

A MEETING
OF THE UNIVERSITY FACULTY SENATE
WEDNESDAY, FEBRUARY 24, 2021

CHARLIE VAN LOAN: Let's get going. You see the rules up there on the slide. One other thing, we've been a little bit lax about stating your name and department before you speak. This is kind of handy two levels; when we produce the transcript, but also so that we get to know one another better.

We have these three working groups working on different parts of the antiracism initiative. The working group that's concerned with the Center made a presentation two meetings ago. The report is essentially done. We just have to wait for a couple other units to weigh in on things; but basically, it's done. The other two will follow pretty quickly. They're actually more complicated, for reasons you can probably guess.

In any case, all three are going to be talked about at the next meeting, which is three weeks out, and -- it depends, of course, how things play out, but then there will be some kind of vote thereafter. I urge you to take a look at the Center report. It's been modified a fair bit since we last talked about it.

Typically, specific things trigger general things. Alex, who's about to return to the discussion to the Hotel School's joint program, international program, but in the act of looking more deeply into that, I discovered all kinds of inconsistencies and other issues that have to be clarified. These are going to be increasingly important to Cornell, and we really have to understand the process by which they're vetted.

My basic conclusion is we need greater clarity and transparency. I set up a Web page that has all the ingredients of the puzzle that we have to sort of solve. It will be a joint effort with Global Cornell. The grad school is typically involved, if we're looking at master's and Ph.D.

programs; Institutional Research and Planning, so it's one of those things where it's kind of joint ownership and we have to work collaboratively to get things squared away.

One of the key things we have to work on is making the commitment to academic freedom and other protections more visible. They're actually in there right now, as Alex will tell us, but they're sort of hidden from our view. Anyway, there's a big scene there that we want to clear up, and we'll talk about it at the next meeting.

Recall last time, Alex presented this dual-degree program between the Hotel School and a unit in Peking University, and there were concerns voiced in the meeting and in the chat. And Alex will address those.

Alex, take it over and maybe remind us quickly about the structure of the program and discuss the concerns that were raised. Alex.

ALEX SUSSKIND: Just to recap what I presented last time, basically we have an MMH degree, and this dual-degree program will basically confer this MMH degree to students from Peking University in the Guanghua School of Management. At the same time, they will earn an MBA degree.

We're going to teach 30 credits of our degree and accept 18 credits of their degree. And they're going to accept some credits from our degree toward their MBA -- but those are separate things -- that we're going to confer our degree as a regular MMH degree, based on our standards. And also, we're going to teach our degree, so we're going to be responsible for the 30 credits that we're going to teach. Then they're going to teach the MBA half of the degree, and we're not going to have any input into that part of it, so they'll confer that degree separately.

There will be about 60 students in our first year, and the growth model that we have brings it out to about 100 students by year four. These are part-time students, by the way, so

these are professional mid-level managers who will be taking the program part-time, so it takes over two years for them to earn the two dual degrees. We will teach them as a separate cohort. So when we teach in China, they will be together, only together, these students.

When we teach it here in Ithaca or in New York City, the same students will come and they will be taught together, as well. They don't intermingle with the existing MMH program or the EMMH program, the Executive MMH program that we just launched. That's kind of how it works, and it's set up in a similar fashion to the Johnson School in Tsinghua program, also in China.

Just to give you some additional details, the proposal that was attached to this slide had gone through CAPP and the general committee prior to coming to see you. Both bodies vetted that. We also wanted to address some issues -- a lot of comments came about academic freedom.

As Charlie mentioned, the memorandum agreement basically has that in there. Basically, every single degree program that we offer has that clause in there, so it's not just us. It's any of the other programs, any of the colleges that offer a program like this would have the same elements in there to protect our faculty.

Basically, we want to make sure that we're getting the right students and that we have the right faculty teaching this program. There's a very rigorous process that's used to basically pull the MBA students from the pool in China, and we will, in effect, be getting the cream of the crop to basically join this program.

Again, the note in the slide is the attachment to the formal program proposal. Our program is not a STEM-based program, so a lot of the problems that had been noted don't necessarily apply to us.

We are a business-based program; we don't have STEM certification, and this is also not a research-based initiative where we're basically teaching. It is a professional program. There may be research collaborations that emerge from this relationship, but that's not part of the plan and that's not actually what we're doing here.

We are very, very mindful of all of the political and cultural issues that exist. That's why next week, there's going to be a debate about these bigger picture things. We're talking about a program-level initiative here, a college-level, school-level initiative.

And these bigger picture issues are things that are important, and they should be addressed; but we wanted to be very clear that we will protect our faculty and our students as a school, as a college, and we will engage as needed any support from Central University, the provost's office, or any of the resources that are available to make sure that everything that we do remains above board, meets our standards, our students are receiving the great education that we give to all of our students in the same ethical framework that applies across the university. We're not asking for any exceptions to the same standards that everyone else has to go by.

That was pretty much it. But just to wrap up, we confer this degree. The Hotel School controls the degree that we're offering and we offer the courses, we vet the transfer credits that come in from the MBA program that we're going to count toward our degree, and that's pretty much it.

CHARLIE VAN LOAN: Do we have any questions for Alex?

Jill, help me with the -- Neema is going to be late, and she's very helpful in terms of spotting hands.

Are there any questions for Alex?

JILL: There is a comment. Do you want to read it?

CHARLIE VAN LOAN: Well, people can read it in the chat.

Does anyone want to have the floor to ask Alex any questions? Risa?

ALEX SUSSKIND: If I could just respond to Dick's comment, everything that we do on campus has some revenue implication. Any time that we offer a course or a program, whether it's winter session, summer session, whether the students are domestic or international, every unit on campus is responsible for generating revenue.

This program is no different in its needs or its prospect. In fact, we are looking for ways to be a part of the Asian hospitality market, which is booming and growing. And, yes, there are issues and problems in that part of the world, but tourism and hospitality is one of the largest seconders in those economies, the growing sectors. Because we dominate the hospital industry education, we want to be a part of that.

We're not just interested in China; we're interested in having our footprint over there, so this is a bigger thing. It's not just a money-making arrangement. That is an outcome of the process, and we're not going to do it for a loss, as we would hope that no new programs would go forward to operate at a loss. That's not entirely the reason; although, additional revenue and additional money is good for everybody. Just want to leave it at that.

CHARLIE VAN LOAN: I see Paul Soloway has his hand up.

PAUL SOLOWAY: Alex, what was the rationale for keeping this cohort of students segregated from the other students in the Hotel School of comparable programs?

ALEX SUSSKIND: Again, we modeled it after this Tsinghua program, and they had a great amount of success with basically selecting a group of students who all have the same interests to get similar training, and they go through the program together. They're separate from the other students in China, as well, so this is basically a lock-step program for them, so it creates their own cohort.

Because they're part-time students and because the course length is shorter, we don't have any courses that actually match this. They're going to come to Ithaca or New York City for a nine-day period or seven-day period, and our other courses in our other programs are not structured that way.

Building the program this way, it is a unique program that doesn't have any matching elements, so those courses won't be open to other students because it wouldn't work for them.

They're going to come for nine days or something in April. There are no students in our current programs that would be able to do that, so it's a structural thing, but there's also the cultural thing to have that group kind of go through together.

CHARLIE VAN LOAN: Joe.

JOE MARGULIES: Thanks. Alex, you said in that last note in your slide that you are mindful of the humanitarian crises taking place there, but that you think that limiting academic exchange is not the answer. If I understand you correctly, what you're saying is that you will make sure the students in the program have the same academic freedom of any student who's over here; but of course, that's not the community that is subject to so much repression there.

I'm wondering if you could expand why isn't limiting this academic change the answer? Why isn't it the answer?

ALEX SUSSKIND: Right. I would prefer not to get involved in talking about these bigger picture political/cultural things. Our goal here is to create a program and to deliver education to a part of the economy that needs this education. These other big picture issues are things we have to discuss, we have to understand. As a university, we have to be clear on what we do and how we do it and make sure that we're doing the right thing all the way.

I'm going to rely on our vice provost of international affairs and Charlie and the provost's office to help and guide us as we go through this, just as any program would do the

same thing. The Tsinghua program that they have in effect now gets guidance all the time to make sure that everything goes as it should smoothly, whether it's getting visas for a three-day stay in China or whether it's having the students come here to take their courses; they're all things that have to take place. And all of those other larger political/cultural issues -- and I hate to say it -- are above my pay grade. These are things the University at large has to discuss and manage across all the colleges. This is a school-level initiative.

CHARLIE VAN LOAN: Looks like Risa, then Paul, then Neil. Then we're going to have to vote. Risa?

RISA LIEBERWITZ: Thank you. I don't think any of this is above any of our pay grades. These are not sort of amorphous political issues, and I'm not holding the Hotel School responsible for what Peking University does, but I think we have serious issues that were raised last time, and I appreciated people raising them.

Since that time, a number of us have been able to get more information about what it means to be associated with a university where we have a choice to be associated or not with a university that has reported -- there are reported incidences that are quite serious about harassment and threats to students with regard to those who reported sexual assault, with regard to the University working with security forces to crush labor activism among their students.

There are other people who are experts in this in a way that I'm not, and I'm relying on someone like Eli Friedman, who's a professor in ILR and an expert on China who has educated a lot of us about these issues, and he was also involved in helping to write the University's guidelines on ethical international engagement. I'm hoping he could join us.

He had to teach today, but from his viewpoint -- I agree with his viewpoint that there's some serious problems associated with the University where there's a real conflict on the issues

in our guidelines with regard to promoting social good, respecting diversity, and Academic Freedom.

It's not enough just to plug in some words and say, oh, we have that in our contract. I think there's serious problems here, just as there have been like with the association with the University in Saudi Arabia that we raised earlier.

ALEX SUSSKIND: Those are all completely legitimate concerns. To say, Joe's comment about me merely passing the buck, I'm not passing the buck. I'm hoping that, as a university, we can come together and we can address these bigger problems.

This is not an issue just for our program. This is an issue for the University as a whole and that's why I think the provost's office, the dean of faculty, and everyone -- again, I'll use the word "above us," they need to help us and guide us and make sure that we have all the right tools and things in place so that we can do these things successfully and safely. I'm not trying to discount any of the problems. I'm just saying they existed before we proposed this program, and some of them will exist after this program.

CHARLIE VAN LOAN: Let's quickly get some other opinions here. Richard, then Neil, then Ken. Then the provost is here, would like to say something, so please be brief. Richard.

RICHARD BENSEL: Well, Neil's ahead of me, so let him go.

NEIL SACCAMANO: I'll be brief. I just wanted to say I agree with Risa. I've been one of the faculty members who has been educated by Eli Friedman and some other research I've been doing on what's been happening in China in terms of human rights violations as well as Academic Freedom violations.

I find it hard to think that the kind of safeguards that are built into the joint program would protect, let's say, students in the program and faculty in the program, but the people teaching next door could be hauled away by the Chinese government and that's okay with us

because it doesn't really affect us. This seems, to me, really a very worrisome and concerning ethical problem.

Eli Friedman, I don't have his permission to cite him here, but he made it clear that even on a case-by-case basis, that is to say university-by-university basis is a distinction between PKU and Tsinghua University. PKU has been regularly cited for Academic Freedom violations, and Tsinghua not quite as regularly; although, I found out from an AAUP report that, yes, Tsinghua also has been cited for those Academic Freedom violations.

I'm very concerned about the particular program with PKU, but also the more general issue of just saying genocide really isn't in our portfolio. That's all I want to say.

CHARLIE VAN LOAN: Richard. Briefly, please.

RICHARD BENSEL: Well, if there's not time to discuss this issue fully, and there doesn't seem to be, especially if there's an amendment to a resolution -- I don't see a resolution, actually, that we can amend, but that's another point -- I think we should postpone this. I would move to postpone this until the next meeting, and let's have a full discussion.

These aren't trivial issues. They are big-picture issues. But big pictures don't go away because you ignore them or sweep them under the rug or whatever you want to do with them. If we're going to shut down debate, I think we should postpone this until the next meeting.

CHARLIE VAN LOAN: This is just a sense of the senate vote. I would suggest that this is a very deep and important issue. Seems like there's enough people we could have a complete faculty forum on this very issue. Otherwise, we could talk about this through the whole senate. There's other business. That doesn't mean this is not important. Let's just hear from Ken, and then the provost, then Abby. This is just a sense of the senate vote, and you can vote no. Ken?

KEN BIRMAN: I have a general view that engagement with other countries is productive and appropriate for us to do, but I worry about whether this particular program is fully thought

through, the kind of issues that people are discussing. If you do even a small amount of background research on experiences that other universities have been having in this time of an engagement with China, you see a lot of articles, all very recent, of faculty members arrested trying to enter China or leave China or prevent them from getting a visa.

It's not just the Uyghurs. There are comments about Taiwan, support for student protests in Hong Kong, there are other types of issues that we might not think anything about that are construed as support for terrorism in the eyes of China. And I have colleagues at the University of Peking, for example, who have told me they report to two structures, one of which is a political structure, political dean, who has a voice in everything. Therefore, our colleagues in that structure would have that type of reporting to deal with.

And perhaps our faculty teaching for us would find themselves under unexpected pressure. I think there needs to be a real plan for how we would deal with things that would even cover legal expenses if people got themselves into trouble. With a plan, I think I could support something pretty easily. But lacking a coherent plan, I'm uncomfortable about whether we're properly prepared to do this.

CHARLIE VAN LOAN: Okay, Provost Kotlikoff I think is in the room.

Mike, do you want to speak?

MICHAEL KOTLIKOFF: Yeah, thanks. I very much appreciate and agree with a lot of comments. I would just point out, I met with the UFC and Charlie on this, and we tried to address the following problem, which is these programs, individual programs, go through lots of review.

A lot of the questions that are being asked by individual faculty members here are asked during that period of time. And then they come to the Faculty Senate, and the question is, to me: What is the proper role of the Faculty Senate in this process? I would argue, and the UFC

very much agreed, that the proper role of the Faculty Senate is really to set general principles or to recommend general principles that are fundamental to the University for programs of this nature. It's not to individually examine the details of each individual program.

Some of the comments here today are general comments about China. We have many programs, existing programs with China. Those comments could be leveled at many of those programs. We have programs in other countries in which human rights are at question. I would just urge the senate to think about a process in which general principles can be articulated by the Faculty Senate.

Once those general principles are understood and adhered to by an individual program, that is the standard, that is what we hold these programs to. Otherwise, we risk having many, many different degrees of scrutiny of individual programs, depending on who's present, who feels like they have a concern about an individual country, et cetera. That's really my appeal.

This program has gone through legal evaluation. We have a template of our interaction with universities in China and any foreign university that addresses many of the issues that senators are raising. I think if there are general principles that need to be added to that, that's a discussion that could be had, but both I and the UFC very strongly, I think, urge the senate to take a more general and broader view, and not hold individual programs hostage to individual concerns.

CHARLIE VAN LOAN: Thank you. Abby?

ABBY COHN: Yeah, I want to echo some of what Wendy and Ken said, and I don't at all disagree with what Mike just said. I think we want to think about both substance and procedure. I, myself, don't have a sense that we have a clear enough procedure at this point.

Does the Central Administration have a document that could be shared so that the senate could then talk about what the more general procedures should be? I think it's hard any

time we kind of realize we don't understand the full implications, and some particular thing comes through the pipeline, and then we say, oh, and we raise all these questions.

I can well imagine that for Andy this is very frustrating. But I think that, to me, we don't conditionally support this, we put it on hold until we've done the general discussion. I think it's not that we want to micromanage this decision. I think we've all come to understand that there's a level of complexity here that probably both the Central Administration and the senate need to engage in, and I think we need to take the time to do that.

CHARLIE VAN LOAN: We were going to have a general discussion at the next meeting. I guess it seems -- why don't we just do a sense of the senate, but with this proviso, yes, you're in favor; no, you're opposed; abstain if you would prefer to postpone this vote until after we have a chance to discuss the principle thing. Let's do that, just to get information. Let's walk out of here with some information about how to proceed. Then, this is simply to get a sense of the senate, which is what this is all about.

RISA LIEBERWITZ: And reframe the question, Charlie, please.

CHARLIE VAN LOAN: Yeah. Sense of the senate. Yes, if you are okay with supporting this; no, if you're not; abstain if you prefer to wait until we make some headway on principles, just so we get some information here.

We're behind schedule here. So while you're voting, I would like to move on to the next presentation, which is on a resolution that concerns crime alerts and race. I'm not sure who's presenting, Arnika or Nick, but one of you take it away.

ARNIKA FUHRMANN: Hi. I'm Arnika Fuhrmann in Asian Studies. Thank you so much to the 13 cosponsors of this resolution, who include the four members of Cornell's Public Safety Advisory Committee. And special thanks also to Nick Admussen, who drafted the largest parts of this resolution.

We think that the content of this resolution is quite self-evident, but we want to take you through it step by step anyway. What is the intention of this resolution? It is to remove descriptions of race from crime alert emails that the Cornell University Police Department sends to the entire university community.

In their current form, these emails have the dangerous effect of foregrounding and insisting upon a racial nature to local crime, thereby putting at risk the safety of students, faculty, staff and other community members of color, especially black.

By consistently highlighting the presumed race of suspected perpetrators, even when there is not enough information for recipients to identify a suspect, they encourage generalized suspicion, especially of black people, including students, faculty and visitors.

So what are crime alerts, and why are they sent out? Crime alerts are notifications that are mandated by law in the U.S. and have to be sent in a timely manner. This is in order to fulfill a reporting requirements under the so-called Clery Act. However, the Clery Act in no way requires any description related to race. The stated intent of the alerts is community protection, so it's to alert the community and to prevent the reoccurrence of similar crimes. I'm quoting from the Clery Act.

Each institution shall make timely reports to the campus community on crimes considered to be a threat to other students and employees in a manner that will aid in the prevention of similar occurrences, end of quote.

However, descriptions of race are neither mandate nor productive in this endeavor. On the contrary, they have been proven to represent a significant danger to persons of color. Why are racial descriptors in crime alerts so problematic? First of all, they reinforce the erroneous association of people of color, especially black men, women, and even boys and girls with crime.

Two, they consist of generalizing impressions that cannot, in fact, work in the interest of community protection. And finally and most importantly, they pose a high danger to the physical safety and well-being of people of color. Matters of policing and race have recently received some increased attention nationally, but what is the local situation in Ithaca and at Cornell?

I'm turning the word over now to my colleague Nick Admussen, who has a lot of information on this.

NICK ADMUSSEN: On the left of your screen are the crime alert emails that were sent out that had racial descriptors in them. The majority of crime alert emails at Cornell don't have racial descriptors in them because there's no description of assailants or of suspected criminals.

When we look at Cornell-specific data on crime alert emails, you can kind of see how the reinforcement of racial stereotypes happens here. The vast majority of crimes committed at Cornell do not qualify for crime alert emails.

We had, for example, in 2019, 135 sexual assaults of different types, but only one of those qualified as a Clery Act timely notification. Only one of those went out to the community.

The crimes that really do happen on campus are, as I'm sure you could imagine, white-on-white crime, but the crimes that are reported under the Clery Act are mostly assailants or suspected criminals who have fled and haven't been apprehended and are still free. The majority of those tend to be college town burglaries and other black-on-white crime, so you get a disproportionate number of black racial identifiers in the crime alert emails, vastly more than the 6% of the population that African-Americans make up in Ithaca, vastly more than the actual crime statistics here.

I'll also note that these are very small numbers -- 10, 18 emails in a year, sometimes 13 -
- but each of these emails goes out to 30,000 people around the world. Arnika gets them in
Germany. They come to everybody. Much of the problem is structural.

These notifications have to be timely, so they don't reflect police work. If a suspect is
apprehended, they don't get a timely notification because there's nothing to notify. For a lot of
more sensitive crimes, the police are really stuck dealing with the timetable that doesn't allow
them to communicate with people when they want to. They have to do it when the Clery Act
tells them to.

The police department, as I'm sure you know, has a lot of different ways to
communicate with the community. They have the blue light emails, they have a police blotter.
We talked to Chief Honan, and he said, I really wish people read the police blotter. That gives
the best sense of what we actually do as a police form.

And also, they put out media alerts. When they really do want to speak to us, they put
out media alerts that give real descriptions based on intensive police work -- they might have
pictures -- and are intended to catch suspects.

The Clery Act emails are sort of -- by comparison, are box-filling. If you care about crime
in the area, read The Ithaca Voice, read 14850.com. They get all of the information that really
exists that's really relevant to the community.

Why make the change and why make it right now? The philosophy of the resolution is
to de-emphasize the racial nature of crime on campus and emphasize care for community
members of color. We know from the research that there's a cycle of separation, fear and
punishment in our conversation about crime, and this resolution attempts to disrupt a part of
that cycle.

The resolution is collaborative and part of other movements toward reform on campus, including stuff that's being pursued by Do Better Cornell, the Cornell Faculty Coalition, the ABLA plus Library Group for Divestment. But regardless of what other reforms we make to policing at Cornell, we're going to have to deal with the Clery Act eventually. It's federal law, and we can't just make it go away.

This change has happened successfully at other universities, sometimes with controversy; sometimes without controversy. At Vanderbilt, as Chief Honan pointed out, they've done away with descriptions of suspects entirely because of the difficulty of making those descriptions on a short time frame. And we did have a meeting with Chief Honan, who takes his constituency very seriously and seems open to change, but I think needs to know that we care and that it matters to us as a community before he's going to sort of go out on a limb.

Arnika, would you like to conclude?

ARNIKA FUHRMANN: Thanks. Regardless of police compliance, this resolution will give Cornell faculty, independently and as a group, the chance to both speak and act against the ongoing conflation of crime and race. The resolution opposes one specific practice, but may represent a starting point for more consistent undoing of both explicit and, as yet, unacknowledged kind of racialized violence. We hope that you will take a look at the resolution and vote for it. Thank you.

CHARLIE VAN LOAN: Okay, excellent. Thank you so much.

Questions or comments? We'll vote on this, as usual, in a subsequent meeting. This is a formal resolution. Anyone like to ask Nick or Arnika a question? I see a hand from Risa.

RISA LIEBERWITZ: I don't have my hand up. If it's still up, I meant to take it down.

CHARLIE VAN LOAN: Okay. Sorry. Jill, do you see anything in the box? Abby?

ABBY COHN: Same. I neglected to take my hand down. Yeah.

CHARLIE VAN LOAN: Okay, very good. There's a resolution page. You can register comments there, you can put things in the chat, and I'll make sure the proposers get all the information, should modifications be in order, but it sounds that there's broad support for this. Okay, thank you so much. Let's go on to the next presentation.

This actually started back in early December, and we talked about it a little bit then. But Steve Jackson stepped forward and led an ad hoc committee to look more deeply into this. The subject here is when faculty receive threatening communications. Steve is going to give us an update from the doings of his ad hoc working group. Steve.

STEVE JACKSON: Thanks, Charlie. This is the people involved. Everyone has committed a lot of time to this, and we've come up with some results that I think are moving us in the right direction.

The first three items really give the bigger story that Charlie had reviewed, I think, in the December Faculty Senate meeting, and that essentially is that the prevalence and forms of external harassment and threatening communications appear to be on the rise, and some of this is associated with social media.

These attacks can be personally difficult, undermining both the personal well-being, but also the professional standing and progress of university faculty and staff. And, importantly, from the data that we know from the national surveys -- none of this done at Cornell specifically. But at the national scale, the research suggests these attacks can have systematic and unequal effects, including effects that code by race, gender, and area of work, that can undermine the University's diversity and inclusion goals and also produce chilling effects that challenge University commitment to freedom of inquiry.

The next two items are really sort of the steps that are our charge as a committee. When we looked into this, it became clear that the University could do a lot to improve the

systematicity of its tracking of incidents, and also that we could do more to strengthen and coordinate responses at the unit level and in coordinating the various actors involved.

Co: Please check with audio

On the tracking point, we've already moved forward on that. As discussed and proposed at the December meeting, we're using the University bias reporting mechanism as our main collection point. That has been updated, so there's now a way of going in and sort of coding for these kinds of incidents.

On the back end, Angela and her team are able to pull that data out and then produce some of the wider systematic patterns and information that we've been looking for, but they're hard to get right now. There's a separate proposal that's come up, which we don't yet know if we can move forward -- we're still working on it -- which is the idea of incorporating questions relating to external harassment into existing survey mechanisms. We discussed and quickly discarded the idea of an additional survey, sort of stand-alone survey mechanism, for reasons of survey fatigue, but we are working on existing university-wide mechanisms to see if we can use that as a way of gathering additional information.

We've also come up with two protocol sheets that I think are also linked. If you want the full details, they are linked on the dean of faculty website, you can go through. One of them and a shorter one is directed at faculty who may be experiencing this often for the first time.

Both protocols start with this kind of thing: If you believe yourselves to be in imminent danger, hang up and call 911 kind of thing, and then contact your unit supervisor. In the protocols we're working on, we're putting a lot of weight on the chair, director, dean, in some cases, or department manager as the central manager and point person for these kinds of incidents. The detail -- actually, there's a lot more detail in the version that will go to the department managers.

In terms of what we're talking about, trolling attacks through social media, the release of private, personal information online, a practice sometimes called doxing, and harassing emails or phone calls to Cornell or to personal accounts. And the protocols include some statements of commitment from the University and the reasons that we are adopting a stance and trying to improve our practices on this.

I talked with the chair, director, dean, and there's the link to the bias mechanism. One of the things that I won't go into at great length that we try and do is help to give people who might be experiencing this for the first time some tips about the nature of these attacks.

There's a variety of things on this slide and in the next slide that are meant to help people understand how these things operate and give them some confidence or assurance as to how these things unfold, and also some recommendations that will help later tracking. Noting that these can be intense and disruptive, these are often very quickly developing and quickly residing kinds of things.

Some of the things that are available to you, removing contact information in web profiles, some resources that we'll talk about a bit more in the chair and dean slide, and some recommendations to preserve evidence, if useful, for tracking and law enforcement purposes.

There's also a consultation service for people who have been targeted or working areas that feel they may likely be targeted for attack. The University Library Privacy Services will do consultations and give specific advice on how best to respond to these kinds of things.

This is a much more expensive protocol, and I won't walk through it in great detail, but I'll give you the highlights of it. Once again, the scenario is a faculty member comes to you or a staff member comes to you, indicating an attack in progress. Of course, 911, if there's question of immediate danger, provide them resources; the other protocol I mentioned; and then a lot of

the remainder of the protocol is really guidance to chairs and directors as to how best to support and work with faculty through these kinds of incidents.

It's important to recall that faculty or staff who are experiencing this will usually be left to navigate a set of institutional mechanisms and resources they may never have thought about or encouraged at a moment of extreme concern.

These are some of the units involved. We are really tagging the chair and the director or the dean as the manager of these kinds of processes, and these are some of the University units involved and their role and the various steps to be taken.

Then a lot of this really -- there's much greater detail in the protocol, but it gives some good advice for chairs and directors working with the affected faculty or staff member on possible next steps; getting a sense of the faculty or staff member, how widely they would like information about the experience shared within the unit; consider, in cases where an attack has received public or media attention, decide whether a unit-wide or more public statement of support is needed and advisable -- and there's suggested text people can draw on -- consider the concerns of secondary actors who may also feel threatened or unsettled by such communications, even if they are not the direct target; and continue to check in with the faculty and staff member, both during and beyond the period of immediate harassment.

This can include acknowledging and understanding that these things, particularly if prolonged, can have significant long-term effects that may affect professional progress. If that's the case, chairs and directors can consult with senior faculty and/or the deputy provost about adjustments to key processes like tenure clocks, the way we do promotion and tenure, if the experience is sufficiently disruptive, that it challenges the ability to make normal professional progress in the work.

Where we're at now is we drafted up these two protocols, which are available on the site, and I welcome you to look at them and send me email, if you would like, SJJ54, if you have thoughts about them. We are also running these by chairs and directors and also faculty/staff who have experienced such incidents in the past.

Some people have come forward to us in our work and identified themselves and have agreed to look at these drafts. There's an additional step we're still working on, which is more on the preventive side, so we're developing a third guide from existing materials, some of which we already have in hand, which will be sort of pre-attack.

These things will be established in a public website hosted by Angela Winfield's office, the Office of Diversity and Workforce Inclusion, and we're also working on incorporating these elements into the new faculty/staff orientations and some of the chair director sessions that OFDD runs.

There's some caveats. We have been working on the faculty and staff question. We are not right now working on questions of protocol in response to students who might be experiencing these questions. That's partly just because this is where we're starting.

I think some of what we have developed for faculty members might also apply to graduate students, certainly. There's some places where you would kind of take out chair/director and drop in DGS and it would work relatively well, but that's a separate and possible next step.

This is directed at harassing and threatening communications by individuals external to the Cornell community or unknown. This is not meant as a protocol for dealing with conflicts that are internal to the community. All incidents are different and require the specific and skillful judgments of the various actors involved.

We haven't tried to design a step-by-step protocol that could assess every single possible situation. We tried to give a good baseline that indicates the main steps to be taken. Also, as noted, this is meant to be possibly a starting point. As conditions evolve and more information is gathered, including a better understanding of how these patterns play out at Cornell at a more systematic level, we can revisit these responses and we can see if other responses are necessary.

I think that's it, Charlie, if we have time for questions. I'm also happy to take them off-line.

CHARLIE VAN LOAN: Sure, we have time for questions. First, thanks, Steve, for stepping up to this task and to your colleagues on the working group. It's really an important thing you are doing here, and we're very appreciative.

Any questions for Steve? I'm guessing, Risa, is that your hand?

RISA LIEBERWITZ: That's my hand this time, yeah. Thank you for this, Steve. I had a question about the point with regard to the emphasis, which I think is correct, that the faculty member, let's say, who's a target should be the one who decides whether and how broadly information is disseminated about it.

Your slides seem quite clear that it was the faculty member only, but when I read the longer piece about chairs and directors, et cetera, it was just confusing to me. It sounded like you were saying there's some group where certain people will be notified, regardless of what the faculty member wants, and then it's up to the faculty to decide how much more broadly to disseminate it.

STEVE JACKSON: We may need to clarify that in a longer document. It is ultimately the faculty or the staff member's experience to share. The chair or the director, whoever is sort of the point person on it, may want to consider other people who might be placed at risk and

discuss that with the faculty member. That would be a reason for sharing additional information. But I think, ultimately, it does have to be centered on the person experiencing the incidents to judge.

CHARLIE VAN LOAN: Sort of a general question, have you received feedback from individuals who have -- I know it's very confidential. But have you gotten any feedback or suggestions from those that have been hit with these things?

STEVE JACKSON: Only from a couple. We finalized the protocol in the last few days, and I heard back from a number of chairs who gave good feedback and mostly thought it would be useful. When they were imagining themselves in the chair role, they thought this would be a very useful document.

There were a couple people who reached out to me privately who I had reached out to and shared, and those two individuals found it -- thinking back to the incident, they thought this would have helped them and provided a much clearer process than they experienced when they went through it here. This was all within the last couple of years.

CHARLIE VAN LOAN: Thank you. Harold, did you have your hand up or not?

HAROLD HODES: Yes. Since you called on me, I won't put it on chat. I'll just say it. Suppose a faculty member reports such an incident, and says he or she doesn't want the person to whom the report was made to spread the word that he or she received such a threatening communication.

Can the faculty member report it to other people, in general terms, unspecified, the person who received this? You understand my question? So my thought is that perhaps the chair would want to report someone in the department received such a communication in order to alert other people to this sort of risk.

STEVE JACKSON: Yeah, that's a good question. I think the answer would be yes, under the right circumstances and that could be part of the discussion between the chair, director and the faculty member. In some instances, of course, that kind of anonymization is going to be difficult, but that's certainly within the range of options.

I should say one of the things that doesn't show up in here is one of the advantages of the bias mechanism is that when people report incidents, that information remains confidential and really only Angela and two or three people on her team have access to that. So we know we can maintain the confidence of that information and its privacy, and that is kind of clearly conveyed to the faculty member and also the chair.

But, yeah, I think there might be instances in which that would make sense, where you want to indicate a concern or a threat, but the person involved may not be comfortable being identified as the target of that threat, for a wide variety of reasons, actually.

That's an example -- a lot of this, actually, is going to involve kind of the judgment and skill of the chair and director, so this protocol does actually place quite a bit of weight on that role. It does also have, though, a lot of outreach people, like all the people indicated: CUPD, CIT, unit IT leadership, Yael's office, OFDD. Those are all people that are on call as well for the chair for advice, if they also need help in that kind of navigating the situation.

CHARLIE VAN LOAN: Okay. Very good. Thanks an awful lot, Steve. We'll be in touch. Again, very important topic and discussion.

Let's move on to the next presentation. You all know Peter visited us back in September, and Peter leads the modeling team that directs how the University proceeds in all matters concerning the pandemic. For sure, things are changing, and I asked him to come and give us an update in terms of what his team is looking at, not just for the spring semester that we're in, but the fall semester, as well.

Peter, take it away.

PETER FRAZIER: Thanks, Charlie. I want to just tell you about a bit of the changes that we've made. A lot of them, I think, might not have been noticed because they might be perceived to be not massive changes, but they reflect our thinking about what we expect in terms of COVID cases in the spring.

Yeah. These slides are going to focus on the spring, then at the end, I can talk a little bit about the fall, and we could talk about that in questions. Probably the biggest change that was made -- and I'll give sort of the basis for this in terms of what we saw in the fall semester and also in that modeling -- is the testing frequency is being elevated for some undergraduate students groups, including students who participate in Greek life activities and are associated with a Greek life organization, and then also varsity athletes.

In the past, all undergraduates were tested twice a week. Now this subset of undergraduates is being tested three times a week.

Another change is that there is a new contact tracing program focused on employees. The thought here is that Cornell Health provides substantial support for doing contact tracing among students and really helps out the county with that.

Based on what we saw sort of late in the fall semester and over winter break, there seemed to be substantial value in providing something similar for employees. That's a new program. Then there's also a supplemental testing program, where employees can go and get tested, if they want to.

Also, internally, in the Cornell COVID testing lab, there have been some schedule changes that allow us to get test results more quickly. And getting faster test results means that you can isolate positives and quarantine contacts faster, and that helps us control spread.

There's some changes made to the way that we try to manage student travel that we expect will result in fewer cases imported into the Cornell community during the semester. Then, additional or new sort of genomic surveillance, thinking about the U.K. variant and also other variants that are faster-spreading and may also invade the immune system.

All this was done, number one, with the goal of trying to continuously improve so we can keep everybody safe, while also trying to minimize the impact, as much as possible, try to minimize impact on everyone's life, for the spirit of continual improvement. Then, also, keeping in mind we do face variants of the virus which spread faster, and that does represent a real additional risk to the community. Then, also, we're all tired. And you might think things don't seem that bad, so it's easy to let your guard down, and so responding to that; but also, on the brighter side, starting to think about vaccination as something that is starting to become more widespread.

That's a good question, Paul. I'll take that at the end.

We posted a report, actually went up today, and Charlie put it on the Faculty Senate website. If you'd like more details, you can check that out. The report, we did it over winter break, and it analyzes what we thought would happen during the spring semester based on what we saw in the fall. And then over the past couple of weeks, we saw what actually played out. What's happening is partly consistent with what we kind of thought would happen. What you see here is the number of daily cases, COVID cases, confirmed in the student population and in the employee population since January 1.

For students, what you see is relatively low numbers, kind of like 0 through 5, up until mid- to late January, and then you see that rising and peaking at 17 in early February. That combines two phenomena; one is that the arriving students, especially those from international

origins, tested positive at a rate higher than in the fall, and that reflects the fact that prevalence internationally and also nationwide in mid-January was higher than it was in mid-August.

Any case is bad. But when a student arrives, there's a robust -- depending on the student's origin, especially students from international origins, there's a protocol that requires students from international origins and from nonadjacent states to quarantine and then students are tested. So in most cases, those cases represented -- didn't result in any spread here in the Ithaca area.

Then the second phenomena that represents is a cluster largely in the Greek life community, which began before the start of classes and sort of was happening as classes started, and then our interventions controlled it, so you see more recently that we've had lower case counts.

Also, part of the thing that helped control that cluster in the Greek life community was this elevated testing frequency that I talked about. This is something we were planning to do anyway, for reasons that I'll show you momentarily, but we were very glad to have that move into place to help us to control that cluster.

Ongoing, basically, I expect this pattern in students to roughly continue, where we'll see relatively low case counts once in a while. We may very well see another cluster of comparable magnitude to what we see here in students, so it's the new normal until vaccination rates are high.

In employees, what you see is relatively case counts higher than I would like to see early in January, and then -- I'll explain, this is due to infections at home, many resulting from just kind of elevating prevalence in the community after holiday gatherings and travel. So we've been happy to see that subside.

There's a huge number of people that spend huge numbers of hours a week trying to design these interventions. The mathematical modeling we do in order to support this is just a small part of it, but I just wanted to give you a flavor for the work that the team did.

Remember, in the summer, we built a mathematical model in order to support the design of interventions for the fall semester. We revisited that model using data from the fall and recalibrated it. One of the phenomena that you saw in the fall is what you see in the graph here, where you see relatively high case counts, especially when you think about relative to the population size, among students who participate in social Greek life organizations and also varsity athletics. That's the blue line.

You also see larger absolute case counts among other undergraduates, and then you do see some cases among graduate and professional students. We built a revised model in which we separate out these student groups, partly based on the graph I showed you, and also based on contact tracing data that showed that undergraduates tend to interact with other undergraduates and do not often have close contact with our graduate students. People who participate in Greek life, many of their contact are also participants in those organizations.

So we built a model in which we had three student groups with rates of interaction amongst themselves and across groups, based on contact tracing data. Then we made projections for the spring, thinking about the impact of the U.K. variant and other variants and COVID fatigue. On the X axis, we are varying the fundamental probability of transmission, given a certain strength of physical fact, relative to the fall.

On the very left there, you have a world where COVID fatigue does not happen and the variants don't arrive. As you move to the right, you see a higher probability of transmission associated with a close contact, where the solid vertical line is associated with our best estimate

of what we think will happen, based on the literature, looking at how transmissible these variants are.

For each of the groups, the Greek/athlete group, other undergraduates in orange, and then graduate and professional students in green, we show the percentage of students that would be infected if we were to continue with testing all undergraduates twice a week. You see a relatively high fraction, roughly 10% of the Greek/athlete population that we project would be infected, due to the introduction of the variants into the population.

Then we looked at testing those students three times a week, in order to provide stronger protection, so that they don't become infected at such a high rate. You see that this is effective at protecting that group, even up to relatively high elevations in transmission, and then also has a benefit of protecting the students that are not in that group, but interact with students in that group.

Yes. Also co-ops, I should point out. The people that are being tested are co-ops, varsity athletes, and then members of social Greek life organizations.

This is showing the total number of infections projected over the course of a 19-week semester, so that goes all the way to commencement, where the purple line is what we're implementing in practice, where we're offering three times a week testing for this group of students.

We do expect more cases in the spring than in the fall because of the arrival of these mutations, but the three times weekly testing does do a good job of offering protection.

Yes. All these graphs cover students only. Yeah, so here we go. Employees. Actually, let's go to the next slide. All of these graphs cover students only. The lion's share of Cornell cases post-October 1st were nonstudents. Yes.

This is the graph of faculty and staff case counts from October 1st, and what you see here is a growth in cases, especially with quite a steep growth after Thanksgiving. What's going on here is that when the prevalence in Tompkins County, and even more importantly, the prevalence in the surrounding counties -- for example, in Binghamton, in Elmira, when the prevalence there rises, people who live in these areas get sick, and the source of the infection in most cases is either interaction at home, with someone else that lives with you, or through a family member who does not live with you, or through social contact outside of work.

So let's go to the previous slide. Here's a different view of that data, where on the X axis I'm plotting the new cases, weekly new cases in the surrounding counties. Many of the positive employees actually don't live in Tompkins County; they live in adjoining counties.

I think all public health departments have been working very hard in order to protect public health, but I think Tompkins County has been particularly effective in doing so. Those of us who live in Tompkins County really enjoy the benefits of that, and those who do not are at greater risk.

Here I'm plotting new cases in surrounding counties. On the Y axis, I'm plotting new faculty and staff cases. You see strong correlation. Of these employee cases based on contact tracing, three-quarters of them were from family members of those employees, social gatherings away from work, and then travel outside of the area.

Things that we can do at Cornell only affect the remainder of those cases. There were opportunities with people becoming infected on campus, for example, during breaks that they took. There have been some steps taken in order to try to eliminate those infections that happen on campus and then, also, these contact tracing efforts.

One of the concerns that folks had at the start of the fall was that students would infect employees. That hasn't happened. There's been no observed transmission from students to

nonstudent employees. That goes back to what we see in contact tracing, is that students tend to interact with students, people tend to interact with other people of similar age groups.

Then, it's also important to understand the non-Cornell community, so nonstudents and nonemployees. When you think about students, we see very little interaction -- physical contact between students and non-Cornell-affiliated individuals in the local area. There are students who travel outside of the area and become infected there, but we see small interaction between students and the community.

There's been no evidence of transmission from students into the community during the fall. There's been some evidence, but relatively little, for transmission going the other way. There are Ithaca College students in Ithaca right now, so that may alter this because Cornell students and Ithaca College students are the same age, though the dangers of that are being mitigated through twice a week testing.

Obviously, employees do interact with the non-Cornell community, and that's the reason -- that's a big part of the reason why you see cases in the employee population.

Also travel. We see travel elevates risk. We looked specifically at students. After controlling for other risk factors, we find that if a student travels, then their chance of testing positive is elevated by a factor of eight in the two weeks after they return. Based on that, we're trying to discourage student travel. More students have a test scheduled on the weekend, then there's a more rigorous review process for students request exemptions from testing.

Maybe I'll just mention something about the fall. We are planning for the fall. It feels like a long way away. Currently, our focus has been on the spring, and I have been talking to people who are planning for the fall, but it's still somewhat early. There's less that I can say. We expect vaccination rates to be high; we expect them to be very high among employees. We hope that they are high among students. For those reasons, we are hopeful that we can get

back to normal. But at the same time, we need to do so safely, and we're still working out exactly the best way to do that.

Do you want me to go back through the Zoom questions, Charlie?

CHARLIE VAN LOAN: Ones you would like to respond to. We could also get your answers to them off-line and relay them, but I see one hand up here, Wendy Wilcox.

WENDY WILCOX: Hey, Peter.

PETER FRAZIER: Hey, Wendy.

WENDY WILCOX: I have an unusual question. It's a little nuanced. Obviously, the library's open; we're interacting with students on a daily basis, and that COVID compliance is becoming a very real thing. People are really tired of the significant restrictions that they're under on campus.

My question is almost counterintuitive. But have you been looking at what are the things you can actually loosen up on? I'll give you an example of this. We spaced out all the seating six feet. We have card access to most of the buildings on campus, we have the seat reservation system. And then even in the library, in some of these cases, we actually have occupancy meters.

Everyone's reluctant to make decisions that move in the opposite direction. But will you be looking at some of these scenarios and what we can sort of give up to kind of reduce this kind of oppressive rule-following that I think students are getting tired of. Like the seat reservation system, do you need that if you've got the spacing? That's kind of what I'm wondering. What are we going to be able to give up, in order to not exhaust our community?

PETER FRAZIER: Sure. That's a good question, but I think that's a good question for somebody other than me. For some of these questions, I can provide estimates for what might happen if one were to try to loosen some of the restrictions that you're talking about. It's

actually hard to provide estimates because the measures that we have in place make those kinds of interactions very safe.

When you have a bunch of zeros, and then your question is at what point can I loosen this thing until the zero becomes something bigger than zero, it ends up being hard to use data in order to answer that. But we have been asked some kinds of questions like that, and we have tried to respond. But beyond that, what would the risk be if we were to allow whatever greater occupancy in a classroom? It is really a question of how much risk are you willing to take in order to get some kind of --

WENDY WILCOX: Will you be running some of those scenarios? If you're looking at the fall, we're kind of tapped out on certain levels of capacity. At some point, we have to start saying maybe we need to squeeze things. I assume that will be part of the modeling to look at. I don't know.

PETER FRAZIER: For the fall, I do expect that is a natural point at which to seek to modify the way we do things so we can be a lot more normal. We are starting to look at, for example, classroom density and to understand if you were to have students -- these decisions need to be made sooner rather than later.

The thing about the fall is that for the fall, you can ask the question how much can I loosen the restrictions without elevating risk, compared to what we're currently experiencing. In the fall, we expect vaccination rates to be higher than they are now, and we also expect prevalence kind of in the surrounding area to be smaller. Those things are providing a substantial benefit in terms of reducing risk. You kind of have this risk that you have reduced, then how do we want to spend it. We are looking at that.

Certainly, for the fall, I think it's reasonable to expect that we'll be able to do these kind of things. In terms of the spring, I think it's a reasonable question. I'm just not the right person to ask about whether folks are interested in increasing risk in order to allow more behavior.

CHARLIE VAN LOAN: Professor Yu.

HAIYUAN YU: Thank you. Thank you, Peter, for very much contribution to the committee. Appreciate it. My question is really for the spring semester modeling. If you look at the spring versus the fall, there are a lot of differences. Does the model really consider the vaccination process? Because I guess this is going to affect the faculty, the staff, also the students, and there's so much unknown in this process. We don't even know when we will get a vaccine. Would this be something you consider in the modeling and how much it would affect the conclusion and the procedure and the process?

PETER FRAZIER: I think the answer is really different for employees and for students. For employees, where the bulk of the transmission -- where we have taken steps to respond to the transmission that has occurred on campus, and there's still a substantial amount of transmission left over, and that's occurring at home, there is a substantial amount of uncertainty because, number one, yeah, vaccination rollout, and what is the prevalence going to be in the surrounding area.

You have already seen it drop dramatically. To be honest, no one knows why. You see people hypothesizing things about herd immunity and it's the vaccination rates, but I'm not sure that really holds water. Yeah, there's a substantial amount of uncertainty there, so it does make it very hard to make projections for what will happen in the employee population.

So much is out of our control. But it doesn't really make it difficult to give advice about how to protect employees as well as we can. We should do as good of a job with the things that

we control; i.e., transmission on campus. And then the things we don't control, we have a lot of uncertainty about them, but that uncertainty really doesn't affect decision-making.

When it comes to students, either fortunately or unfortunately, most students are at the back of the line in terms of getting vaccines, so I don't expect that vaccination rates in students are going to rise -- like most students for most of the semester will not be vaccinated.

In the numbers I showed you, we are assuming that no students are vaccinated. In reality, yeah, some students are getting vaccinated; that's great. If you're eligible, you should get vaccinated. But I think in terms of the aggregate numbers for infections, it doesn't really have much impact on that. In terms of planning for the fall, uncertainty about vaccination rates in students is actually really important. So yeah, I'm really hopeful that folks in logistics, in manufacturing can get as much vaccine out the door as possible and we can get everybody vaccinated as soon as we can.

CHARLIE VAN LOAN: Paul Ginsparg, Joanie, then we'll have to call it. Paul.

PAUL GINSPARG: Thank you. I apologize; my video isn't working. I have a few questions that are collected from the chat from other people, so I'll just hit you with all of them at once.

My first question is one that I posed via email, and I know how much more busy you are this semester, because I'm like you are no longer responding. But what happened to that 100 per two-week window that we were threatened with in early September by the Cuomo administration? Let me just go through all of it --

PETER FRAZIER: That went away. Yeah, go through all of it.

PAUL GINSPARG: I was figuring that went the way of Cuomo's luster. There was the question I posed earlier of how much surveillance testing you're doing on the variants. And Ken

Birman followed that up with, if we do have a variant, do we hit some trip wire, which either increases testing or go to a red-alert level.

Another question raised by a few people is whether there will -- you talked about students being vaccinated. But for faculty and staff that have been vaccinated, will there be any different treatment for them, as far as frequency of testing or what they have to undergo, given that nobody seems to know whether the vaccine affects transmissibility and just makes you asymptomatic. Those would be the four issues that I wanted to raise in limited time.

PETER FRAZIER: Those are great questions. The 100 case per two weeks, it just quietly went away. Apparently, that is no longer a requirement, so that's good. I think that's a good thing because that particular rule, it didn't really offer any protection for anybody.

The rule was if you hit 100 cases in two weeks, you needed to shut down in-person classes, but we don't see transmission associated with in-person classes. We see transmission associated with living together and off-campus social gatherings. A good way to have more off-campus social gatherings is to shut down in-person classes, so I always thought that regulation was counter-productive, so I'm glad it went away.

Surveillance on variants. The U.K. variant, it is the one that has shown up and, fortunately, we were able to contain it. Almost all the cases that you're seeing are just the wild type, just kind of run-of-the-mill, fortunately. But that U.K. variant is fairly widespread in the U.S. A characteristic of that is when you do PCR --

PAUL GINSPARG: My question is: Are you doing PCR on every single test, or what percentage of the tests are you looking for the variants?

PETER FRAZIER: The short answer is we are looking for the U.K. variant -- we are able to look for the U.K. variant on 100% of positives. Then, the other -- I don't know what the percentage is that we're looking for the -- yeah, we are, for the U.K. variant. That's because

there's a particular characteristic of the assay that you can run in order to test for that that makes it easy, and then also because it is the most likely one to show up.

In terms of a trip wire, we actually believe we're going to be okay when these variants show up, so we don't -- we are doing the surveillance, and every time we get one of these cases, we're extra vigilant, and I hold my breath. But the interventions are designed to be able to handle that, so we don't anticipate -- we'll be watching it, but we don't anticipate needing a trip wire.

In terms of treatment for how testing will be handled for people with vaccinations, I don't actually know how we're going to handle that, and I think there's some considerations there that don't have much to do with math that I will defer to others.

There is a recent paper that shows that people that have been vaccinated have reduced viral loads. So if you are infected and you have been vaccinated, it is suggested the probability to infect someone else is reduced, but it is not zero.

There's another paper that looks at the protection not just against diseaseless symptoms, which is what the trials looked at, but it looks at protection against infection and suggests there is protection against an infection. But it is not as strong as protection against symptoms, so it is about one-quarter. Your probability of being -- at least based on this one paper in The Lancet, it is about one-quarter what you might expect if you were unvaccinated.

In terms of what does that imply for testing, there is still value in being tested, if you're vaccinated. The value is reduced, so I don't know how we're going to think about that.

CHARLIE VAN LOAN: Let's go to Joanie, then we have to sort of end. Joanie, please.

JOANIE: Thank you. Peter, I just want to say thank you and, wow, what fantastic work.

Also, when you did the first presentation in the summer, I did not believe you. I thought it was crazy, and I'm not usually a science denier. Maybe that's what anxiety does to us, but just wow. Thank you.

NEEMA KUDVA: Can I ask a follow-up question quickly, Charlie?

Peter, this was a question in the chat, and would be curious to hear you talk about it. Knowing what you know now, would that have changed how you did the modeling for fall? And how has it changed how you are doing the modeling for spring?

PETER FRAZIER: Certainly, we were way too pessimistic for the fall. There were a bunch of things -- not everything, but there were a bunch of things that worked out, where just reality was more friendly than I was kind of expecting it to be. So I'm really grateful for that.

In terms of what we did, I would have recommended we do this three times a week testing for certain groups of students, I would have recommended that we do that. It would have been hard, without having the evidence that I have, there's no way that I would have felt that way. Doing this modeling, yeah, we get different numbers that produce different predictions that are more optimistic, which is great. Broad strokes, I think maybe we worried a little more than we needed to, but I think what we did was the right thing.

NEEMA KUDVA: Thank you.

CHARLIE VAN LOAN: Very good. I just want to echo what Joanie said so convincingly. We all really admire what you and your team have done. A real amount of courage going out on the limb and there's a lesson for us all there. I think we'll see you in May or something, the next go-around.

Before we hang up here, the sense of the senate went this way: 13 for yes, 13 for no, and 53 abstained, so we have to figure out what to do next. We have this hallway chat thing

after the meeting is over, and I think I would really appreciate having some kind of informal discussion about this, so we can figure out what to do next and how to deal with these issues.