MINUTES OF THE REGULAR MEETING
OF THE
ACADEMIC COUNCIL

January 22, 1998

The Academic Council of Duke University met on January 22, 1998, from 3:45 until a somewhat later than usual 5:38 p.m.   Prof. **Leonard** Spicer (RAD, BCH) presided as Council Chair, welcoming the members back for the new semester, the New Year, and full engagement in academic activities after the break.   The Council could anticipate a rather long agenda and so got right down to business.

MINUTES OF NOVEMBER 20 AND DECEMBER 4, 1997

Since the November and December meetings were only two weeks apart, both sets were pre-circulated together for approval at this meeting.   [In a departure from usual practice the Faculty Secretary is posting the summary of the December 4 meeting on the Academic Council web site — www.duke.edu/web/acouncil — in addition to the minutes, because in respect to the presentation and discussion of the Duke faculty/staff Health Care Plan member survey results that summary is a much more succinct, and he hopes readable, account of what transpired at both Council meetings.]   Were there any comments on either set of minutes, or a motion to approve one or both as presented?   There was a motion to approve both sets, and a second, and **the minutes of November 20 and December 4, 1997 were approved by voice vote, as circulated, without discussion, amendment, or dissent.**

ANNOUNCEMENTS

The **Chair** had one announcement, a delightful announcement on behalf of the faculty.   It was a pleasure to congratulate the two inaugural Bass Fellows who are recipients of the first two, University-wide, Anne T. and Robert M. Bass Chairs.   As the Council will recall, the Bass Chairs were created last year and will be further filled over the next years by distinguished scholar-teachers, people who have excelled in both research and teaching on this campus.   The two inaugural recipients are Profs. John Board (E&CE) and Eric Toone (CHM, BCH); Prof. Board is also a current member of EC AC (the Executive Committee of the Academic Council).   We're very proud to have these distinguished chairs and particularly proud for our colleagues who are the first to be awarded that distinction.

Also, at a later point in the meeting, President **Nannerl Keohane,** who arrived back from Charlotte to join the meeting part way along, announced the Samuel DuBois Cook Society, honoring a former faculty colleague and later Trustee colleague and advancing his goals, especially the mentoring of African-American members of the community. Invitations to an inaugural dinner and initial lecture on Feb. 19 can be expected shortly, including opportunity to join the Society.

APPROVAL OF DEGREES IN COURSE EARNED DURING THE FALL TERM, 1997

The first agenda item followed a regular procedure, a very important academic function [delegated by the Faculty to the Academic Council], nomination of candidates for earned degrees, at this time those completed during the 1997 fall term.   Before the usual roll call of the eight schools and the college began, Prof. **Kenneth Knoerr** (NSOE) spoke up to say that he thought that EC AC "was going to fix this system," reopening a protest of it he made at the September 1995 meeting of the Council.   [The concern is that the time taken for each of the nine deans or representatives to state that they have given to the Secretary of the Council four certified copies containing the names of specified numbers of candidates nominated for each degree category, who have met all the requirements as specified by that school, could be eliminated in favor of some collective statement to that effect.] The **Chair,** who had not yet been Chair or been present at that earlier time, asked what Prof. Knoerr was urging.   Should degrees not then be [approved at this time]? **Knoerr** said he thought there had been discussion on the previous occasion to the effect that all we need is one motion that goes something like this: "Representatives of the various schools and [the college] have presented to the Secretary of the Academic Council four certified copies of the names of the candidates from the various schools and [the college] who have been certified to receive the degree and then we go through the motions for approval." The **Chair** ventured to suppose that the element of "pomp and circumstance" in this customary recital [justifies] the time element, but **Knoerr** said his intention was just "to sort of peck away at useless bureaucracy." The **Chair** said that the point was duly noted and will be in the record.

The **Chair** then called for representatives of the college and schools to present their lists of candidates, which were stated to be as follows, by degree and number of names:

Trinity College of Arts and Sciences, BA 80, BS 28.
School of Engineering, BSE 3.
School of Nursing, MSN 25.
Nicholas School of the Environments, MF 2, MEnvM 6.
Fuqua School of Business, MBA 41.
Divinity School, MCM 1, MDiv. 18, MRE 1, MTheol. 1, MThS 3.
School of Law, JD 6.
School of Medicine, MHS 1, MD 3.
Graduate School, MA 41, MS 31, MPP 2, PhD 83.

At the conclusion of this customary recital Prof. **Peter Burian** (Humanities, ECAC) was recognized for the usual two motions, **approving the degrees in behalf of the faculty for recommendation to the Board of Trustees,** and **authorizing the Provost to make any needed last-minute changes in behalf of the faculty.** As usual, both motions **were approved,** by voice vote, without discussion or dissent.

REPORT OF THE COMMITTEE TO NOMINATE CANDIDATES FOR CHAIR OF THE ACADEMIC COUNCIL

The **Chair** then called for a report from the committee charged to nominate candidates for Chair of the Academic Council. Although Prof. Gregory Lawler (MTH) had been announced as chair of the committee at the December meeting, Prof. Jeffrey Dawson (BasSci) would report for the committee, for a reason that will be apparent in the report itself.

Prof. **Jeffrey Dawson** (BasSci) said that in keeping with the tone of this meeting, he had *not* presented a list of certified candidates to the Secretary, but he *did* have names of two outstanding candidates to report to the Council. He asked Profs. Gregory Lawler (MTH) and Robert Mosteller (Law) to stand as he announced their names to the Council, but "not to embarrass them," suggested that they might be seated while he read short biographical sketches demonstrating why the committee considered them outstanding candidates.

Prof. Gregory Lawler came to Duke in 1979 and is currently a Professor of Mathematics. He served on ECAC from 1995-1997. He chaired the graduate subcommittee of the recent SACS (Southern Association of Colleges and Universities) reaccreditation self study and is currently on the advisory committee on Appointments, Promotion, and Tenure. He is a faculty representative on the Board of Trustees Committee on Academic Affairs. He has served on the Executive Committee of the Graduate [Faculty] from 1990-1994 and was Faculty-in-Residence from 1984-1986. He has been Director of Undergraduate Studies and Director of Graduate Studies for Mathematics.

Prof. Robert Mosteller came to Duke in 1983 and is currently a Professor in the School of Law, where he specializes in issues relating to evidence, criminal procedure, and the death penalty. He is currently vice-chair of the Academic Council [and of] ECAC, and is a current member of PACOR (the President's Advisory Committee on Resources), 1996-present, and also of the Board of Trustees Committee on Business and Finance, 1996-present. From 1989-91 he served as Senior Associate Dean in the Law School. He has served on the Faculty Hearing Committee and chaired that committee from 1992-1994.

Prof. **Dawson** was ready to entertain any questions but there were none. The **Chair** [Prof. **Spicer,** that is] on behalf of ECAC and the Council thanked Prof. Dawson and the committee for their work and also thanked Profs. Lawler and Mosteller for their willingness to stand for election as Chair of this Council. As the Council would know, according to the bylaws nominations can also be made from the floor. Such further nominations should be

made with the consent of the candidates, and could be made now or at the next meeting, February 19, where a Chair is to be elected. If received in sufficient time before that meeting, information can be included about such further candidates. There were no further nominations offered at this time.

PRESENTATION ON INFORMATION TECHNOLOGY IN TEACHING AND LEARNING

The main agenda items for discussion in this Council and consultation with the Council arise from two rather major efforts within the University.   The first comes out of a project study report prepared by a committee chaired by Prof. Albert Eldridge (PS, Dir. of the Center for Teaching & Learning). The initial sixteen pages of that report were circulated for the Council's review prior to this meeting. The report is titled "The Duke University Strategic Plan for Information Technology in Teaching and Learning," a subject certainly dear to the hearts of faculty and students in this institution. It's something we must spend considerable effort thinking about, continuously, now and into the future, in order to strive for excellence in our academic endeavors, [increasingly], based on the technologies that are available at this point and on our ability to utilize those technologies. Provost John Strohbehn is to provide an overview of the topic, followed by a more detailed presentation of it by Vice-Provost Betty Le Compagnon (Information Technology), to be followed by further comments and insights from Vice-Provost and University Librarian David Ferriero.

Provost **Strohbehn** first had a comment on the matter of approving degree candidates and empowering the Provost to make subsequent adjustments in the name of the faculty. From the point of view of efficiency, by and large, he'd never seen any of those lists.   Only one time since he'd been here had someone actually run around the campus trying to find him to strike a name from one of those lists before graduation.   So we seem to be very efficient in this part of the operation.

It was his pleasure today really [just] to introduce the topic of information systems and their use in teaching and learning, which will be presented in two parts.   In the first part, V. Prov. Betty Le Compagnon (Information Technology) will talk about the University's strategic plan for information technology (IT) in teaching and learning.   The plan has been developed over the past year by a committee of faculty and administrators that was led by Prof. Albert Eldridge (PS), Director of the Center for Teaching and Learning. This effort was funded through a $150,000 anonymous grant, and the goals of the project were, first, to assess the current state of the use of information technology in teaching and learning at Duke.   A very thorough job was done of gathering information about how computers are being used at Duke. More on that will follow, but he considered it the most thorough study, at least since he'd been here, about how computers are being used by faculty and students.   A second goal was to explore what is possible, based on these current activities at Duke, and activities at other leading institutions, to get a better grasp of this particular area.   A couple of people traveled to different campuses to see what's going on, which the Council will hear more about shortly. And a third goal was to develop a set of

recommendations, with an understanding of Duke's information technology IT strategy and this plan initiative. This resulting plan was completed in November and has been shared with the senior officers, with the Deans' Council, and with ITAC (the Information Technology Advisory Council). The reactions to these recommendations by all these groups have been quite positive, with great discussions, and he thought the direction today is a thinking forward [about the things] that we should all feel in accord with.

The second part of today's discussion will be led by V. Prov. David Ferriero (Library Affairs), University Librarian, who will focus on the Library's recently developed plan. As the Council knows, David Ferriero presented portions of this plan in a meeting of the Academic Council earlier this academic year [November 20].   At that time discussion of those aspects of the plan that are to focus on use of information technology were deferred so that they could be discussed today in conjunction with the recommendations for the teaching and learning strategic plan. He thought the Council would see the goals and recommendations of the two plans as quite compatible.

V. Prov. **Betty Le Compagnon** followed the Provost at the lectern, saying that today she would talk for a few minutes about the goals and objectives of the plan, and then the findings, and then move into a discussion of recommendations. The important reason to be doing a study like this now at Duke is for the reason, as we all know, that information technology is really impacting everything tremendously.   Students' expectations when they come to Duke have changed tremendously; job market requirements are changing; and, institutional investments in technology are growing. We really feel that at this time Duke needs a strategy and a vision for information technology in teaching and learning, because we're continuing to spend money in this area and we should be doing that with some sort of coordinated effort so as to make the best use of that money. The project objectives that Prov. Strohbehn talked about included the information technology needs in activities at Duke. Findings from survey in general — these are some of the specific ones — are that approximately 15% of our faculty rate themselves at a level we would call "early innovators." These are people who are going to use such technology in teaching even if it is difficult to use and the support for it really isn't there.   A much larger group, however, we would probably call "majority adopters," meaning that these people are interested in the technology, and they've seen some interesting tools, but they're going to need a lot more support before they really want to use technology in the teaching and learning environment. So, we can classify Duke as being at sort of a stall point; we have these [examples] of excellence who are the innovators, and Council members will know who some of those people are, and we need to continue to encourage those people.   But at the same time we need to raise the floor of our capabilities in information technology in the areas of teaching and learning so that a broader population can start taking advantage of these technologies. The plan being presented really is to try to address those things [that are needed to that end].

The findings that came out of the survey of faculty and students in general were not surprising, but really confirmed most of our beliefs. To show what some of these more detailed were, first, students increasingly have used computers in school work before coming

to Duke; 90% of undergraduates and 83% of graduate students said that their instructors had used information technology in the teaching and learning process in their experience before coming to Duke.   So, of course, when they got here, those students expected to use computers extensively at Duke.   We also found that faculty are really seeking a greater awareness of the current uses of computers in teaching and learning. This is true partly because their students know so much about it now, probably, but also because they've seen tools that are of interest to them and they're really curious to know more about this process. It should also be said that, in general, the responses varied significantly by school, and also in general, the faculty members in the graduate [and professional] schools rated themselves as more knowledgeable in technology than those in some of the other schools.   But one of the things that we know [our plan needs to do is] to build a model that will adjust and compensate for differences in abilities. The other thing that was found is that student and faculty demand for web-based applications is now very high at Duke, things like online course evaluations, class syllabi on the web, use of presentation software perhaps for classroom lectures, required readings on the web, and things like that.   About 60% of the faculty said they would be interested in using tools such as these, with about half that number saying they would actually use one or more of these tools in some way.

 We also asked faculty and students what some of the enablers or inhibitors were in reference to using information technology in the classroom and were pleased to find that one of the enablers was that Duke has made significant investments in the computing infrastructure.   These investments have made faculty more willing to try to use such technology than ever before.   These are things like the network that we're upgrading now, and the computer clusters for the students.   We're encouraged that this degree of infrastructure is already there.   The inhibitors, however, were things like training, support, and incentive programs.   Faculty found that there wasn't really adequate training for them to learn about using information technology, and the support that they needed wasn't always there.   A number of faculty mentioned the fact that there are really no specific incentive programs [leading] them to get involved in this type of activity.

 Then, further, we asked faculty and students to assess their own abilities, finding that faculty and students generally perceived themselves to have <u>average</u> technical skills.   As said, this assessment of skills varies from school to school, but in general, we can consider ourselves kind of average in this area.   Yet, faculty willingness to explore the use of information technology exceeded their technical skills. They were very willing to try, which of course points out a couple of very important points, one of which is that if we're not careful we risk having people trying to use technologies and having a bad experience.   They could then end up being discouraged, so we're really going to have to focus on the support aspects of this plan if we're going to be successful in encouraging people to use technology in teaching and learning.

 As Prov. Strohbehn has mentioned, a number of site visits were conducted and we visited - trying to remember all of them ~ NOT, Harvard, Dartmouth, Stanford, the University of California, and the University of Oregon.   "Did I leave any out? I don't think

so." Some of the findings at most of the places were quite interesting, he thought, and rather important. One was that [senior] executive sponsorship was really key for success in this type of program, and we're very fortunate at Duke in that both the President and the Provost have pledged their support of this effort and are very excited about it. We also found that faculty committees tended to be an effective way to coordinate these activities across a campus, and we know that at Duke that will be very important and we need to think how we're going to structure the faculty oversight of a program like this. [At the other schools] we found that investments in pilot projects enabled pioneering faculty to remain on the cutting edge of information technology, helping other faculty get involved that might not otherwise have been able to do so. For the most part these pilot projects were overseen by faculty committees, which accepted proposals from their peers and selected faculty members to be awarded grants, and this seemed to work quite well. Another important finding, everywhere we went, was that people said you need to clearly define the roles of everyone who participates in an effort like this, organizations like the Library, the Office of Information Technology, the individual schools, Student Affairs, etc. We know that there is a lot of activity going on already at Duke in the individual schools, and the central organization is doing some things. We know that the Library is involved, so we're going to need to develop a model that really takes advantage of the expertise in all these different areas, helps us to share resources, and [can help] minimize our cost. That [clarification of roles and model of organized expertise] is one of the things we're going to be looking for.

And finally, partnerships with industry, with other institutions, or with the local community were some of the things that a lot of the institutions are doing and are feeling very good about. In some cases they received funding support that way, and a lot of public support and good will for this effort. At the Deans' Council discussion of this effort, here at Duke, one of the Deans mentioned the importance of corporate partnerships to this effort.

So, after gathering all of this information, this group put together a vision for information technology in teaching and learning, and these are the items, which were included in the handout as well. They want to create a learning environment where these kinds of things can happen, where students and faculty have access to the tools they need to support teaching and learning, where they are encouraged to experiment, where they are encouraged to work in partnership with others, where students develop the skills that they need to go out into the marketplace, and where faculty actually receive recognition for doing this kind of work. And in order to achieve that vision, the committee put together a five-point plan:

- **Build faculty awareness of what is currently possible.**

- **Support faculty and student use of IT applications.**

- **Develop partnerships (local community, private industry, educational institutions).**

- Encourage innovation through measured investments in pilot projects.

- Protect Duke's return on investment through improved planning, coordination, and assessment.

The last point is particularly important to include because these technology investments are very costly and we want to make sure that we have a way to assess what we're doing to make sure it's effective and successful.

Each of these areas have further sets of recommendations appended, and all together they form a three-year plan which would help encourage the use of information technology in teaching and learning.   The plan includes a project implementation schedule and [a schedule of] project costs.   If we were to implement the entire plan, which at this point is the set of recommendations, it would amount to approximately one million dollars a year.   What we're hoping is that when we move forward to the next step and start working with faculty to determine which of these projects we'll try to undertake, and in what order, we can then seek [outside] funding for these efforts. It's gratifying to report that both the President and the Provost have already indicated that they will provide some [inside] financial support for the effort.   In the Deans' Council, one of the Deans said that we should be careful to point out, in presentation to the Academic Council, that this is really a minimalist approach, which might lull people into thinking that this is a reasonable investment to make in order to achieve the results that we're looking for, while in fact a much greater investment would be needed to [accomplish these results] on a broad scale.   This same Dean said that corporate partnerships, therefore, are going to be especially important in leveraging funding for us. Another Dean mentioned [identifying this effort] as part of the Capital Campaign as another way to raise funds.   But, [more in perspective], we shouldn't be expecting more out of this plan than really the beginnings of an exploration into the uses of information technology in teaching and learning.

Just to mention a few of the key recommendations that the committee made in these areas, for the faculty they recommended the competitive grants program mentioned earlier and also development of a suite of tools that the faculty would be using to develop their web applications more easily.   They also recommended what they're calling academic technology assistance, meaning mainly people who would provide faculty with support for building web pages or redesigning courses.   And then, there should be some sort of research function, not clear yet in respect to what form this should take, that would help to look for and evaluate software that might be used by faculty members. This mode of assistance would help faculty by reducing the amount of time spent to do this themselves, by allowing someone else to take a look at the software to see ahead of time whether it was really worthwhile.

For students, some of the things suggested were an enhanced student orientation program, when they first come to Duke, to make students more aware of the resources that are here.   A student multimedia lab would be useful, a place where students could go to do things that they can't now do in the computer clusters, such as scanning or possibly creating

video clips for a project they might be doing, things of that nature. What they've called an electronic classified section should be created, in a way to match faculty needs with student skills, to help with things like web site development or developing other course related materials. These are all really good ideas.

In terms of assessment, since that's really important, the committee recommended several things. One was that any proposal for grant funding be required to have an assessment module in it, saying how this faculty member was going to assess the effectiveness of what he or she had done. Another suggestion is to create an online course evaluation for students to use, which would then question students about the role of information technology in teaching and learning. A third idea was to modify some of the questionnaires that we currently give to either incoming students or to alumni, to start tracking both student expectations for using information technology in the classroom, and also the experiences that they then actually had. That would be a good way to get a handle on where we are and where we're going. Another idea was to resurvey faculty, repeating what we did this year, two years from now to see whether there has been a difference and what has changed.

In order to implement this five-point plan, the committee considered a number of different organizational models, which were presented to the President and the Provost and also to the Deans' Council, and which were discussed in most forums. And there was general consensus that the approach that would work the best at Duke is what we're calling the confederated model. This model, it is hoped, will take advantage both of the activities that are already going on in schools and of the economies of a central organization. It would represent a close association in which the colleges and schools cooperate in the development and implementation of common information technology initiatives. In order to create a model like this, it was also generally felt that there would need to be a person whose job was to oversee this [whole effort], and be thinking about it. A new position of Director of Instructional Technology has been suggested. Essentially, this person's role would to provide leadership, advocacy, and coordination of the various initiatives on campus. As one Dean put it in the Deans' Council conversation, this person would "promote habits of cooperation and intelligent investments,[11] which seemed a particularly nice way to say it. This person would also probably be in charge of doing some fund raising and helping to develop partnerships with outside organizations.

Another thing that the committee recommended be a part of this organizational model is some sort of formal faculty oversight, which hasn't been thought through as yet to know exactly how that oversight should be put together, but definitely there would need to be a close tie with ITAC and with the Academic Council, so that we can get balanced participation, from all schools on campus. Because of the importance of this initiative to the academic mission, it was clearly felt that the Director of Instructional Technology should be located within the Provost's Office, although when we talked to other institutions we found that there were a number of different models. It was not done just one way at all of these different institutions. The reporting lines tended to vary depending on the organization and

the leadership at the particular institution.   So in talking together, the President and the Provost have decided that based on where we are today, and where we would like to go with this, the most logical place for this person to sit right now would be in the Library, reporting to V. Prov. David Ferriero, the University Librarian.   As the Council would know, David Ferriero's vision for the Library focuses heavily on information technology. Many of the things that he's going to talk about directly are in his strategic plan for the Library and actually dovetail very nicely with the kinds of activities envisioned here for information technology in teaching and learning.   So we feel that the Library would be a good starting point [for the intended Director]. We also realize however that there need to be very close ties with OIT, the Office of Information Technology.   Since OIT is in general providing the infrastructure for all of this to happen, we need to have really close ties.   David Ferriero and she (**Betty Le Compagnon**) would be talking to figure out how to formalize more of a relationship between the Library and OIT [in this effort of common cause].

V. Prov. **David Ferriero** (Library Affairs, Librarian) picked up the presentation by saying that when last he had discussed the Strategic Plan for the Library [at the November 20 meeting] he had just briefly sketched a process.   He wanted to reiterate a major piece of that process, an environmental scan where the team was looking at what's going on in the world around us trying to get a sense of where we'll be in the next three to five years.   That was both an internal and external scan, involving talking to people on campus as well as at colleges around the country, basically to get a handle on what's going on in [information] technology within higher education, and trying to predict where academic research libraries are going, building upon our demonstrated capacity as well as those emerging trends that we were picking out. The result of the information-gathering process was a group of initiatives in the Strategic Plan clustered around strengthening the Library as a center for research and teaching.   The centerpiece of that cluster was a user-education and instructional technology initiative. Reading the language of that initiative closely, it parallels this [further] instructional technology initiative that was going on at the same time.   [Both strategic plans] call for the Library to become a major player in establishing creative ways to embrace new technology.   Specifically, the Library Plan calls for the establishment of a user-education and instructional technology program which would provide a teaching facility and state of the art technologies in information resources for us to be able to work one-on-one in groups with faculty and students to explore the potential of technology in the classroom.

Some may be wondering why the Library? In response to that question he wanted just to review where we're coming from in terms of the roles that librarians have played to varying degrees on various campuses. The traditional resource specialist has worked with faculty to assess classroom and research needs, building collections, teaching bibliography and research method courses, and in some cases, teaching content courses, here even at this campus. In some cases, these efforts include influencing curriculum design, so there is already an established relationship between librarians and faculty.   [Information] technology has certainly had a big impact on what we do and how we do it, starting in the mid-1960's when we started automating catalogues and working with computer scientists on campuses to develop information retrieval systems. Today we distribute a wide variety of services

electronically to individual faculty desktop computers. We were, and continue to be, early adopters of web technology and its predecessors.   We train faculty in the use of these services, often team teaching these initiatives with our information-technology professional colleagues.   We are consulting on web site construction, organization, and searching mechanisms, and Duke he was proud to say was one of the pioneers in terms of electronic reserves.   We were one of the institutions out there first providing that kind of service. We're currently experimenting with faculty in the delivery of images and video, and our digital scriptorium in our Special Collections is also cited constantly as a pioneer in terms of digital images.

He saw the two sets of recommendations as having a lot of synergy.   They both focus on ways of using [information] technology to enhance the classroom experience.   They both focus on working with faculty to explore and exploit the technology, and they both call for collaborative models [with the Library] working with OIT and other campus stakeholders in terms of this technology. So that is where he thought the Library strategic plan dovetails with this information-technology recommendation [in relation to teaching and learning].

He then suggested that V. Prov. Le Compagnon, the Provost, the team members present, and he, would welcome questions.

Discussion of Information Technology
In Relation to Teaching and Learning

Prof. Knoerr admitted some uncertainty about quite how to express a concern, but this presentation on technology had reinforced a view he'd had for a long time, and that is many of us don't use what we've got properly.   We had a presentation on information technology with an overhead projector that was not properly placed and adjusted.   It was not placed so that the people in the back could adequately read the small print, at the size projected, and it was not properly adjusted. There was substantial parallax with one portion of the image in focus but another portion out of focus. Now, whoever set this up was to blame, [and those making these presentations] have had to come in and use what was provided. If it had been up to him, he would have picked that thing up, walked it forward [on to the raked floor], and adjusted the legs, so that the image could have filled the screen and he would have adjusted the thing. When he goes into seminars, presentations for external candidates for positions, and other things, and somebody has the slide projector set up so you can hardly see it in the front, because the print's very small, or they don't have the blinds adjusted on the windows so there is light reflecting on it [he was inclined to intervene and improve the projection arrangements].   So people, somehow, we've got to help the faculty use the technology we have in appropriate ways as well as get new stuff. The **Chair** remarked that [these projection arrangements] are indeed part of an earlier infrastructure which we haven't yet [always mastered], and **Betty Le Compagnon** agreed that such classroom upgrades, she thought, were an important part of what we're talking about, a key part to all of this, that's right.

Prof. **John Board** (EGR, ECAC) noted that points made about the traditional interactions of librarians with faculty differ remarkably among disciplines. **Mr. Ferriero** agreed up to a point but from thirty-one years of experience at MIT saw the initiative as lying with the librarians, dependent more upon the kind of individuals attracted to the profession than on the particular discipline.   It's working with the faculty and becoming involved with what is going on in the classroom that really plays the most important role.

Prof. **Roger Barr** (EGR) said that in listening to the presentations he didn't see much there to disagree with, but he did have a hard time figuring out what it actually is that has been presented.   It seems all warm and fuzzy but are we talking about more equipment or more staff or more money, or none of the above, or what? What is this about really? **Le Compagnon** said that was a very good question. In reality, what they had wanted to present today was the beginnings of an idea.   The full report has a lot of recommendations in it, but it wouldn't be worthwhile going through all of them because many of them we probably will never do.   There's a set of recommendations addressing each of the five points of that plan, but what we end up doing is to depend on the outcome of working with faculty members and, hopefully, this new Director of Instructional Technology.   So, it's very difficult as yet to be completely specific, beyond mention of some ideas of some things we might do. Probably the best answer is that we will be back with more when we're ready for the next step.

The **Chair** asked V. Prov. Le Compagnon what the time frame was, because as she had pointed out, at some level ownership [of the Plan] has to come through the faculty, through directions that are academic, for example, through the Library.   The time frame is very important as well because it not only involves making the choices from amongst the grab bag of possibilities but also says how to engage groups across campus, groups in addition to already standing committees such as ITAC or others.   V. Prov. **Le Compagnon** said that probably the goal would be to find and hire someone as Director, which is not going to be easy, by the summer, so that in the fall we can be beginning some of these activities.   So probably the next steps are going to be by working with the Provost to put together a small [search] committee of faculty members. We have a draft job description that needs some further work, and then we begin looking for this person.

Provost **Strohbehn** saw the effort as trying to create an experimental facility, a place where some of the faculty will be using it just to understand the [possibilities in terms of] the straightforward technology.   But there are other faculty who really want to try some innovative ways of teaching, using this kind of technology, and he looked at that as the place for the grant approach.   Faculty can come forward with what they might want to do through using technology to enhance their courses and the way they do their teaching, and instead of hearing, "You have to now go back and develop it," there will be this group that will help develop that kind of technological use with those faculty members.   The intention is thereby to find different types and uses of technology in the classroom, expanding the scope of what can be done in the courses affected.

Prof. **Robert Hochmuth** (EGR) in listening to V. Prov. Le Compagnon had heard mention of the Web a lot, suggesting that what transpires is going to be largely web-based. That was what he was deducing from the presentation, something we all would tend to expect, anyway. Now, saying that it is indeed web-based, well, a lot of us teach seniors and graduate students, and we ourselves work at home, and that represents a big bottleneck right there. If people start scanning images and putting them on web pages, we're just not going to be able to view that [range of material] within this century. Another issue of course is that you can't log on for more than twenty minutes at a time, which is all right if you're just doing e-mail, but our 128 slow-speed modem [ports] are generally saturated from 9:00 in the morning until midnight. There's a nice little graph that shows how everything gets saturated. He was just saying that all this talk about the technology is nice, but you've got to be able to do things in speedy enough fashion, if we're using web-based technology. He wasn't sure [whether there might be] a solution in the realm of vaporware, with people talking about all kinds of modems and cable TV's and telephones. V. Prov. **Le Compagnon** recognized that as a very good point and an indication why significant investments may need to made at some point down the road. We are doing some trials right now with Time-Warner Cable and they have been extremely successful. She was sure there are some people in this room who are actually using these [trial provisions] already. It's possible that the solution may be closer than we think. We're working on it, and we recognize the need.

Prof. **Knoerr** wanted to go back to the point he had made earlier, but from a different perspective. Prof. Barr would also remember back to the days [when they both were] on the University Computing Committee, which went for about twenty-five years. For a considerable period back then he was making pitches to his colleagues on the committee about trying to get involved in an outreach process to help people understand what's available with computer technology, and how to use it. That takes time, and he could never get anybody - Prof. Barr would probably remember his speeches to their colleagues on the committee — to spend some time going out and informing their colleagues about the kinds of things computers could do, to try to understand what they were doing well enough to make suggestions. That effort takes a lot of time. We need to find several people who are knowledgeable in various areas who will go around and talk with people, rather than just saying "come to a meeting," because we're all busy and you never get to that meeting. But if someone comes to their offices and talks with them, and tries to understand what they're doing, then there's a much better chance of introducing more people to the use of the technology. V. Prov. **Le Compagnon** saw [such missionary efforts as very desirable] and something the Library role in the current intentions can focus on.

The **Chair** found from the comments he was hearing that the risk of false starts at Duke has translated into a realization that successful starts take a lot of time, and that expanding those successful starts will take even more time. Some part of those time demands have to be put into a perspective that's both useable and understandable by the faculty, as represented by the majority of instructors within this institution.

Prof. **Randall Kramer** (NSOE) asked about the mention of one million dollars a year as sort of an initial investment [for the Plan], and was curious to know how that figure [had been arrived at].   V. Prov. Le Compagnon said that it was the result of taking the recommendations they had made and attaching dollar figures to them as rough estimates. The majority of the money was in the faculty grants program, $300,000 she thought. The Academic Technology Assistance category, which would be people, represents some salary dollars.   The other items involved much smaller cost numbers.   The $1M figure was mostly people and grant money. Prof. **Ruth Day** (PSY-E) [evidently a member of the committee] pointed out that many items included in the report are suggested to be done for amounts of $1000 or less, which V. Prov. **Le Compagnon** said was true: not everything costs a lot of money.

Prof. **Robert Healy** (NSOE) offered a suggestion for more flexible and modular forms of training. Many of us are intermediate users of a lot of the software that we use.   In his eleven years at Duke the only training in computers he had ever been offered was the opportunity to pay about $150 per course for a ten-week course in Excel. That's not what most of us need.   What most of us need are two-hour modules on how to do particular things. He would love to be able to put links in documents.   Somebody could train him to do that in twenty minutes; he didn't need a course in it.   We need to have a long list of skills for which we can choose to have training that takes place at the end of the day, over the lunch hour, in say hour-and-a-half and two-hour increments.   V. Prov. **Le Compagnon** saw that as a great idea. Would he like to serve on our committee?

Prof. **Day** remarked that there are a lot of such short training opportunities available right now.   She got e-mails [about these] regularly from the Arts & Sciences computing group, and there are current offers of instruction in how to make your own web page and how to use Power Point and other such specific topics. The distribution list may not be broad enough, but there is a lot of such very focused instruction being offered.   V. Prov. **Le Compagnon** agreed that there's a lot going on, but there's always going to be the problem just mentioned that you want to do a specific thing and you'd love to have somebody come over for twenty minutes and show you how. Pinpointing one-on-one types of instruction is going to be really important.

The **Chair** called for one more comment, at this time, not to preclude bringing this topic back to the Council another time, because this is the beginning of an intended ongoing process.   Prof. **Hochmuth** remarked that what the students want the most, of course, is your lecture notes on the Web.   That's way up above everything else.   A simple [effort] like that might make our students very happy, but might make us unhappy though. The **Chair** agreed that it might not necessarily improve things the way we want them to improve. **Hochmuth** said he could guarantee that lecture notes on the Web will increase [the University] printing bill by factors of a thousand [or so] because they're going to print everything, and he knew that from experience.

The **Chair** rounded off the discussion by thanking all who had spoken. We all look forward to the continuing development of many of these suggested options and also to participation in the true ownership of some of those ideas.

THE DUKE UNIVERSITY HEALTH SYSTEM: A MODEL FOR INTEGRATED HEALTH CARE

The other major agenda item of the day's agenda is a presentation and discussion under the topic of "The Duke University Health System: A Model for Integrated Health Care," by Chancellor Ralph Snyderman (Health Affairs). Many are aware of what has been appearing in the press and might speculate on a number of other things going on, but indeed there is a broader picture that is emerging. That picture was hinted at in Chan. Snyderman's comments to this Council not long ago (see April 1997 minutes) and is now at a point where we might anticipate a resolution that will be presented to the Trustees about organizational structures accommodating some of that integrated planning. President Keohane will introduce this topic, to be followed by Chan. Snyderman.

President **Nannerl Keohane** had arrived from Charlotte during the course of the meeting and first took the opportunity of mentioning the Samuel DuBois Cook Society and the occasion, lecture, and dinner [see ANNOUNCEMENTS, above]. As said, this topic we now approach is a very important one, touching on one of the most crucial and fundamental aspects of the work of Duke University, our amazing Medical Center. As all are well aware, this is a time of great challenge, and also a time of considerable opportunity in the health care profession. We should recognize that Chan. Snyderman and his colleagues on the faculty and staff in the Medical Center have been doing a lot to remain nimble in the face of these challenges, and one of the first purposes of the presentation today is to give all of us an overview of the strategy which has been developed and which has been moving fairly quickly over the last couple of years. All have been reading and hearing about bits and pieces of it, but it's important to have a chance to think together about it as an integrated plan.

A second purpose, and the reason for bringing this presentation today, is that some aspects of this plan clearly require our governance structure to be more responsive and flexible as well. The ultimate responsibility for the governance of the Duke University Medical Center will remain with the Board of Trustees of the University, but they also of course have many responsibilities in other areas, and relatively little direct expertise in health care. Over the last three or four years we've dealt with this [disparity] in several ways. Not too long ago the Executive Committee of the Board spent a lot of its time on Medical Center issues. That worked at one time, but it clearly wasn't a long-term solution. We have today a Trustee Committee for the Duke University Health System (TCDUHS) that has some non-trustee members, including Professor Frank Sloan (ECO, CHPRE) as a Faculty Representative. But that arrangement has now also become insufficiently comprehensive to deal with our growing health care system and the outreach that it is developing. So, we will be bringing before the Board of Trustees at its February meeting a proposal for an alteration in our governance structure that will create some new ways of dealing with the Health

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System, ways that through our strategy we are propounding. Chan. Snyderman will be presenting both a summary of the strategy and also the governance implications which will be coming to the Board. It's important for the faculty to understand these governance proposals and to have a chance to review them and comment on them before they go to the Board.

Chancellor **Ralph Snyderman** in coming to the lectern invited Prof. Knoerr, if he would be willing, "to come up here and fix the visuals," as he had suggested earlier he was inclined to do. The Council would be in much better shape by not having to sit there and suffer the parallax, [and squint around the Chancellor at the insufficient image size earlier endured]. Remarking that his bluff had been called, **Knoerr** obliged. With a little help from the **Chair** as well, he succeeded in relocating the projector stand, extending its legs as needed, and getting the mirror to stay put, his efforts culminating in a much more satisfactory screen image, to the applause of the Council. Chan. Snyderman most appreciatively acknowledged this outstanding example of inter-school collaboration.

Chan. **Snyderman** then introduced Dr. Jean Spaulding, who is our latest officer of this University, joining us as Vice-Chancellor for Health Affairs. She is helping with the evolution of the Duke Health System and will play an extremely important role in facilitating its development as a coherent, community-based organization. Dr. **Spaulding** acknowledged the introduction to the Council and noted that she would be helping with the overhead projection transparencies as well.

Chan. Snyderman picked up on what President Keohane had said, and what the Council members well know, to remark that health care has changed very dramatically over the last five years. In some ways the funding of health care has had unforseen impacts, both negative and positive, on how health care is delivered. One of the positive aspects of these changes in health care is that providers - and he didn't think anybody ever used this term until the last few years; we were doctors and nurses, and now we're "providers," and the Duke Medical Center is a "provider" ~ are really responsible for a full continuity of health care. No longer is a health care system a physician taking care of a patient at a single interval. Given the risks of how reimbursements occur, it is important for a health care system to take care of the community's health. This ultimately will be a very good thing because it puts responsibility on the part of Duke University Medical Center to be thinking about a community's health, not just to be dealing with a person's particular clinical problem when they come to the Hospital or come to see a physician.

Noting that time was limited and he hoped to save some for discussion, especially for the proposed governance issues, he would move quickly through some matters of rationale and of academic issues. Given the changes in health care, the Medical Center at Duke is facing a number of challenges, grouped as follows: education, research, clinical, and financial. For all these challenges the impacts occur within the University as well, but the economic impact cannot be overlooked. In educational terms, the whole nature of the practice of medicine is changing. We are moving from interval care, as said, to the

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development of physicians and other health care providers who have to deal with a different type of medicine.   So, in the School of Medicine, we have done important work in changing the curriculum.   But in addition what we have found is that having the primary place of education be the Duke University Hospital is no longer adequate for the training of our medical students or of our house staff.   Medicine is becoming less hospital-based and more community-based and clinic-based, and we need to have those kinds of facilities and opportunities for our learners, whether they be medical students or house staff, to go out into the community and learn community-based medicine.

In research, we need to enhance and improve our basic research excellence, but there are tremendous additional opportunities now in new areas of research such as clinical epidemiology, outcome research, and clinical research.   We have made important investments in enhancing our capability to do clinical research; the large building that has already gone up next to the 1-147 freeway will be occupied very heavily by the Duke Clinical Research Institute, one of the best ~ and he thought the best — academic clinical research institutes in the world.   He was pleased to be able to say that the National Institutes of Health has selected Duke as the degree-granting program for Clinical Research training at the NIH, approved just last week.

To turn for a moment to the economic realities, the Medical Center as it relates to the University is very largely a tub on its own bottom. Even though the Medical Center is obviously part of the University, its finances are fairly distinct from the finances of the rest of the University, including the Hospital operation and the issuance of debt. In addition, there are a number of infrastructure costs embedded within the Medical Center that help support the University and which economically are very important to the University.   In trying to look at the economics of the Medical Center, what we find is that in the [other three] categories just mentioned, of education, research, and clinical care, we need to determine what the bottom lines of those operations are.   What is found is that the clinical component of the Medical Center — the practice plan, the efforts of our clinical faculty, as well as the Duke University Hospital in terms of its financial viability — provides a margin of 60 million dollars a year which is used internally to cross-subsidize the education and research missions within the Medical Center.   It helps support the [cost of the infrastructural components] that are shared with the University.   Looking to the future, [we must consider] the ability of our practice plan [to continue to generate that margin].   Our physicians are working far harder than ever before, and for in many cases less reimbursement than ever before.   They are working in a Hospital in which we've already seen in this past year about a 20% decrease in our ability to create such margins because of toughening managed-care contracts.   [It is clear that] we cannot rely on our current operations to continue to produce these margins that have sustained the academic mission.

So, in addition to educational and research [missions] and fulfilling our health-system function of delivering the best health care to communities, we need to develop a different system of delivery of health care.   The challenge is to develop a premier integrated academic

health system that goes out beyond the walls of our campus into the broad communities that we serve.

Now, why do we need to develop a University Health System? This need was discussed with the Academic Council several months ago [in April 1997]. There are academic reasons, clinical reasons, and financial reasons.   Academically, we need to have community-based medical education.   For research, we need to have access to patients to do clinical research trials, as well as to understand the genetic bases of human disease.   It's extremely important for us to have access to outcomes research in order constantly to improve the delivery of health care.   It is part of our mission, the service mission that Pres. Keohane has mentioned, to provide excellent health care for our community.   It is our responsibility to provide cost-effective, accessible health care to the populations that we serve.   We need to stabilize our clinical enterprise and our clinical revenues.   We will not be able to continue to generate them here on our campus, and must develop new models for health care.   Dr. Spaulding would not have joined us if she didn't believe [those new models of health care were] possible.

Next, what is a health system? It includes the full range of services to a community to enhance the health of that community, everything from disease prevention through primary care, specialty care, hospital care, home health care, rehabilitation services, strong interactions with community hospitals, insurance capabilities — since we need to go at risk in our managed care contracts — and the appropriate clinical and management systems.   He wanted to give some feeling for the rate of change that has been occurring within the Medical Center over the last few years, seen in relation to development of a continuum of care. That continuum extends all the way from wellness and fitness to hospice care, serving people during a terminal portion of their illness. This [last] is a reality of life, and these [all] are the types of services that we need to provide.   In 1993, when we had already begun to envision the need to develop a continuum of care at Duke, what we had to represent wellness and fitness was a very forward-thinking Center for Living that all will be familiar with, [but only that].   Under primary and specialty care we had solely the Private Diagnostic Clinic, which was at that time almost entirely a specialty-care operation.   We had at that time no primary care except for a small general group within Internal Medicine.   We had next the Duke University Hospital and a very creative Geriatrics unit. That's what we had, but our challenge was to deliver total care to a community.

Now, to speak for a moment about the community that we [intend] to deal with, Duke is an international Medical Center.   We have patients today in Duke Hospital from many parts of the world, and we have people coming to us from all over the world.   Many of our patients come from Florida, and many from New York, but [at the same time], perhaps amazingly enough, 76% of the patient discharges from Duke University hospital come from the counties [indicated by overhead projection, some twenty-four or so].   While we are [indeed] an international hospital, we're also very much a regional hospital.   Patients [from the region] were referred to us freely before managed-care contracting defined a network [within which] people could make selections.   We now find ourselves continuing to be

dependent on referrals from these areas but no longer having any assurance that the insurance of the people in those areas would [afford] them access to Duke.   One of our challenges was to develop a [regional] health care network, serving primarily the counties that are indicated on this map (shown) extending from southern Virginia to northern South Carolina.   Someone spoke up asking what the color coding distinction indicated, and Chan. Snyderman said that it related to the percentage of market share that we get referred from those areas.   In our network strategy, there are certain regional areas that account for 40%, 70%, and 80% [of our business], and we know our market share very specifically county by county. Continuing, the provider strategies then, to be fully comprehensive, [are that] we need to have in this area physician networks and hospital relationships.   That's because if we care for an individual for example in the eastern portion of Wake county, if we were to develop a contract with Glaxo Wellcome, and their employees live all the way from Franklin county to Orange county, and if we take care of somebody in Franklin County and they have a fairly minor procedure that needs to be done, we are not going to get them to come to Duke Hospital.   It would not be appropriate and it would be too costly.   We would prefer to have a hospital in Raleigh that we had a relationship to. So we need to have physician networks, hospital networks, ancillary services such as home care and nursing care, and management and insurance services.   Those are the process types of networks that we have while focusing our strategy geographically in Durham County, the Research Triangle, and then regional, state-wide, national, and international.

A next projection showed a map of the state indicating the deployment of our Duke Health System.   This is a very slow, sobering overhead, Snyderman said.   That is to say, it shows the region that accounts for 80% of the patient discharges at Duke Hospital, roughly speaking, which up to this point is the only hospital that we own.   But then, looking at what's happening in this area - and this overhead is now outdated by about 3-4 months and the activity has increased ~ we show that Carolinas Health Care System (CHCS), from Carolinas in Charlotte, has been developing very rapidly in terms of either joint ventures or purchasing hospitals, coming right into our referral area.   If they are aggressive in marketing, the danger [to us] is that patients, rather than being referred to Duke from Lumberton and Fayetteville, say, which are very important to us, would stop at one of those hospitals [of the CHCS].   Also shown is that Quorom Health Group/Resources is also expanding, and Quorom has put an offer on the table for either a long term lease or an actual purchase of the Durham Regional Hospital. Novant Health is a very new health care system coming out of a joint venture between [hospitals] in Winston-Salem and Charlotte, and has placed an offer to purchase Rex Hospital before Rex Hospital's Board.   So, our [accustomed] referral patterns are being aggressively pursued by others and we need to be able to respond appropriately.

Coming back to where we were in terms of a continuum of care, where are we today? Moving on from the projection of that continuum from 1993 to one dated January, 1998, what was three or four placeholders [among some ten categories along the continuum] now shows some seven placeholders, a number of them multiple [with expectations in all ten by the end of the year, too sensitive yet to be shown]. In our physician network, we have gone

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from the PDC, which was roughly 95% specialists in 1993, to a PDC greatly expanding in terms of its primary care capabilities.   There has been development of a community PDC operation in which we have now many community physicians heavily involved in primary care, the Duke University Affiliated Physicians (DUAP).   [Practices] we have purchased, he thought, currently have approximately sixty physicians in primary care throughout the Research Triangle.   A very recently developed independent practice association called Prima-Health, which is a joint venture between Duke and community physicians, is actually one of the most rapidly growing physician groups in North Carolina.   It looks like it will be very successful. The hospital system, however, is still in very undeveloped form. We have the Duke University Hospital, and through the leadership of Dr. Michael Israel (VCHA and Hospital CEO) we have development of a contract with Person County Hospital, which is very important to us.   But we have moved in home care; there was a news announcement this weekend of approval from our (TCDUHS) board to develop a joint venture with St. Joseph's in the Pines, a world-class entity, although with negotiations still too sensitive to say more.   At any rate, we have [negotiations with] St. Joseph's in the Pines and [also with] Triangle Hospice.   We are in negotiation with Durham Regional Hospital and with a number of other hospitals, intending to be able to expand our network.

Now, let's get to the punch line here, [governance concerns].   As President Keohane has indicated, the way that we are operating this burgeoning Duke Health System is that there's a single corporate entity, Duke University, with a Board of Trustees and with a considerable number of sub-corporations [not shown in a simplified projection].   The Medical Center has at least four or five sub-corporations to run such things as its insurance business, home health care, and various other things. But the corporate structure is such that within Duke University [it's the Medical Center and the Health System that] have the schools, that is, the School of Medicine, the Graduate School of Nursing, and Allied Health training programs, and the University Board of Trustees has created a Trustee Committee for the Duke University Health System (TCDUHS). This TCDUHS Board has been very helpful, and extremely important for our getting to where we are today. But where we are today will be dwarfed by where we need to be [already by] December of this year.

We need to propose an organizational change for the Health System.   As we developed discussions with Durham Regional Hospital and other community hospitals — and this has been already indicated publicly — the Durham County Commissioners and the Board of Durham Regional, if they were to develop a thirty-four year lease with Duke, [would be giving] Duke a tremendous amount of responsibility and authority for the operations of Durham Regional.   Durham Regional and the County Commissioners are intent on maintaining Durham Regional Hospital as a community-oriented, community-responsible hospital, and we agree. That's totally appropriate. No matter what type of bylaws or what type of assurances we build into that lease, it is appropriate, and it is required on the part of the County Commissioners and the Board of Durham Regional, that they have a small number of representatives on the Duke board that oversees the Health System.   They will not sign the deal unless that happens.   We have had similar conversations, with every other entity with which we are talking, about a functional merger into the Duke Health System,

including community hospitals as well as nursing centers. They want to have at least one and sometimes two seats on the board that oversees the Health System, even though these entities will be run, potentially, as sub-corporations of Duke University. So, one of the things that we need to do in the organizational chain is to have this working relationship with our partners. We need to achieve operational consolidation and maintain [the necessary] profitability to fund the academic mission, and the only way to do this is to actually run the Health System as an <u>integrated</u> health system. We need to have a Board that [serves] to integrate the Health System, in terms of community participation, and there is no mechanism to do that right now within our Board structure. We need to be able to align the organization appropriately so that the fund flows can be maintained to the Medical Center and University. What we have been proposing, developed in full collaboration with many individuals and strong leadership on the part of President Keohane and in conjunction with the TCDUHS, is that mere be a [wholly]-owned sub-corporation of Duke, to be called the Duke University Health System. It would have a Board of Directors. To be a bit more specific, be sure to understand that this [new] DUHS is to be a wholly-owned subsidiary of Duke, and that this [new] DUHS Board would be responsible for overseeing and integrating the clinical business enterprises of our Health System. It is likely, but is not a necessary part of the structure of this Board, that we would probably organize the DUHS among a hospital division, a physicians' services division, and a related business division. This is just an example of how this DUHS Board, and the DUHS itself, can be organized.

Importantly, the Duke University School of Medicine and all the faculty, all the clinical faculty that are here and the basic science faculty as well, are to remain in the University. That is unchanged. So the schools and all the programs in the schools and all the academic functions will not [be subject] to any noticeable change based on this organizational change. What we are proposing is that the role and the responsibility of the Board of Directors of the DUHS would be to approve a strategic plan for the DUHS development, an operations strategic plan. That plan would probably be brought forward by the leadership of the Medical Center as it always has, but it would be overseen and approved by that [new DUHS] Board, [which] would be responsible for operating and integrating the organizations merged as the DUHS, pulling them together and overseeing the operation. It would monitor the performance of joint ventures and subsidiary activities of the DUHS. Even before this change, we have a home infusion company, an insurance function, and a number of other subsidiary corporations of the Medical Center. This [organizational development] would arrange them in a more coherent fashion and look at them in the context of an emerging health system. It [the new DUHS Board] would allocate capital and operating resources, or in other words, approve the budget of the DUHS. It would oversee and approve the issuance of debt. If we wanted to purchase something, [it would be] within the limits of what was delegated by the full Board of the DUHS. That Board would approve acquisitions, mergers and divestitures of entities in the Health System up to a certain level determined by the Duke University Board of Trustees. It would set compensation policy within the [DUHS] and make sure that there was an alignment of the DUHS with the Medical Center and University.

Probably the most important aspect of this presentation is to say what powers are reserved to the University Board of Trustees, designed to make sure that the University has appropriate and very tight control over this DUHS entity.   First of all, the University Trustees are to retain responsibility for all academic matters, all those within the Medical Center and the Health System. The appointment and retention of the Board of Directors of the Health System, the entire Board, whether they be community members or members within the Medical Center, are to be by the Board of Trustees.   These members may be nominated by Wake County or Franklin County or Durham County, say, but they have to be approved by the [Duke University] Board of Trustees.   If the Board of Trustees wanted to reappoint the entire Board of Directors of the Duke University Health System, lock, stock, and barrel, it is to be within their right to do that. The appointment and retention of key Duke Health System officers, such as Chan. **Snyderman** himself, would continue to reside with the President of the University and the Board of Trustees.   In other words, at the head of the Health System would be the Dean of Medicine and the Chancellor for Health Affairs. It then would be up to the Health System Board of Directors to approve this (these) individual(s), but they could not appoint an individual independent of having that individual essentially delivered to them through the President and University Board of Trustees.   The Board of Trustees at Duke would approve the bylaws of the Duke University Health System and would continue to control all on-campus property within a mile of the campus.   Other important concerns are that the Duke University Board of Trustees would establish the level of debt that could be issued by the Duke University Health System; it would have to approve any new type of debt; it would have to approve significant mergers and acquisitions; and what is a significant merger would itself have to be determined by the Board of Trustees, probably mergers involving finances over a certain amount.

That is the presentation. We believe what we're really trying to fashion is the development of an organizational structure that gives us the best of all worlds. That is, one that creates an entity that allows a rapidly developing community-service organized Health System that will be financially viable and continue to generate sufficient margins to support the academic mission, but also one that delivers health care to communities including the very large amounts of uncompensated care that we currently deliver.   It maintains the viability of the clinical operation. We believe it [achieves] the appropriate balance that allows us to do this and to integrate the business components of the Health System while maintaining absolute hard-wired linkages to the University within the Health System, leaving all the academic functions of the Medical Center unchanged.   He was now ready to respond to any questions the Council might have.

Discussion of the Proposed Reorganization
of the Duke University Health System

The **Chair** reminded the Council that this is a very important forum for this discussion because, according to our bylaws and consistent with the Christie Rule, commentary from the Council on the floor at this presentation will be transmitted along with

the recommendation by the President with any resolution that goes to the Board of Trustees regarding structural changes that could effect the academic sector, as the Council will remember.

Prof. **Kenneth Knoerr** (SOE) remarked that while the Medical Center is an educational and research institution it's also primarily a business, considering the the money involved and the cost of the operation. The University Trustees are ultimately responsible for the financial liability of the University, as he understood.   And, this is a very risky time, sort of, in the health care field, and there are lots of opportunities and changes out there. [The Duke Health System] is growing by ventures of various kinds, we have heard here, which means there is going to be [even] more money involved. If you pull it off, we'll all be the beneficiaries.   If you stumble, the potential for economic impact upon the University is pretty large. He felt a little bit concerned about who rides shotgun, to use a term from stagecoach days. That is, there is to be a delegating to this further group, away from the Board of Trustees, of responsibility for riding shotgun on the money. They [the University Trustees] can establish a debt level, but it appeared to him that in terms of who's worrying about how things are going and whether your ventures are risky or not, there's a delegation to kind of another group of people, and he felt just a little bit concerned about that.

Chan. Snyderman agreed that that's a very important consideration that should be addressed quite specifically in describing the nature of the Board of Directors of the Health System [i.e., DUHS]. First of all, the greatest risk, the greatest liability to this University, would be not to develop a Health System that has the capability of maintaining the clinical operations in a market-responsive way and having the opportunity to be able to continue to generate the margins.   If we were to operate as we [were] operating our Medical Center in 1993, believe it or not, we would probably be losing 80-90 million dollars a year.   Some very substantial changes were made in an operation, and we've fortunately been very successful thus far and we feel good about at least the next two years.   There are a lot of arrangements that have been made to try to provide some separation in terms of liability between the Hospital and the University. But it is right that ultimately the University will be responsible for the Health System [as the DUHS entity]. The Health System Board as proposed has been crafted very carefully to maintain extremely tight control on the part of the University Board of Trustees as well as of the University leadership, primarily the President.   No matter how the [proposed Board of Directors] develops, there will always be a very substantial majority, [at the very least] seventeen among thirty, who would be either members of the Board of Trustees or officers of Duke University.   So that [stipulation] immediately provides tremendous assurance [about this new] Board.   In addition to that, the President is a member of this Board, along with the Executive Vice President, himself as Chancellor for Health Affairs, the Head of the Hospital, and the Chief Financial Officer. These are all members of this Board. The chairman of the [current TCDUHS] and virtually all the members of the TCDUHS move lock, stock, and barrel on to this Board of Directors of the DUHS.   So, every major committee chair of the TCDUHS will be continuing to sit on the DUHS Board, providing some real hard-wiring in terms of who is running this [the DUHS]. In addition, there is going to be an executive committee [of the DUHS Board of

Directors], which has even a higher majority of Duke people on it. The point raised by Prof. Knoerr is a very good one, and a lot of attention has been given to that question, to be certain that the University has very tight control over the finances of this [successor] entity.

The **Chair** noted the mention that in case of recourse for non-performance, there's a direct link to the board itself as well, right? Chan. **Snyderman** affirmed that the University Board of Trustees has the right to reappoint members of this DUHS Board of Directors. The **Chair:** So that's really the ultimate problem. If bad decisions are made, that's how you review that situation and take action before it gets very far down the line, if one goes this route.

Prof. **Roy Weintraub** (SocSci, PACOR chair) remarked that the initial chart displayed had indicated that there were excess revenues in the clinical areas that support both education and research. Some of those revenues currently flow over into the University to support things like accounting services, Purchasing, Human Resources, and so on. Are there any contemplated changes in the way those flows will operate? Chan. **Snyderman** said that the University Counsel has tried to quantify what those flows are. And they are substantial, and by the nature of this agreement, the nature of this change, we have made an agreement to hold harmless any of those cash flows, so that whatever changes occur ~ and he thought there will be needs for changes in the future, since he also thought that everybody agrees that the University needs to run its infrastructure more efficiently — all of us are supported. So, he presumed that there will be changes made over time, but there will be no changes that are made as a consequence of the development of this change in governance structure. We will have an agreement to continue to share those operations in the same *pro rata* way that we have had before. But independent of any governance structure, he could say that it is very hard for the Medical Center, or other schools he thought, to continue to bear a lot of the costs that probably could be taken care of more [efficiently]. That's an issue that is receiving a lot of the attention of the President and the Executive Vice President. The short answer is, nothing is going to change as it relates to that question. That's a separate side agreement to hold the University harmless.

The **Chair** asked about the cost accounting within the Medical Center. Does this proposed organizational change have any major implications for how one does cost accounting within the academic side of the Medical Center? Chan. **Snyderman** said no, what we have done — and again this is an indication of the kind of integration and collegiality [there is] between the Medical Center and the rest of the University ~ is that we have just made a commitment approved by the Board [of Trustees?] to develop SAP, accounting and finance systems that will bridge between the Health System and University. This represents a major enhancement of the ability of the University to keep its books, and he understood its finances, at a cost to be borne about 90% by the Health System. So we are intending wherever we can to share [such] resources. We just want to make sure they are efficiently used and that is a University-wide goal.

Prof. **Peter Burian** (Humanities) asked about one of the bullets on the role of the new Board, about alignment with academic programs of the Schools of the University that were mentioned, wanting to hear a little bit more about that. In general, what he assumed that the expansion is contemplating with the [new] Health System will inevitably have some sort of effect on the academic part of the Medical Center. What sorts of effects will there be, how they will be managed on the University's side, and what [can be said of] this alignment question?

Chan. **Snyderman** cited Triangle Hospice, a beautiful program that allows our physicians for the first time to gain experience in dealing with the real issues for people who are dying. That death should be seen as failure in American health care practice is ridiculous, frankly, a source of problems in delivery of health care. But this expansion opens a whole new opportunity for a training medical students and house staff, and pressure for those new programs will come from the Medical Center, the academic side, the Dean of Medical Education, the clinical chairs for their fellows and house staff, and from himself as Dean of Medicine. The Health System Board should see as one of its roles being able to use these facilities for educational programs. So, the alignment is just to make certain, from both sides of the table, that when facilities such as Triangle Hospice come online, and when it is appropriate, they will be utilized for the academic programs of the Medical Center. V. Chan. **Spaulding** added that that would be one of her responsibilities, related to community programs. As herself a Trustee until recently, including having just left after Trustee service on the TCDUHS as well, it's very clear, from present experience, that educational opportunities will definitely be expanded as these opportunities present themselves. The greater wisdom will prevail, continuing to bring people onto the Health System Board who have that background of mind.

Prof. **Craufurd Goodwin** (SocSci) picked up on the metaphoric allusion to the Medical Center, at the present time, as essentially tub on its own bottom. As the Schools are spun off into the University structure to create this new system, will there be two tubs each on its own bottom, or will there be cross subsidy? Chan. **Snyderman** answered that we will maintain something more like one tub with two pontoons on it, he guessed, while wondering a little about the stability of catamarans, to the amusement of the Council. What we would do, by side agreement, is to ensure that the Health System would provide an appropriate level of subsidization, which we would assume ~ what we would try to do, that is ~ means our maintaining the subsidization level as we currently have it. We would hope to enhance it over time, or decrease the need for that level of subsidization over time, depending on what the realities were. But we envision that the financial responsibility for the School of Medicine, the School of Nursing, the other schools within the Medical Center would remain the responsibility of the Medical Center as it receives support from the Health System.

Prof. **Mariano Garcia-Blanco** (BasSci) recognized that the financial issues for the Medical Center are critical for survival, while at the same time there are many very interesting things going on within medicine and biomedical sciences generally. When did he think the financial aspects will be sufficiently stabilized such that maybe other priorities,

academic or research priorities of the Medical Center, can receive more attention? Snyderman saw the leadership as moving forward aggressively, and hopefully wisely, toward such stability.   For the next two years, the furthest you can look in the health care environment, he thought we'll do quite well. There's a glide path of profitability within the Medical Center and then enhanced profitability within the Health System. We need to make investments in the basic sciences now, he thought. We can not afford to wait. Our plan for the Basic Sciences in terms of the total number of faculty has not been reduced.   We're holding onto that, assuming we will continue to be able to generate those dollars.   In addition to that, we are really committed to enhancing certain programs that have been designated as Medical Center priorities that are part of our long-range plan, including cancer and human genetics, with brain imaging and analysis as examples of further expected commitments. "So,...while there are a lot of vulnerabilities, I think the opportunities are staggering.   Duke is on a roll, and we have momentum and I wouldn't want to pause.   I think we need to continue to make prudent investments and they are accounted for in our long range financial plan."

Prof. **Lawrence** Evans (NS&M), with two questions, said that it seemed to him that what the Chancellor was saying is that it's an extremely competitive and aggressive time to be in the business of looking for dedicated [clients] for the [Health System].   We are basically a non-profit organization, so there are a lot of people out there looking for more profit off exactly these same (clients).   Some of these [competitors] can undercut us for a little while, without a problem, in [picking up these clients]. What is in it for a hospital, like Rex, to affiliate with Duke, say, rather than with somebody who gives them a better [deal]? Chan. **Snyderman** explained that places like Rex, which is a not-for-profit hospital ~ and he would give some other examples in a moment — financial stability is very important, but tremendous financial gain is usually not foremost in the minds of people in not-for-profit institutions.   Certainly, every one of us wants to have a secure financial future and be able to put bread on the table and live well. But places like Duke Hospital, Durham Regional, and Rex Hospital are not there for inordinate profits.   What they are very concerned about, we find, is the continuation of charity care.   If you look at Durham Regional, or at the many community hospitals that we are talking to, they want to have the assurance that the communities that they serve will continue to be served even if people can't afford health care. And we are far more able to do that because we don't need the [profit] margins.   We do very well with a margin of 3.5-5%. HMA, one of the bidders for Durham Regional Hospital, needs to have margins of 20% or more to maintain a PV ratio of 36 to 1, so it's a different world. Just to give an example, when we expanded our primary care [operation] we needed to go head to head with for-profits to buy primary care practices. We were paying cold, hard cash, while these for-profits paid in stock.   For a period of time there was a tremendous flurry of primary care physicians selling their practices to Coastal Physicians or Med Partners for inordinate amounts of money paid for in stock.   Coastal, which was buying these practices at 26 dollars per share three years ago, is currently priced at less than a dollar a share.   Med Partners, which six months ago was buying practices at 28 dollars a share, is now at less than 8 dollars a share.   He thought that a lot of physicians are waking up and saying that we are in a metastable phase right now and we're going to be moving

back into a health care system which is far more focused on health care than on the quick buck.   [In meeting the competition] we have a lot to say about stability. We're going to be here, not he himself of course.   But Duke is going to be here fifty to a hundred years from now, while he thought that a lot of these for-profits won't be here five years from now.

Prof. **Evans,** as a second question, recognized that we're not the only academic Medical Center in the country.   What are other [academic medical centers] doing? Chan. **Snyderman** said that they were doing a lot of similar things. Every medical Center is approaching it slightly differently, of course.   To give one pond of] example, Stanford and the University of California at San Francisco (UCSF) have taken a more radical approach. What they have done is retain independent medical schools while spinning off their entire clinical practice into a corporation that is distinct from either Stanford or UCSF.   He saw that as a pretty radical model, and a number of places have done that.   Other places have sold their hospitals, sold them to Columbia-HCA [as an example].   Others have developed long term leases of their hospitals to Columbia-HCA. And, lot of institutions are looking at models very similar to what we are presenting.

Prof. **Robert Califf** (CliSci) wanted to report, since Chan. Snyderman would be too modest to say so, that most other academic medical centers are looking to Duke for direction in these uncertain, unstable times. He had been at the Mayo Clinic just the day before, where they are doing many of the same things we are, although not really in imitation of us. But we are very much in a leadership position now because of the things that we've done successfully.   It would be wrong [for us to be telling others what to do], but other academic medical centers do see us as very much in a leadership position in this regard.   **Snyderman** acknowledged this insight with thanks.

Prof. **Hugh Crenshaw** (NS&M) noted that in the charts presented he hadn't seen the University of North Carolina Medical Center or UNC-CH medical system listed.   Are we in competition with them? And if so, wouldn't collaboration be wiser? Chan. **Snyderman** answered yes and yes to that.   Yes, we are in competition with them, and yes also, collaboration would be wiser.   Our main competitor is not UNC-CH, although there are skirmish lines and it really can some ways be almost a battlefield, with pins, if you wanted to look at it that way.   UNC-CH is a very formidable, very outstanding medical center, no question about it.   And they have very good capacity to deliver health care.   They are searching to determine what kind of health system they want to be.   We have had conversations with them, and what we have agreed to just in principle is that there will be times in which we will be ferociously competitive in certain geographic areas.   We need to understand [that competition] and respect each other. There are also times in which we can be very tight collaborators.   Let's try to look for those times and actually encourage them. It is very hard to know whether, five to ten years from now, we will be two independent systems or whether we will be largely sharing a common health system.   It's impossible to know. We're going to be looking continuously for opportunities to collaborate with UNC-CH.   We have formed one such joint venture, a Lithotriptor Center, off 1-40 near Fayetteville Road.   It has been operating now for six months.   We did it intentionally, to see

if we could develop working models, and he saw it as working very well.   We are exploring [similar] possibilities in many different areas.   However, in Durham County, at the same time, UNC-CH put in an offer for Durham Regional Hospital, very competitive with ours. Again, we maintain our friendships, but there is always that bit of competitiveness, which he saw as appropriate.   [What we're doing is] to try and fashion a system that allows [continuation] of both our outstanding medical schools, and also, hopefully, a more rational approach to the health systems in some combination in the future.

The **Chair** asked if there were any other comments, and there being none immediately, thanked Chan. Snyderman and those who had spoken in discussion.   He was appreciative particularly of this proposal having been brought this to the Council well in advance of any presentation to the Trustees, which will be, if it occurs, in February, or later. We do have another Council meeting before then, so if things come up in the meantime, during the discussion session at that meeting perhaps, we also can bring them to the floor for the President to hear for her overview in the presentation of any proposals to the Trustees. The **Chair** then took the opportunity to welcome Dr. Spaulding to her first meeting of the Academic Council as V. Chancellor, which she acknowledged with appreciation.

There being no further business to bring before the Council the **Chair** entertained a **motion to adjourn,** which **was adopted by voice vote,** and the Council stood adjourned.

[Approved the Academic Council, February 19, 1998, with a number of minor corrections which have been made in this text, Donald J. Fluke, Faculty Secretary of the Academic Council].

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