Minutes[*]

Senate Committee on Finance and Planning
Tuesday, November 16, 1999
3:15 – 5:00
Room 238 Morrill Hall

Present: Stephen Gudeman (chair), Jean Bauer, Dan Feeney, Catherine French, Cynthia Gillett, Wendell Johnson, Gerald Klement, James Perry, Shana Saeger, Rose Samuel, Susan Carlson Weinberg

Regrets: Charles Campbell, Charles Speaks

Absent: Michael Korth, Eric Kruse, Vinay Nangia, Terrence O'Connor, Richard Pfutzenreuter, Terry Roe, Rachel Sullivan, J. Peter Zetterberg

Guests: Associate Vice President Stephen Cawley; Senior Vice President Frank Cerra, Associate Vice President Katherine Johnston (AHC)

Other: Professor Alan Ek (College of Natural Resources)

[In these minutes: upcoming changes in electronic connections to the web and costs thereof; the composition of telephone rates for etherjack and LAN connections; the financial status of the Academic Health Center]

1. Networking and Telecommunications Services Issues

Professor Gudeman convened the meeting at 3:20 and welcomed back Associate Vice President Cawley. He recalled that Mr. Cawley had joined the Committee a few weeks earlier, at which time there had been a rather technical discussion of issues that had generated questions in the minds of many. The purpose of the meeting today is to go over that same ground in order that all may understand it.

Mr. Cawley said he appreciated the opportunity to come back to the Committee, and apologized for the technical language at the last meeting. He said he would keep it simple this time, and distributed a handout that he then reviewed with Committee members. There are, he said at the outset, a number of policy issues surrounding Internet access for home use.

The current situation is that "the University provides free access to the University's network through the modem pool for all faculty, staff, and students. The cost is $36 per year, per person." Mr. Cawley noted that in order to take advantage of this service, one must provide a telephone line, a computer, and a compatible analog modem. In a few cases, departments provide faculty with computers, but in most cases they do not.

[*] These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate or Twin Cities Campus Assembly; none of the comments, conclusions, or actions reported in these minutes represent the views of, nor are they binding on, the Senate or Assembly, the Administration, or the Board of Regents.

This situation works reasonably well, Mr. Cawley said; it allows the University to ensure that it has a faculty, staff, and student body that is connected. Many people read email, send files, and do work at home.

Future problems: "within a few years (3 years maybe) basic telephone line connection speeds will be too slow for downloading the multimedia rich content that will be common on the Internet. In order for home users to achieve higher speeds their home telephone lines will need to be upgraded to digital lines." Such lines can be obtained from a cable TV or a telephone company; they will cost an additional $40-50 per month (in addition to the cable TV or telephone charges already being paid). Not all residences, however, will have access to digital line service, and it is not clear that they all will, or when. (The $40-50 compares with $3 per month that the University now pays for faculty, staff, and students--the $36 per year that Mr. Cawley mentioned earlier.)

The next generation of modems will require digital telephone lines, Mr. Cawley said, which will allow much faster communication with the web. Sending a 10MB piece would not tie up the modem for an hour and a half. Within three years, he said, people will consider current modems too slow. But the fact that digital lines will not be available to everyone, and that the upgraded service will cost more money, means there is the potential for creating the "haves" and the "have nots." Mr. Cawley said, in response to a query, that there has been no sign that the technology will get cheaper. And the cost would have to drop a very long ways to come close to the current cost to the University.

Asked if there are other technologies being developed, Mr. Cawley said there are, but that they would improve the situation only marginally, perhaps markedly, but digital technology will be needed by many at the University. And they will want it.

The University policy question before the Committee is this, Mr. Cawley said: "since the University expects faculty to utilize the Internet in their teaching and research, should the University pay for the cost of upgrading faculty residential telephone lines to digital service?" There is an additional public policy question that the legislature must deal with: "should the government take steps to ensure that digital line service becomes available to all homes and businesses?" In the case of the second question, Mr. Cawley said, the strategy with the telephone service was that it was regulated and subsidies were provided to ensure that both rural and metropolitan areas received service.

The first question, Mr. Cawley said in response to a question, really needs to be asked three times: once for faculty, once for staff, and once for students. How much would it cost to upgrade faculty to digital line service, one Committee member asked? Somewhere between $7.5 and $10 million annually, Mr. Cawley said (that is a very rough calculation).

One questions that arose at the last meeting was whether there are parts of the Twin Cities that do not have access to digital line service, recalled one Committee member. Mr. Cawley said that most of the city of Minneapolis does not have it; the city is tackling this as a public policy question and is dealing with Paragon Cable. There is a concern that digital line service will only be offered in affluent areas where a company can get a return on its investment; the infrastructure is costly, and companies will be unwilling to pay for it when they do not believe they will get a return on the investment. USWest has taken a different approach, but it also has difficulties; it believes, however, that eventually it would be able to provide the service to almost everyone in the Twin Cities. Mr. Cawley discussed the plans and potential for other companies, and what they are doing.

If the only benefit to the upgrade is faster service, and slow service ties up the line, would it not be cheaper simply to pay for a second telephone line, asked one Committee member? A tale was told by someone who has a second line, and who received a large video message from someone at the University; it took 20 minutes to transmit the video message. The point is not taking up the line, the point is that it takes too long to transmit data and information. It is a question of one hour versus one minute, Mr. Cawley said; if the idea is to create a work environment at home, and when multimedia files are being exchanged, the current technology will not be usable much longer.

The University is the largest employer in the Twin Cities, it was said, and with its students, it is a very large organization; can it not take an active stance and establish its own system, or get special rates? Mr. Cawley said the University is working with Minneapolis; he is on an ad hoc task force that is addressing this question. They are looking at regulatory issues, the possibility of a public/private partnership with the city, and whether they have enough buying power to bring in another company. The Governor has also set up a task force to address state-wide access questions; there is a concern about rural communities. It is not clear, however, what St. Paul will do--act by statute, subsidy, or direct funding.

Is this not an issue nationally, asked one Committee member? It is, Mr. Cawley replied, and a regulatory matter before the Federal Communications Commission. It is not clear, he said, which way the wind is blowing. He also meets quarterly with the Chief Information Officers from the CIC institutions; it is an emerging problem to which no one has an answer. Not all institutions, he added, have provided free modem access to faculty and staff, and have taken a hands-off attitude. The big schools, however, have done so (Michigan, Wisconsin). Ultimately, however, these are local issues more than national ones, he concluded, because cable TV comes through local franchises.

Mr. Cawley said that 75% or more of the faculty and students are using the modem pool, and all dorms are wired directly to the University system. It may be that there could be a tier system, said one Committee member; not everyone at the University would need the high-speed connection. The decision could be on an individual basis.

One Committee member inquired what the technology might be in the future. Wireless technology is one possibility, Mr. Cawley said; it would be more cost-effective. Farther out is the possibility of using power lines that run into homes to transmit data. That would be EXTREMELY cost-effective. Satellite transmission is another option that does not work well now, but it could improve.

Mr. Cawley mentioned that the University is hosting a hub site in the state for Internet2; all Internet service providers have reason to join, and it creates University relationships with the businesses. They are charged for the connection, but company users can go directly to the University, rather than through the company. The hub provides an advantage to the companies because it lets them connect to each other but at a neutral hub site rather than at the site of a competitor. This arrangement should give the University strategic advantages in contract negotiations, and it will continue to negotiate with the providers in order to achieve an agreement for University service. Right now, however, many of the providers do not understand their own markets and could be losing money; he said he hoped the situation would be clearer in a year. Some companies will not be in business in a year, he added.

If there comes a point when faculty, staff, and students must pay $480-600 per year for modem connections, said one Committee member, there will be a lot of unhappy people, because that is a significant increase. For faculty, to have to pay to put up information for classes will make them extremely angry. Another Committee member said that they may be angry, but there will also be an emerging expectation or standard about content-rich material flowing on the web.

Will there be an option to continue to use the slower-speed connections? Mr. Cawley said that option will remain available as long as people want it. As for the increased cost, Mr. Cawley said it will have to be watched carefully, so that negative fallout can be avoided and so there is no division into the haves and have nots. This is an exciting technology that needs to be made simple. The University needs a strategy; so does the Twin Cities and the state, if they are to stay leaders in the information age.

Asked if he was working with any faculty groups on these issues, Mr. Cawley said that the official faculty group with which he works is the Senate Committee on Information Technologies, but he also brings faculty groups together around NTS rates, replacement of the telephone system, and so on. Those who are involved in distance education and outreach are also included in the consultation, although the primary group involved with that topic is the Senate Committee on Educational Policy. He also serves on a statewide group with legislative and executive branch groups.

On a related topic, one Committee member noted the cost of connecting to the University when traveling and asked if there is any plan to provide an 800 number to use to call the modem pool. Mr. Cawley said that there is a pilot project underway that involves a small number of faculty. They want to see what the usage patterns are and identify what the cost to the University would be to set up such a number. There would be costs, even with the favored rates of an 800 number; the University calling card rate is also very cost-effective. The question is how to cover the cost; it would be cumbersome to charge back the costs to departments, he said, and he would rather that the service be provided free. In that case, however, there would probably need to be a limit.

Mr. Cawley next turned to NTS rates and distributed another handout. He explained the elements that comprise the monthly rates for network nodes (monthly connection $5.42, Internet connection $2.36, Modem pool connection $2.99, and lines to coordinate campuses $2.87). He said there is an argument to be made that the third and fourth items are a general backbone expense, to connect all buildings and campuses to the Internet that should also be subject to capitalization and depreciation costs. The decision was made, however, that these were costs to be allocated to the end-users, and NTS has made its best effort to allocate them fairly.

There are two types of users, Mr. Cawley explained. One, those who buy an etherjack connection directly to the desk; for them, NTS provides support right to the connection in the wall in the office. Two, those who have private local area networks (LANs), such as IT and CSOM; the network is managed by the college. The rates for the two groups of users are different, and the rate for the etherjack users has not been controversial. It is the LAN users that are unhappy with the rates.

Users are split about 50/50 between etherjacks and LANs. When costs of the backbone are allocated, about half goes to each group. There are two approaches to allocating costs to the LANs: a lump sum or by usage; the problem with the latter is the unit of measure. As a result, NTS charges by network node (a computer or printer connected to the network). LAN managers are asked to provide a monthly count, and the LAN is charged on the basis of those counts. This has caused an uproar, because of uncertainty that the same method of counting is used in all units, whether everyone is honest (Mr. Cawley said he believed they are), or whether they are as diligent in counting as they should be.

Over the last few weeks, Mr. Cawley related, he has established groups drawn from the units and from the Senate Committee on Information Technologies to look at the issue. He said he wants a strategy to allocate costs that is fair and more accurate. At a minimum, there needs to be a more formal counting methodology with someone signing off on the count. He is hearing, however, that the LANs want to pay on the basis of usage, or the number of bits that flow to the campus network. It is possible to do that, but a measuring technology is needed. IT has been a proponent of this approach, and Mr. Cawley said he gives IT credit because he has told them that it is likely IT rates will increase using a methodology based on usage, because IT is one of the heaviest users of the net. IT says, however, that it wants a fair and accurate system. The metering would be automatic, and the earliest it could be implemented would be during 2001-2002.

Professor Ek commented that in a college of 50 faculty, 10 years ago the cost of connection was not an issue; now the cost equals two faculty positions, so is a VERY significant issue. Is there any end in sight? Mr. Cawley noted again that there have been discussions about whether all of the elements that go into the rates should be there; should the lines to the coordinate campuses and the modem pool connection be provided centrally? Doing so would also allow the rates to be charged against federal grants, which some believe they cannot now be.

Is there a break-even point, asked one visitor to the meeting, at which a LAN becomes a more cost-effective way to have Internet connectivity--that is, after reaching a certain number of users, the LAN option becomes cheaper than the etherjack connection? Would unit costs go up if everyone switched to etherjacks? Mr. Cawley pointed out that there are also local building costs with a LAN, and pointed out that a large number have switched to etherjack in the last few years. Some, however, believe a LAN is more effective, and the University can support the LANs well. The unit costs for using etherjacks would drop if more used them; there is almost no cost to the end user once it is installed.

Why was the decision made to allocate the costs to users, rather than treat connection like the libraries? Where was the decision made, and when? Access to technology is similar to access to the library, and units are not charged for the libraries. Mr. Cawley pointed out that it was not HIS decision to allocate the costs. This, Professor Gudeman observed, is an example of a concept and a problem that the budget task force faces: what is a common good and what is not. These things must still be paid for, whether a common good or not, he pointed out. If units are not charged each month, then there needs to be a central budget. There are also questions of economies of scale and of usage rates if something is a "free good" but also economies of scale. One puzzle, Professor Gudeman observed, is WHO would make the decision on what is a common good, on the cost allocation, and on what grounds.

Professor Gudeman thanked Mr. Cawley for providing such a clear picture to the Committee. Mr. Cawley said he understands that faculty want to be consulted on these issues, and suggested that perhaps he should return to the Committee in the spring to provide an update.

<u>2. Discussion with Senior Vice President Cerra</u>

Professor Gudeman now welcomed Senior Vice President Frank Cerra and Associate Vice President Katherine Johnston from the Academic Health Center to talk about the financial status of the AHC. He recalled that a year ago, Dr. Cerra had given a similar presentation, and much had changed since then.

Dr. Cerra distributed a set of handouts about the AHC and said that there were more details available about the Medical School, which is where the biggest problems are. He said he would be willing to return to the Committee with additional information, if it wished.

Dr. Cerra drew the attention of Committee members to a pie chart illustrating the sources of funding for the AHC, and to one illustrating the sources of support for non-sponsored programs. In the case of the latter, 31.1% of funds come from the state, but the percentage in each of the AHC schools varies widely, from about 11% in the Medical School to about 70% in the School of Nursing. Tuition, by comparison, comprises about 11% of AHC revenues, which is very different from units such as CLA.

Dr. Cerra noted that the private practice revenue has declined about 3% per year but that revenue the practice plan gave to the Dean, after paying expenses and faculty compensation, has declined by 50%. Selling the hospital, however, stabilized revenue from it to the AHC. The hospital had been losing a lot of money; selling it has fixed the problem, but with a net loss of about $2 million per year that came from the hospital to support faculty recruitment and retention. The problem is the practice revenue; faculty must spend about 30% more time in the clinics to generate less income. That means they have less time for teaching and research, so many depart. The School of Public Health, he said, is as dependent on grant income as the Medical School is on practice income. NIH funding is going up dramatically, and the School of Public Health competes very well for it.

The AHC must do whatever it needs to do to pay for education, Dr. Cerra said; the overriding message is that education cannot be paid for from clinical income. Dr. Cerra hastened to emphasize that he is NOT seeking funds through retrenchment elsewhere in the University. The Medical School quasi-endowment has cash reserves and has time to deal with problems; there are plans afoot to obtain new revenues and find a niche in the market. It is, he stressed, a revenue plan, not a cost-cutting plan, even though the Medical School has cut several million dollars in costs. But the AHC is not going to the President to request retrenchment internal to the University for money to solve the problem; it will, however, take 3-4 years to address it.

In response to a question, Dr. Cerra amplified on his statement that the plan was revenue based. If there were a $10 million deficit, one could cut costs and lay people off. He said he did not like that approach and that it was a temporary solution to a structural problem, the result of which is to end up smaller with less to respond and with same problem. The plan is to generate more revenue by getting more funds into the state trust fund to support medical education and more money in the endowment that supports the AHC, or a direct appropriation for education programs in the Medical School. Dr. Cerra said he believed the legislature supports an increase in the endowment, and $500 million of the capital campaign is for medical education through endowments for programs.

People, including the Governor and legislature, seem to understand that there is a need to provide funding for education and not expect the clinical revenue from the practice of the faculty to subsidize it. Private practice has been supporting medical education long enough. A positive reception, however, does not equal an appropriation, Dr. Cerra observed.

One Committee member recalled that the AHC had been looking at revenue sources in terms of risk; have the risk contours changed? Dr. Cerra said he did not believe the AHC was where it needs to be with all-funds budgeting (for funds not earmarked); they started to move in that direction three years ago and will be there this year, and will include endowment income, trust funds, and other revenues. They will then put risks on revenue streams. They might say, for example, that clinical income should not support 50% of a tenure line because it is not stable enough; they could change revenue sources and put new hires on lower-risk funds. The University tends to look only at the margins, Ms. Johnston added; the AHC will look at all programs and how assets support them, so it will truly be an all-funds budget.

How was it decided that $500 million of the capital campaign would be used for endowments in the AHC, asked one Committee member. Dr. Cerra said that decision was made as part of the capital campaign plans, and it is typical for institutions such as this one that about one-third would be raised by the Minnesota Medical Foundation. The program drove the target, which came from faculty in a bottom-up approach; it is what the faculty wanted and supported. It was a good process with strong, rich proposals, he said.

Dr. Cerra mentioned that the AHC Finance and Planning Committee, under the chairmanship of Professor Feeney, has taken a serious look at the numbers, asked a lot of questions, and given good advice. Professor Feeney assented.

Dr. Cerra next noted a financial performance report for the AHC for 1998-99 (and said that it was also on the web). Expenditures in the (Twin Cities) Medical School exceeded revenues by $6.3 million, which is better than previous years; for the total AHC, expenditures exceeded revenues by $2.3 million. The deficit in the Medical School was covered by drawing down on reserves and was a one-time fix. The -$6.3 million masks a structural deficit, however; the total deficit was over $14 million. There plans in the works to balance the budget so that further draws on the reserves will not be necessary.

Some of the AHC schools need to increase their enrollments; they could increase by one-third, especially to meet the needs of rural Minnesota. The problem is to garner the resources to meet this demand. Tuition does not and cannot cover the cost of this kind of expansion. Tuition provides about 11% of the revenue of the Medical School.

There has been talk about general University tuition rates, said one Committee member; is the AHC moving to "high tuition, high aid," with the expectation of raising the portion of revenues that comes from tuition? Dr. Cerra said he did not see tuition as an option to increase revenues, although they will move in that direction if they must. High tuition, high aid is a negative incentive in the AHC schools. Graduates of the Medical School have $80,000 in debt at 6% when they leave; if that amount is raised to $150,000 or $200,000, one must consider what the impact would be. Increased aid will help only if it is in the form of scholarships. This is a problem nationally, he said, and it is worse in some of the other AHC schools: Pharmacy students leave with about $55,000 in debt, and take positions that pay $50,000 – 60,000 per year. This is a public policy issue.

In addition, the educational needs of the AHC get tied into issues about the cost and quality of care. It is hard to solve the issues of professional education in isolation from other market issues. They are, for example, now seeing trends in veterinary medicine that began in health care seven or eight years ago.

Dr. Cerra then informed the Committee about the Medical Education Endowment Fund, established in May, 1999, with the funds from the tobacco litigation. The fund will be about $375 million, to be invested by the state, and will pay 5% for health professional education. The University will receive $8 million each year of the 1999-2001 biennium, and will spend the money in ways outlined in two initiatives. Ms. Johnston said that the University must report to the Legislative Auditor on a regular basis, tracked by AHC school, how the money was spent.

One Committee member asked Dr. Cerra if he saw any end to the crisis in medical education in the broader sense. Dr. Cerra has talked about the national trends that affect academic health centers. In the short term, Dr. Cerra responded, there will be small relief from the federal government. The Medical School will have to work hard for the next three or four years to get where it wants to be and to improve its ranking. The University is way ahead of the rest of the country, and has good plans and good people.

How much has HMO penetration occurred elsewhere, asked one Committee member? Most places are reaching 40%, Dr. Cerra said. All teaching hospitals (both public and private) are seeing major hemorrhaging.

Has there been a decrease in Medical School applications? There has, Dr. Cerra said, but that does not mean "therefore, there is something wrong." They have gone down from 18 applicants per slot to about 12 applicants per slot, but grades and MCAT scores are up so quality has not gone down, at least by those measures.

Is there a change in specialties that students are choosing in relation to this change? In the early part of the 1990s, Dr. Cerra said, many students went into family practice. Now the trend is to the specialties because there are severe shortages in some fields. As the population ages, there will be increased demands for specialists.

Asked about his statement that the hospital has stabilized revenues ("I thought we sold the hospital"), Dr. Cerra said the hospital is not on the budget but that the University has an interest in how well it does financially, in its service to faculty and patients, and in market share. Without financial stability, it could still close. The University sold the hospital so the Medical School could still have its teaching and research facility in its back yard. Before, there were not enough patients to do teaching and research; now there are. The hospital was predicted to have a deficit this year; thus far, it has a surplus of several million dollars. The hospital is working on improving faculty and patient satisfaction and on increasing market share. If the hospital has a positive revenue flow, part of the funds are invested in the AHC.

What hard decisions need to be made in the Medical School, asked one Committee member? Programmatic decisions, Dr. Cerra said; it must decide what it wants to do. But the game will be lost if finances drive program, he added. His plea to the faculty and staff is for thoughts about what it needs to do. If there are to be cuts, they must be program-driven and must make sense; there cannot be a 20% cut across the board. That would be a disaster. It is more difficult to make programmatic decisions, and will require faculty and staff to allocate a small amount of daily time to decision-making, but it will result in programmatically sound institution.

Professor Gudeman thanked Dr. Cerra and Ms. Johnston for joining the meeting, and adjourned it at 5:00.

-- Gary Engstrand

University of Minnesota