Methodology

- Online survey of undergraduates learning remotely at universities across the U.S. and abroad (N ≈ 3,600)
  - Rutgers-New Brunswick subsample: \( N = 1,281 \)
- Convenience sample, distributed among faculty networks at Rutgers for broad representation
- Duration: April 21 to May 15, 2020
  - Caveat: Survey was taken when semester had not been completed for most and stay-at-home orders were in place
About the Sample

- 98% were full-time students
- Half were SC&I majors (our home school)
- 44% had never taken an online class before
- 94% had not completed their semester at the time of the survey
### RU Sample Key Demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>86% between 18 &amp; 21 (modal age 19)</td>
</tr>
<tr>
<td>Female</td>
<td>57%</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>White (47%), Hispanic (15%), Black (9%), Indian (9%), Chinese (6%)</td>
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<tr>
<td>Living arrangement prior to campus shutdown</td>
<td>Dorms/university housing (50%), off campus (27%), at home/with family (22%)</td>
</tr>
<tr>
<td>Year in school</td>
<td>Freshman (30%), Sophomores (32%), Juniors (26%), Seniors (12%)</td>
</tr>
<tr>
<td>Financial circumstances</td>
<td>Loans to pay for school (57%), Needs-based scholarships (23%), Financially insecure families (28%)</td>
</tr>
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1. Concerns about Remote Continuation
2. Digital Equity Challenges/Learning Challenges
3. Perceived Learning Opportunities
4. Recommendations for a remote Fall 2020
Student Perspectives on Remote Fall in April/May

If your university had to remain in remote instruction for the fall...

... would it make you **reconsider** remaining in college?

- **59%** Reconsider
- **30%** Neutral
- **11%** Continue

... do you feel it would be **worth** remaining in college/continuing to take classes?

- **41%** Not Worth It
- **32%** Neutral
- **26%** Worth It
<table>
<thead>
<tr>
<th>Digital Equity Challenges</th>
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</thead>
<tbody>
<tr>
<td><strong>A</strong>ssistance</td>
</tr>
<tr>
<td>Trouble figuring out new</td>
</tr>
<tr>
<td>programs</td>
</tr>
<tr>
<td>35%</td>
</tr>
<tr>
<td><strong>B</strong>roadband</td>
</tr>
<tr>
<td>Internet connection too</td>
</tr>
<tr>
<td>slow, used by too many</td>
</tr>
<tr>
<td>people</td>
</tr>
<tr>
<td>51%</td>
</tr>
<tr>
<td><strong>C</strong>onnectivity</td>
</tr>
<tr>
<td>Slow or in poor working</td>
</tr>
<tr>
<td>condition</td>
</tr>
<tr>
<td>26%</td>
</tr>
<tr>
<td><strong>D</strong>evices</td>
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</tbody>
</table>
Digital Equity Challenges to Keep in Mind: Quotes from Rutgers Students

[I’ve] been kicked out due to connection issues and not able to join [again], therefore losing content and credit for attending class.

My computer is broken and I have not been able to access my classwork as often as I need to maintain my grades. I am worried I won’t graduate.

My professor includes certain questions that require file uploads. [but] I couldn't figure out how to do it from my laptop, so I had to switch to my phone to take the exam. The screen was much smaller and it was harder to see the problems, and whenever I'd switch to a different question, the previous problems would reload and delete my picture. I wasted about 20 minutes of my exam trying to figure out how to successfully upload all of my pictures.
Perceived Learning Challenges

Need for Connection & Clear Expectations

- “I am unable to communicate with my professors (52%) and TAs (38%) as much as I would like”
- “I have trouble keeping track of deadlines and due dates now that we do not meet in person” (67%)
- “I have trouble understanding what is being expected of me in this new learning environment” (60%)

Overwhelmed by Work & Trouble Concentrating

- “I am dealing with a higher workload than I expected” (61%)
- “I have trouble concentrating at home because of interruptions from children or other family members” (70%)
Perceived Learning Opportunities

**Less Anxiety**
- Able to work at my own pace (56%)
- Less worried about exposure to COVID than when attending class on campus (61%)

**Time to Prioritize**
- No extra-curricular activities; more time to focus on schoolwork (39%)
- No commute, so more time and money (48%)
- Opportunity to spend time with loved ones (71%)

My professors generally post their lectures online rather than over video calls, so I can watch them at my own pace.

I noticed I always feel better, happier, and more motivated when I have online classes in real time with Zoom.
Recommendations

ABCDs

- **Assist faculty to better assist students**
  - Clear, consistent directives for faculty to ensure improved student experience
    - *e.g.*, Library access, textbook purchases, workload requirements
  - **Train the instructors.** Incentivize faculty, PTLs, and TAs to complete relevant modules over the summer to ensure high-quality remote teaching with a stipend AND a certificate of completion.

- **Broadband Connectivity:** Ensure students have consistent affordable or free WiFi by providing hotspots or leveraging relationships with NJ ISPs

- **Devices:** Assume that our most vulnerable students will struggle with their devices. Provide RU laptops and tech support free of charge.
Recommendations from Students

**Streamline communication with faculty**
- SMS-based interaction possibilities?
- Avoid inbox flooding—all course information/deadlines in a centralized location

**Standardize platforms and programs to reduce learning curve for students**
- Discontinue Sakai so that all courses are on Canvas
- Ensure that all Canvas modalities are visible on phone and tablet, not only laptop
- **Ensure adequate training and ongoing assistance on all learning platforms—especially for freshmen and transfers**
- Many video conferencing services seem unreliable, especially with larger class sizes

**Online testing issues**
- Time limits, surveillance, upload issues, are performance barriers across test platforms. Students think different test questions/strategies would resolve these problems.

**Keeping students motivated, engaged, and part of a learning community**