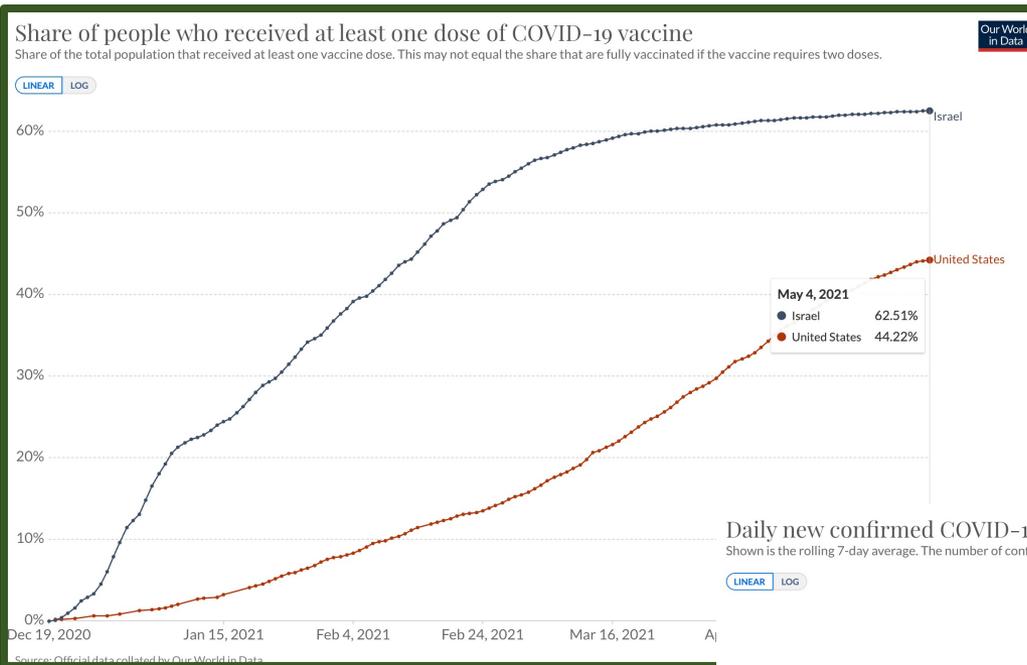


**Looking Ahead to Fall 2021**

# Some Perspective on Vaccination Impacts

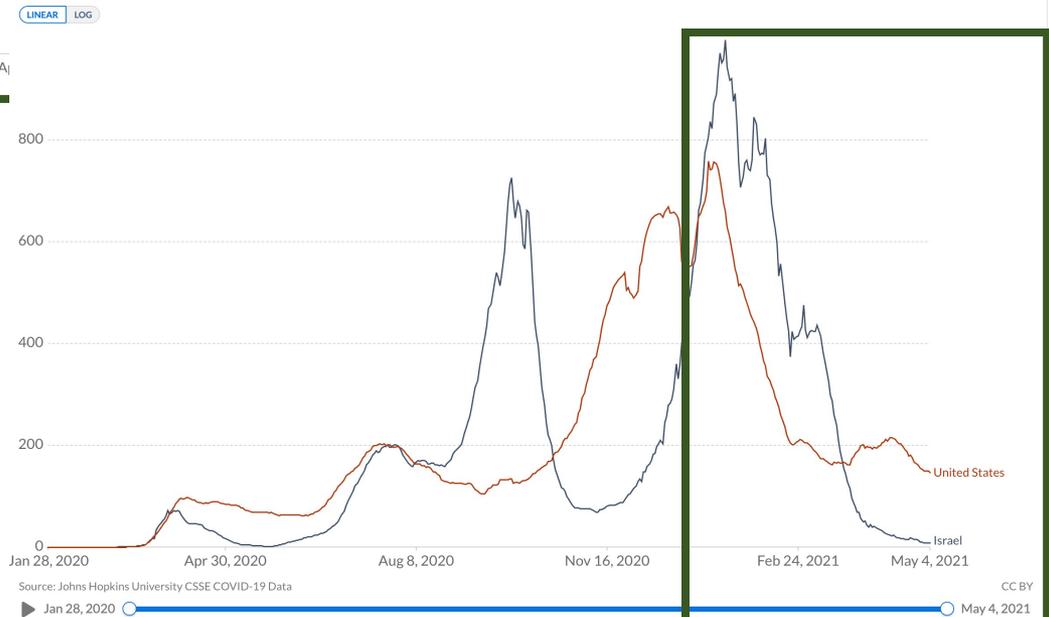


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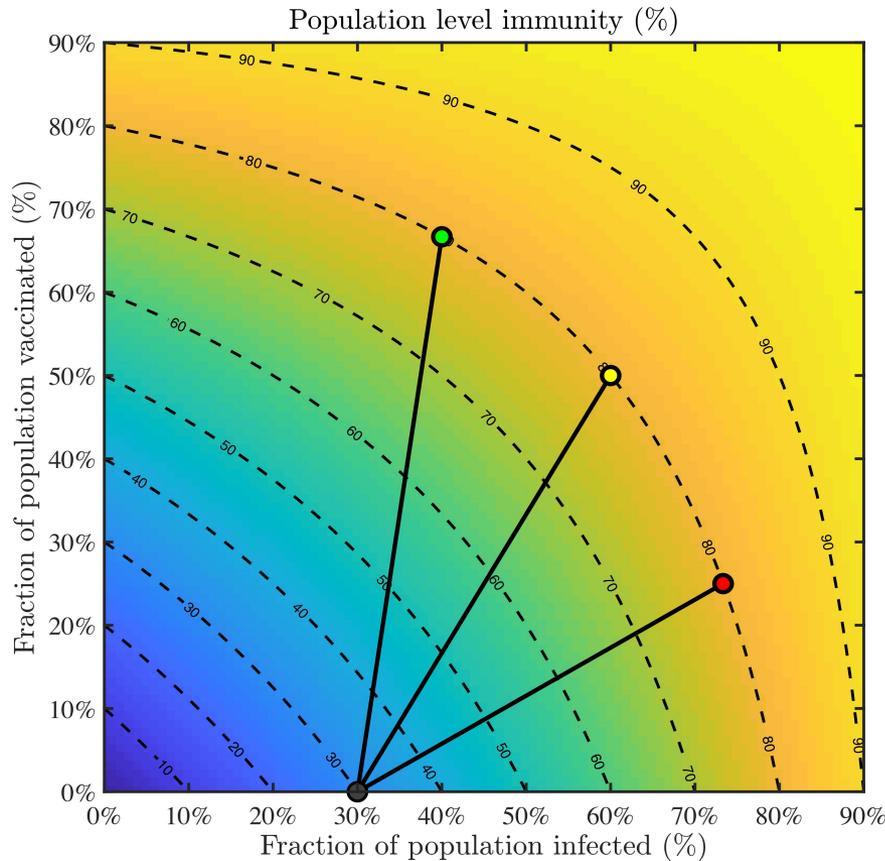
### Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



# Some Perspective on Vaccination Impacts

Take-Away: Large-Scale Vaccination Remains the Safe and Ethical Way to Reduce Individual and Collective Risk



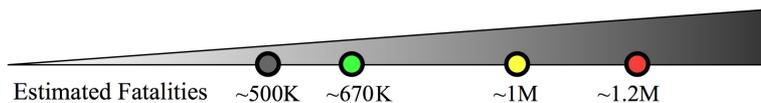
## Isoclines of equivalent immunity

Population immunity is the result of vaccination and prior infections.

Because of largely undocumented cases, we should expect that there is overlap.

To reach the same level of immunity, imperative to go 'vertical', and avoid large-scale cases, hospitalizations, and fatalities associated w/more transmission.

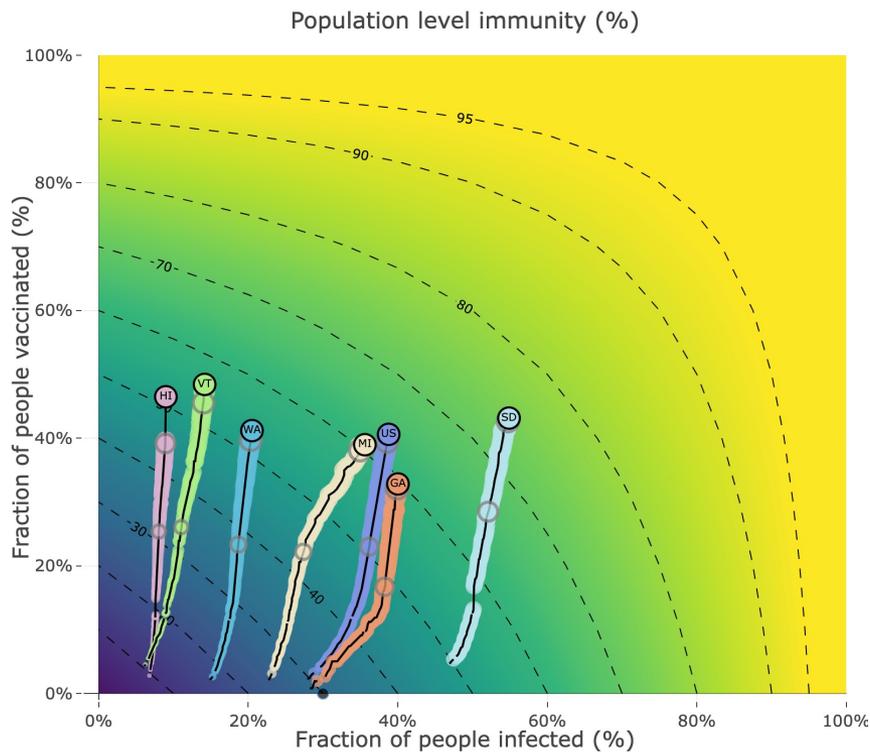
Joint work w/Ben Lopman + colleagues (Emory) and Dr. Stephen Beckett and Quan Nguyen (of GT)



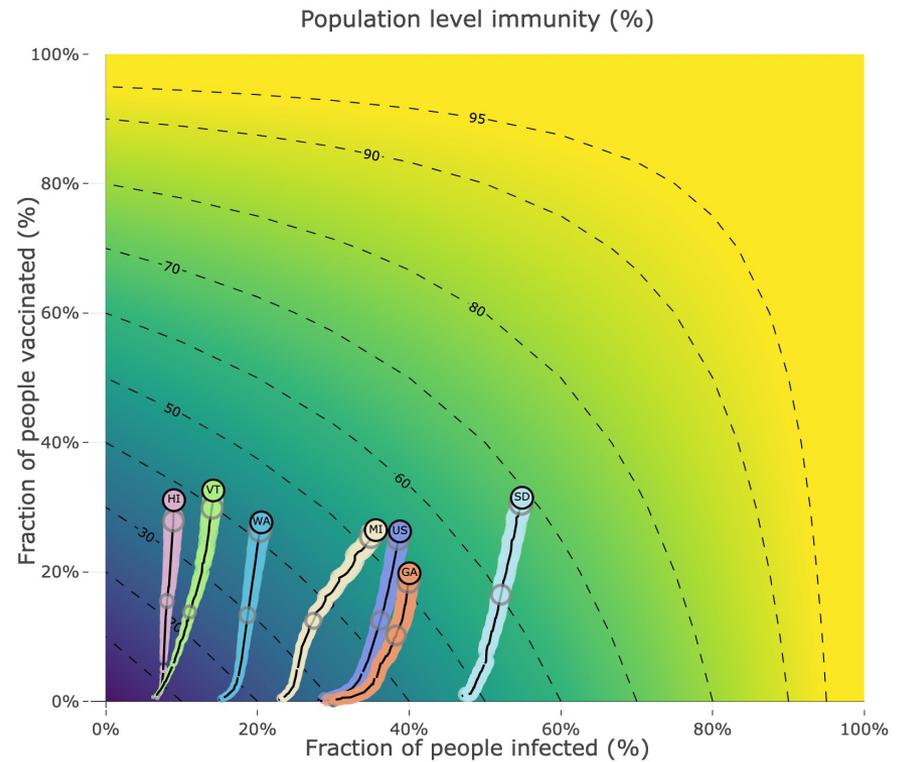
# Some Perspective on Vaccination Impacts

Population Immunity Dashboard – w/Q. Nguyen and S. Beckett

<https://popimmunity.biosci.gatech.edu>



**Assuming:  
1+ dose**



**Assuming:  
Fully vaccinated**

# Here's a List of Colleges That Will Require Students or Employees to Be Vaccinated Against Covid-19

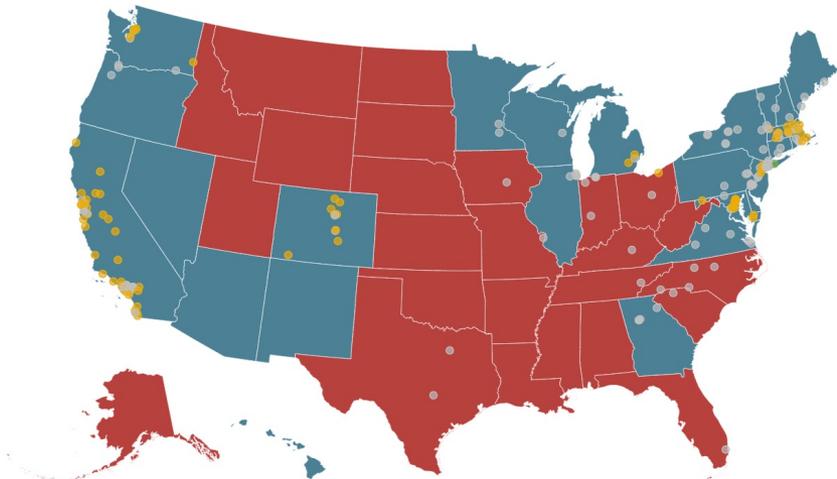
By *Andy Thomason and Brian O'Leary* | MAY 3, 2021

[Last updated: 5/5/2021, 11:45 a.m.]

As colleges look toward the fall semester, they're grappling with [whether to require — or just strongly encourage](#) — students to be vaccinated against Covid-19. Here's a chart of institutions that have decided to issue blanket vaccination requirements of all students, students living on campus, and/or employees.

*The Chronicle* has so far identified **216 such campuses**.

**Colleges**   Private   Public   For-profit  
**2020 Presidential Result**   Voted for Biden   Voted for Trump



## Some of the reasons why such mandates come into play:

- Build on standard vaccination requirement protocols in place.
- Often contingent upon full FDA approval (expected in near future).
- Not including fully online programs
- As need be, vaccinate upon arrival (e.g., international students)

With 100M infections & ~600K fatalities in US alone, college campuses have made decisions to protect the health and safety of dense, live-learn communities.

Vaccines are safe, effective, and available to 16+ throughout the US.

# Key Take-Aways

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Covid-19 has had major impacts on health and well-being, both in US and world-wide.

Given increasing vaccination rates in the US, there is reason for optimism with respect to unfolding of dynamics.

BUT, the pandemic is **not** over (many regions globally are facing the worst period for cases, hospitalizations and fatalities thus far).

At GT, large-scale testing, mitigation, and more recently vaccination have made an enormous difference.

Individual steps you take now to get vaccinated are a 'win-win', protecting you and the community. A vaccine is reserved for you at GT, use the opportunity and get vaccinated in May if you have not already done so.

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