Spring 2021
Pandemic Update

Peter Frazier
Operations Research & Information Engineering
Cornell COVID-19 Mathematical Modeling Team
Additional targeted interventions for the Spring

- 3x / week testing for some undergraduate student groups
- New contact tracing + supplemental testing programs for employees
- Schedule changes for faster test results
- Less in-semester travel
- Genomic surveillance for variants

These were partially supported by mathematical modeling and respond to COVID fatigue and faster-spreading variants
What we’ve seen so far is consistent with spring modeling
We calibrated our model to Fall data.
Elevated transmission due to variants poses a risk

Student Infections during Spring Semester  (Testing all UGs 2x/wk)
Testing Greek life participants + other student groups
3x / wk responds to this risk

Student Infections during Spring Semester

(Testing blue group 3x/wk)
We expect more cases than in the fall, but elevated testing provides substantial protection.
The biggest risk to employees is outside of work

- 75% of employee cases in the fall were from family members, social gatherings away from work, and travel
- New contact tracing efforts in the winter & spring respond to transmission at work
- No student to non-student employee transmission observed in the fall
The biggest risk to employees is outside of work
There is little interaction between students and the non-Cornell community

- No evidence of transmission from students into the community during the fall
- Little transmission from the community into the student population
- IC students may alter this, though are being tested 2x/wk
- Employees do interact with the non-Cornell community
Travel Elevates Risk

- In the fall, a student who traveled in the past 2 weeks has an **8x higher odds of testing positive**
- To discourage travel:
  - More students have a test scheduled on a weekend
  - Testing exemptions are reviewed with more rigor
Questions?