



Minutes of the Meeting of the Academic Council  
Thursday, January 21, 2016

**Nan Jokerst (Chair, Academic Council/  
Professor of Electrical and Computer  
Engineering):**

Welcome, everyone and thanks for being here today. I would like to call the meeting to order. I hope all of you had a restful and enjoyable holiday season and that the New Year and the start of the new semester are also going well for you so far.

One goal of our Academic Council meetings this year is to engage you, the faculty, in discussions of key topics that merit our discussion. Today, we will hear from Professor Merlise Clyde, who is chairing our Academic Council Faculty Compensation Committee. She's going to be looking at salary equity, particularly in light of the data published by the Chronicle of Higher Education that was presented in Academic Council last year that was of some concern. So we reviewed this Chronicle data last year in Academic Council, and this highlighted salary equity challenges at Duke, and Merlise is going to give us a preview of what she's going to be doing with the Faculty Compensation Committee this coming year. Today, we will also have a really interesting presentation from Duke's Vice President for Administration, Kyle Cavanaugh. He will discuss a number of initiatives that his office is leading that will have an impact upon faculty and students. We will hold that part of the meeting in executive

session.

***APPROVAL OF THE NOVEMBER 19<sup>TH</sup>  
MINUTES***

**Jokerst:** Let's get started by approving the minutes from our last meeting on November 19<sup>th</sup> which were posted with today's agenda. Are there any corrections or edits to the minutes?

*(minutes approved by voice vote with no dissent)*

***PROPOSED JOINT PhD at DUKE-  
NATIONAL UNIVERSITY OF SINGAPORE***

**Jokerst:** We would like to now move on to the proposal for a joint PhD for the Duke-NUS, or National University of Singapore. Patrick Casey, Senior Vice Dean of Research at Duke-NUS, is here today to present his team's proposal for a proposed PhD in Integrated Biology & Medicine at the Duke-NUS Graduate Medical School. As a bit of background, the Duke-NUS joint Doctor of Medicine degree was brought to Academic Council on November 16, 2006, and was approved by this Council on November 30, 2006, and is, by all accounts, a tremendously successful program. The proposal and supporting documents were posted with today's agenda and we will vote on this at our February meeting. With that, I'd like to

welcome Patrick for the presentation.

**Patrick Casey (Senior Vice Dean for Research, Duke-NUS / Pharmacology & Cancer Biology):** Thank you, Nan. It's a real pleasure to be back at Duke this week. This is kind of a homecoming for me. I always enjoyed the activities that were brought forth here. For those of you who don't know me, I've been at Duke now for 25 years; Pharmacology and Biochemistry departments, both. But I've spent the last ten years primarily at Duke-NUS, where I went over at the request of Sandy Williams and the then-Chancellor Victor Dzau, to help start the Medical School and I never found a way back. I'm still enjoying every day of it. I'm talking about my Integrated Biology and Medicine program. My Associate Dean for Research, Silke Vogel, was here last week and presented this to ECAC. So it's my turn now, it's been through ECGF and the Academic Programs Committee already. This is a picture of the school (refers to slide). It's located in the heart of Southeast Asia. Just to orient people, here's Malaysia, our neighbor, Indonesia, the Philippines, and greater Southeast Asia. This is Singapore here. It's a small country, 25 miles by 20 miles. So it's very compact. The school is right here in the south. The National University of Singapore, our parent university on that side, is about 2.5 miles away, very closely located. But we're right across the street from Singapore General Hospital, in the heart of their academic medical environment. So that's why the Medical School was built there. This can trace back to 2000, that's our interim quarters there, on the upper right, where we started for the first couple years. Singapore kindly built us that building there. On the lower right, this is essentially where the Biomedical School sits today. We're quite

unique in that the Biomedical School, education, research, and administration all occupy one building. We have a lot of partners throughout the health system and the hospital system. We're very compact. We have roughly 1,000 total staff at present time. The overall size of the research enterprise is nearly 500. As I mentioned, we came here because of the Biomedical Sciences Initiative that Singapore started in the year 2000. We came in Phase II, when we were building our capabilities in translational and clinical research. Their desire to establish a US-style research-intensive medical education program is what brought us there. Of course, the research is what brought me there and a great number of my colleagues. I will also point this out. Just to show that all the initiatives in Singapore are funded by the government on five-year cycles. We're just finishing the wrap-up of the funding for Phase IV. I just want to highlight that the full funding for the Medical School, the line item in each of these budgets, so in a couple of weeks we're going to have our budget until 2022. This will run until March 2022. It's a very generous budget. It funds all of our administration, all of our education, it gives us a very nice, healthy base of research support, which, of course, we supplement with competitive research funds, just like we would here. So our faculty compete, just as they do every place else, except that the competition is not quite as fierce in Singapore for Biomedical Research funding as it is in the US. Here is our timeline (refers to slide). We started the school in 2005. As Nan pointed out, the MD degree was approved in 2006. The first class arrived in 2007. Three years later we started our PhD program. As a NUS program, we felt that we really wanted to get this established

before we brought it forward to Duke for the joint degree. So it's been growing already for five years and our first class has all completed. I think our first class has all graduated. I'm going to highlight just a couple initiatives we've established between Duke and Duke-NUS to continually increase and foster the ties between the two institutions. Many of these are run jointly with Mike Merson, who, as most of you know, holds the title of Vice Chancellor of Duke-NUS affairs along with several other titles he has affiliated with Global Health. We have a number of programs to engage Duke faculty and to engage Duke-NUS faculty at Duke. What we're trying to do continually is to show both sides that this campus is a part of Duke. Everyone at Duke-NUS hopefully feels that they're part of Duke, and vice versa. The more we can mix these people together, mix all our faculty and staff, we can see really interesting engagements that emerge. We have collaboration grants. We can document over 50 research collaborations that are already underway between the two campuses. We have a number of programs to enhance and incent faculty to go back and forth. We have a one-week program where faculty can travel either way, spend a week, give a seminar. We have one-month exchange programs for Duke faculty to come and spend one month of an academic leave very much embedded within Duke-NUS. Not shown are the fractional faculty appointments where we will actually pay for a fraction of the person's time and they'll spend part of their time at Duke. We have about ten such faculty who spend 20% of their time at Duke-NUS. We have a grad student and post-doc exchange program that we started with Chris Nicchitta this year. We have a number of collaborations that are

ongoing across the education front; medical education and graduate education together. This is our administration (refers to slide). Our new Dean, Thomas Coffman, started six months ago. Before that, he was part time head of the Cardiovascular and Metabolic program. He succeeded Ranga Krishnan who succeeded Sandy Williams. So that's been the succession of Deans of the institution. Tom has been the Dean now for six months. He's been terrific. He has been a full time Duke faculty member for almost 30 years. He was former chief of Nephrology. Bob Kamei, our Vice Dean for Education, was recruited from UC San Francisco when we started the school and he's been with us for ten years. The rest of these administrators are clinician scientists from the Singapore region. This is a summary of our faculty (refers to slide). We have almost 90 full time, research-active faculty. We have almost 1,000 faculty altogether. These include all the clinicians in the Health System who encounter and help train our medical students in particular. Many of those have active research programs. But this 90 is a core of our research-active faculty that are also involved in education, of course, and you'll see about two-thirds of those are sufficiently qualified that they've been accepted to be mentors for this PhD program. So they're qualified to take on PhD students. So we have a process of certifying them the same way the Graduate School does here at Duke. These are our five signature research programs. These exist as little departments. So we build our research enterprise around disease-oriented themes rather than traditional departments. I'm going to highlight two in particular. For the PhD program, we have a track that tracks each of these signature research programs and three of them, the Cardiovascular,

Metabolic, the Cancer and the Neuroscience are pretty well represented here at Duke. Emerging Infectious Diseases and Health Systems Research are rather unique in terms of having PhD-level programs associated with the Medical School. So we have PhD programs in Emerging Infectious Diseases, as well as a Health Systems & Services Research program, with long-time Duke faculty as well. So I believe our PhD program really extends and enhances things that are happening here at Duke and really capitalize across the board on our passion for advocating academic medicine and translational research. Now I'm just going to spend about five minutes summarizing the program itself. Here are our students (refers to slide). I think I pointed this out already. It's very much modeled after the Duke Biomedical Program. We have almost 60 approved mentors and the students that come in, come in with essentially the same background and qualifications as they would here. They take the GRE, they essentially have all trained, or most of them have trained, at universities where English is the first language. If not, they have very high TOEFL scores, of course. We strive for that same caliber and quality of PhD student that we would look for here. I was the director of the Cancer Biology Program here for ten years. I am quite involved in Biochemistry, Pharmacology, and CMB programs as well. So I've been involved in graduate education for fifteen years at Duke before I went over to Duke-NUS. Here is the leadership of the program at the top. Some of you have met Silke Vogel, Associate Dean for Graduate Education. She came from Columbia. She ran a research lab at Columbia for many years, moved into education a couple years before we recruited her to Duke-NUS. In

terms of full disclosure, she is the wife of David Silver, the Director for Graduate Studies. He was at Einstein [College of Medicine], a really top-notch Cardio Metabolic researcher, and he agreed to take over. He ran an undergraduate program and PhD program at Columbia for a couple of years. So together, they oversee this program, of course with the help of many faculty. We have an Executive Committee which has representatives from each of those signature research programs, an Admissions Committee, of course, representing all of the programs, as well as an Academic Affairs Committee, which looks after all the students. Our students take the same path to the degree as they do at Duke. There is a qualifying exam at the end of their second year, there is a Thesis Advisory Committee, and then they have a Dissertation Committee. In the program, the first semester is 50/50 coursework and research, the second semester is about 70/30 research and coursework, and then by the time they get into years two to five, they're 80% doing research. For the one core course, called Molecules to Medicine, that stretches across the entire first semester for them all. Then they take advanced specialty courses, many of which we do in collaboration with the National University of Singapore and quite a bit of the content for these courses, in particular, that first course comes from Duke's team-based learning approach that we pioneered with the medical program. So there's a lot of Duke content that comes in for the Biomedical courses that first year for us. Even the advanced courses are taught jointly with Duke. If it works out right, if the fit is good, we have a lot of content and people that go back and forth between the two. This just goes through a little bit

more of the details (refers to slide). In fact, it doesn't look any different than the Biomedical program here. Here are the numbers for our students. If you look over there at the bottom right, you'll see that our GRE scores and our GPAs essentially match with Duke. We're sitting at the same quality of incoming students in terms of their background, their qualifications, by the book and by the numbers. How do we ensure that this program continues to have Duke rigor and maintains Duke connections? We're already ten years into this initiative, and I would say there is, if anything, more Duke-ness about Duke-NUS now than there was in the first few years. We were worried in the early days that it might start to wane down and it would become more of a Singaporean institution. That hasn't happened. Leadership has stayed Duke, faculty by and large are the same type of faculty that we would recruit here. They spend time at Duke. There is a lot of interplay between them. On top of that, we have established a number of mechanisms to ensure that, in fact, there will remain Duke oversight and Duke quality standards for this program going forward. The first will be an Oversight Committee, the faculty liaison, I think Soman [Abraham] is actually here today, and then participation of Duke faculty in all the key committees from the students. Here's our Oversight Committee. We see the Vice Provost for NUS for Graduate Education is on this committee, as well as the director of their undergraduate program. The counterparts on this side, John [Klingensmith] has graciously agreed to serve on it, as well as Chris Nicchitta as Associate Dean for Research Training. Chris and I have begun to establish a number of programs together in terms of research training, one of which is that PhD student /

undergraduate student / post-doc exchange program that I talked about. Soman, who splits time between Duke-NUS and Duke University, is going to be our faculty liaison; he has agreed to do that going forward. Finally, our Thesis Committees and our Qualification Committees are all going to have a full-time Duke faculty. So every time there's a major committee meeting of the students, either the Preliminary, the Qualifying Exam, or the Thesis Committee, there is going to be at least one member of the Duke Graduate faculty that is on that committee. I mentioned Soman, whom many of you know here, has been actively involved in graduate education, has agreed to serve as faculty liaison going forward. He was very instrumental and worked with us, as well as Chris Nicchitta and others, in terms of crafting the final version of this proposal so that it really looked like something that came out of Duke. We want it to look like something that comes from Duke because we feel it is coming from Duke. We're just the Far East campus of Duke, so to speak. We hope that, as time goes on, more and more feel that way as well. I think we have a good cadre of converts already. That's where I'm going to end. Just a reminder that we really feel like Duke-NUS is a part of Duke, we feel that it has held up in Duke quality and standards, that every step of the way, both in medical education and graduate education and research, the number of innovations we have done in education, in fact that have come back to Duke and have moved out of other institutions, we feel it's been a great credit to Duke and we feel that if we could establish this joint PhD, our students will feel, as well, that they're all part of Duke. And that's what we want. Because we want everyone that comes to Duke-NUS to feel like they're part of Duke

and they're carrying the Duke flag wherever they go. And in fact, we also hope that many of them will come here. We're hoping that because the more we develop these interactions, the more you're going to see really talented individuals from Southeast Asian and Singapore come spend time at Duke, perhaps even spend a long time at Duke and vice versa. So by having at Duke-NUS an established joint program, we show that we really mean it when we call it Duke-NUS. Thank you and I'll take any questions you might have.

**Karla Holloway (English):** Could you go back to the beginning of your presentation? I wasn't quite sure how you're doing the Phase I and II clinical trials.

**Casey:** These have nothing to do with clinical trials. These are the phases of the Singapore Initiative in Biomedical Sciences.

**Holloway:** So there are no clinical trials going on?

**Casey:** There are no clinical trials. These are multi-billion dollar initiatives that encompass both research and education as well as commercial development. They call it Phase I because that's when they started investing. They're investing in Biomedical Sciences as a way to improve the health of the population on one hand, and build a commercial base of bio-pharmaceutical technology in Singapore.

**Holloway:** So are there clinical trials going on associated with Duke-NUS?

**Casey:** Our partner, the Singapore Health System, is roughly the same size as the

Duke Health System; 1200 doctors, four hospitals, many clinics. There are many clinical trials that go on there. Some of them, we participate in.

**Holloway:** The ones we participate in, who regulates those? The IRB located there? Are we following IRB protocol?

**Casey:** The IRB there is joint commission certified. Their hospitals are all joint commission certified so it's all US standards for human research as well as animal research. The animal facilities are AAALAC accredited. So all the accreditations there are the same as the US. Singapore has insisted on that the whole way through.

**Pat Wolf (Biomedical Engineering):** How would you decide when you were going to offer a new degree? How would that be done? Like in a new department? If it's a joint program and you're going to offer a biology PhD now? How would that be decided?

**Casey:** We do have another program in development, but that is not being brought forward for a joint degree. This is our flagship PhD program so we have a PhD program in Biostatistics and Bioinformatics because Singapore really needs quantitatively trained people. That process is the same as this. We go to the National University of Singapore, the Ministry of Education, and that degree will be under the National University of Singapore. That one will not be brought forward as a joint degree. This is a PhD that we're bringing forward for a joint degree. That does preclude other degree programs that come in from the National University of Singapore.

**Jokerst:** The students that you showed and the statistics that you showed for the incoming PhD class, that's an NUS PhD that exists right now, right?

**Casey:** Right. A student that graduates today has an NUS degree.

**Amy Bejsovec (Biology):** So I'm wondering: You've got your first cohort that just graduated. What are they doing with those PhDs? Are they going to post-docs or are they going into the pharmaceutical field?

**Casey:** So we graduated 11. Six went into post-docs; two went directly into bio-tech. Three are MD-PhDs that are finishing their clinical training because we dovetail this with our MD program, and one went to DKU (laughter).

**Lisa Keister (Sociology):** Has our Graduate Council looked at this and vetted it?

**Casey:** Yes. It has been through the Executive Committee of the Graduate Faculty.

**Jokerst:** Yes, ECGF, APC, ECAC listened, and now we're here. At our next meeting, in February, we will be voting on this.

**Harvey Cohen (Clinical Sciences):** I can't speak to the quality of the specific graduate students, but I can say that I've had the pleasure of hosting some of the MD students at Duke-NUS who have come here for their third year of research. A certain portion of the class is allowed to come here and do their third year of research just like our medical students do their third year of research. Those students have been spectacular. The

student quality is just phenomenal. If they are any bit as good as the regular medical students, my expectation is that these graduate students will be equally as impressive.

**Jokerst:** Alright, well thank you very much, Patrick. We appreciate you coming.

### ***PROPOSED NAME CHANGE TO AN EXISTING MASTER'S DEGREE IN ART, ART HISTORY & VISUAL STUDIES***

**Jokerst:** Our next agenda item is the proposed name change to an existing Master's degree in Art, Art History, and Visual Studies. In the fall of 2013, the Academic Council received and approved a proposal to create a new Master's degree offered by the Art, Art History & Visual Studies department. Today, Professors Victoria Szabo and Caroline Bruzelius are here to present a request to change the name of the degree approved in 2013, which was then approved as a Master's in Historical and Cultural Visualization. The proposal is to revise the name to the Master's in Digital Art History and Computational Media. The proposal and supporting documents were posted with your agenda – we will vote on their request at our February meeting.

**Caroline Bruzelius (Art, Art History, and Visual Studies):** Our presentation will be very brief. We simply want to make the argument for a name change that better reflects our enterprise. I might say by way of preface that perhaps within the Humanities there is no field that has been more enriched by digital technology than the fields in which we are located because, well, you only need to think about today's newspaper and the destruction of an early Christian convent in Iraq, in Mosul, or the

destruction in Syria, to realize how important digital technologies are for recording, reconstructing virtually, and studying artifacts from the past. Whether it's a city, a building, or the indeed terrible problem of the dispersion of archeological objects that are now on the art market, these tools are critically important. We at Duke have been experimenting with digital tools for physical objects now for over ten years. Over that time, we have come to the conclusion that there really was a need for a Master's degree that would train people with the technologies that they are going to need in the future, whether that is working for a city, possibly in urban planning, or a PhD, or any number of possible fields. I represent the historical part, Victoria represents the media studies part, and what we would like to do is transform the Historical and Cultural Visualization name to reflect, more specifically, these two component parts. My part being that of the historical study and reconstruction of artifacts from the past, and Victoria's...

**Victoria Szabo (Art, Art History, and Visual Studies):** ... being about the media itself expressed through the idea of computational media.

**Bruzelius:** We started off very early. What we found was that a lot of other departments, including the most distinguished departments in our field, were nowhere near doing the kind of work we were doing. Digital Art History, as a name, has really only emerged in the last two or three years as a recognizable discipline. Now that it's there, we would like to latch onto it. We would like to have our title be precisely that because that is precisely what we do. Historical and Cultural Visualization was nice, but

nobody really knew what it was or where it belonged within different disciplines. So the two-part program that we're proposing will not only deal with the media studies part, which is very important, but also with our engagement with the lives of things. Collecting, moving things, reconstructing things, whatever it happens to be. So the name change, we feel, will attract students, will be recognizable, and will help make this program thrive.

**Szabo:** I'll just add to that. One of the things we decided to do was create two tracks in our MA: one called Digital Art History, and one called Computational Media, with the understanding that some people would come to this program more interested in thinking from a disciplinary perspective about how they could use new technologies to transform their research or the expression of their research while others would come in more interested in the technologies themselves and how they could learn new strategies for thinking about how to understand culture and the representation of culture more broadly. We also wanted to be able to include not only our Wired! Lab for art history and visual culture, but also some of the other labs and working groups that are available around campus and in our departments: the Art Markets Lab, the Digital Archeology Lab, Speculative Sensation, Emergent Arts. These are all things that are happening now within the context of our department and we wanted to give everyone the opportunity to participate in the Master's program and students who came in who didn't want to have an art historical focus and yet did want to think about things like visualization and mobile applications and 3D modelling but very



much within a Humanities context, a place to go.

**Jokerst:** Thank you very much. Are there any questions? (Silence) Well we have an agreeable Council today, my goodness (laughter). You've overwhelmingly convinced them. Thank you very much.

### ***FACULTY COMPENSATION COMMITTEE***

**Jokerst:** As I mentioned at the beginning of our meeting, Professor Merlise Clyde, from Statistical Science, and the chair of the Academic Council's Faculty Compensation Committee (FCC), will share with us the planned activities of the FCC for the remainder of this academic year, outline the progress to date on their planned activities, and describe key longer term questions that the FCC proposes to undertake in a multi-year program. This is an opportunity for you to weigh in early on the activities of the FCC, and to offer your thoughts on what questions are pertinent regarding faculty compensation.

**Merlise Clyde (Statistical Science / Chair, Academic Council's Faculty Compensation Committee):** Thank you, Nan, for the invitation to come and speak to the Academic Council and I welcome your feedback in terms of the analyses that we're planning for the future. I also just want to give credit to the other members of the committee. Jon Fjeld, Emma Rasiel, David Siegel and Patrick Wolf, and of course we also owe a lot of thanks to our data gurus, David Jamieson-Drake and Kendrick Tatum, who provide a lot of input on the data and what's been going on. One of the major goals that we have for this coming year is to actually develop analysis for all the non-tenure track regular rank faculty. This was one of the

questions that was raised last year when we presented the results for regular rank tenure track faculty so we're going to plan on doing that type of analysis. Previously when we looked at the data, there had not been enough individuals in this track to actually do an analysis. We hope with the growth in the numbers of non-tenure track faculty, that we'll be able to actually look at that and then present a report this spring on the results from that. A little bit of what I'll talk about is one of our goals of trying to understand the differences between the AAUP results and then our own FCC salary results and some of that relates back to methodology as well as the data sources so we're planning on addressing that. One of the other goals is to look at some analysis improvements in terms of trying to address these questions and in the longer term we'd like to be able to do comparisons with our peers at both the divisional and department levels, assuming we can have access to some of that data. One of the things that concerned a number of us when we were looking at the report that we had presented as well as the AAUP study, were the results that were from 2013-14 and also with that the assistant professors; basically the gender equity ratio. If you look at how much money a woman would earn relative to her male counterpart, for assistant professors, it was 80 cents on the dollar. We were quite alarmed by that because our own results, when we looked at the data, did not come to that level. We were trying to think about what was going on. We've gone back and in the 2014-15 data that was presented by AAUP, there has been a market increase, an improvement in those ratios and so things are working through the pipeline. There have been some historical issues in terms of salary raises and promotions that seem to be

back on track. The idea is to continually look at the data and some of the things we would like to do is to make sure that we're actually using the same data that goes into the AAUP reports. That's been one of the issues; that there are different exclusions, different divisions that go in, so it's kind of hard. It's comparing apples to oranges in some cases. So we'd like to be more transparent about what data goes into that study, use the same data, and so that's where, working with David and Kendrick, we're getting another indicator variable that will tell us, okay, these are faculty that go into that report, these are excluded. In particular, some of the medical sciences are not included in the AAUP results. There are a number of different sources for the data. Also the Chronicle of Higher Education reports salaries, and again, that's a different set of data. If you go through and try to calculate these ratios, you will get a different number than what's reported in either of these, or what our own studies were saying. Just to highlight what we've been looking at, some of the potential sources for difference. There could actually be gender inequity within a department, that is for people of the same rank, same department, same time since degree, everything else more or less kept the same, there could be actual inequity. We'd like to be able to know that and then try to understand what's going on there. Another source of these inequities or difference in ratios could be just the difference in the distribution of women and men in fields that have different pay scales. If we have more men in fields or departments that have higher salaries than females in that department, that can lead to this apparent salary inequity. You can see the table. This is a hypothetical set of numbers which, in some ways, are not too far from some

examples here at Duke. With department A, both men and women might earn \$120,000, so there's no salary inequity. They're both paid exactly the same amount for the same work. Department B, men and women are also paid the exact same amount, however, the difference is in the distributions so it's a question of diversity. So if department A only has five women for the fifteen men and Department B, which has the lower salaries, has ten women compared to one male, then we will get an equity ratio that's around 83. So it's not really a salary inequity issue, but a diversity issue. So, in talking to Nan, who was co-chair of the Diversity Task Force last year, these two things need to be considered together to try to understand what's going on and what's being reported at the higher levels. Basically, the AAUP results and the results in the Chronicle of Higher Education are aggregating across all of these departments and don't take into account the differences at the department level. In terms of analyses, what we're doing is trying to go back and look at the data sources and include as many variables as possible. What we'd like to do in terms of improving the models is to actually include the division or department's specific coefficients where possible, for both the gender and the race and ethnicities so that we can look at this, not just at this kind of high level, looking back at the tables, there can be differences among the divisions, we'd like to be able to drill down and look at a finer scale resolution to see if there are changes that are across divisions or within departments as opposed to aggregating across all of them. A number of other studies at different universities actually use time since degree as a predictor in some of the equity models. We have not actually had as

accurate data on that up until now. That's now actually part of the faculty database and so we'll be able to compare that model with the model that we've used which actually uses the time in rank. We'd like to see if that makes a difference. That could be a factor if there's a differential in promotion rates, that could lead to inequities if you look at just time since degree. And of course time since degree is going to change across different fields. Some people go straight from a PhD into faculty positions; others might do one post-doc, two post-docs, multiple post-docs, that can make a difference there so we really need to look at that within the specific field as to what that effect would be. The last thing when we were going back and looking at even the AAUP numbers is just the differences in salaries in the ratios among our peers. We want to make sure that we are competitive with our peers when we're attracting the best faculty and so we want to do that comparison to see how we stand with them. That's both looking at salary as well as the demographics. If we have certain departments where there may be more men relative to our peers, what's going on if those are higher paying fields, what can we do. That's just an overview of what we are planning for the next year and getting into next year so I'd really just like to welcome any feedback or questions.

**Jokerst:** In particular, Merlise and her committee are formulating, as you see, what they're going to be working on the rest of this year and into next year and so if you have suggestions as to something that you want to add to this or another opportunity for looking at things in a slightly different way than what's been described, this is what we've been doing this year, giving you insight into what

committees are planning to do so we can get your feedback before you see the final report at the end of the year. With that, I'd like to thank Merlise and open it up for your comments and questions.

**Warren Grill (Biomedical Engineering):**

I remember several years ago, before you got involved in conducting these analyses, one of the factors that was identified to negatively impact salaries at Duke was how long someone has worked here. If you were a freshly recruited rock star, you were going to be making more than the person sitting next to you. Could that also be a factor that might explain differences between men and women? I don't know, but maybe women are more or less likely to move institutions.

**Clyde:** The time since degree is one aspect of that, but also the time at Duke. Because what we did find was that when you had faculty that were recruited to Duke at that same rank, their salaries were substantially higher than people who had started at an earlier rank at Duke. So that's one of the things to look at and see if there is a difference, also among men and women or ethnicity when it comes to that effect, the kind of alignment or compression issue in there.

**Sally Kornbluth (Provost):** I just want to comment on that. There's also time in rank and sometimes women wait much longer to ask to be put up for promotion. The other thing is, just from looking at my time in the Medical School, there is a history of retention that goes into this that is very difficult to capture. I would suggest, working closely with department business managers, et cetera, to try to get some insight into this because I think a lot of the inequity arises, and it also may be a

female-male thing with respect to willingness to ask for certain items on retention and certain salary raises.

**Clyde:** So this is one of the items that we're trying to build into the database. It may not be ready this year, but it is the question of if there have been any retention offers that have been put in place and how well those are documented. That is something that, if you haven't gotten the request already... (laughter).

**Jokerst:** Merlise and I also discussed this a little bit because, anecdotally, reading the literature, it seems that when women get into a situation where they're trying to be retained and go out and interview, more often than not, the women end up leaving an institution. So that is not within the purview, explicitly, of the FCC, but something we need to study nonetheless when we talk about faculty compensation and looking at retention.

**Roxanne Springer (Physics):** One issue that we've spoken about in the past is the option of including a longitudinal analysis. Can you speak to that?

**Clyde:** Yeah, so we're going to see how far back we can get data to look at that. The Chronicle of Higher Education data set does give you these summaries over time, visuals, but we'd like to actually ultimately develop methodology to look at the longitudinal and to look at trajectories. Are there differences in the rates or salary increases across the different groups?

**Springer:** We do, after all, have the data to do this analysis.

**Clyde:** Yeah, it's just a matter of putting it together and then carrying out that longitudinal analysis.

**Holloway:** Is there a reason to disaggregate this data based on, you have race and ethnicity; are we interested at all in underrepresented groups, then race and ethnicity?

**Clyde:** So, last time we were able to really only break things down by White, Hispanic, African-American, and Asian. Actually, I think it may be, I have to go back and double check this, and Fan [Li] is here and she can correct me, but I believe we did not have large enough numbers at the time to really separate out African-American and Hispanic/Latino as two separate groups. So it's a matter of how much data are available there. But we did separate out the Asian from what had previously been White or Non-White. So we are able to actually refine that now.

**Holloway:** I know that in one of the MIT studies that in STEM fields especially, the differences between Asian women and Asian men have some statistical significance, but overall, that might not be considered an underrepresented field in the Academy. So it would be helpful if we could somehow see that data reflect those differences, not only in terms of field, but in terms of overall numbers.

**Clyde:** That's where there might be interactions. So that's one of the parts of either bringing things in; different coefficients for different divisions and if we can get down to the department level, or maybe just different groupings by, say, STEM, other disciplines, there to look at.

**Holloway:** I was with you until you used the word "coefficient" (laughter).

**Clyde:** Sorry. Yes, basically what those effects are.

**Jolie Olcott (History):** Is there any tracking of the differences in salaries for both men and women who take parental leave?

**Clyde:** Currently, the data that I have does not include that as an indicator, but I can check with David and Kendrick to see if that is actually available as part of it. There are kind of questions of what is actually in the data they are collecting. It should be available somewhere.

**Jokerst:** We could also go to the departments and schools, perhaps, and ask. But that's a very good point. We'll try to see what we can get and we also try to present de-identified data so the groups would have to be large enough for us to de-identify using the rule of five or more.

**Grill:** This is clearly outside of your purview, but perhaps the Provost or Vice President Cavanaugh would know whether we do something comparable for staff and administrators of the institution, which far outnumber the faculty.

**Kyle Cavanaugh (Vice President, Administration):** We actually do, on a regular basis. Probably not to the level of specificity that's been described here, but we're always looking at first, starting with market information, and we have, historically, been doing about a four-year look based on some issues across the enterprise. Where it gets difficult is in how decentralized we are as an organization to be looking at similarly situated positions but in different operations. We do comparison against the entire enterprise and then down within the unit.

**Springer:** There is the issue of confidentiality, and then there is the issue

of statistics. So what I want to make sure is that, even if you are up against the rule of five making it not possible to publicize the data, somebody is allowed to look at and evaluate that data. In other words, a severe inequity involving only two people within a demographic should be addressed even if confidentiality prevents you from making that statistic public. Also, just because there are only two people being treated inequitably out of hundreds, we do not want to dismiss this as statistically significant. It is significant, and unfair, to those affected.

**Clyde:** The results that we had, where we were looking at kind of aggregate salaries across the different divisions, we made sure that we had at least 20 members of that division when we reported the breakdown.

**Springer:** The published report I totally get, but will someone who is authorized to see the confidential data be doing an analysis to check for inequities?

**Clyde:** It's at the individual level that there are no names associated at all with that.

**Kornbluth:** I think I can speak to this, if I understand what you're asking. For Merlise, you're going to have a scale where, you know where individual data points are, but you won't know who they are, necessarily. But this came up in a limited context when that data comes to me, for instance, we know centrally who those people are and I would go to the department chair and say, look, you have these outliers, it's so-and-so and so-and-so, this needs to be addressed. In other words, I think this is identifying where the inequities lie, and then centrally we're going to have to drill down on who those

people are and fix those inequities. But obviously you need to track back to those individuals based on the records.

**Springer:** But because of the aggregation involved in the analysis, could there be an inequity at that microscopic level that would not be identified with the present analysis?

**Jokerst:** Merlise is going to be looking at individual data points but we are not going to be able to present that to Council.

**Kornbluth:** If you see an outlier that doesn't reach reportable levels because you don't have a sufficient number of people to mask identity, I would request that if you see outliers, even if you can't report them, we want to know who they are so that we can go back to the department to say, this person's off the map here.

**Clyde:** And that's actually part of the model building step because, when we look at the data, there are lots of issues and this gets into what's being reported or given to AAUP. When we did the analysis before, just looking at these scatterplots, you'll sometimes see people that are way below. If you look at that point, I would actually go back to David and say, look, is this salary for real? And he would go back and say, well, that person is actually only here for half the year, that's a half salary. So there's a lot of these kind of iterations where we want to make sure that everything is really on a nine month basis so they have to know who it is and they would go back to the administrators to double check, is that the right salary that's in the database or is there something that needs to be corrected on it? There are also individuals who might be on retirement walk downs, they may be receiving a half

salary, there are other issues where some of the numbers might look really crazy, we go back and say, is that for real? So we can do that. So then they get the predictive numbers or predictive values and they can then put the names back on that to give back to Sally.

**Jokerst:** And Merlise and her committee are going to be taking a much more granular look at the department level of the data than they have looked at previously.

**Emily Klein (Nicholas School of the Environment/ Member of ECAC):** I just want to say that I think you and your committee are doing a marvelous job and are receptive to our questions and things that you're bringing us. I'm just curious if you've encountered any other schools who are doing faculty-driven deep dives into this kind of data?

**Clyde:** Nick Jewell, who is at UC Berkeley, has been involved with some of the salary equity studies there for the UC system. He has talked at the American Statistical Association meetings with chairs about this issue of various sources of salary inequity. So yes, we're also having conversations about best practices for the models to look at.

**Jokerst:** Some of these models may result in scholarly reports.

**Phyllis Pomerantz (Public Policy):** I wanted to hear just a little bit more about the non-tenure track analysis and the level of granularity and also how you're doing comparators. Because, as you know, different institutions have different titles other than non-tenure track.

**Clyde:** Right now we're just starting with that and we're going to try to replicate what we've done with the tenure track faculty salaries here and apply that to the POPs and lecturers and the other regular rank positions. So we don't have a way to compare right now. This is also where, just getting into what some of the other IPEDS data looks like and how they're coded. So we haven't gotten all the data yet for me to actually answer that question. First of all, it's just trying to look at within the institution, are there differences across different divisions, departments, as well as the gender and race/ethnicity?

**Mary McClintock Fulkerson (Divinity School):** I'm assuming the answer to this question is yes (laughter). The different schools and departments have different levels of salaries, correct?

**Clyde:** Correct.

**Fulkerson:** So I assume nothing can be done about that (laughter).

**Clyde:** You're right. And that actually is a big difference between our analysis for salaries here at Duke and some of those reported at the AAUP level. We do try to take into account the differences. So

individuals who are in the same department at the same rank, same experience and all, we expect that their salaries should be comparable. But if you're trying to compare someone who is in, say, the Divinity School, perhaps, to the Business School, we can't really address that. That's what's happening, though, with the other studies. They're aggregating at that level. So if you have a lot more people who are in the Business School that are male and fewer women, that can lead to some of these imbalances in ratios that we see reported at that level of aggregation.

**Jokerst:** Thank you, Merlise, for this. And thank you, Council, for this animated discussion. I think we got some really great ideas and suggestions here. We appreciate you coming, Merlise.

I would like to now call our meeting into Executive Session, which means that those of you who are not Duke faculty members, I must kindly ask you to leave our meeting. Wait a minute, Walter [Sinnott-Armstrong]! You're a faculty member (laughter). All faculty can stay (laughter).

*(Remainder of the meeting conducted in Executive Session)*