

**A MEETING
OF THE UNIVERSITY FACULTY SENATE
WEDNESDAY, NOVEMBER 9, 2016**

1. CALL TO ORDER

Speaker Alex Susskind: "We would like to begin. I hope everyone is having a good day, so -- I don't know what else to say, except welcome.

"So I'd like to get started before Charlie comes up and just get approval for two consent items. The first would be [approval of the minutes](#) from our last meeting. So if I could just get your approval for that? All in favor of approving the minutes? Okay.

Opposed? Abstention? Okay. Good.

"And then also I'm asking for approval of the [Engineering Research Professor Proposal](#), the one that was posted for 60 days on our web page. So, again, we're just asking for your consent on that. If I can have a show of hands approving that? Okay. Thank you. Opposed? Abstentions? Okay. Well, so be it.

Charlie, you're up."

2. [DEAN OF FACULTY REPORT](#)

Charlie Van Loan, Dean of Faculty: "Let me tell you, I just sent an e-mail to all faculty about a lot of students are under stress because of the election, or whatever, and we just have to pay a little extra attention because of that.

"Yes. So -- Thank you.

"And some of the presenters today might refer to or connect current events with what they're talking about.

"Okay. So just real quick, the Work Life Study is out there, and please try to complete it.

"A little heads up. As of now, we have no place to meet next semester, so we're working on trying to find a creative solution. We come after all the classes have been assigned, so it's actually a major headache for us.

“Let me just talk about two things right here. One is, a lot of us do international travel. There is an increased amount of external engagement and, often, there is a lot of logistics associated with that. And before this system was developed, it was very scattered. So this is a real time saver, and you'll find a link to it on the DoF website.

“It just handles tons of little annoying things that come with that kind of activity, which, as you know, is going to be more and more important. So I encourage you to take a look at that and start using it because it's a real time saver.

“Okay. So, I made a mistake. When we scheduled these Senate meetings in August, I put the October one on top of Yom Kippur; that was my fault. I was told about it. I didn't think too much -- I thought, well, we have alternates and all that kind of thing. “But it's so easy to avoid conflicts with major holidays. I thought it would be good to sort of semi-hardwire an understanding here so that my successor, and myself, pay more attention to this. We're all so busy, these things can sometimes just escape our attention.

“So I just want to elevate the importance of respecting religious holidays. I am a total hypocrite because we send off a memo on observing religious holidays in your classes, and there I was sort of being - not following our own advice.

“So a very simple resolution, which is if our second Wednesday of the month falls on a religious holiday, we just move the Senate meeting to the third Wednesday. It's kind of a very simple thing, and it just simply makes us pay more attention to this important thing.

So that's all I have to say.”

Speaker Susskind: “So let's just—”

Dean Van Loan: “Actually, is there any discussion first?”

Speaker Susskind: “Yes, yes. Don't forget to state your name and department.”

Senator Thomas Bjorkman: “Thomas Bjorkman, Horticulture. So the list of religious holidays is quite extensive and the resolution refers to major religious holidays.”

Dean Van Loan: “That is right.”

Senator Bjorkman: “I wonder if you could clarify which of those qualify as major.”

Dean Van Loan: "Yeah. Well, Yom Kippur for sure. I know that list is very long, okay. This is -- I don't want to get into what is and isn't. When it comes up, we can deal with it.

"Again, this is simply a metaphor to pay attention. And, yes, there may be fuzzy cases that we'll have to deal with then, but I can't go down that list of 50 holidays and put checks next to the ones that are major; you just can't do that. It's just, like, just pay attention -- I mean myself. That's all. But good point."

Speaker Susskind: "So we have the [resolution](#) here, and we're asking for a vote on that. So, basically, we're asking: Be it therefore resolved that the Senate meetings be held on the third Wednesday of the month, if the second Wednesday of the month falls on a major religious holiday.

"All in favor? Show of hands. Okay. All right. Opposed? Any abstentions? Okay. So the resolution passes.

"Okay. So without further ado, let's bring up Risa Lieberwitz to talk about graduate student unionization and President Rawlings' statements. So we've allocated ten minutes for the discussion. Thank you.

3. [STATEMENT](#) BY A SUBSET OF ILR FACULTY AND STAFF ON PRESIDENT'S RAWLINGS STATEMENT ON GRADUATE STUDENT UNIONIZATION – [PROFESSOR RISA LIEBERWITZ](#)

Senator Risa Lieberwitz, ILR: "Great. Thank you. So I just want to first acknowledge that after the results of the presidential election, it may be difficult to concentrate on other issues but protecting labor rights remains as important as it ever was and perhaps it's more important than ever now.

"So in a statement on graduate assistant labor union representation, President Rawlings cites the ILR School as being, quote, "the leader in the field of labor education."

"Many of the faculty of the ILR School, therefore, found it important to respond to President Rawlings' letter. So I hope you've all had a chance to read the full response that we made. If you haven't, you can find it in various places: A link from the University Faculty Senate agenda, it's online in the Cornell Daily Sun as a letter to the editor.

“So I wanted to just highlight a few key points here. I don't have any slides, so that's just saying what I'm going to do. But let me just highlight some points.

“So in his letter, President Rawlings gives a relentlessly negative view of unionization by graduate assistants. Most importantly, his views are based on speculation and unsubstantiated assertions.

“Our response that's signed by 44 ILR faculty draws on our expertise and experience in the field of labor law and labor relations to provide different and more accurate information about unionization. So I'd like to, as I said, hit on a few key points here.

“First, President Rawlings' statement repeatedly asserts that collective and individual interests are in opposition. However, this mischaracterizes the purposes of unionization and the way the collective bargaining works.

“So there will be a union negotiation team, and that will be led by graduate employees; and the team will bargain for collective bargaining agreement that reflects graduate employee priorities.

“Collective bargaining achieves workplace improvements that benefit all the individual employees in the bargaining unit. And those benefits include higher wages, workload, health insurance, safe working conditions and grievance procedures.

“Now, of course, those are examples of benefits that can be bargained. And as I said, that will be up to the grad student union to prioritize those; and then in the process of negotiations, it will hopefully end up in a collective bargaining agreement.

“Now, President Rawlings' statement further relies on speculative and unsubstantiated fears that unionization of graduate assistants will interfere with graduate education, the faculty-graduate student academic relationship and with shared governance.

“However, if we look at the evidence in the best available empirical research on higher education practices, this tells us something very different. In its decision in the Columbia University case, the NLRB concludes that close to 50 years of graduate assistant unionization in public universities provides relevant and useful evidence that collective bargaining can extend successfully to private universities.

“And it's important to note that collective bargaining deals with terms and conditions of employment such as the ones that I discussed just before, like wages, workload and employment benefits. Collective bargaining does not deal with the faculty-graduate student academic relationship.

“Graduate students academic degree requirements, which would include, of course, their course work and dissertations, remain the domain of the Faculty Special Committee and the graduate student.

“Additionally, academic research finds that unionization does not negatively affect faculty-student relationships. And, moreover, a 2013 study -- And this was cited by the NLRB in its decision. A 2013 study found positive effects of unionization on faculty-student relationships, and this includes positive effects on students' views that their advisors accept them as competent professionals and that they serve as a role model to them.

“And, finally, faculty -- excuse me, graduate assistant unions and shared governance processes have long coexisted in public universities. And this is a typical model that's used, and it can be followed here at Cornell as well where they both exist together.

“The ILR faculty response stresses that the choice of whether to unionize belongs solely to the graduate assistants, not to President Rawlings, not to the University Administration and not to the faculty. And it's our hope that in providing accurate and relevant information, that this will help ensure that the graduate assistants are able to freely and fully exercise their rights in their choices.

“So those are the key points that I wanted to highlight with the statement. I tried to do that briefly in order to leave some time for questions or comments. I'm assuming we do have time?”

Speaker Susskind: “Yes.”

Senator Lieberwitz: “Yes. Should I call on people, or does somebody else want to do that? Is that my job? Okay. Go ahead, Barb.”

Barbara Knuth, Sr. Vice Provost and Dean of Graduate School: “Thanks very much, Risa. I'm Barbara Knuth from the Department of Natural Resources.

“Just a few things to point out, and I'd appreciate your comments. One is that the letter from - that was not signed by about two-thirds of the ILR professorial faculty, it noted that graduate student assistants are organized in 28 institutions of higher education in the US. The number should be put in context.

“The National Council of Graduate Schools notes there are more than 460 institutions across the US offering graduate degrees, many of which are public, not private, and so could be unionized should they so choose.

“The 2013 Study that's noted in the letter is based solely on public institutions, not private. The authors themselves point out that this weakness is in trying to apply their results to the private university context. They specifically note that the scope of bargaining is often more constrained in the public sector than in the private sector.

“The Study did not examine the pre-union condition at schools versus the after-union effects at schools, so you really can't determine cause and effect relationships.

“The Study had a final response rate of only 22 percent reporting results from only 516 respondents spread across 8 schools, 4 unionized and 4 non-unionized. Some of the unionized schools also had faculty who were unionized.

“That Study of the 22 percent response rate included only departments of English, Computer Science, Business, Psychology and History. This set is certainly not reflective of the academic milieu at Cornell, leaving out totally Life Sciences, most Physical Sciences and Engineering fields, many Social Science fields and many specialized Humanities fields.

“The majority of responses - of respondents were teaching assistants, and the authors themselves pointed out that the most troubling questions about the potential impact of union representation have concerned research assistants in the Physical and Biological Sciences. And those are not participants in the Study, so I would appreciate your comments about the relevancy of that 2013 Study for the Cornell context.”

Senator Lieberwitz: “Okay. Yeah. Well, you know, we hear that kind of drumbeat a lot of, oh, this is - public universities are so different from private universities.

“A lot of people here went to public universities. And I've certainly talked with plenty of faculty who went to public universities where they were graduate students and where they had a graduate student union, and they certainly testify to the ability to be unionized in a public university and to see that extension to the private university.

“So, you know, we can argue back and forth over whether public and private universities are exactly the same or are they the same enough. They're the same enough, in our view, and as we've expressed in this statement. We do the same work. We study the same way. We transfer in and out of our private and our public universities.

“And the fact that there are public sector labor laws that have different lines where exactly they draw between so called mandatory subjects of bargaining and those that are permissive is, I think, irrelevant.

“The NLRB since 1935 has been drawing lines between mandatory subjects that both parties are obligated to bargain over in good faith, if one wishes to, and permissive subjects where they can bargain but they don't have to.

“I am not going to get into all the niceties of the law. But as the NLRB pointed out, they have a lot of experience in deciding disputes over whether something is mandatory for bargaining or not. It's been done in the public sector; it can certainly be done in the private sector.

“Is that all we have time for? Okay.”

Speaker Susskind: “Thank you, Risa.

“Okay. We'd like to hear from Professor Bob Howarth who will talk about the Carbon Neutrality Report.”

4. [THE 2035 CARBON NEUTRALITY REPORT \(PROFESSOR BOB HOWARTH & PROFESSOR TODD COWEN\)](#)

Senator Robert Howarth, Ecology & Evolutionary Biology: “Thank you. We are going to go fairly quickly through this. This is a report that was requested by Provost Kotlikoff back in March. He charged the Senior Leader Climate Action Group here with coming up with more of a detailed plan for reaching carbon neutrality.

“We delivered such a report in early September, and the report was publicly released about a month ago.

“So I'm going to go very quickly through this to try to leave a little bit of time for questions and discussions. I just want to note that we're building on a lot of earlier work on reports on how our campus could become carbon neutral and also highlight here that the report we came up with is options for achieving carbon neutrality really lays out several issues and several alternatives. So it's not a final blueprint, it really is meant to be a discussion point as we move forward.

“What is new in our report compared to some of the earlier reports are we did a much more detailed financial analysis, I will show you a little bit of information on that; and then we have three new parts. We looked at what we call social costs of carbon, the cost

of using fossil fuels for climate change and public health. We introduced ways of thinking about this beyond simply the financial bottom line, and we looked at the role of methane emissions from natural gas and the overall carbon footprint for the campus.

“Just very briefly, this is our carbon footprint. Transportation is a significant part, but our carbon footprint is really dominated by our energy use on campus, which is principally heat - also electricity, but heat is the dominant part of our footprint. This is largely just in carbon dioxide.

“When we looked at the role of upstream methane emissions in our carbon footprint, we use natural gas for heating in almost all of our electricity generation.

“At this point, all of that natural gas is coming from the shale gas fields of Pennsylvania, and so there is a high methane leakage associated with that. The "yellow" here shows the entire carbon footprint, once we include that upstream emissions and the added reason why we should be moving away from fossil fuels, if you will.

“So there are a lot of challenges and also advantages that we see in moving to carbon neutrality. I can't quite read these at that angle. I can either go out or can – “

UNIDENTIFIED SPEAKER: [Off mic.] [Indiscernible] –“campus unique opportunities sitting in Central New York, climb out very challenging. Other universities around the country have tried to do this; it doesn't work.

“Temperate climates. So here it's a unique challenge that can be really sort of transported across the state and across the country and across the globe, so there's a real opportunity there, as well as a challenge.

“And then the cost of fossil fuels is incredibly cheap right now. In fact, because of our [indiscernible] access of methane, it's very, very challenging to argue on a single bottom line to do any energy [indiscernible] at this point.

“But we know the impact of fossil fuels is tremendous. And the price, at some point, is coming; it was just delayed last night, but it is coming. And the impacts, of course, are coming regardless of price.

“And so reducing the energy demand of campus, then, by increasing high-performance buildings are also an opportunity to really sort of lower our footprint. So we are talking about, really, energy supply and demand energy.”

Senator Howarth: "There are several things we laid out that the campus is, to some extent, working on already, but we could do - could and should do a lot more and can start doing so right away.

"Let me just mention here in the middle of these that when we rebuild buildings and when we - if we ever build new buildings again, the report says we should pay much more attention to our energy use and greenhouse gas emissions associated with that.

"I also want to mention community engagement. An important recommendation of the report is that we think all undergraduates should be climate literate before they graduate from here. We did not really lay out how that should be done. And I want to highlight it here because that, obviously, is something that the faculty should be heavily engaged. And I think the Faculty Senate, I would hope, will take some leadership in helping to think through how we meet this if we agree that this is a desirable topic.

"And I would argue that after the election last night, we need a climate-literate public more than ever; it's an important role for our University.

"We then look further down line, what we're calling Solutions For Tomorrow. And that's tackling the big challenge; primarily, it's heating the campus.

"And we laid out several ways we could potentially heat the campus. Again, right now we use natural gas with a centralized plant, and we distribute heat across the campus.

"These are the things we thought of as most viable, some more than others: Earth source heat is our preferred choice, and that means drilling deep to where the earth is actually warm enough that we could extract heat and use it for central heating; getting electricity from wind power, solar and biomass to some extent.

"We will talk a little bit more about those in just a minute, but I want to jump directly to the economics. This is a busy figure. It's in our report. It's online. You should see it in the materials for today's meeting as well.

"A couple things to look at. The annual operating costs, right now, we're spending \$42 million a year to purchase natural gas, purchase electricity and for the routine maintenance associated with what we do. So these other options are expensive in some ways, but not terribly different from what we're doing now if you consider some of the social costs of carbon.

"So over here are the upfront capital costs. Those are big numbers. Our source heat combined with some of the changes we'd need to make for distributing heat on campus

is thought to be a \$700 million investment. But, in fact, some of the annualized operating costs would be less than we're doing now.

“And here, we're looking at the annual equivalent cost, which would be the prorated capital cost and the annual cost; and we are including, for those where it's appropriate, the cost of carbon offset to deal with the societal aspects of public health and climate change. We are doing that with just carbon dioxide in this line, and including the cost for methane emissions in this line. So if you consider it that way, the cost is \$71 million.

“For our preferred option forward, it is actually less than the business' usual if we fully account for the carbon cost.”

UNIDENTIFIED SPEAKER: “I just want to make one point.”

Senator Howarth: “Sure.”

UNIDENTIFIED SPEAKER: “A key point to note is the first five bullets here have no extra cost of carbon associated. These are all entirely carbon-free solutions. The cost of carbon shows up in the next group.”

Senator Howarth: “Where we would still be buying some electricity, that shows the carbon cost. Good point.

“Finally, on the costs, these are our annualized operating costs, including carbon offsets when they're appropriate. If we're buying electricity, that would be in the blue for just carbon dioxide and in the orange here for including methane.

“And the point is that although there are high capital costs associated with some of these, the annualized operating costs are, in fact, less long term. So earth source heat, if it were to work long term, could be a good financial option.

“So our recommendation is we strive to meet 100 percent of our electricity use from truly renewable electrical sources, that we pursue this earth source heat, but we should recognize it's experimental.

“It has not really been done in this part of the world, and so we need to explore whether that will work. We think there's great opportunity for outside funding for that, which is helpful in terms of that \$700 million capital cost.

“We specifically say, though, that we should reassess in five years. Will this really work? So it's a five-year experiment.

“If not, we move forward with option B, which is probably shale or ground source heat pumps, but continue to look at other options as well and continue to look at both costs and technical feasibilities because this is a very rapidly changing aspect, as you probably know.

“I also want to note that we presented at the University Assembly on this report just a few weeks ago, and the University Assembly last week endorsed the report fully so I think shared governance is working here to some extent.

“And then Charlie asked that we phrase this in terms of questions, which you, the Senators, will hopefully be engaged in. And I suggested these two: One is balancing these large financial costs, some of the large risks associated with our proposal, say, for earth source heat, together with the ethical and reputational advantages we can have.

“Climate change is real, I believe. And I think all the members of the SLCAG came forward and said that this University has an ethical obligation to treat it as real and move towards carbon neutrality as an example; it's important to our reputation to do so.

“And, again, I personally agree with the report's recommendation - the unanimous part of the report that all of our undergraduates be climate literate by the time we give them a degree. If we all agree -- If you agree that that's desirable, how do we do that?

“Again, the report lays out no framework whatsoever for moving forward. What's the best way forward? And what's the role of the faculty and Faculty Senate? Again, I would hope that this body takes some ownership in that idea.

“There are several other members of the group in the audience, I should point out, so we can take questions and discussions. How am I doing on time?”

Speaker Susskind: “You have about seven minutes.”

Senator Howarth: “Seven minutes, okay, not bad.”

Senator Michel Louge, Mechanical Engineering: I applaud this initiative, of course, because it's very important for the planet. I noticed, however, that you have been talking mostly about the supply side, that is to say the production of electricity and natural gas burning, et cetera, as opposed to the demand side.

“I note, for instance, that before the utilities building consumption website was no longer available publicly, Duffield Hall, for instance, would cost about \$200,000 a month in utilities largely because the initial investments of heat exchangers behind

fume hoods and clean rooms were not made, so that in the long run, the cost of that electricity and heating was very large.

“If I remember correctly, it was about 120 seconds of resident's time in one of the clean room for air pumped from the outside to heat it up in the winter or pump it the outside and cool it off in the summer, leading to these very large costs.

“So is the report mentioning what will happen to the demand side, that is to say, reduction –“negawatts”, in other words, to things that could be reduced? Thank you.

Senator Howarth: “Yes. I mean, I glossed over it now because I was told to keep this five to seven minutes, which we did, but the report definitely talks about the demand side as well.

“You are correct, I mean, heating, as I say, is a major, major part of our climate footprint. Fume hoods and clean rooms are a major part of that. We live in a cold environment where - a big research University, there are costs associated with that.

“The report calls explicitly for doing more in building renovations, taking a longer-term view of what the payback period would be, for example, which is a big step forward. And we are proposing detailed standards to emit in all reconstruction, so I think that will help tremendously.

“There already is a plan under - not underway, it's under -- It's going on now for fume hood improvements. I think we need to do a better job of advertising that. I mean, I run a research lab with five fume hoods.

“Actually, until I joined the SLCAG, I was not aware of the University's efforts, which are quite impressive, to try and make our fume hoods more efficient; so we need to better advertise that and get more engagement.”

UNIDENTIFIED SPEAKER: “That question itself came up in terms of actual SLCAG conversation, in fact. Provost Kotlikoff, Dean Collins were in the room discussing that building. Because of the challenges Dean Collins face due to the current way we operate, he was making decisions about buildings. So it was a really interesting conversation with [indiscernible] there, as well.

“And so the thought -- The conversation led to a serious discussion about how do we change the policy going forward to make decisions that don't fit within a certain budget envelope, that then can strain the energy efficiency to a longer time scale to be injected,

and so that is very much part of the conversation. And I think we will see a change in the coming years on that process, and that's part of what will happen this year."

Senator Robert Thorne, Physics: "My question is: is there some way that faculty and staff who care deeply about this issue could actually invest in infrastructure at Cornell?"

"So the thinking is, you know, many faculty have put solar panels and other things on their homes, but that's like the most economically, inefficient, stupid thing to do. It's much better if you could, you know, buy into a solar farm or something like that.

"And the law has changed where, you know, there's a pro novus [phonetic] project where people have bought into that, and they get the tax break because they own that stuff; and they're promised a 7 percent annual return, which if it materializes, sounds pretty good.

"Could we somehow -- You know, those of us who care about this but who don't want to mess up our properties, could we somehow invest in things that could -- Maybe we start an LLC, and maybe it operates on Cornell land or on Cornell rooftops?"

"I am just wondering what the possibilities are there."

Senator Howarth: "I find that to be a very interesting idea. We did not discuss that - at least I don't believe we did - as a committee. But, again, the committee is an ongoing effort, and we view this report as the first step towards larger community engagement and bring out the full creative power that exists here at Cornell.

"I think that is one of many excellent ideas we should explore."

UNIDENTIFIED SPEAKER: "Agreed. And, actually, Rob, my apologies for not responding. But your e-mailing to me on that issue is actually on my list to discuss with a slide.

"There is a project already on the books at Cornell to look at community solar. I'm not sure yet what that would look like for external partners participating, but it would be part of what is known as the Ellis Hollow track.

"So there are opportunities like that emerging, bubbling up through campus already. But it is, as Bob said, an excellent idea that we will certainly discuss as part of a frame work on how to move forward.

"Mike?"

Professor Mike Hoffmann in Entomology: "And, Bob, I think you're aware, there as an attachment to the senior leadership report that showed some progress being made with climate literacy for faculty, staff and students, and a working group was proposed.

"I will defer to the Senate, but I just want to make sure that everybody is aware that there was also an Atkinson Center lunch on the topic, so there's been some conversation."

Senator Howarth: "That is an excellent point. There are a lot of attachments to the report, both technical and -- The report itself is, what, a 28-page document; I think we have 500 pages of attachments. And, indeed, part of that is on climate literacy. "

"My own viewpoint is we need to do far, far more than we have to date. So I view what has been reported as a good first step, but nowhere near sufficient if we really want 100 percent of our students to be climate literate."

Professor Hoffmann: "Well, I'll just add the other thing. Conversation, I think, around that we haven't talked about today is defining what that means, of course; so that's the first step."

Senator Howarth: "Right, right, exactly. And the report doesn't define. It just says it's desirable, so it's meant to be a conversation starter."

"Other questions? Time? We are out of time probably? Okay. Thank you very much.

Speaker Susskind: "So all of you who would like to comment on any of the stuff that we talked about, you can go to the Dean of Faculty web page and do so. So you have that opportunity to add additional stuff. We're under very tight time constraints most of the time, and so that's just an option for you. So please take advantage of that.

"So now we'd like to introduce Provost Kotlikoff to talk about student housing while advancing academic initiatives."

5. ADDRESSING STUDENT HOUSING WHILE ADVANCING ACADEMIC INITIATIVES (PROVOST MIKE KOTLIKOFF)

Provost Michael Kotlikoff: "Thanks very much. I want to begin a conversation with the Senate, and it's a conversation that's extending throughout the campus. I will speak to the SA this week and the UA and GPSA in coming weeks. But it's around some major issues that we're coming to consensus - some consensus around, and would love to get more feedback about this.

“So let me start with the big picture here that we have, and that is the overall goals of University. My goals, these were best goals and Rawling's goals, and that is to try and do some things on the student experience side.

“We have initiated some conversations, which involve the faculty - thank you - around issues, such as curriculum. This is an issue for the Faculty Senate, would come back to the Faculty Senate.

“I am going to focus significantly on student housing today. Then, we have a number of initiatives around diversity and the living/learning experience and our advising programs, many of those are occurring within the colleges.

“Second large, major goal is connecting Cornell. Hunter Rawlings calls this one Cornell. But it is the idea of connecting both the Ithaca campus, and also connecting our campuses - our emerging Cornell Tech campus that will open this summer and the medical school, in fundamental ways that unify our faculty. And I can say more about that in subsequent meetings.

“And then the third is an investment in academics that I've talked about in several fora here at the Faculty Senate previously, the fact that we've come through a sustained period of what I call deferred academic investment. And that's been associated with some financial stresses on University.

“And so we really now have to pivot and think about academic investment. And those initiatives center around providing the colleges with the resources they need to succeed as well as certain multidisciplinary programs that operate between the colleges and then balancing both of these.

“So I'll give you a couple of examples of these. I show on the top here, the goals; again, academic investment, connecting Cornell and student experience and some initiatives vertically here that show what we're doing.

“So these multidisciplinary task forces, which are faculty, coming back to define ways in which we can achieve excellence in areas that are important for the overall stature of the University.

“Five-year financial plan, that provides the resources for the colleges and does that in a stable and predictive way so that we don't have a different budget every year and colleges don't feel that if they succeed and they have excess revenue at the end of the

year, that the provost doesn't take them - take it; that they don't suffer from their success and end up not being able to invest in academics.

“Third, the housing initiative that I'll talk about today, which, fundamentally, it impacts the academic investment because it's both our students and, as you'll see, our academic infrastructure and also, primarily, the student experience.

“Academic facilities, part of what -- Again, I'll be focusing on housing today. But part of this plan addresses some deferred maintenance in our academic buildings.

“Any of you that have been in McGraw Hall, the building that is held together by a pipe running from one facade to the other, understands some of the challenges that we have on our building side.

“So our academic facilities, curriculum initiative, I mentioned; Hunter's Inch Project, where he's trying to generate resources to allow - to really, basically, fund programs from the Ithaca campus at Cornell Tech, allow us to project to the New York Tech campus; and then this idea of academic unification across these campuses in ways that I'll talk about at a future meeting.

“Okay. So framing the problem. Here, we have a problem that I said is deferred academic investment, and that has constrained academic budgets in the colleges and has also limited the amount of central flexibility. Since we've had a central budget deficit up until this fiscal year, that has eliminated our ability to do anything strategic across the campus.

“And then to defer capital investment. And here, I'm going to lay out our student housing problem. But I want to point out we need programmatic capital investment.

“We have the named \$50 million Biomedical Engineering Department; we don't have a solution for how to really -- Well, we have a theoretical solution. We don't have the money to really fund facilities for that program.

“Computer and Information Sciences is a rapidly expanding program with, by far, the highest faculty - student to faculty ratio across this campus. They will need to hire more faculty, and they need space to house them.

“I mentioned academic buildings, McGraw, et cetera, and now I'm going to turn to existing student housing.

“We have buildings like Balch and Risley. Ryan is here, has just gotten back a report from an external group that points to the challenges of our buildings. Those are in great need of repair; however, we cannot currently repair them because we have no swing space that would allow us to empty those buildings for long - of students, for long enough to be able to repair them.

“And then finally and critically, we have a major problem on Cornell's campus that has been existent extant for many years, and that is the fact that students that come to our campus almost immediately are faced with a challenge of looking in their second year for a place to live.

“So they're housing insecure, in a way, because they know that they may not win the lottery and get a room in West Campus. We don't have the capacity to house our sophomore class. We can house about 56 or 57 percent, including fraternities, sororities, program housing and West Campus.

“So we really would like to have an experience where we have freshman and sophomores with the ability to live on campus, and we would like at the same time to address Collegetown in a way that improves the living experience for students in their third and fourth year. And much of that plan comes out of this master plan that Ryan commissioned.

“So student housing problem. Scope of the problem, deferred maintenance; we need swing space to solve deferred maintenance; sophomore demand; dining; if we house more sophomores, we need more dining. And then Collegetown is an issue that we're hoping to solve through partnerships and approaches with others in Collegetown and not do that on our books.

“So what I want to do now is frame the solution for the Faculty Senate that we're thinking about, talk about the options and talk about next steps.

“So here's the problem. You see that we're about 59 percent total capacity for sophomores, almost 100 percent are freshman. We would like to get that sophomores up closer to 100 percent. The demand is there. The fact is that what we're currently doing is sending much of our financial aid dollars to Collegetown to subsidize apartments in Collegetown or elsewhere, many of which are not safe and are quite expensive, driven by the demand that we've created.

“This is what we'd like to come up with as a solution on campus first and second year; off campus, some options for juniors and seniors. But, in general, a little less in loco

parentis and a little bit more a structured environment that is safe and affordable within Collegetown.

“The plan that the group suggested was building new housing on North Campus - that's in here, and creating a sophomore and freshman community on North Campus. We already have a number of sophomores on North Campus in program houses. So the idea that North Campus is strictly freshman is not currently accurate, and we have the ability now to think about creating something that creates a kind of community of freshman and sophomores.

“Okay. So I want to go back financially a little bit because I think it's very important for us to solve this problem without exacerbating the other problem, the deferred academic investment. Because if we end up addressing this problem and create more pressures on the academic side, I don't think we've gained as an institution.

“So this slide really shows you -- And I direct your attention to this column here.

“In '08, we spent about \$80 million a year from our operating budget on financial aid. We had a financial aid program that was courageous and ambitious. And we now spend about \$120 million more on financial aid out of our operating budget than we did in '08. That has created an enormous stress on the academics, on our ability to address our capital deferred maintenance on our ability to do anything. It was a fundamental investment in access to Cornell. It was a courageous decision, but it's created this deferred ability to invest in our academic program.

“So how do we solve this problem without creating this in the future? And the other part of this, one must realize, is that Cornell is different than our Ivy Plus peers in a fundamental way.

“Eighty percent of our need-blind financial aid comes from our operating budget. It could be spent on anything. It could be spent on new faculties. It could be spent on new buildings.

“We don't have the endowment, obviously, of our peer Ivy, and we also have a much larger undergraduate cohort. That means -- Those two facts mean that our ability to fund financial aid, even to get in the ball game with the other Ivies -- And we are the least generous of the Ivies in financial aid currently. Even to get in the ball game means an enormous expenditure from our operating funds.

“Okay. So now let's frame the solution. So how do we address this without creating unintended consequences?

“The first thing to recognize is business as usual. If we just go on as we have, increasing tuition, constraining costs, modest salary growth from faculty and staff, maintaining our financial aid policy as we have it now, we will not be able to address these challenges.

“We can do academic investment, but we won't be able to do our capital investment. We can do some capital investment, not all of it, but it will come at the cost of academic investment.

“So we need a responsible and creative solution that balances these objectives.

“Fundamental principles. Don't sacrifice one type of investment for another. Don't predicate building projects on future philanthropy. We've been there before; it hasn't worked. So if we say we're going to borrow money, we're going to fundraise for dorms, which are extraordinarily hard to fundraise for, we are likely not to be able to do that, not to be able to achieve that and result in an academic problem three or four years down the road to be able to pay back that loan.

“And then -- So have a solid revenue plan for any additional commitments that we make.

“So the general plan is to build resident halls to provide swing space, more sophomore capacity and a modest addition of new freshman intake. That modest enrollment increase will enable construction financing without constraining academics.

“We are not doing this predicated on needing that for significant academic investment, although, it would help at the margin; but largely what it will allow us to do is to put forward a plan that is able to pay back the cost of borrowing money to do what we need to do on the housing side, as well as the cost of borrowing some money to invest in academic deferred maintenance, to fix our classrooms and to do some programmatic investment that we have already made commitments to.

“So student growth will come with more faculty and staff. I'll present a plan that is not absent increased faculty and staff.

“And then, lastly, the growth in the student body will generate some funds at the margin for academic investment.

"I want to make another point here, and that is that when I became Provost, I did a little experiment. I asked the deans - we're in a zero sum game now, and there are no more bets. So if one college gains - is to gain more freshman, another college is to lose it; and everyone would say to me, give me more beds. They wouldn't say who to take it from, but I would have to take it from somebody.

"So I did the experiment. I asked every dean: How many students would you like to admit - new students without any more faculty or any more staff? The aggregate number of all the deans, not knowing what their colleagues was saying, was over 650 more freshmen, so 24- 2,500 total new students at Cornell. We are not going to do anything like that, but I want to give you a sense of the total demand here.

"And part of that is to address some historical trends that we've gone through. And those trends include the fact that over the last ten years, during this period of academic stress, many colleges markedly increased their intake of transfer students. So they're very significant increases of transfer students, whereas other colleges did not do that at all. They were not funded in way in which they got their revenue from tuition, so they had no incentive to do it.

"And we now are in a situation where, for example, Arts and Sciences is a lowest - is at a historical low in terms of their percentage of students relative to the whole campus; and other colleges are at historical highs.

"So some details. I've talked to the deans. The deans have now all bought into this plan. The overall financial -- The overall size and scale of the student increase, discussions about how we address and mitigate some issues associated with that; and please give me some time to talk about that.

"But we're planning on an increase in freshman intake between 250 and 275 students, so a total increase of about 1,000 to 1,100 students. That would be coupled with an analysis of gateway courses, which is already underway and is already a significant problem at Cornell.

"So we need to address this issue of planning our gateway courses and understanding that we're working together in many of these courses that many colleges are admitting students depending on access to gateway courses. And right now, it's an ad hoc negotiation; I'll let you have some more students, if you pay for more TA, that sort of thing.

“Initiate a capital project on North Campus for 1,250 beds and new dining completed by fall of 2020. So we wouldn't increase our student intake until the fall of 2020. That gives us time to think about how we do this in a way that allows us to address some issues of crowding of individual courses, think about our overall class sizes and how we address those.

“We would, as soon as we build a dorm, renovate Balch - move students out, and start to renovate Balch, which is in dire need of it; and then partner with others, as I've said, to improve Collegetown. Some of those conversations are ongoing.

“Okay. So, again, why increase the freshman class? One, it provides some funds for academic investment, but mainly it provides funds to address this payback of this loan for capital, for academic buildings, for our programmatic investment and allows us to payback the renovations to Balch and other facilities that benefit all the colleges.

“Secondly, address - use this as a way to address some of the shifts in enrollment in colleges that have been serendipity, if you will, over the last ten years and try and get us to a consensus around the size of our colleges.

“It will allow us to accommodate new academic programs. So BME, for example - Biomedical Engineering is a new program. If Engineering doesn't have new students, it's just stealing from another Engineering program.

“Computer and Information Sciences is increasing students. They are coming from Arts, they're coming from CALS. We don't increase students; we destabilize those colleges. So thinking about how to allow those programs to succeed.

“And then it solves a fundamental student-like program that students tell us is a major issue, and I hear from parents all the time.

“So this is the point that I made earlier about each college asking for more. So major college needs - just to summarize these - Arts and Sciences are at a historic low; students are taking more CIS and Business courses; some people suggest we should prevent them from taking those courses, that's not a solution I favor; Engineering added BME.

“College of Business growth. Dyson and Hotel have been in a major constrained environment. It is likely that those undergraduate programs will grow as the College of Business begins to take advantage and benefit from the leveraging that we've created.

“CALs growth. We need to offset the Dyson impact on CALs; that's a major impact on CALs for the future. And then loss of state revenue in the contract college, ILR and Hematology are trying to make up for that on the undergraduate side because of a constrained state investment in higher education.

“Okay. So what are the potential downsides here? One potential downside is that we drop in US News and World Report rankings. That ranking is heavily skewed towards the endowment per student, so our number of students will go up; the number of faculty per student, our denominator goes up; and our expenditures per student, again, the denominator goes up. I'll show you that in a minute.

“A second one that I'm more concerned about -- Because US News and World Report isn't an important ranking. People pay attention to it. We should pay attention to it, in my view. I think there are some things that we can do to mitigate the impact on the actual score, but it shouldn't drive our ability or desire to solve some major problems for our students.

“But I am worried about class size increases. I think we have to have an adult conversation about how we address this as an institution and make sure that we create the best environment for our students in some of these large gateway courses that students are getting closed out of or, if you're not a major in, you don't have access to, et cetera. So that's the gateway courses.

“And then if we borrow this money, we may lower our bond rating. I'm sure that's a critical issue for the Faculty Senate. It's of no interest to the Board of Trustees. But I can tell you that I presented last week this issue to the Board of Trustees, and there is great enthusiasm about trying to solve these issues in a sustainable way.

“So this shows you US News and World Report, expenditures per student, class size and student-faculty ratio. And I show you how we got here.

“I have had this conversation with the UFC, with the Financial Policy Committee, I've had that as early as last year in terms of shaping some of these ideas. We met again in September, and I talked about these ideas.

“There are some concerns about increasing our student body. I expect to hear them today. I heard them from the - from our trustees.

“I do want to emphasize that we need to solve these problems. So whatever solutions -- If you can come up with a solution that doesn't involve an increase in the student body,

I would like to hear it. "But I think I know what the parameters are. We could increase our tuition far in excess of what we're planning to do; we could decrease our commitment to financial aid markedly; we would have to make a major decrease in access for students, which I'm not planning to do; or we could - the other options are to, you know, have another draconian cut in staff, et cetera, at the institution.

"So my plan from here, again, the components of the overall solution, academic and capital investment, a plan that does both. And part of this is an effort now to direct our philanthropy. We have announced - I think many of you may have seen it in the Cornell Chronicle, we're trying to focus our philanthropy around faculty, around academic investment in the institution.

"Our mini campaign will be a \$300 million campaign for faculty, which would spin off about 75 - which would spin off 15 million a year in terms of faculty funding if we could achieve that. That is over a five-year plan, but that would allow us to markedly increase the endowed professorships at Cornell and get us in a position where we secure the future to a much greater degree.

"So focus on faculty needs, grow the endowment, unite the campus through this direction of faculty directed campaign because we'd like to see Cornell and Cornell Tech also undergo this type of campaign.

"Explore the challenge of feasibility? I'm not sure, Patty, what that means. Did you change that? Okay. We'll ignore that."

Patty Ard, Provost Office: "I do think it means challenge grant."

PROVOST KOTLIKOFF: "Oh, oh, okay. Thank you.

"So the idea here was to try and get some big challenge grants that would allow the colleges, then, to match those and make it easier and easier lift for certain colleges to get endowed professorships.

"And then Hunter is launching this, and the next president will continue. And we anticipate this -- This will anticipate the next comprehensive campaign, which will be in the three- to five-year time frame.

"So next steps, discussion with the Board of Trustees regarding how we do debt; discussions with the new president when that happens, that is critical and we will not go forward until we get consensus of the new president; the Board of Trustees will have to approve a capital plan. I'm hoping that will happen in January, initiate that plan and then initiate the campaign.

"Faculty related next steps, very important. Working with the curriculum committees and other committees on the liberal education program that Hunter has been so articulate about that is ongoing in College of Arts and Sciences and we also have a provost committee working on.

"Executing on gateway course strategies and thinking about how we structure these programs together and don't exacerbate this problem and, in fact, make it better.

"Provost Task Force. Identifying priorities for academic buildings and classroom investments. A number of people in this room serve on that committee, which has already prioritized some of the investments we would make in academic buildings, what are our worst problems.

"BME, BS&CB and CIS faculty work on plans for new and growing programs. And then our task forces in these multidisciplinary programs are identifying strategies for us at the interface between colleges to try and come up with strategic plans to improve our stature in those areas.

"So with that, I would end. How much time do I have, Mr. Chair?"

Speaker Susskind: "Fifteen minutes."

Provost Kotlikoff: "Fifteen?"

Speaker Susskind: "Yes."

Provost Kotlikoff: "Excellent. So, questions? Yes, Richard."

Senator Richard Bensel, Government: "Michael, I have a question about Collegetown which showed up twice in your slides, but you didn't mention it.

"The University dorms now are class neutral, so everyone has approximately the same room regardless of, you know, their money and wealth and so forth. Are there subsidies for apartments in Collegetown that introduce class distinctions between students?"

Provost Kotlikoff: "Currently?"

Senator Bensel: "Yeah."

Provost Kotlikoff: "I am not aware of any."

Senator Bensel: "That is the question. Could you explain the Collegetown arrangement?"

Provost Kotlikoff: "Okay. So it's a great question."

Richard Bensel, Government: "Oh, sorry. Richard Bensel, Government Department."

Provost Kotlikoff: "Yeah. It's a great question, Richard."

"So I think what Richard is referring to is we'll allow market forces to operate unbridled in Collegetown. We have the potential of having differential opportunities and the - end up with a solution that students on financial aid or a limited budget, et cetera, would live at one level; and students not so constrained, would live at a different level."

"I can't say too much about the plans in Collegetown, but I can say that those plans are fundamentally in partnership with Cornell. So the idea would be to create some options that are not Cornell owned but are guided by Cornell's values and would create a living environment that we would - that would not contain the kinds of inequities or differences that you've described."

"I don't know, Ryan, if you want to say anything about that?"

Vice President Ryan Lombardi: "About Collegetown?"

Provost Kotlikoff: "Yes."

Vice President Lombardi: "I would be happy to."

Provost Kotlikoff: "Here is the mic. Why don't you come up?"

Vice President Lombardi: "Sure. So the comment the Provost made about the market effect is really what we're seeing. Because we have so little housing on campus, the rates - the rental rates, prices, have gone up drastically in Collegetown, especially with new properties and such."

"So what we're seeing now is the number of students who can go into Collegetown tend to be those more affluent students; and then you see our students from lower socioeconomic statuses, migrating to other neighborhoods off campus or staying on campus."

“We actually have a higher percentage of financially aided students who stay on campus because of the affordability factor, but that market force is really what's driving those rates up.”

Provost Kotlikoff: “Other questions? Dave?”

Senator David Delchamps, Electric and Computer Engineering: “One comment of parameter in US News is acceptance rate, as well, so, you know, that's another one that's affected by it.

“But the question I had is: Whenever I hear about using increasing enrollment to get money, okay, it worries me a little bit because the net income per student is different from one student to another. If a student comes in with a lot of financial aid and is, say, a diversity person that really needs that, they give us less money; and if they come in as a wealthy international student through need aware admissions, they give us a lot more.

“You know, I'm hoping that when and if we do this - and I imagine we will - that people are attentive to that and the effects on whatever our diversity goals are here.”

Provost Kotlikoff: “Terrific point.”

Senator Delchamps: “And just one little tiny thing. I'm curious, do you have numbers on the average net income per student taking into account financial aid?”

Provost Kotlikoff: “Yes, yes, yes. And I think I've showed them previously, and I'd be glad to make some of those available.

“So a couple points. First on your point on US News and World Report, David, we've done a full analysis that is all the elements that would be impacted and what the total effect on our US News and World Report score would be. And I want to emphasize that these are - this is very crude.

“So, for example, when US News and World Report pulls our financial expenditures per student, they pull that from the IPEDS data. That IPEDS data does not include, for example, something like the benefits that we experience from our statutory colleges, not paying any fringe benefit for employees, which is a big number.

“It doesn't -- So, you know, we're complicated in this. We think there are ways to address some of these. We have not comprehensively had someone in charge of looking at how we provide data to US News and World Report that appropriately affects something like the point that I just made.

“So there are mitigating strategies I think we can undertake, but it won't mitigate the whole impact to your first point.

“Second point. We have very carefully modeled out what the impact would be of new students.

“You make a great point. There is even a further point, which is that the real cost of education at Cornell is beyond what the tuition is because if you factor in the endowment support for all the facilities at Cornell and portion that to students - and, of course, those facilities are available to those students, then the real value of those students are getting is much higher than the sticker price. And, of course, the 46 percent of students on financial aid, as you point out, are much lower than the sticker price.

“So we've done the full modeling to say no change in financial aid. We're not changing financial aid as associated with this program. I will say one thing about financial aid further at the end of this, but this is not at all predicated on any change there.

“And we do see substantial revenue associated with this. That revenue will go to the colleges, and that will do a couple of things. It will allow the colleges to have more investment in their academic program. It will also lower the responsibility of the Center to caveat some of those colleges where caveats are in place and needed.

“But to your major point, there is a delta revenue that is significant and important, and will allow us to pay this back.

“And then the last point that you made was -- Remind me; very short attention span.”

Senator Delchamps: “The net cost -- The net income per student is different across students.

Provost Kotlikoff: “Yes.”

Senator Delchamps: “And will incentivising -- Will this incentivize, say, for example, wealthy international students?”

Provost Kotlikoff: “Yes; it will not. It has nothing to do with that.

“Now, I just want to let this Faculty Senate know one other thing, which is I recently had Financial Aid and Admissions Task Force that Barb Knuth chairs, that I've asked to look at one thing. And that is, I think I showed the Faculty Senate - either the last time I

was here or before - the fact that of the four-out-of-five family income quintiles from Cornell's family income over the last 20 years, the cost of education inflation adjusted at Cornell has either decreased or stayed the same. It's half at the lowest quintile.

"That has been the impact of this investment in financial aid. The problem is that the unaided group is increasing at a slope that is unacceptable after inflation adjustment. And last year and this year, the first two years in the last 20 or so that -- I think it's more than 20, maybe 30 years that Cornell has not increased its financial aid less than 4 percent. So for the last two years, it's been 3.75; and it won't be above that while I'm Provost.

"So we've brought that down. I would like to bring it down further. I would like to ask the financial aid committee - not to take money from financial aid, but think about this problem and see if we can flatten this problem for the future and decrease the rate at which we're increasing the tuition for those unaided students, many of whom are at the bottom end of the family income level and getting squeezed more and more. That is the part you hear in the newspapers. It's not the four-out-of-five quintiles that are rated. So that's the financial aid.

"But these two things are entirely separate, and we will not solve this problem with a predicated change in our financial aid policy.

"Yes?"

Senator Daniel Brown, Animal Science: "A couple quick suggestions that may save some money.

"One is regarding the housing. I don't understand the emphasis on Collegetown at all. I mean, I was a student here many years ago for four years. I never lived anywhere near Collegetown, and I don't think I was any worse for any experience. Maybe if we had modest investments and enhanced transport around town - around the city of Ithaca, around the town of Ithaca, other communities, we could get the students into the various parts of communities and no longer have like so many students in service in student ghetto and the Isle of Vista East, you know, next to University.

"I just don't -- I never understood it, not for four years, why anyone would want to live there to begin with; but, also, why you would bend policy towards having people there rather than someplace else in town.

“The second one is probably much less controversial. Why do we care about US News and World Report ratings? To me, their criteria do not match our goals for University in terms of academic quality of class size, philosophy, nothing like that.

“You know, why don't we focus on what we want to do academically, what we want to do in terms of sustainability, all these sorts of things? If we get good rankings for it, fine; if we don't, fine. I just can't believe that it's even brought up in planning meetings or administrative meetings something as peripheral and off - you know, off frame from what it is that I think we want to be doing in terms of planning University.

“I hope not to hear about these rankings anymore in future meetings. I just can't believe we're letting US News and World Report drive – “

Provost Kotlikoff: “Well, I think you heard we're not; I hope you heard we're not letting it drive our policy.

“I understand the reluctance or the discomfort in hearing about it, but we're not allowing it to drive policy, so that's number one.

“The second point that I would make is that to your two points, there is an element here that is not you - your desires or my desires, but the demands of our students. And the reality is many students and many parents look at ranking and many, many of our students - I will let Ryan speak to this - want to live in Collegetown.

“And, so, we're not bending policy towards doing that, but we are addressing an issue of current demand and making sure – They are going to Collegetown now at high rents and unsafe conditions.

“Buildings that -- My son lived in one that has not had an investment for 20 years. And we're in this perverse environment where they don't meet code. If they invest in the building, they'll have to come up to code, so they don't invest in the building.

“And so we've got to do something about this because the students are moving there with their own demand. And I would just stress that point, that it's not us bending one way or the other, but -- And it is not Cornell policy. It is using our influence to say: How can we shape a better environment? “I will let Ryan speak to the demand part.”

Vice President Lombardi: “I would only add that our students in our study of this have rated proximity of campuses their number one driver of where they want to live when they do go off campus, so they're looking for something very close. And because we just haven't had that capacity, that -- not a policy, but that decision, that effect, has pushed them into that neighborhood because it is the most dense neighborhood.”

Provost Kotlikoff: "Other questions? No more? Okay. Sorry. I will get you later."

Speaker Susskind: "The last part of our meeting is going to address instructional space scheduling. Vice Provost Becky Stoltzfus, thank you."

6. [INSTRUCTIONAL SPACE SCHEDULING \(VICE PROVOST BECKY STOLTZFUS, MARY-LYNN CUMMINGS, DIRECTOR OF CAPITAL AND SPACE PLANNING:](#)

"Do I need --."

Speaker Susskind: "You need to speak in the microphone or hold the mic, one or the other; whatever works."

Vice Provost for Undergraduate Education, Rebecca Stoltzfus: "Yes. So the Provost's presentation really set the table for this. Before we bring in new students, but even to meet the demands of our current students, we have problems around instructional space scheduling.

"If you have ever tried to get a course - a desirable course taught in a large classroom at 10:10 on Tuesday and Thursday, you might have experienced this.

"So we actually have enough classroom space, in theory. So one of the things that Mike didn't talk about was that we need to build new classrooms to teach these extra students because data shows that we have enough room but -- in terms of the seats.

"But pinch points exist and will become more common for a lot of the same reasons that Mike described, the growing overall enrollment, growing enrollments in gateway and other desirable classes. So we have a squeeze on students who experience scheduling conflicts that frustrate them.

"Sometimes students are supposed to be in two places at one time in known conflicts, which we exempt. Faculty are sometimes unable to find suitable classrooms within reasonable walking distance from their office.

"Administrative staff are devoting a lot of time to customize solutions to this, and I've observed that in my few months on this job; and several of the deans are concerned. For example, CIS requires a special meeting with central administrators just to schedule its large courses because our system is not really efficient or working well.

“So what I want -- What I'm presenting to you today is a policy that I did not create. It was worked on in 2012/2013 with a lot of evidence-based study and benchmarking with our peer institutions.

“In November of 2013, this policy was finalized in a draft form and then went into hiatus because our - we were doing an upgrade to PeopleSoft, and that affects course enrollment and course scheduling. And then there were leadership transitions in the Vice Provost for undergraduate education.

“So now it is coming before you again. The policy was actually discussed and approved by the EPC at the Faculty Senate in November of 2013. But we thought it would be good to refresh everybody's memory of this and those solutions being proposed.

“So the three objectives. The first one is to reduce the conflicts created by strange class times and periods. So we actually have a policy that is a 1981 policy that establishes our start and - our class start times, 9:05, 10:10, 11:15, 12:20 and in 50 minutes or 75-minute periods, usually, unless it's a lab or other type of course.

“But a number of our courses don't use these standard start times; and, therefore, they block up more than one standard course time because they're nonstandard.

“So, currently, 7.6 percent of students are in seats with nonstandard class time, which adds up to about 6,500 student seats in a given semester.

“We are not proposing changing that 1981 policy about meeting class times. Some of our peer institutions are revisiting standard class times to try to promote more flexibility. We're not proposing that at this time. We're proposing to stick with the current policy that I think we all know.

“The second objective is to assign classrooms that are right-sized. So if you look at different classroom sizes, from small classrooms less than 20 in increasing sizes, this shows the distribution of fullness of those classrooms as currently assigned, and red indicates classrooms that are too full.

“So, again, we're aiming for the 50 to 75 percent fill rate of seats in a given classroom. And blue means that we're under 50 percent fill rate in classrooms as assigned.

“So you can see that the number of our smaller classrooms are somewhat crowded, and that we're assigning classes to larger classroom spaces that are below the 50 percent seat fill rate and we can potentially use those classrooms to better effect.

"And the third objective is to use the whole day, to distribute our teaching better across the whole day. So you can see our current class distribution there in these different times of day, and the new distribution that is targeted by the policy is shown on the right.

"So you can see that in the midday period, we're okay according to the new policy. But we all love to teach and learn in this 10:10 to noon kind of time period. So we've got a big traffic jam at that time of day, and we would like to redistribute that to some earlier classes and some later classes. Again, the 20, 30, 30, 20 matches a lot of our peer institutions, so that fits with benchmarks.

"So how would we achieve this? Part of it is just by a logic of ordering the scheduling of classes. We would schedule largest classes first, schedule gateway classes next, schedule the remainder of classes, schedule exemptions last.

"And you have the policy on the data faculty website; you may or may not have reviewed it in detail. But where we are, I have gone over some of this history. Again, the policy before you is dated November 2013. It's open for discussion today.

"Pending your comments and how much more input you want to have on this, I will bring it back to the associate deans of the undergraduate colleges that I work with. We have discussed it once for information and are pending your comments, and then we'll bring it back to the associate deans.

"I am proposing to vote into policy -- The policy would mainly be enacted at the local level of colleges and departments, but would be monitored by the office of the University registrar, so your college would get some feedback from the University registrar if you're not meeting policy. But the implementation of this would depend on cooperation at the departmental and college level.

"That is all I have. Yes?"

Senator Matthew Evangelista, Department of Government: "Becky, could you say more about the mechanics of the process? You say it would be done at the college level, but it's university-wide policy. So, for example, the timing of the scheduling, the largest classes, the ones that meet at least three times a week would get priority but college-by-college or university wide?"

"And how would it work with departments that might have many more of those courses at the higher level of priority versus departments with many fewer? Would

those departments have to wait until the departments with the higher priority courses have filled all of their relevant - all of their preferred time slots and rooms?

“Because the way we work now is we organize within our department by subfield, we put our preferences out, we negotiate and try not to overlap too much. What would happen to a system like that? Would we have to be waiting for the rest of the University and especially the departments with those big gateway courses; or would you have the priority system by department or by college?”

“Just more about what you're thinking, please.”

Vice Provost Stoltzfus: “Well, I'm going to have Mary-Lynn Cummings correct or add to what I say here. But my understanding of this is that the policy effects all of us as a University community. Because our students move around our classes across colleges, and so we want to agree on this as a policy framework for the University as a whole, but then it would be passed to colleges for implementation to schedule their courses.

“And these -- The targets that are set there in terms of the 20, 30, 30, 20 would be monitored at the college level, not at the department level.”

“Mary-Lynn, do you want to add?”

Mary-Lynn Cummings, Director of Capital and Space Planning: “I don't know if that answers the question?”

Vice Provost Stoltzfus: “Did that answer your question?”

Senator Evangelista: “You are talking about monitoring; I'm asking about implementation.”

Vice Provost Stoltzfus: “Yes. So I think how it works in practice differs by college. And colleges would have to review their implementation and their decision-making practices; and it probably happens very differently in ILR than it does from Arts and Sciences. And I don't claim familiarity with all those implementation processes within each college.”

Senator Hakim Weatherspoon, Computer Science: “Thank you for the proposal; I do support it. Being in CIS or CS, we do have very large classes, and I did have a question about that. When do you measure or allocate space for large classes?”

"Right now within CIS, we're actually artificially reducing the size or capping the size because we don't know what type of class we would get. So what point in time would you know this large class size or not?"

Vice Provost Stoltzfus: "So are you talking about class in terms of -- You're not talking about -- ."

Senator Weatherspoon: "Pre-enrollment times or later."

Vice Provost Stoltzfus: "Yes, yes. For example, Mary-Lynn and I just sat with CIS to -- Mary-Lynn did most of the work; it was learning for me -- but sat with Greg Morrisett and your administrator to schedule your classes for next term about six weeks ago - four to six weeks ago, so that's the time frame.

"But we would -- So CIS is a real issue, right, because you have a lot of student demand. You teach very large courses, and so it's one of the bottlenecks in terms of core scheduling and requiring a lot of specialized solutions."

Senator Bensel: "Some years ago, I was associate chair. And we experimented with 4:30 classes, and it was very successful. The faculty preferred them to 8:00 and 9:00 and so did the students.

"But, then, it was an experiment; and then it was prohibited again. So that would be a suggestion, that at least some classes could - rather than teach them very early in the morning, teach them the 4:30 to 6:00 slot."

Provost Rebecca Stoltzfus: "So, Mary-Lynn, is the 4:30 prohibition in the 1981 policy?"

Director Mary-Lynn Cummings: "Okay. So that's the 1981 policy that was approved by this Faculty Senate. It is still enforced. At the moment, we had not proposed to revisit that. If you-all want to suggest that that be revisited, it can be."

Vice Provost Stoltzfus: "I would suggest that we go ahead and try to move toward implementation of this policy under the current class times regulation. But if there's interest in moving forward a review of the 1981 class times policy, we could do that. "

Senator Bensel: "Our department would be interested in that."

Vice Provost Stoltzfus: "Okay. There are also in the 1981 policy evening times available, which are very much underutilized."

Senator Bjorkman: "So just like undergraduates seem to prefer living in Collegetown to Fall Creek, they also prefer 10:00 classes to 8:00 classes. So what would happen if course offerings were moved to 8:00 but course enrollment didn't move along?"

Vice Provost Stoltzfus: "You know, I think we all have to figure that out. I, too, love teaching at 10:10 on Tuesdays and Thursdays. But I think if we're going to solve the current problems and enroll more students, we just have to treat this as good citizens in a community, and it would be up to college to college to decide who moves out of the most desirable space there and whether that's a permanent move or whether that rotates.

"Again, this would be pushed to the colleges for those sorts of negotiations and implementation.

"Again, we're not alone in this world, and many of our peer institutions are able to educate their students at 9:00 a.m."

UNIDENTIFIED SPEAKER: "Just quick information on our request for information. Is there also distribution costs -- In other words, are Fridays lighter that it can be heavier?"
Vice Provost Stoltzfus: "Very much so."

UNIDENTIFIED SPEAKER: "On the books, we have Saturday classes. I don't think there are many, but has that been considered as part of this?"

Vice Provost Stoltzfus: "So that is not, as I recall, specifically addressed by the policy. But it is true that Fridays are underutilized.

"Or is it addressed by the policy and I'm forgetting, Mary-Lynn"?

Director Cummings: "We had identified several best practices in implementing the policy. One of the best practices that several of the colleges suggested was that where you have, like, a two credit or a two-hour class and a one-hour class, those Fridays would fit really well.

"So the class wants to be at 10:10 on Monday and Wednesday; use the 10:10 slot on Friday for that one credit.

"I think a lot of the colleges identified some opportunities to use those Fridays better if they could balance with the remaining days of the week. But we didn't specifically call out distribution across the week. We thought if we could meet it in the day, it would naturally somewhat then start falling to Friday a little bit, just by the logic of scheduling."

Vice Provost Stoltzfus: "Okay."

Speaker Susskind: "Thank you very much. I want to thank everyone today for their participation. And remember that you can comment on the Dean of Faculty web page; I just wanted to remind you one more time about that."

Meeting Adjourned at 5:00PM.